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PHD PROGRAM IN DIGITAL HUMANITIES

**Scribal Errors in Ancient Greek and Latin
Manuscript Traditions: Collection, Aetiological
Researches and Digital Representation**

candidate:

Camilla Rossini

XXXIII cycle

Date (TBD)

Prof. Walter Lapini

Supervisor

Prof. Gregory Crane

Supervisor

Thesis Jury:

Prof. Massimo Magnani, *Università di Parma*

External examiner

Prof. Federico Mambrini, *Università Cattolica del Sacro Cuore*

External examiner

Dibris

Department of Informatics, Bioengineering, Robotics and Systems Engineering

To those who were here and still are

To those who arrived

To those who have gone and I wish they had not

Declaration

I hereby declare that except where specific reference is made to the work of others, the contents of this dissertation are original and have not been submitted in whole or in part for consideration for any other degree or qualification in this, or any other university. This dissertation is my own work and contains nothing which is the outcome of work done in collaboration with others, except as specified in the text and Acknowledgements.

Camilla Rossini

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Had I been a more systematic person, I would have kept a written note of all the people I am grateful to and that have been fundamental to this three-year-long effort. But I am not such person, and now all I have is my memory to try and recall the thank-you list I have been periodically rehearsing and updating in my mind, with great fear that I will end up forgetting someone.

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Abstract

The scribal errors in the transmitted witnesses of the ancient Greek and Latin texts have been studied by philologists at least since the XV century, being at the core of the stemmatic method. Nevertheless, most of these errors are left out of critical editions, as the removal of the copyists' mistakes – and not their analysis – has always been the ultimate goal of textual criticism. Moreover, the small minority of demonstrably wrong variants that make it into the apparatuses has often not been studied in dedicated spaces. And yet, as pointed out by many scholars in different ages, the readings that come from errors of transcription can play a major role in the philological discipline. The more we study patterns of errors, the more will we understand the transmission of texts, the scribes' original contributions, and, finally, the reasons and mechanisms that cause written slips.

In my dissertation I will firstly analyse the different phenomena that go under the name of variant and the opinions that some philological traditions had of both the reasons for the variants to arise and the attitude to have towards them. I will then talk about what has been called error, how it has been perceived, how to define it and how to study it, pointing out - in the footsteps of several authors - the necessity of a precise terminological distinction between 'error', 'variant' and 'reading'. After a look at the linguistic state of the art in terms of the study of the performance errors that are known as slips, I will argue that a psycholinguistic approach to the copyists' activity – with special regard to their own slips – would provide a better understanding of the transcription process, of the copyists' minds involvement in it, and of the recurring typologies of slips. To find them, I scrutinized some Greek and Latin manuscript traditions (from critical apparatuses, collations and digitized manuscripts) purposely looking for erroneous, minority readings whose genesis and aetiology could be guessed by

comparison with other instances. The data will be ascribed to semantic categories, with no claim of completeness, but as a suggestion for a larger system of classification.

The digital revolution in the field of the Humanities can prove extremely useful in modelling data and finding patterns. Therefore, in the second section of my dissertation I will use the data collected in the first part for a Digital Humanities project. In a first review of the existing bibliography, I will show that the manuscript variants are a common subject within the debate on the Scholarly Digital Editions and their critical apparatuses. For the purposes of this work, though, one needs to collect and study exemplary cases taken from different traditions and manuscripts. The collected data of a repertoire are non complete and non continuous. Thus, peculiar solutions need to be figured out. I will then analyze the tools and methods provided by the Digital Philology debate on apparatuses and critical texts, that can be used or re-used for this kind of desultory data as well. I will finally describe a digital archive of readings, that takes its materials from the traditional archive that is displayed in the first part. This digital archive is specifically designed to be compliant with the texts in the Perseus Library, and is thought of as an addition to the enhanced reading environment that is currently under developments within the Scaife Viewer project. Furthermore, I will reproduce the semantic complexity of the traditional variants archive by developing an ontology that is specifically designed to describe the reading types. From this, I will briefly elaborate on how my model applies to two case studies: the review of critical editions and the case of the “complex tradition”, namely a textual tradition where the text is not fixed and may vary greatly from witness to witness.

In conclusion I will claim that, on one hand, the study of the erroneous variants can bring improvements to the ‘traditional’ philological studies. Not only can it, on occasions, allows a glimpse of microhistory that would be otherwise lost. But more importantly, it could help in some interpretative remarks, such as telling voluntary changes apart from slips and from gloss intrusions, or assessing which errors are more likely to happen twice independently, and how probable it is that the copyists’ life influences their writing. On the other hand, the digital modelling of a list of readings enables

scholars to use the material more effectively, both in terms of searchability and comparisons, and as an irreplaceable component of an enhanced reading environment for ancient Greek and Latin texts.

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Introduction

As is common knowledge, the Greek and Latin texts have come to us in witnesses that have been copied an undefinable number of times. We'll never be able to know how they looked when they were first put down to a page, unless to an extent.

Of some sections of them, though, (a word, a sentence, or even a chapter) we can say for sure that they were inserted in later times or, at least, that they differ between many witnesses. Philologists have called them in many ways (σφάλματα, *menda*, errors, variants) and have studied them since centuries for the purpose of the philological reconstruction of the ancient texts. The discipline as we know it dates back at least to the XVI-XVII century, when books like Robortello's *De arte sive ratione corrigendi veteres auctores disputatio* or Leclerc's *Ars Critica* gave lists of corrupted passages grouped by kind and, for each of them, their restoration according to the author. Not much time later, the stemmatic method that we now know as Lachmannian would study the *errores* in the manuscript to establish the relation between witnesses.

The 'critical edition paradigm', though, set a defined standard for the 'critical apparatus material'. In this model, wrong textual readings were often the first victims of the unavoidable selection between what should and should not be printed in a critical apparatus. Moreover, the small minority of scribal errors that makes it into the apparatuses has not been studied in dedicated spaces, as the removal of the copyists' mistakes – and not their analysis – has always been the ultimate goal of textual criticism. And yet, as pointed out by many scholars in different ages, the readings that come from errors of transcription can play a major role in the philological discipline; not only because “il y a de belles

fautes”¹, but also because they could be useful themselves. In other words, copyists’ errors can and should be studied for their intrinsic value as well as for emendatory purposes, because the more we study patterns of errors the more we will understand the transmission of texts, the scribes’ original contributions, and, finally, the reasons and mechanisms that cause written slips.

In the next pages I will firstly trace a brief, desultory history of the study of errors. I will then analyse the different phenomena that go under the name of variant and the opinions that some philological traditions had of the reasons for the variants to arise in ancient texts and the attitude to have towards them. I will then talk about what has been called error, how it has been perceived, how to define it and how to study it.

After a glimpse at the linguistic studies in terms of the study of the performance errors that are known as slips, I will argue that a psycholinguistic approach to the copyists’ activity – with special regard to their own slips – would provide a better understanding of the transcription process, of the copyists’ minds involvement in it, and of the recurring typologies of slips. A round, comprehensive examination of the act of copying and of the personal involvement of the copyist in it can be achieved through the search for more psycholinguistic patterns and the systematization of the already studied ones, where the mental activity of the copyists, their understanding of the text and ultimately the text’s graphical aspect are all involved in the error’s genesis.

As written above, a common idea, in order to judge if a plausible variant reading can have originated from a ‘psycholinguistic slip’, is to examine how and to what extent the same kind of scribal errors happened. To do so, it was necessary to shift the perspective on the copyists’ slips. Throughout this work, they will not be sought for in order to eliminate them, but they will be specifically selected and analyzed, even when – or better, especially when – their plausibility as a ‘correct’ reading is low. To find them, I scrutinized some Greek and Latin manuscript traditions (from critical apparatuses, collations and digitized manuscripts) purposely looking for erroneous, minority readings whose genesis and aetiology could be guessed by comparison with other instances. The comparison and the combined analysis from different sources will be – as I will claim – a core element of my work,

¹Dain 1949, 50: “some errors are beautiful”. Where not stated otherwise, the translations are mine.

because the extension of my hypothetical categories of slips should be verified with a sample that is as wide as possible. Therefore I will use ancient Greek and Latin textual traditions as my catchment area².

All the collected data is an inert amount of information if it can not be processed properly. The digital revolution in the field of the Humanities can prove extremely useful in modelling a data structure and finding patterns. Therefore, in the second section of my thesis I will use the collected data for a Digital Humanities project. In a first review of the existing bibliography, I will show that the manuscript variants are a common subject within the debate on the Scholarly Digital Editions and their critical apparatuses. For the purposes of this work, though, one needs to collect and study exemplary cases taken from different traditions and manuscripts. The collected data of a repertoire are non complete and non continuous. Thus, particular solutions need to be figured out. I will then analyze the tools and methods provided by the Digital Philology reflection on apparatuses and critical texts, that can be used or re-used for this kind of desultory data as well. Finally, I will apply some suitable tools and method to the design of a framework for the digital representation of an archive of readings. In the last paragraphs, I will extend the framework to two comparable cases, namely the review of critical editions and the representation of a complex tradition.

²Unfortunately, I had left some in-depth research and analysis of patterns of error for the early 2020. This proved to be a poor choice, although unlikely foreseeable, since I have not been able to systematically access a physical library since January 2020. Therefore, for some sections and examples, the extent of the analysis will not be as wide as I would have wished.

Part I

PHILOLOGY AND LINGUISTICS

Chapter I

THE ATTITUDE TOWARDS SCRIBAL

ERRORS: AN OVERVIEW

A significant part of the variation that manually transmitted texts undergo during time is due to involuntary changes made by scribes. These changes are important for reconstructive purposes – especially for the Lachmannian philologists –, but are also inherently valuable, since they often give us a glimpse of microhistory that would be otherwise lost. But how to tell the involuntary changes apart from the voluntary ones? And how to know the reasons why mistakes are made, and their more probable direction? The philological community has often suggested to study recurring patterns and similarities between instances of scribal errors. Nevertheless, as will be shown, it has often relied on a single philologist's expertise or on steady beliefs that are seldom verified. The extensive collections of scribal errors, that do exist, classify them based on their observable features more than according to their reasons. This behaviour is perfectly justifiable and even scholarly sounder, since the process of copying is only knowable from its material results, and nothing can be said about the mindset and the conditions of the scribe who performed it. Nevertheless, there is a layer that can be placed in between the graphical-phonetical and, so to speak, the psychological one. That is the semantic or psycholinguistic layer. This level of analysis has not been systematically addressed by the philological studies. It is, though, a relevant topic in the linguistic studies. This is why, after providing a brief

landscape of the error in the philological studies, I will analyze the linguistic studies on the slips of the pen, eye, ear and tongue. Finally I will try to apply the blended approach between philological and linguistic theories to a set of instances that I retrieved from Greek and Latin works' textual notes or manuscript collations. Those instances were for the most part registered but not commented upon by the editors. In this chapter, I will explore the ways scribal errors have been regarded and classified in the treatises on classical philology, firstly with an introductory historical reconstruction of some episodes of the history of the errors emendation and classification, and then with some theoretical remarks on the scholars' opinion on the aetiology and the classification of said errors.

1.1 SCRIBAL ERRORS THROUGHOUT HISTORY

Greek and Latin texts have been transmitted for centuries, during which copies were made, sold, bought, spread across the Mediterranean, modified, compared, lost, then found again. In the great majority of cases the Original is lost, and even the concept of any original is so far away in time and experience that we strive to imagine its very existence. Leaving aside for the time being what is called 'New Philology', the Lachmannian philological practice has been directed towards the alleged reconstruction of the Original, as conceived by its author. The goal of the discipline has been the reconstruction of the content of the texts, asymptotically near to the ultimate will of the author, and not its material remains; that is to say, its copies. Of course, this framework is as theoretical, arbitrary and simplifying as it could be. It is deeply bound to the concept of a single author that creates a single work, and of its transmission as a linear, mechanic model that can be reversely reconstructed. It is also, though, a known simplification, and almost every manuscript tradition betrays it in one or many ways. Since the philologists are well aware of that, their study of the mechanisms of the textual transmission have particularly focused on the study of the copyists, of the genetic bonds between manuscripts, on the concept of original itself. In facts, as it is renowned, any sort of textual modification adds layers over the words of the ancient authors. To determine how, where and when those changes were made has always been a difficult task: the copyist is an 'unknown subject' whose voluntary or involuntary

intrusions into the text have hindered the vision of the work as a unity in the will of the singular author. It has been said that one of the premises and, at the same time, of the ‘collateral damages’ of the so called ‘Lachmaniann Philology’ is the progressive mechanisation – again, at a theoretical level – of the role of the transcribers in the textual tradition.

This theoretical framework did not originate *ex nihilo*: it is the product of a long history, that can be reconstructed in its crucial events. The aim of the next brief paragraphs will be to justify this last claim in a very incomplete way that will serve as a starting point for the reflections in the next paragraphs. My focus here will be on the implicit or explicit theories on the scribal errors, to give a synthetic and in some aspects simplified picture of how the knowledge and the prejudices on this subject were born and transmitted to the XXI century philology. I will start with a historical summary on the rise of the ‘mechanical prejudice’, where I will focus on three main moments: postclassical times (paragraphs 1.1.1), Italian humanism (paragraph 1.1.2), and the XVI century (1.1.3). After that, I will more thoroughly analyse the XXth century and the contemporary philology. In this paragraph, I will let go the chronological order, to the advantage of a transversal look at the attitude towards textual variation and especially scribal errors in the philological schools that still today affect the scholarly editions and debates. As already mentioned in the introduction, I will try to trace some moments of the rise of the ‘mechanic’ paradigm from its roots to its contemporary consequences on the discipline. I will summarize and discuss the philological literature on the scribal errors, on the ways it has been studied and on the reasons its study has been performed for the most part in similar manners, leaving aside aspects of it that could be useful other than interesting at many levels (paragraph 1.2).

1.1.1 THE POST-CLASSICAL WORLD

The fact that the textual transmission is a complex, variegated, and non-linear process was clear to Strabo (13.1.54)¹ when he described the fate of Aristoteles’ library. The episode is renowned. After the philosopher died, his texts were hidden underground by some undereducated descendants of

¹Cf. Jones, 1924.

a disciple, then dug out a few generations later and sold to Apellicon of Teos, «a bibliophile more than a philosopher», who filled incorrectly the *lacunae* created by moist and time and produced an edition full of errors. When Sulla brought those texts, alongside with many *exemplares* from the Greek cultural heritage, to Rome, they took two parallel paths: a copy of Apellicon's edition ended up in Tyrannion's hands, a grammarian who Strabo calls '*philaristoteles*', and another one fell in the hands of some librarians who «used bad copyists and did not collate the texts»².

As one could expect, the modern and contemporary philologists went over and over this short passage by Strabo, looking for the secrets of the ancient philological practices. On the one hand, what matters here is the number of modifications a text could incur in over a reasonably short span of time - still, more than two centuries. Physical damages, interpolation, poor-quality copies; but also, restorations by skilful philologists. On the other hand, the four 'profiles' of the figures that have to do with books, briefly drawn by Strabo, are worth noticing. Firstly, there are the illiterate, who – having a vague notion of a generic worth of the manuscripts – hide them in an unfit place. Secondly, Apellicon the *bibliophile*, passionate with books *per se* and thus more interested in the material manufacture than its content, who shows an antiquarian interest in restoring the product with the external aspect it had in its early days; thirdly, the professional librarians who care about the fast production of several copies for commercial purposes, and thus make use of superficial (*phauloi*) copyists, once more neglecting the actual content of the work. Finally, and on the opposite side, there is a person who is passionate for Aristoteles himself. It's his love for the author that will lead to an actual comprehension and restoration of his doctrine. The fondness for Aristoteles should help him discern what he actually wrote and what is imputable to subjectivities other than the author.

Overall, the transmission of Aristoteles's library is described as due to the passage from the hands of a person to another's. Each individual, or group of individuals, brings their own subjective background, interest and features into the text, which becomes thus the product of a plurality of subjects. Parallel circulations of the same texts are also envisaged, as the 'roman' episode clearly suggests.

²Bamman et al., 2009.

Usually, post-classical authors show annoyance, dismissal and impatience towards transcribers, both of the ‘interventionist’ kind and of the type of the *phauloi*. Galen, who performed a deep philological work on the Hippocratic corpus, informs the readers that previous commentators introduced judgeless changes³, whereas in a letter Hieronymus complains that, despite his recommendations for a careful copy, the books he is sending to a friend are full of unintelligible passages, for which mostly careless *librarii* are to blame, whose copying process relied more on invention than on transcription, and whose emendatory efforts lack in method and precision⁴. On the other side, many texts show complaints about the properly called errors of transcriptions: for an obvious mistake Polybius notes that, judging by its features, it is plausibly to be attributed to the copyist, and not to the author⁵, and – commenting on some wrong Homeric variants (ἡμαρτημένους γραφάς), Porphyrio stated that *every transcription is worse than the previous one*⁶. The copyists are sometimes addressed as the scapegoats of every textual problem, like when Hieronymus wrote that they tend – like Horace’s Homer – to ‘nod off’⁷.

In some cases, the authors’ concerned attitude towards copyists was fuelled by extremely tangible remarks: they saw their own works disfigured by unfaithful transmissions. Even more clearly than Hieronymus, who was afraid that his addressee would not read the correct form of what he wrote, we find a passage in Galen where the author claims he found some books under his name, that he had never written.

³Gal. *In Hipp. Epid.* VI, CMG V 10, 2, 2, 3: ἐλυμήναντο πολλοὶ τῶν ἐξηγητῶν ἄλλος ἄλλως. About Galen see Hankinson, 2008; Manetti, 2000. Both works lack a specific survey on Galen as a philologist, yet again the theme has been almost or completely omitted from many general works on ancient philology, such as Sandys, 1903, 329, Nesselrath et al., 2004 (see p. 65 and p. 115), Reynolds & Wilson, 2013 (but see p. 154). The theme is present in Rutherford, 1906, 47-57, Roselli, 2012 (see p. 63 for a bibliography on Galen’s comments on Hippocrates). See also Canfora, 2002, 26. Nevertheless, there are several works or chapters dedicated to specific works. See e.g. Dickey, 2015, 483-484, Lapini, 2015, 1048-1050, Manetti & Roselli, 2016, 1529-1635. I would like to thank professor M. Magnani for the thorough bibliographical suggestions.

⁴Hier. *Epist.* 71.5: frequenter admonui, ut conferrent diligentius et emendarent [...] scribunt non quod inueniunt, sed quod intellegunt, et, dum alienos errores emendare nituntur, ostendunt suos. For Jerome’s philological activity cf. Gamberale, 2013.

⁵Pol. XII 4a 4.1-5.1: τοῦτο γὰρ οὐδεὶς ἂν εἶπαιε δῆπου τοῦ συγγραφέως εἶναι τὸ διάπτωμα, τοῦ δὲ γραφέως ὁμολογουμένως

⁶Porf. *Quaest. Hom.* I 35-38: τῶν παλαιῶν βιβλίων ἐπὶ τὸ χεῖρον κινεῖται ἡ γραφή (Sodano, 1973, 197)

⁷Hier. *Epist.* 106.30: *uitium librarii dormitantis*. See Hor. *Ars P.* 359 (*quandoquidem bonus dormitat Homerus*).

From postclassical times, copyists were often regarded as nothing more than scarcely reliable professionals. The habit of railing at them is found, almost as a literary *topos*, up to the Italian Renaissance. Nevertheless, as a method begins to be developed for the textual emendation of manuscript copies, the subjective activity of the copyists starts disappearing from the texts, or at least it is not pointed at as influential on textual transmission anymore; partially, this phenomenon is driven by the urge of drawing safe rules for textual emendation; but it may also be a symptom of a new attitude towards texts.

1.1.2 PETRARCH AND HUMANISM

As we have seen, postclassical Greek and Latin authors show concern and awareness for the transmission of the text of their predecessors as well as their own. Since tracing a detailed history of the concept of the reception throughout the ages would exceed both the purposes and the possibilities of the present work, I think it could be useful to provide an analysis of a single age, that in my opinion could be fruitfully compared with the post-classical approaches to reception. That age is the Italian Humanism. The chronological leap is remarkable; nevertheless, these paragraphs are not meant as a historical reconstruction, but instead as a reflection on the current philological practices by looking at the ones of other ages.

When the first generation of humanists gained a renewed interest in classical works – by studying the already known works, but especially by seeking for manuscripts out of old libraries – their attitude toward classical texts was inevitably influenced by their philological activity. The manuscripts that, laying forgotten in libraries, were found by Petrarch and Poggio were perceived as a tangible proof of a centuries long gap in the textual transmission and, therefore, of a hiatus between the ancient culture and the XIV century's. The humanists' approach to those newly found texts was properly archaeological, as their efforts in finding them and restoring them shows (even though, as I will say,

with varying quality). The poor conditions of most of these texts stood as an obstacle against this effort, and the consciousness of this problem is well documented among humanists. The irrecoverable nature of the ancient times, and of his own longing for them, is strikingly present in Petrarch:

To Quintilian [...]. Your work *De institutione oratoria* came into my hands, but, alas, mangled and mutilated. [...] O insolent and slothful age, in such condition you hand down to me men of genius [...]. Seeing the dismembered limbs of a beautiful body, my mind was overcome by admiration and grief⁸.

Quintilian is such a vividly true person for Petrarch, that he is addressed with letters. Same goes for Cicero, whose *Letters* are Petrarch's own discovery and have a great influence on his work. The Latin authors are alive and present to such an extent that they almost have a material body. The pages and the words of their works are their very flesh and bones. Their authoriality is so strongly stated, so deeply unique and singular in his conception that it exhales from their writings; even more, it perfectly overlaps with them.

If the author's text overlaps with the author's *persona*, the only way to have a satisfying communication with them is for the Humanists to attempt restoring the pristine outlook of the texts. For example, on the works of Livy, to whom he addressed many letters as well, Petrarch left us a great number of conjectures, as the humanists of the next generation ceaselessly remind us in their philological treatises on the *Ab Urbe Condita*⁹.

The reconstructive method applied by the philologists is thus an archaeological method. In the introduction to some newly rediscovered orations by Cicero, Poggio wrote that he found them *forgotten, in a squalid condition* and that he *brought them back to the sunlight* and *restored them to their pristine dignity*¹⁰; similarly, a generation later, Valla would compare himself to a painter who restores the original shape of a painting that has been altered by the passing of time (Garin 1962, 763). The

⁸Fam XXIV, 7, translation by Bernardo, 2005

⁹Billanovich, 1951.

¹⁰In Poggio's edition of seven orations of Cicero, found by himself in the library of the Cologne Cathedral, is written: *Has septem M. tullii orationes, que antea culpa temporum apud italos deperdite erant, Poggius florentinus, perquisitis plurimis gallie germanieque summo cum studio ac diligentia bibliotecis, cum latentes comperisset in squalore et sordibus in lucem solus extulit, ac in pristinam dignitatem decoremque restituens latinis musis dicavit.*

restoring process the two humanists refer to is a metaphorical one: it is the philological constitution of text. More than the material conditions of the manuscript *testimonia*, what looks appalling to the humanists is probably the poor, incorrect, incomplete version of the texts they transmit.

The author *is*, thus, the text. To read an author's work is somehow equivalent to discussing with the author himself. Nevertheless, this 'direct access' to the author's subjectivity is prevented by many kinds of textual depravations: manuscript transmission is, to some extent, the only barrier that divides the humanists from their ancient models.

Again, and in a more explicit version than Strabo's, C. Salutati (1331-1406) tells us what a wide variety of damages could be caused by textual transmission: the first responsible of wrongful transmission are the copyists; not only do they omit some passages due to distraction, but sometimes they baldly change what they don't understand and involuntarily introduce marginal glosses into the text. Readers are guilty to an equal extent, for they change the passages that don't make sense to them or that they don't approve¹¹ Needless to say, the distinction here is between professional, sloppy scribes and 'intellectual' transcriptors, as the so-called readers are said to have a role in the transmission of the texts.

With something like this framework in mind, the humanists began thus to 'heal' the 'sick bodies' of the ancient authors. Lists of explained conjectures and editions were published by a great number of scholars, with great discrepancies in methods and rigorousness. In the first generation of humanists, N. Niccoli (1364-1437) produced a copy of a codex that still exists, and by comparing it with its model it is easy to see that the humanist modified the spelling and inserted many conjectures while transcribing¹². But the almost contemporary G. Lamola (1405-1450) first transcribed the texts, and

¹¹C. Salutati, *De fato et fortuna* 2, 61: *per evagationem mentis et capitis levitatem inadvertenter omittunt [...] temerarie mutant quod non intelligunt [...] glosulas ex librorum marginibus et interliniis veluti scribenda recolligunt..* Text from Rizzo, 1973, 341-344.

¹²Writing about a Tertullian code, for example, Traversari (Ep. 271 col. 398) stated that it was full of errors, which were more likely to be attributed to copyists than to the model. Niccoli transcribed the same copy, producing a copy that is still in Florence (Conv. Soppr. I VI II). From the comparison between the antigrapher and the apograph, it can be seen that Niccoli, during the transcription phase, changed the spelling and corrected the dictographs and errors (Rizzo, 1973, 175).

only then started conjecturing¹³. In such a variety of approaches, because of the proliferation of the philological attempts, some intellectuals started pointing out that a method should be sought for.

A famous dispute between B. Facio (1410 ca.-1457) and L. Valla (1407-1457) deals with the rules to attain to in pursuing emendation. On one side, Facio accused Valla of prompting conjectures that were in fact arbitrary, because they didn't fit the one principle he regarded as sound and reliable: the suspected word and its replacement should have the same number of letter, and each letter should be graphically similar to the one it replaces¹⁴. For his part, Valla answered by showing some of his conjectures that would attain to the criterion, commenting them in a polemical tone: «isn't it what you call 'to maintain the similitude'?»¹⁵. Valla's self confidence is well expressed by a joke he puts in the texts. There was a passage where some had suggested *audacter* ('with baldness') instead of *aegre* ('hardly'), and he himself had conjectured *egregie* ('with excellence'). About it, he commented: «you emended *with baldness* and not *with excellence*, I emended *with excellence* and not *with baldness*»¹⁶.

This was, of course, a rightful reaction to a ruthless kind of interpolatory emendation. But just a generation later, we find signs that it had fossilized into a rule: Poliziano would directly presume that a variant with no graphical-phonetical resemblance with the 'base' text should be ascribed to the author, and not to the copyist, who had no reason to make a slip like that:

Quamvis etiam in antiquissimo quoque libro non dispariliter scriptum inveniamus nec sane lubricus ex literarum vicinitate sit in alterutrum nomen lapsus¹⁷.

Remarks like this seem to have behind them a very different landscape than the numerous phenomena recorded by Salutati. Here, there is one and only one acceptable dichotomy: on the one side

¹³In a more mature phase of humanism, Poliziano would even point out the length of each lacuna. Cf. [Rizzo, 1973](#), 175-181; on the not always brilliant results of Politian's transcriptions cf. [Pasquali, 1952](#), 74-75.

¹⁴B. Facio, Inv. in Vall. 1: «oportet enim in emendando aliquo depravato ut similitudo et numerus litterarum conveniat»

¹⁵L. Valla, Emend. 603 ad Liv. XXI 36, 1. Valla conjectured «rectis saxis ut» for the vulgata «rectis ac si istud». His comment directed to his detractors is: «adestne similitudo? Constat numerus litterarum in menda et emendatione?» ('Aren't they similar? Is the number of letters equal between the error and the correction?'); Valla, Emend. 604 ad Liv. XXI 31, 6: «Estne istud servare similitudinem, servare numerum litterarum in coniectanda scripturae veritate alias dictiones eximere, alias adicere?».

¹⁶Emend. 605 ad Liv. XXI 40, 2: «vere audacter non egregie emendantes, ego egregie non audacter».

¹⁷Pol., Misc. I 53 ad Cic. Div. 2.

the ‘mechanical’ mistakes of the copyists, on the other side the voluntary variations by the author. Of course, this wasn’t because the theoretical notions about transmission had changed or the philologists’ opinions on them had been altered: but the final goal of it, namely conjectures that couldn’t be attacked by other scholars, was consolidating both in its expected results and in the methods to achieve it.

What Valla, Facio and Poliziano were trying to achieve was a way of polishing the texts from the signs of the transmission. But admitting that copyists and readers could perform any sort of intervention on the text, would be ultimately equivalent to acknowledging that nothing could be done to restore it. To admit that an indefinite number of humans, for an indefinite number of times, have altered the ancient texts, sometimes with minor interventions and some other with radical changes, was the same as admitting that the text is no longer an expression of a singular, authorial subjectivity, but a collective, deeply apocryphal creation.

The only way to put up a rigorous method, irreproachable to the eyes of rival-colleagues, was to compare object to object: that is to say, the corrupted passage with the conjecture. This way the philologist would not only avoid the issue of considering the copyists’ personalities and their influence on the texts, but also the problem of their own subjective perspective and the weight it had in influencing their conjectures. It is often simplifying to state that a specific phenomenon or tendency was born in a precise time or thanks to a single episode. Nevertheless, one can recognize in the humanists’ efforts an influential precedent of the post-Lachmannian philology, that attempted to elaborate a scientific way to spot and correct the copyist’s errors.

The copyists’ errors that implied a visual-auditive confusion had been privileged in the Humanists’ emendation because they were the only type of mistake that could be somehow predictable on a practical point of view. As I will say in the next paragraph, this matter of common sense would from time to time become an emendation rule, even though often only implicitly. The prejudice on the solely/prevalent mechanical nature of scribal mistakes was going to have a long life.

1.1.3 COLLECTING MISTAKES

When, in the two centuries after Valla, the practical technique of emendation became matter for treatises, the discrepancy between the theory of emendation and its application emerged. On the one side, the multiple and multifaceted nature of most errors was clearly implied. The most important collections of scribal errors that were published in the XVI-XVII century, were organized into the progressively larger categories of errors involving a letter, a syllable, a word¹⁸. At the verge of the XVIII century, J. Leclerc's *Ars Critica* (1697), which built a proper theoretical treatise on textual criticism around the examples of errors and conjectures, clearly stated that mistakes can and do arise from the scribes' most different mental processes, either concerning or totally unrelated with the text under copy. We read in Leclerc's *Ars Critica*:

Potuit alter dictare quod cogitabat, non quod erat in libro, aut alter scribere id quod animum ejus avocabat; quod nobis contingit, cum animus distrahitur variis cogitationibus.

And again:

Certe cum qui scribit aliud agit, com saepe potuit contingere, facile fit ut quae cogitat, non quae dictantur, scribat. Innumera menda, quae cernuntur in MSS. aliunde orta non videntur, sed ea potissimum quibus voces idem, aut affine quidpiam significantes miscentur [...]. Scribentes enim non modo verba, sed etiam sensum attendunt, & in longa scriptione, saepe fit ut sententiae ratio major habeatur, quam verborum¹⁹.

The scribes' active role and participation in the transcription, their non mechanical involvement in the task and the intruding of their own 'mental world' into the text they are copying, are a principle that will be regularly stated in theory, from Leclerc to our times. On the other hand, when it came to compiling repertoires of actual examples, again the only classifiable and to an extent predictable

¹⁸See [Vanek, 2007](#), [Schoppe, 1762](#), [Canter, 1566](#).

¹⁹[Leclerc, 1697](#) respectively pp. 10-11 and p. III.

types of slip turned out to be the graphical-phonetical ones. Subjective, individual changes to the texts were admittedly real but could not be listed and categorized.

From the XVIII century on, as philology settled as a proper discipline, many repertoires of the copyists' errors have been published, whose purpose is well indicated by Headlam:

There is only one way of acquiring a sure hand in textual criticism, and that is to observe what the transcribers do, and what they do not do. A certain knowledge of palaeography is necessary of course, and easy to acquire; but palaeography is only the first foundation for emending texts; sound judgment in that region cannot be attained except by constantly observing variant readings²⁰.

The need to collect examples divided by type and study them in order to have a better grasp on the transmission of ancient texts was expressed several times throughout the history of philological treatises. As said earlier, the forerunners of the genre of the errors' collection are the late-renaissance treatises on the *ars critica*, that listed textual variations according to categories, usually from those that involved a single letter, to a syllable, to entire words²¹. Nevertheless, those first collections of conjectures didn't look for rules and general tendencies in emendation, as to broad groups of interventions on the texts and general copyists' behaviours. It is between the XIX and the XXth century, that we find an attempt to systemize the idea that the errors can and should be studied according to patterns, and make a method out of it. We read in C. G. Cobet:

est in Codicibus Graecis et, ut suspicor, in Latinis quoque quaedam peccandi veluti constantia solentque τὰ αὐτὰ περὶ τὰ αὐτὰ ἀμαρτάνειν, et quo quis plura de genere hoc aut ipse repererit aut ab alio reperta in promptu habeat, eo ad verum inveniendum accedit paratior²².

The aspiration seen *in nuce* in Cobet to «turn [textual criticism] into a rigorous science, a 'pathology and therapy of errors'», for which «the study of the genealogy of manuscripts is replaced

²⁰Headlam, 1902, 243.

²¹See Vanek, 2007 on Robortello's, Canter's and Schoppe's works.

²²Cobet, 1873, 475: «in the Greek manuscripts and-I suspect-in the Latin ones too, there is a certain recurrence in mistaking, and they usually make similar mistakes in similar conditions, and the more data on this one will collect himself or read from someone else's collection, the more he will be ready to discover the truth».

by the study of the genesis of corruptions», is referred by S. Timpanaro to the monumental work of L. Havet *Manuel de Critique Verbale Appliquée Aux Textes Latins*, published in 1911²³. Probably P. Maas was referring to his work when, in 1927, he criticized that

we still have no standard for judging which errors are to be regarded as probable in individual cases. The collections of common errors that have been made so far simply give examples of specific types of errors which no one has ever denied; they give no picture of the varying frequency of errors and, worse still, they do not show which types of error do not occur»²⁴.

Havet's *Manuel* was indeed a five-hundred-pages long repertoire of scribal errors divided by types. Nevertheless, despite Havet's claims on the complex nature of many mistakes, the types he listed were for the vast majority the usual palaeographic, mechanical mistakes²⁵.

An a priori study on the types and the aetiologies of the variations in the transmission of the ancient texts – divided by geographic areas, with only variations between apographs and antigraphs analyzed – was according to Maas the only way to avoid the creation of repertoires of errors they already knew existed. Whatismore, in the words of the Italian philologist G. Contini:

L'eterno circolo e paradosso della critica testuale è che errori predicati certi servono a decidere l'erroneità di varianti per sé indifferenti : un giudizio non soggettivo si fonda sopra un'evidenza iniziale, che, fuor di casi particolarmente grossi, è o rischia di essere soggettiva.²⁶

In other words, the arbitrariness of the philologists' judgment, to which the collections of errors tried to put a stopgap, was never defeated. It only came back disguised as an objective decision on when an error is plausible, of when we face a 'clear and demonstrable scribal error'. The implicit problem is that categorizing errors doesn't imply that we understand them better in their causes and geneses. Drawing types and groups of errors is not enough, as long as those groups are only the expression of the philologists' idea of the mechanisms of the textual transmission. A mechanic

²³See Havet, 1911 and its description in Timpanaro, 1985, translated as Timpanaro, 2005, 129-130.

²⁴Maas, 1927, ?, translated as Maas, 1958, ?.

²⁵Havet, 1911, par. 413.

²⁶Contini, 1953, 313. See Avalle, 1972, 46 for further bibliography.

consideration of the act of copy is reason enough for a philologist to find only such types of errors. On the opposite side, the quasi-authorial copyist of New Philology (see par. 1.1) will be regarded as more liable to make rielaborative, complex mistakes.

From the first collections of scribal errors, up to many contemporary textbooks, the categories drawn from the observation of variant readings are for the most part of graphical-phonetical nature; they involve what has been repeatedly called the ‘mechanical’ aspect of scribal errors, that is, the visual or auditive similitude between the alternative readings. Traditionally, the graphical-phonetic resemblance between the existing variant(s) and the prompted conjecture(s) has been regarded as the only solid ground for a prudent emendation, because of its proven usefulness on a practical level and because of the fact that graphical-phonetical patterns of mistakes can be traced quite easily and effectively²⁷.

The so-called Lachmannian philology promoted and appointed the mechanical method as the one to be privileged. Traditions could be mechanically reconstructed backwards, indeed following scribal mistakes as a trace. The theoretical framework that shaped the philological practice needed to scale back the copyists’ three-dimensionality: the model to comply with was primarily naturalistic, scientific; the copyists became mediums, transcribing machines with ‘bugs’ that an ex-post process could detect and fix.

We read in M. J. Driscoll:

Although the stemmatic method is all very neat and its logic nothing short of majestic, it has a number of shortcomings, the most significant being the fact that it hardly ever works with real textual traditions, since it assumes, among other things, that no two scribes will ever independently make the same mistake, which they frequently do, that they will always work from a single exemplar, which they frequently don’t, and that most scribes will tend to reproduce their exemplars exactly, which they almost never do, at least in the case of vernacular literature²⁸.

²⁷See e.g. [Havet, 1911](#); [Maas, 1927](#), translated as [Maas, 1958](#), 12-17; [West, 1973](#), 15-29 (“Various causes of textual discrepancy”). Many repertoires of errors list non-mechanical conjectures, but they are organized as collections of exemplar cases. See e.g. [Conte, 2013](#); [Dawe, 2007](#); [Jackson, 1955](#); [Renehan, 1969](#); [Willis, 1972](#).

²⁸[Driscoll, 2010](#).

To be fair, this depiction of the stemmatic method doesn't count the innumerable advantages it provided in terms of the knowledge of the ancient texts and the restoration of pristine forms of many passages obtained thanks to the stemmatic method, which can be used in a much less schematic form than it is claimed in the quoted passage. On the other hand, though, this opinion reflects a dispute that has engaged the philological academic environment since the late '80 or the past century. The over-mechanical attitude of some parts of the Lacmannian philology, that was particularly detrimental for vernacular literature, cast a Postmodern doubt on the old, consolidated field of Philology too, by the hands of what is known as New Philology. The criticism moved towards 'traditional' philologists has much to do with the consideration of the copyists' activity, and with the debate on what editors should do with errors and how to regard them.

In the next paragraph, as I already disclosed earlier, I will cease the chronological order, for a more horizontal picture of what has been considered 'important' and 'unimportant' in terms of variants and errors in modern and contemporary philology, of what solutions the different philological schools have found to govern the theory on how errors are produced and on how the philologist should act on them. I will also try to show why philological theories that apparently drift apart, actually have more to share and to dialogue about than one may think, especially in the field of error detection and analysis. From a picture of the study and consideration of the error, I will then go briefly to the idea of the copyist that emerges from it, and I will define the way I will look at this figure throughout this work.

1.2 ERRORS AND COPYISTS IN THE CRITICAL EDITIONS

At least since the XIX century, the distinction between the edited text and the critical material has crystallized in some canonical forms. The primary resource to have an account of the textual tradition from, is the critical edition with its text and the apparatus(es), that gathers around other publications like collations, reviews and - occasionally - reflections on noticeable variants.

The philologists' understanding of the way textual tradition works and especially on what should be the task and goal of the philological discipline, has changed from time to time and from scholar to scholar. In the next paragraph I will give a syntetic picture of the conceptual position assumed by the variants and errors in the modern and contemporary philology.

1.2.1 IMPORTANT AND UNIMPORTANT VARIANTS

In the last decades, textual criticism has had opposing attitudes towards the textual diversity of each manuscript tradition. Still to this day, classical philology is generally inclined to use the stemmatic method to get closer to previous versions of the extant texts, namely closer to the original. For works as old as the classical ones, even to take a glance at the medieval archetype is sometimes a reconstructive goal of utopic proportions.

On the other hand, the last ten years of the 20th century saw a shift in perspective regarding the philologists' consideration towards variants, coming especially from philological schools of more recent tradition. The so called New Philology, that grants a central value to the consideration of variants, is regarded to have started with the publishing in 1989 of Bernard Cerquiglini's *Eloge de la variante*²⁹. New Philology has necessarily taken a step back from the Lachmannian method and goals whose champion had been the Classical Greek and Latin philology, and for many reasons. On the one hand, their need was to deal with more fluid, non-authorial kind of literary products³⁰. The philologists of romance texts have devoted a great attention in the last decades to single exemplars of codices, whose copyists work with «una gran sintonia con il testo che tend[ono] a modificare in modo cosciente ed incosciente in fase di trascrizione, arrivando spesso ai limiti della riscrittura»³¹. In such an environment, the stemmatic method has less sense to be looked up to. What is more, especially but not exclusively in the last decades, more and more counterexamples have cast some doubts over the stemmatic method. The suspect influence of arbitrary base texts, the late and sometimes insufficient

²⁹ Cerquiglini, 1989, translated as Cerquiglini, 1999.

³⁰ See the comment on Cerquiglini's *pamphlet* in Rinoldi & Careri, 2004.

³¹ «A great syntony with the text, tha they tend to modify consciously and unconsciously in the transcription phase, often reaching the re-working». Careri, 2010, 41.

theorization of primary concepts like ‘original’ and ‘variant’ (see par. 1.2.2), the often underestimated influence of contamination and copyists’ emendation, Bédier’s provocations on bipartite stemmas³²: they are just some of the reasons why the so called New Philology claims that, as ‘the’ original is often a purely theoretical notion (especially for medieval texts), more importance should be given to the material history of the manuscripts and to their status of artefacts, as springs of a specific socio-cultural context and products of innumerable subjectivities. According to B. Cerquiglini:

medieval writing does not produce variants; it is variance. The endless rewriting to which medieval textuality is subjected, the joyful appropriation of which it is the object, invites us to make a powerful hypothesis: the variant is never punctual³³.

New Philology’s conclusions, although often dismissed by classical philology as completely irrelevant to the discipline, are unequivocally pointing at a fact. The so called Lachmannian method has been from time to time responsible for a flattening attitude towards the manuscript tradition, especially when aspects of it considered marginal – such as the material features, the visual appearance of the manuscripts, the habits of the copyists, their marginal notes and their personal contributions – have been neglected in favour of a dichotomic division into ‘useful’ readings and ‘useless’ ones, that are thus to be thrown away. The critical apparatus, together with some more or less detailed introductions, is usually the only part of the critical editions that conveys the complexity of the manuscript tradition. But again, always within the logic of ‘right’ and ‘wrong’, of ‘original’ and ‘spurious’:

Over time, variants have been valued differently by various textual critics depending largely upon their views of the goal of textual criticism. When that goal is defined as restoring the original text

³² [Bartoli, 2015](#). In 1928, J. Bédier suggested that, as the Lachmannian method was practically unreliable, a single witness (*codex optimus*) should be chosen and edited. See [Bédier, 1928](#).

³³ English translation: [Cerquiglini, 1999](#), 78. For a more detailed study of the New Philology, see e.g. [Driscoll, 2010](#), 85-102; [Epp, 2007](#), 275-308; [Fleischman, 1990](#), 19-37; [Nichols, 1990](#), 1-10; [Patterson, 1990](#), 87-108; [Wenzel, 1990](#), 11-18. See also [Timpanaro, 1985](#), English translation as [Timpanaro, 2005](#), 157-188 (Appendix C: *Bipartite stemmas and the Disturbance of the Manuscript Tradition*) and 207-215 (*Additional Materials A: Final Remarks on Bipartite Stemmas*). For a critical point of view on some ideological a priori of New Philology, and a defence of the Neo-Lachmannian method’s validity, see [Trovato, 2009](#), 23-42.

of the various authors, variants tend to have a binary character - they are either in or out, that is, accepted or rejected. If accepted they assume a position in the privileged critical text that often has been labelled 'original', but if rejected, variants are relegated to the apparatus at the foot of the page (in much smaller type)³⁴.

Needless to say, the 'rejection' of the variants and their confinement to the critical apparatus is often more nuanced than it is described by E.J. Epp. Nonetheless, it is true that even from their layout the critical editions contribute to the hierarchization of the 'two' levels of the text and the apparatus.

The earlier criticisms to the apparatus-centred approach to textual diversity came 'from the inside'. Better still, they came from the twentieth century's champion of the stemmatic method, P. Maas, who in his *Textual Criticism* (1927), about the opportunity of naming the scholars' conjectures and interventions in the apparatuses, wrote:

A selection only need be given; on the other hand at times a brief justification of the course taken should be offered, e.g. changes made purely *metri causa* should be indicated and marked as such. Our present *apparatus critici* have too little life in them.

To inflate back the 'life' in critical apparatuses, though, is not as easy as it seems. An over-comprehensive account of the textual tradition could be fatal for the usability of the apparatuses themselves, as brilliantly synthesized by M.L. West in *Textual Criticism and Editorial Technique Applicable to Greek and Latin Texts*:

Critical apparatuses have more than one use. The most essential one is to inform the reader which parts of the printed text depend on emendation and which parts are subject to uncertainty. But apparatuses are also what most people depend on for instruction about the character of particular manuscripts and scribes, and of manuscripts and scribes generally. Unfortunately, the more fully an apparatus caters for the latter need, the less handy it is for the former; the important variants have to be discerned amid crowds of unimportant ones³⁵.

³⁴Epp, 2007, 275. See also e.g. Chiesa, 2012, 151.

³⁵Quotes respectively from: Maas, 1927, translated as Maas, 1958, 23-24 and West, 1973, 86.

Variants are divided by West into important and unimportant. It is intuitable that his definitions refer to the *constitutio textus*: some variants matter for it, meaning that it is at least possible that they are to be considered original, whereas others are certainly wrong and their value rests only on assessing the peculiar characters of a scribe or a manuscript. From this, some questions arise. Firstly, how do we tell the important from the unimportant, in this reconstructive perspective? And secondly, about the ‘unimportant’ variants: if they don’t belong to critical apparatuses but they have nonetheless their specific usages, where should we study them? I will try to give an answer to this last question in Chapter 3.

Before considering these questions, though, a remark needs to be made. The words used by West are simple and clear on purpose, as befits a handbook, though a high-leveled one. Nevertheless, the vagueness of the terms he uses could reflect a known problem in the philological discipline, namely the lack of theorizing of the core concepts of philology, as paradoxical as this statement may sound for a field of studies that dates back hundreds or even thousands of years. Many of the most important concepts of philology have meanings that are often used with an alleged conventional and obvious sense, or at least with a kind of tacit agreement on their inaccuracy. So, when we read ‘original’ we must know that it is only an abstract approximation; when we talk about ‘authoriality’ we understand it differently according to the type of text, its age and its tradition. And what is most relevant here is that the term ‘variant’ and its denotative adjectives have slightly or totally different meanings depending on the context, the author’s beliefs, and once more the type of text, as I recalled earlier in the contrast between New Philology and Classical Philology. In this context, we understand the use of the definition of ‘unimportant variants’ as conventional and functional to the text. In this, New Philology is no different from the ‘traditional’ schools. When the New Philologists claim that only ‘clear and demonstrable scribal errors’ should be emended, they are by no means more accurate than the ‘traditional’ philologists when talking about ‘original’ and ‘author’³⁶. This is maybe even more important for scribal error. If we knew what a ‘clear scribal error’ is, we would not struggle to define them and distinguish them from voluntary copyists’ variants. In fact, it is hard to identify

³⁶This topic will be further explored in paragraph 1.2.3.

clear scribal errors even when dealing with autographs, let alone when centuries of transcription are involved³⁷. This difficulty is proved by the debate on the concept of error itself, and its connections and distinctions with notions such as reading, variant, innovation. In the next paragraph, I will provide a summary of some attempts to define what a scribal error is.

1.2.2 ATTEMPTS FOR A DEFINITION OF SCRIBAL ERROR

The debate on how to consider variation in ancient texts, and on how to divide them, may be well summarized by Ernest C. Colwell and Ernest W. Tune's attempts for specific definitions³⁸. In 1969, the newtestamentary scholars Colwell and Tune tried to classify variants either as 'significant' or 'insignificant'. They suggested to use the term 'reading' for each textual divergence, and to reserve 'variant' only for 'significant readings'. The insignificant readings should include nonsense readings, clear and demonstrable scribal errors, orthographic oscillations, singular readings (in the Lachmannian meaning of stemmatically irrelevant ones). Whatever didn't belong to those groups should be regarded as a 'significant reading', or 'variant'. The scheme by Colwell and Tune was a simplification with a specific purpose (a computational one³⁹), but it led to a discussion seminar whose conclusions - or, better, whose doubts - are synthesized by E.J. Epp:

When is a reading a variant? [...] Are orthographic changes in nouns, significant or insignificant?

Do singular readings (in Greek manuscripts) remain singular when the same variant appears in a version?

³⁷A definition of this kind of errors in philology is found in [Epp, 1993](#): «Clear and Demonstrable Scribal Errors. [...] readings that can be construed grammatically and make sense but can be demonstrated with reasonable certainty to be scribal errors. [...] Candidates for scribal errors that make sense would be certain instances of haplography and dittography, cases of harmonization with similar contexts, hearing errors producing a similar-sounding word, and the transposition of letters or words with a resultant change in meaning. The snare in this category, naturally, is the phrase "clear and demonstrable," for no reading that makes sense should be consigned lightly to the "insignificant" category; on the other hand, if the process of error can be recognized and traced with reasonable certainty, there is no reason to retain the erroneous alteration among the "significant readings"».

³⁸see [Apollon et al., 2014](#), 45-47.

³⁹[Colwell & Tune, 1964](#), 256.

Furthermore, Epp says, the notion of significant and insignificant variants partially overlaps with the concept of intentional and unintentional variants, which is particularly important in theological modifications of the Old and New Testament:

while intentional changes are inevitably significant or meaningful, some unintentional variants, such as the often unconscious harmonizations to parallel texts or conformity to Septuagintal or liturgical forms, are also readings that make sense⁴⁰.

Voluntary variants, especially in a textual transmission that is key for the religious disputes as that of the New Testament, are important. But often they are not ‘important’ under a stemmatic perspective, as they are for the reconstruction of cultural environments and textual reception⁴¹

Moreover, division like voluntary *versus* involuntary variants are mostly arbitrary. Sometimes variations of this kind can be doubtlessly proven wrong, either by stemmatic deductions or content-related concerns; some other times, they are only suspect of being copyists’ innovations. In many occasions, probably, they lay undetected in our texts:

Errore può essere certo, cioè almeno in certi casi si può dimostrare che una lezione non può essere d’autore, ma le buone lezioni, a rigore, certe non sono mai, ovvero non si può mai essere certi che non siano lezioni plausibili subentrate in qualche momento della tradizione⁴².

The more a reading fits with the surrounding words, the more dangerous it is; if it is coherent enough with the morpho-syntactic and semantic context, it is likely to give birth to plausible variants or even univocal ‘good’ readings. Moreover, in the group of the plausible variants, there are certainly some that are voluntary modifications of the text. It is hard, though, to tell those from the others. As said before, about the existence and the frequency of non voluntary innovations, philologists have had different opinions. The theoretical model on the aetiology and the typologies of copyists’

⁴⁰Epp, 2007, 278.

⁴¹See for example Ehrman, 1996.

⁴²Beltrami, 2012, 162: «the error can be certain, namely in some cases a reading can be demonstrably not authorial, whereas valid readings, truthfully, are never certain, namely one can never be positive that they are not plausible readings intruded at some point of the transmission».

plausible errors is different from age to age, and from scholar to scholar as well. Whatismore, as I said before, the philologists' works, be them editions or theoretical treatises, often imply those models without explicitly stating them.

It often happens, as I already said before (see par. 1.2.2), that some core concepts are commonly referred to as working approximation, like 'original' and 'author'. In the next paragraphs I will say a few words on an implicit abstraction that, sometimes, is overlooked if compared to others.

1.2.3 THE COPYIST AS AN ABSTRACTION

Textual criticism has always had to deal with the fact that the 'authorial will' of the classical writers is at best hidden under layers and layers of voluntary or involuntary modifications, physical damages, and rewritings, and that different witnesses always carry different texts⁴³. To gain a better comprehension on how the current texts of the ancient works formed, it is then necessary to understand the copying activity⁴⁴.

New Philology states the importance of the material existence of each single copy, because its layout and paratextual features are integral part of the meaning of the text. What is most interesting here, New Philology claims that each phase of the texts is socially, economically, culturally defined and relevant. In Driscoll's words:

What ought the new/material – philologically-inclined editor to do? To start with, he or she ought to consider producing editions of demonstrably corrupt, yet sociologically and historically interesting, texts, including younger reworkings of older material and works hitherto dismissed as spurious⁴⁵.

⁴³West, 1973, 32: «unless, perhaps, the text is very short».

⁴⁴Canfora, 2002, 14: «Nel caso dei testi antichi vi è comunque sempre un anello in più. C'è sempre un altro che li ha scritti: ma chi fu il copista?» («In the case of ancient texts there is always an extra link. There is always another who wrote them: but who was the copyist?»). Stoppard, 1998, 24, quoted in Canfora, 2002, 22-23 in the Italian translation (Stoppard, 1999, 72-73): «what Catullus really wrote passed from scribe to scribe, this one drunk, that one sleepy, another without scruple, and of those sober, wide-awake and scrupulous, some ignorant of Latin and some, even worse, fancying themselves better Latinists than Catullus».)

⁴⁵Driscoll, 2010.

This trend in scholarship has the great advantage of allowing us to rethink the importance of the manuscript artefact in itself as well as for the study of the texts; but it is likely to be of little use for our problem: where did the copyists' work end up in our framework? For a transmission like the one of the classic texts, which is long and has demonstrably many phases, each text has gone through different cultures, ages, places. To state that a single manuscript is important because it bears many layers of tradition is maybe too vague: it is, again, another way of admitting that we can know nothing of the copyists that have been succeeding one another, of the places where a single copy's ancestors have been created and copied; of the humans behind the tradition.

Much before New Philology, scholars have made attempts to get a better understanding of the copyists' roles and activities, from the writing material conditions and their influence on the writing activity⁴⁶, to the structure and organization of scribal ateliers and their difference from private scribes. To summarize all the literature on the material conditions of copying would exceed the needs and possibilities of this work. It will suffice to say that it is notorious that different texts were copied in different environments, and that the copying environments changed during the ages as well. A work copied by an amateur scribe will probably have a different quality - and different variants - than that coming out of a professional *scriptorium* endowed with a professional corrector; but professional scribes may have had less personal interest in the text than someone who was copying it for their personal interest⁴⁷.

Scholars have tried over and over again to «look over the scribe's shoulder»⁴⁸ to understand how, when and why they introduce changing in the texts. Especially for biblical papyri, some attempts have been made to trace scribal habits, sometimes starting from their errors⁴⁹

Others, though, have warned against such an attempt, saying that it is wishful thinking to believe that we can 'watch' the copyists at work. We know too little of them, and we see their habits going in

⁴⁶Cf. [Dain, 1949](#), 41: «les quatre opérations».

⁴⁷«Lo stesso termine copista è molto generico e andrebbe sempre differenziata la copia all'interno di un atelier organizzato da quella di altro tipo, che la maggior parte delle volte non sappiamo definire». [Careri, 2010](#), 48. See [Royse, 2008](#), 28 f. 96 for further bibliography.

⁴⁸«where the Vorlage of an extant manuscript is also known to be extant [...] we can virtually look over the scribe's shoulder and compare the text he is copying with his result.» ([Farnes, 2019](#), 28)

⁴⁹See [Royse, 2008](#) about several attempts to infer some copyists' personality traits from their manuscript products.

every possible direction, so it is impossible to trace tendencies. And even when we can know exactly what a copyist wrote (as it is the case with *descripti*), we lack general knowledge of the modes of their work and of the reasons for the variants to arise⁵⁰. On top of that, the attempt to infer some copyists' features from variants has been harshly criticized in its whole, as non scientific and evidence based⁵¹.

The truth is, again, that general statements are hard to make. Copyists working in ateliers, copies made for private use, and again rielaborative anauthorial poems or sacred biblical passages imply different audiences and copying styles. It is also simplistic to say, as philologists used to, that the "good copyist" is the one that reproduces errors as opposed to the one with the long known attitude of *negligentia*⁵². Between copying slips and voluntary innovation, often the scribal interventions on the texts are placed in a scale of grey. For example, can we say that a copyist who cannot understand the sense of a passage and thus tries to change some words in it, is culpable of a 'scribal error'? A difference should be traced between a wrong text, namely a flawed one, and wrong transcription, thus a coherent text but different from the original. It is worth mentioning Canfora's general statement:

Tendenzialmente il copista non si rassegna a scrivere qualcosa che gli sembra non dare senso, o non dare quello che a lui, trascinato dalla compenetrazione col testo, appare come il senso più desiderabile in quel punto⁵³.

⁵⁰Cf. Hort, 1916, 35: "scribes were moved by a much greater variety of impulse than is usually supposed; [...] different scribes were to a certain limited extent moved by different impulses". Royse, 2008, 75: «Instead of saying that scribes tend to do something, one should rather say that some scribes tend to do one thing, and other scribes tend to do something else». See Royse, 2008 for further bibliography.

⁵¹«the concept of scribes as authors is entirely built on the interpretation of variants in almost complete isolation from their physical containers (the manuscripts) and their sociological environment (the professional setting of those who produced them)» Farnes, 2019, 5-6. See also the observations in Royse, 2008, 6 about Kilpatrick & Hobbs, 1978, 12 («[We] find what looks like little bits of original composition in imagining reasons why scribes may have done this or that, but for these imaginative reconstructions we are given neither evidence nor corroboration») and Birks, 1878, 42 («the variety of instinct to be found among scribes, the frequent disagreement between their instincts and our own, and the conflicting effects of different instincts in the same passage. It is possible to go wrong in interpreting the historical growth of a text. But the chances of error are beyond comparison greater in attempting to divine exhaustively the movements in the minds of unknown ancient scribes.») Note that the last quotation comes indeed from Westcott and Hort's «introduction to the text of the Gospels (1870), privately circulated, and not yet published» Birks, 1878, 4.

⁵²Dain, 1949, 17: The good copyist is the one that reproduces the errors in the text.

⁵³Canfora, 2002, 20: «The copyist don't tend to resign himself to writing something that doesn't seem to make sense to him, or not to convey what to him, lead by the interpenetration with the text, appears as the most desirable sense at that point» My translation. See also Allen, 2016, 859-860: «A paragraph from a recent article in the Journal of Biblical Literature illustrates one side of this bifurcation within the field: Textual scholars have long recognized that the wording of their manuscripts contain residues of scribal practices and attitudes. The popular caricature of the scribe as automaton,

To this Canfora adds that the copyists know that they are only the latest ring in a long chain of transcriptions, and thus often intervene to correct what they think can be a predecessor's mistake.

Some others have questioned the base principle underlying Canfora's opinion: the copyist is not at all 'as an author', and their rielaboration is usually much less than some are drawn to think⁵⁴.

In such a wide variety of opinion, there is a remark to make. The rielaborative copyist and the mechanical mistake are not, as one may think, antithetical one to the other. Quite the opposite. If mistakes in copying happen mechanically, every non-palaeographical variation must be regarded as a copyist's conjecture, a voluntary innovation. Non voluntary changes that have no graphical-phonetical reasons would be interpreted, in such a scenario, as a gloss intrusion (see PAR NUM). Brought to its extreme consequences, this attitude would imply that any scribal error is mechanical or it is not an error⁵⁵.

From this, many consequences arise. As we have seen so far, the study of scribal mistakes has been matter of interest since the early days of philology, and still in recent years it doesn't cease to raise questions. Nevertheless, the study of copyists' errors has often been hindered by some factors. Firstly, the very nature of mistaken readings. Once a reading is certainly wrong, it is most likely that, even when it is registered in the critical apparatus, its traits and properties won't be further studied, because it doesn't pertain to what could be authorial. The autoschediasm in this argument, though, is easily noticed. How can we be sure that some reading is to exclude, if not by comparing it with other 'mistaken' readings, in order to assess their common features and the copyists' role in them?

On the other hand, the fact that each manuscript is the product of a chain of copyists' transcriptions could look like a great argument against the attempt to study the 'copyists' habits'. The

aiming only at the flawless reproduction of an antigraph, is wholly inappropriate in light of the textual evidence provided by the early Greek manuscript record of the New Testament. Evidence suggests that copyists were also, at times, careful readers who altered the wording of their Vorlagen to convey more explicitly a work's meaning (deep structure)».

⁵⁴Turner, 1910, 209-210: «Yet we are on safer ground in saying what are the likely vagaries of scribes than in saying what are the possible vagaries of authors. The scribe's business is a humbler and more mechanical one than the author's, and, while authors have each their own individuality to be reckoned with, scribes are much more of a homogeneous class and the same foibles reappear with considerable regularity». See Royse, 2008, 9-11 for further bibliography.

⁵⁵Traube & Lehmann, 1909, 3.113: «a conjecture does not become better because it can be explained palaeographically, and certainly it does not become correct because in the best of cases it is palaeographically possible», commented in Timpanaro, 2005, 128. See also Careri, 2006, 42-46, where the author comments on the improper use of the category of "palaeographical error" with examples taken from medieval philology.

witnesses of classical texts are not the expression of a singular personality. Their mistakes are the sum of many subjectivities and many phenomena, as said. Even for the *codices descripti*, it is impossible to determine if a ring or more of the copying chain are missing between antigraph and apograph.

What seems like an argument against the study of copyists' mistakes, though, can actually be turned the other way around. The material features of a singular manuscript are to an extent useless, as we can know they reflect only that particular stage of the text, but we can't assess how many variations they have an influence on. Is it, though, totally useless to study them? The fact that mistakes aren't connected to a single personality makes it all more difficult to assess remarks on singular persons. Nevertheless, we are left with a huge amount of variants that can still be divided into types and compared to each other.

All in all, we can still talk about 'the copyist': but in many cases we must agree on the fact that this copyist is an abstraction too. This is not a hermeneutical dead end. Quite oppositely, it is a starting point. The whole philologically reconstructed transmission is an abstraction, and one that, for operative purposes and within its known limits and purposes, works. To the relative abstraction in the concept of 'author' and 'original', we should add that of 'copyist'. If a rielaborative manuscript is the product of two or more 'negligent' copyists, or of an ignorant one and another one that tried to restore the text, we may never know. But its features in terms of types and number of variations remain valid. In this sense, in the next chapters, I will study the copyists as producers of errors.

I will use the expression 'the copyist' or 'a copyist', meaning 'a gatherer of old variants' as well as 'a producer of new variants'. The origin of most of them is unknown, although of some we could determine an alleged time of birth. The phenomena reunited under the same 'copyist' are not contemporary among each other, but they all arose from human activity. It can be difficult to understand how the mind of a person of a different culture and age worked. I will try to understand if the copying activity complies to any rules and tendencies besides the 'mechanic' categories usually applied. Particularly, I will focus on the slips, namely the errors that produce a sound or sense-making text, and on their non-palaeographical aetiologies. As I said above, and for the reasons that I have

already presented, the slips haven't been studied systematically. Nevertheless, some groups or types of non-palaeographical slips exist.

1.2.4 MECHANICAL AND NON-MECHANICAL ERRORS

As said in par. 1.1.3, from being a solid, empirical ground for emendation, the 'mechanical' similitude has often lead to an over-mechanical consideration of the copying business, as repeatedly denounced by many philologists.

The over-mechanical model often translated into over-mechanical conjectures, as was pointed out multiple times from the XVIII century onwards. As already reminded, when P. Maas accused L. Havet of listing mistakes 'whose existence no-one has ever doubted of'⁵⁶, he was probably hinting at this contradiction as well. For example, after tracing a detailed and vivid picture of the mental and subjective causes of mistake⁵⁷, Havet provided a single example: a copyist who wrote *COSOS-NECVTVTVSEGVTUS* instead of *cos. (= consulibus) consecutus*; a mistake due to the utmost distraction, but hardly one to be called semantic.

The counterpart of this overmechanical attitude, that paradoxically started from similar premises, was a completely erratic emendation, relying only on the philologists' *genium* and boosted by many philologists' outstanding knowledges and insights, that brought results that were often confirmed by later manuscript findings. Bentley's famous sentence *nobis et ratio et res ipsa centum codicibus potiores sunt* commented an edition of Horace with more than 700 conjectures, many of which have often been regarded as based on what the scholar thought Horace should sound like rather than on actual emendational criteria⁵⁸. Again, in this perspective, the philologist only dealt with the text

⁵⁶Maas, 1958, 18.

⁵⁷«L'attention est moins assise au premier mot d'un texte qu'au vingtième; au cinq centième, elle est fatiguée. Le copiste est distrait quand il se remet au travail le lundi matin; il est las au moment de quitter le travail le samedi soir. Si le copiste a froid, s'il tombe d'inanition, s'il est indisposé, s'il est tourmenté de soucis ou inquiet d'un châtement, s'il a la préoccupation de finir à date fixe, il aura des faiblesses de mémoire, des paresse, des distractions. S'il entend fendre du bois, sonner une cloche, menacer, gémir, appeler, sa pensée s'envolera loin de son modèle. Si auprès de lui quelqu'un prononce à voix haute des paroles distinctes, il risque d'oublier sa dictée intérieure pour cette dictée du dehors.» Havet, 1911, § 413.

⁵⁸Bentley, 1869, III 27, 15.

itself, disregarding any history of the textual transmission. The opposite attitude to the palaeographic emendation, in other words, had the same dismissive attitude towards the copyists' presence in the ancient texts we read: they could be simply forgotten.

There is one foolish sort of conjecture [...]. The practice is, if you have persuaded yourself the text is corrupt, to alter a letter or two and see what happens. If what happens is anything which the warmest goodwill can mistake for sense and grammar, you call it an emendation; and you call this silly game the palaeographical method. [...] Haupt, for example, used to warn his students against mistaking this sort of thing for emendation [...]: 'If the sense requires it, I am prepared to write Constantinopolitanus where the MSS have the monosyllabic interjection ο'»⁵⁹.

This prejudice is shown whenever the effectively working categorisation in graphical-phonetical groups is – consciously or less so – interpreted as a hermeneutical paradigm for explaining the reasons for the mistakes themselves. In other words, the visual similitude between two words is regarded as the reason, and not as a trigger, for a wrongful substitution, regardless of any copyists' mental activity whatsoever.

Still to this day, the old prejudices are visible. Often, conjectures are rejected on the ground of palaeographical unsoundness, regardless of other kinds of 'pushing factors'; variants are compared only because they deal with similar sounds or words, when other influences may be more relevant to them. On the other hand, psychoanalytical factors – inexplicably given for granted - are sometimes noted as amusing curiosities (see par. 1.2.5).

The overmechanical paradigm has many consequences. In the first place, as I said earlier, whenever a lexical substitution is commented in a critical edition, it is often assumed to be an intruded gloss, a phenomenon that implies a voluntary intervention on the text. In its harder forms, the overmechanical attitude has significant consequences on the judgement of the cause and the polygenetic probability of many readings. I'll use two examples to show what I mean.

⁵⁹Housman (ed. Diggle & Goodyear, 1982, v. III pp. 1064-1065).

- (1.2.1) Soph., *OT*, 942
 οὐ δῆτ', ἐπεὶ νιν θάνατος ἐν τάφοις ἔχει
 ἐν τάφοις] ἐν δόμοις **FacHN**

For ἐν τάφοις ('in the tomb') the variant ἐν δόμοις ('in the house') is attested by three manuscripts. R. D. Dawe writes: «the variant δόμοις for τάφοις is stylistically superior, and it is easy to see how τάφοις could have started life as a gloss». To τάφοις is indisputably attributed the nature of gloss for its graphical distance to δόμοις and its semantic pertinence with the concept of death. It could well be an involuntary rewriting of the text⁶⁰.

- (1.2.2) Soph., *El*, 1460
 ὡς εἴ τις αὐτῶν ἐλπίσιν κεναῖς πάρος
 1460 πάρος] μάτην **GR, verum G^{SP}**

The common ancestor of the Laur. Conv. Soppr. 152 and the Vat. gr. 2291 writes μάτην ('in vain') instead of πάρος ('once') with an adverbial substitution that emphatically repeats the previous concept. According to P. J. Finglass, it is «an attempt to improve the text by inserting a more vigorous word»⁶¹.

The previous examples may derive from intruded glosses, but they may as well be unconscious 'conceptual' harmonizations that, as well as other involuntary variations that nonetheless fit in the surrounding text, are usually ascribed to the involuntary mental reworking under which the span of text goes between being read and being written⁶². This kind of textual variations can by all means be defined scribal errors. But they are often not, by their definition, 'clear and demonstrable scribal errors' as orthographical variations, misspelled or grammatically flawed words, wrong or senseless constructs are. Those substitutions, that happen especially at a lexical level, where the replaced word

⁶⁰ «No, for death holds him in the tomb», *Jebb, 1887*. Dawe's opinion is from *Dawe, 2006*³, 155.

⁶¹ «so that, if any one of them were once buoyed by empty hopes», *Jebb, 1894*. See *Finglass, 2007*, 533.

⁶² *Dain, 1949*, 44: «quand le copiste a lu le texte, il le retient. Dans l'acte de copie que nous analysons, ce jeu de la memoire n'a qu'une durée imperceptible». («when the copyist has read the text, he memorizes it. In the copying activity that we are considering, this mnemonical passage is almost imperceptible»).

is perfectly sound and often rightly adjusted to the syntactic context, are disguised by their own plausibility⁶³.

This specific groups of readings is hardly distinguishable from voluntary variations in many the cases. Such a remark, though, should not imply skepticism on their very existence. Modern and contemporary linguistics has studied this kind of «involuntary deviation in performance from the speaker's current phonological, grammatical or lexical intention» under the name of 'slip', or 'semantic error', as we will see in detail later. The recognized features of this kind of variation perfectly match the kind of scribal errors we are dealing with. They happen in a language the speaker/writer is fluent in, as they are very different from actual 'ignorance' mistakes; they happen at a lexical or sub-lexical level and the substituting word fits totally or partially the content and the syntax of the sentence they are part of; finally, the error often originates from a graphical-phonetical similitude between the 'target' (the word/s meant to be said) and the 'production' (the word/s actually said), but it always has a psycholinguistic nature, as testified by the (complete or less so) coherence of the wrongfully produced word/s with the surrounding text.

This linguistic concept can be well applied to what philology has called the 'linguistic', or 'mental' nature of scribal mistakes. It has been repeatedly stated that the scribal errors often have a double nature. As Thomson wrote⁶⁴:

I distinguished two main categories—transcriptional, or, as I now prefer to call them, visual errors, and linguistic errors. A visual error is one that arises independently of the language by repetition or omission or by confusion due to the form of the script, such as resemblances between letters; a linguistic error is one that arises from the history of the language. The great majority of errors are partly or wholly linguistic. It is noteworthy that such work as has been done on the classification of errors has been confined for the most part to visual errors. Linguistic errors have been neglected. The result is that many scholars have combined a credulous attachment to the *ductus litterarum*.

⁶³According to [Salemans, 2000](#), 64-71, this kind of variants is the only one with a stemmatic relevance, because they would go unnoticed to the eye of a copyist, however willing to emend a text they are

⁶⁴[Thomson, 1965](#), 163

The graphical resemblance of the starting text and the produced text are relevant, but so it is the sense of the passage and the way the mistaken text rephrases it. In other words, many mistakes are at once conceptual and graphical, like we read - for example - in Havet:

D'ordinaire, les fautes sont psychologiques en même temps que graphiques. C'est qu'elles supposent non une lettre au lieu d'une lettre, mais un mot lu au lieu d'un mot⁶⁵.

It is worth mentioning Canfora's opinion on the mental nature of most scribal mistakes, that perfectly summarized the same concept:

Quasi tutti gli errori sono errori concettuali: anche quelli che vengono sommariamente classificati come sviste e lapsus. [...] Uno degli errori di prospettiva che i filologi commettono, quando studiano la tipologia degli errori, è dunque quello di classificarli assiologicamente in «meccanici» e «concettuali». [...] Anche nel caso di un errore [...] platealmente meccanico, può interferire - nel suo prodursi e incastonarsi nel testo - un fattore mentale (o concettuale)⁶⁶.

But from a practical point of view, what can we actually *do* with the philologists' opinion, often so divergent? Classical textual criticism often cannot study the habits of a single copyist (because it has too little witnesses, with layers that are too seldom detectable), but on the other hand cannot rely on a 'theory of errors' that is often asserted and less often demonstrated and made a subject of dedicated studies either.

Nevertheless, it would not be true to say that the non-mechanic causes and aetiologies of scribal errors have never been studied. Although there is not a systematic study on the non-mechanic errors, some papers or passages in texts convey the idea that such categories can be studied and created, of course with some discernment.

⁶⁵Havet, 1911, 126: "usually, errors are at the same time psychological and graphical. Copyists misread word for word, and not letter for letter." As said earlier, this theoretical principle is less evidence-supported than one may expect.

⁶⁶Canfora, 2002, 20: «almost every error is a conceptual error. The philologists, studying the types of errors, make the error of perspective of axiologically classifying them into 'mechanical' and 'conceptual'. Even when an error is blatantly mechanical, a mental (or conceptual) driver can have a role with it arising and settling into the text».

1.2.5 TYPES OF NON-MECHANICAL SLIPS

As seen earlier, Thomson suggested a provisional division for the errors into two groups, linguistic and transcriptional. Again, he was all in favour of the analogical criterion for conjectural emendations. His point was, one doesn't need an immense, over-comprehensive amount of data in order to draw patterns between examples of similar readings. If used in a reasoned manner, the aetiology of errors could prove useful also in a singular textual tradition. His case study, as I will say later in detail, was on the word order displacements in some manuscripts of Aeschylus, *Oresteia*.

Thomson's study is far from being the only one providing a group of 'conceptual' errors. Quite oppositely: some of the broadly known and broadly used categories of error are significant exceptions to the mechanic paradigm, being properly psycholinguistic in nature. Usually, they co-exist with mechanic theorizations of the copying business with no problematic implications. Of course, this doesn't happen because of a poor theorization or a ground incoherence in the philological practice. Usually, it is said that for some small, finite groups of scribal mistakes a 'mental' nature can be recognized.

Those categories reunite errors that are kindled by a 'conceptual' aspect, and not by a- nonetheless often existing- graphical-phonetical similitude. They trace properly 'psycholinguistic' patterns of error, into which the graphical-phonetical component and the mental causes equally and inseparably concur, but only the latter is relevant for their definition. The polar error especially shows us one of the reasons for the importance of the study and classification of psycholinguistic errors. The more the slip fits with the surrounding words, the more dangerous it is; if it is coherent enough with the morpho-syntactic and semantic context, it is likely to give birth to plausible variants or even univocal 'good' readings.

I will list here some groups that can be found in multiple sources or that have been noted by a single scholar. I will go back over them in the repertoire of errors (see chapter 3), and I will provide new examples that I personally recollected from critical editions or collations.

THE CHRISTIANISM

The Christianism happens when a word or an expression of the Christian liturgy or doctrine is inserted by mistake in a – usually pre-christian – text⁶⁷. The Christianism intrudes into the text in an allusive, automatic way, starting from expressions that belonged to the copyist's cultural environment⁶⁸. Christianisms have often been recorded as interesting curiosities, but are actually very significant, because they comprise a sound proof of the influence of extra-textual factors on the copy, and on the relationship between the copyist's mind and the text. For the witnesses of Latin works there are some well-known examples. We can mention first of all a case in Bentley's Horace, who - commenting «*Vide autem, et ride Monachorum ingenio*» - noted that in Hor. *Carm.* III 18.11-12 (*festus in pratis vacat otioso / cum bove pagus*) *pagus* had become *pardus* in part of the tradition, due to the influence of Es.11,6-7: «*Habitabit lupus cum agno, et pardus cum haedo accubabit*»

Errors of this kind are very frequent in the witnesses of Latin works, as Ogilvie writes:

Over the last few years I have been collating the primary manuscripts of the first five books of Livy and so large a number of revealing corruptions came to light that it seemed valuable to collect them together as evidence for subconscious or unconscious preoccupations of scribes. The result is important, because it means that editors must not be over-mechanical in their approach to the transmission of texts.

In the list of examples he collected there are cases such as *vitiatore* for *viatore* (III 56.5), *pia culpa* for *piacula* (IV 3.10) or even *pano* instead of *artem* in the sentence «in paucitate hostium artem maxime timens» (V 38.3): in the latter case, the word *hostium* must have brought the Eucharistic rite back to the mind of the copyist⁶⁹.

⁶⁷For an interesting repertoire of Christianisms see, between many, Ogilvie, 1971, 32-34.

⁶⁸In the Christian production in Greek language, the Devil is often linked with the verb αἰρέω ('to take') (e.g. Chrys. *Hom. in Mt.*, PG LVIII 773, 14: τότε αὐτὸν ὁ διάβολος εἶλεν, "then the devil took him") and to the action of throwing lightning bolts (e.g. Bas. *Hom. in Ps.*, PG XXIX 248, 16: τὰ πεπυρωμένα βέλη τοῦ διαβόλου, "the Devil's lightning bolts").

⁶⁹Ogilvie, 1971, 32. Further case studies can be found in Havet, 1911, 263 (which indicates, for example, the erroneous intrusion of *amen* instead of other words: in Verg. *Aen.* V 602 instead of *agmen*, Verg. *Georg.* II 486 and Hor. *Carm.* III 9.24 instead of *amem*, Cic. *Phil.* 13.6 for *tamen*), Willis, 1972, 100-101 (e.g. another case reported by Bentley. in Manil. IV 422, instead of *cadit post paulum gratia ponti*, a copyist wrote *post Paulum gratia Christi*).

THE POLAR ERROR

The polar error is a subtler, more text endangering phenomenon. It happens whenever a copyist writes exactly the opposite of what the text said. Its causes, frequency and triggering factors haven't been positively determined, but it is recorded or suggested in the widest range of philological schools, from Greek texts, to Shakespeare witnesses, to autograph manuscripts of different ages. The expression "polar error" was first used by D. Young⁷⁰, regarding a substitution between μέν and δέ. The error, though, had been known "for centuries", according to Ward W. Briggs⁷¹.

POLYGENESIS AND SYNONIMIC OSCILLATIONS

As it is known, the polygenesis (or coincidental agreement) is the phenomenon due to which the same textual variation appears independently in two or more manuscripts. Polygenetic errors are the blatant proof that some rules or tendencies subtend the genesis of scribal mistakes. In most cases, the polygenesis involves common trivializations. Nevertheless, to quote D. S. Avalle, «in alcuni casi essa comport[a] oscillazioni di tipo sinonimico o parasinonimico»⁷². Avalle groups into this category instances of homoteleton, trivialization and repetitions, including the so called «anticipations de la diction intérieure» and, occasionally, synonymic or parasynonymic oscillations⁷³. The problem is, polygenesis in the same textual tradition can be difficult to identify and demonstrate. Conversely, if the same error appears in different traditions, it can be argued that the set conditions were different and thus the examples are not really comparable. For this reason, some scholars have claimed that the polygenesis is a largely underaddressed and underestimated phenomenon⁷⁴. A fruitful field for the

⁷⁰Young, 1965, 267.

⁷¹Briggs, 1983, 268, f. 2 (see his work for further bibliography). A polar error had been suggested by Hieronymus (*Epist.* 106.30): he maintained that due to distraction (*vitium librarii dormitantis*) a copyist had written *et* instead of *nec*. Famously, Freud wrote about antithetical substitutions. On this see Briggs, 1983, 270 and Timpanaro, 2004³, translated as Timpanaro, 1976, 147-153. It is important to remind, as Timpanaro does, that most of the oppositional substitutions are influenced by a combination of "conceptual complementarity" and "acoustic persistence". For further examples see Kellner, 1925, 164: "contrasting words substituted" and on this Maxwell, 1976, 170-171; see also O'Sullivan, 1976, 168-169.

⁷²«Sometimes it implies synonymic or parasynonymic oscillations»

⁷³Sometimes it involves synonymic or para-synonymic oscillations» See (Avalle, 1972, 51), who provides examples in Langue d'Oc. See also Avalle, 1961, 186-190 and Ageno, 1984, 54-55.

⁷⁴Royse, 2008, 42. See n. 12 where he quotes among others Metzger, 1945, 72: «the possibility of mere chance coincidence among manuscripts in agreeing in small variation (involving inter alia, word order, common synonyms, the

search of polygenetic errors seems to be that of aspectual variant readings, that according to some may tend to change similarly in similar contexts⁷⁵.

COMPENSATORY ERRORS

In the introduction to his edition of Philodemus' *On Poems*, R. Janko notes that the «phenomenon of pairs of related mistakes is so common that it ought to become a general principle of textual criticism: the mind is at some level aware of the first fault, and tries to remind one by committing another»⁷⁶. He provides numerous examples taken from the text:

Pausimachus cited Sophocles' phrase βαρὺς ξύνοικος, ὃ ξένοι, but the scribe wrote βαρ-
ουνοικοο. As if subconsciously aware of his error, he then committed [...] Neat examples are διὰ
τοῦτο{υ} ... ταῦτο<ῦ>, τὸν λα[μ]β<αν>όμενον, the double dittography in ἰ{ω}δ[ι]ωτέρου{ς}
γένους, and εἰμενεπετυχεν (for οἱ μὲν ἐπέτυχον), anticipating εἰ μέντοι in the next line⁷⁷.
A splendid example in Roll B is τετήρεκε σεμνότη{τη}τ' preceding σεμνότη{τη}τος P. Herc.
1677 col. 6,24-8.

FREUDIAN SLIPS?

As I said earlier, it is common opinion that, except for some *codices descripti*, it is difficult or even impossible to determine where and by whom mistakes were made. The influence of the sociocultural environment on copyists can be ascertained only in general cases. In the case of the Christian world, we know for a fact that the transcribers of Greek and Latin texts were, from the late antiquity on and by a large majority, of Christian religion, and often even monks. It is thus easy to infer that this must have been an influential semantic field in their human experiences.

presence or absence of the article, the aorist for the imperfect or historical present) has not been sufficiently taken into account». See also Schmid, 2004, 138: «Not only comparatively simple omissions and additions of single words, but omissions of compound expressions and sentences, even the addition of an entire sentence can hit a 'parallel' purely by chance. Thus the issue of parallelism is considerably more complicated than hitherto thought of».

⁷⁵Stork, 1988, where the author remarks the frequency of aspectual variant readings and argues for the usefulness of a systematic study, that has not yet been done.

⁷⁶Janko, 2003, 81-82. This reference was brought to my attention by professor W. Lapini, whom I thank.

⁷⁷77 18 -22, 210 16-17, 86 16, 187 20-1.

Other than that, it is imaginably hard to get to the ‘inner life’ of people who left only some traces on a text, often indiscernibly from one another. Nevertheless, it has been claimed that, possibly, external and random thoughts of the scribes have had a role in the wrongful transmission of some passages. In a frequently quoted passage, G. Pasquali wrote that «se mentre sto scrivendo *assale la carrozza*, entra una zanzara dalla finestra e mi molesta, è molto probabile che io scriverò *assale la zanzara*»⁷⁸. Not infrequently, some philologists hint at what they regard as Freudian lapses: «κατέχευας] κατέχεσας C2, perhaps explicable in terms of the scribe’s subconscious feelings at the moment»; «ἐλελίζων] ἐγγελίζων G, perhaps thinking of eels for lunch»; «we seem to see before us the original Freudian scribal error»; «possibly the scribe who wrote ἰμείρω, seeing the words ‘longing for sex’, at once thought of his own longing»⁷⁹.

The lighthearted tone used by contemporary philologists in denoting alleged Freudian lapses seems to confine their statements to the field of interesting curiosities with no hermeneutical fallouts on the copying activity. Nonetheless, they imply serious consequences in terms of the consideration of the scribal process. Following what was said about the over-mechanization, we could find ourselves with copyists that are considered in one place to be copying machines, incapable of semantically coherent modifications unless voluntary, and in another patients in a psychoanalytical session. Both this latter attitude and the former are to be traced back also to the lack of studies on the psycholinguistic implications of copyist’s slips. A properly psychological subconscious influence on the copyists’ activity is hard to determine. Against us stands the impossibility to «psychanalyser un sujet inconnu, mort depuis deux mille ans»⁸⁰.

Was it an unconscious wishful thinking that lead a copyist to write that pleasures happen to men πολλάκι (‘often’), instead of παυράκι (‘seldom’)? What was another copyist thinking, when writing that the Greek are rich due to an ἀργύρου πυγή (‘silver buttock’) instead of an ἀργύρου πηγγή (‘silver

⁷⁸ «If, while I am writing “assault to the carriage” a mosquito flies in from the window and harasses me, it is very likely that I am going to write “assault to the mosquito”» Pasquali, 1952, 453.

⁷⁹ Respectively Young, 1965, 247–274: p. 267 on Pi. P. I 8; and p. 269 on Pi. O. IX 14; Dawe, 2006, 161 on Soph. OT 1025; West, 1973, 108–109 on Hes. Th. 176–177.

⁸⁰ «Psychoanalysing an unknown subject, dead for more than two thousand years»: Marichal, 1961, 1257 quoted by Timpanaro, 1976, 28 f. 14. About it see Condello, 2013, 47, who notes that, although Timpanaro is making a reference to the copyists, the original sentence points at the authors.

mine’)? Was a third copyist worried about his payment, as he wrote μισθός (‘wage’) instead of μῦθος (‘story’)⁸¹? Once the psycholinguistic slips have been defined and delimited in philology as well, we will be more entitled to infer subconscious drives in the copyists’ activity. Even though, arguably, the category of Freudian lapses may always be too shady and unprovable to have repercussions on philological theory or diagnostic, its existence is worth questioning in these and other cases, even only because “il y a de belles fautes”⁸².

In order to do so, in the next chapter I will trace the history of the concept of ‘slips’ from its definition to its current application in the linguistic studies. The idea of slips of the tongue and of the pen was indeed born and defined on the subtle edge between philology, linguistics and psychoanalysis, and the modern notion of psycholinguistic slips was defined, partially by contrast, from Freud’s theory on lapses. In particular, many doubts have been cast on the possibility of tracing backwards the deep and by definition hidden mental processes that would result in a Freudian slip. This criticism applies even to live-recorded speech lapses, let alone to scribal slips, for which we do not even know who is responsible. After that, I will try to apply the concepts elaborated by the linguists to an archive of examples of semantically coherent errors, along the lines of the ‘unconscious harmonizations’ or ‘linguistic’ errors that I have talked about before. In doing so, I hope to give a tangible proof of the applicability of other models besides the palaeographical-mechanical one to the study on the copyists’ errors.

⁸¹See respectively Marc. gr. 774 (olim 520) at Thgn. 859 (ἦν δέ τί μοί ποθεν ἐσθλόν, ἃ παυράκι γίνεται ἀνδρί), Laur. 86, 3 at A. Pers. 239–240 (B.A. καί τί πρὸς τοῦτοισιν ἄλλο; πλοῦτος ἐξαρκῆς δόμοις; / XO. ἀργύρου πηγῆ τις αὐτοῖς ἐστὶ, θησαυρὸς χθονός); Vat. gr. 123 at Hdt. II 45.2 (ὄδε ὁ μῦθος). These examples were suggested to me by professor F. Condello, whom I thank. See also e.g. Lapini, 2018, 240, who points out that in Thphr. HP III 9.3 (“the substance which the torch-cutters of Mount Ida call the ‘fig’, [...] is redder in colour than the resin”, transl. by Hort, 1916, ?), while P and the Aldine write τῆς δαδός (‘the resin’) UM have τῆς παιδός, ‘the girl’, coming from “uno scriba disattento e annoiato, e con in testa pensieri evidentemente piú interessanti che un trattato di botanica” (“a bored, unfocused scribe, clearly caring about more interesting businesses than a botanical treatise”).

⁸²Dain, 1949, 50.

Chapter 2

THE ERRORS IN THE LINGUISTIC STUDIES

In the next chapter, I will talk about the early history of the study of the slips in linguistics. I will explore in particular the close relationship of this discipline with philology, or better the impulse that philology gave to its birth. I will then give a summary of the main contemporary theories on how the slips originate, on how they interfere with – and, by doing so, reveal – the language formation rules, and on why they have been regarded as interesting objects of study. After that, I will present a review of the types of slips that can be found in the linguistic literature. My purpose in doing so will be to evaluate the usefulness of said categories for a classification of some textual variations that can be recognized as scribal errors, or for which that hypothesis can be posited.

2.1 THE ORIGINS: MERINGER, FREUD, TIMPANARO

As said earlier, the study of the errors' types and reasons has been performed for centuries by philologists. In the 19th century, some german philologists and Indo-Europeanists applied similar processes to the newly developing linguistic research. In their opinion, the way native speakers involuntarily modify their language could reveal the paths through which language itself changes: the most important collection was published by G. Mayer and R. Meringer in 1895, under the title *Versprechen*

und Verlehsen (1895)¹. In its pages R. Meringer, a Viennese Indo-Europeanist with an education as a classicist, revealed his sources of inspiration. He wrote that, before him, Hermann Paul in 1866 «was the first linguist to suggest that an examination of speech errors might reveal a natural cause of certain types of linguistic change» and «Delbrück suggested that speech error data was of value to linguistics»². Still to this day, Meringer and Mayer's speech errors collection, with its over 8000 instances, remains the largest repertoire ever collected and published of speech errors. Complying to the philological tradition he came from, Meringer classified the examples according to purely mechanic categories, such as transpositions, anticipations, perseverations, contaminations, substitutions.

Meringer's work was well known to Sigmund Freud. Freud, a few years later, in the book *Psychopathology of Everyday Life* (1901), suggested an interpretation of the slips of the tongue that was very distant from that of Meringer's. More than a classification by types, he focused on an explanation of their prime causes. His explanation was of a deep kind, focused on the psychoanalytic reasons and their link to the speaker's personal life and unconscious activity.

Only many decades later would the most notorious critique to the freudian approach come, and from a philologist. Sebastiano Timpanaro, in the essay *Il lapsus freudiano: psicoanalisi e critica testuale*, wrote some renown criticisms to Freud's theory of speech errors in general and particularly the *Psychopathology*. In his view, Freud's theory lacked of scientific method whatsoever. Only a few case studies were analysed, and on each of them only the information that proved Freud's theory was provided. His overall assumptions, then, were by no means 'falsifiable'. Timpanaro went back over some slips taken from Freud's book, reading them under a new perspective – a kind of 'Occam's razor' that applied to Freud's allegedly 'subconscious-driven' examples the linear, straightforward categories of the theory of errors of the textual criticism.

Most of the times, the presence or absence of any obscure drive would be indeterminable and, ultimately, irrelevant for the slips' detection and explanation. The processes theorized by the philologists since centuries could explain in a more effective and simpler way why the slips happened and what

¹Meringer & Mayer, 1895.

²Fromkin, 1984, 13. Cf Jaeger, 2004.

factors they arose from, and point out that the errors have multiple causes. The textual suggestions and similarities that according to Freud were «ponti associativi» that favoured the slip, according to Timpanaro were «vere cause (e, nella stragrande maggioranza dei casi, sole cause) di lapsus e amnesie»³ It is worth mentioning a summary of Timpanaro's arguments on the Freudian theory on the slips:

«carattere cavilloso, arbitrario, innecessario di molte spiegazioni fornite da Freud [...] (pp. 19-37, 50-66); natura pericolosamente indotta delle «libere associazioni» attraverso cui Freud pretende di comprovare, con l'assenso dell'analizzato, la legittimità delle proprie ipotesi (pp. 38-49); carattere storicamente e sociologicamente determinato, in senso platealmente borghese, del materiale raccolto e analizzato da Freud, e delle stesse spiegazioni da lui fornite (pp. 85-99); in ultima istanza, carattere 'non falsificabile', in senso strettamente popperiano, della teoria del lapsus e della psicoanalisi nel suo insieme (pp. 36, 186-189)»⁴.

Much like linguists did after Timpanaro's criticism on Freud, philology needs to define the conceptual distance between psycholinguistic slips and Freudian lapses, particularly regarding the influence of the co-text, be it syntactic, lexical or thematic. The existence of Freudian lapses in scribal production is not here aprioristically denied. Conversely, once plausible psycholinguistic influences have been excluded, and the copyist's slips still look inexplicable, then it is admissible to infer an influence that is external to the text, coming from the copyist's socio-cultural environment (*i.e.* groups of errors that are proved to exist, like Christianisms), or even to his inner thoughts and subconscious drives. It needs to be remembered, then, that many causes concur to most mistakes: to the mechanic and to the psycholinguistic one, we could add the subconscious drives, if it seems the case. Many of

³Timpanaro, 2006, 196: "associative links", "true (and most of the times, only) causes for slips and amnesias". Timpanaro, 1976, 84 f. 3: «the explanation of errors of transcription [...] nearly always refers us to a conjuncture of several causes (palaeographic, psychologic-cultural, and so on); [...] virtually all errors are multi-determined».

⁴«The cavillose, arbitrary nature of many explanations provided by Freud (pp. 19-37, 50-66); the dangerously induced nature of the "free associations" through which Freud claims to prove, with the assent of the analyzed, the legitimacy of his hypotheses (pp. 38-49); the historically and sociologically determined nature, in a blatantly bourgeois sense, of the material collected and analyzed by Freud, and of the explanations given by him (pp. 85-99); finally, the 'non-falsifiable' nature, in a strictly Popperian sense, of the theory of the slip and of psychoanalysis as a whole (pp. 36, 186-189)». See also Condello, 2013, 94). Pasquali had already mentioned the Freudian theories in a footnote in Pasquali, 1952, 472; cf. Pasquali, 1964, 294 and Timpanaro & Orlando, 2001. See also Timpanaro, 2006, 45.

the so called ‘inexplicable’ substitutions, for which Freud’s name is invoked, are inexplicable only according to the paradigm of the mechanical substitutions.

A way to study the copyists’ slips is to retrace the studies that had their genesis from the dispute that I just recalled. Timpanaro’s attempt to find a mediation between the psychoanalytic approach to the slips and a purely mechanical one would be taken in charge by the linguistic studies on spoken and written errors. In the next pages I will give an account of the positions and the theories of the linguistic studies starting from the 1970s, when Victoria Fromkin began publishing her fundamental works on the topic of errors in linguistics. I will then try to assess if some categories detected by linguists for modern language producers could be applicable to some examples taken from collations and critical apparatuses.

2.2 PURPOSE AND RESULTS OF STUDYING THE SLIPS

The word ‘error’ is not less problematic in linguistics than it is in philology:

Many who have dealt with error analysis in different fields of linguistics are extremely careful in using the word error. Some prefer to use the word change [...], deviation, ‘breaches of the code’.

The word ‘error’ itself is indeed prone to some misunderstandings due to its polysemy. Nevertheless, deviations from a producer’s intended utterance happen in all languages, including sign language, and both in spoken and written production and comprehension⁵.

⁵The quote comes from Chiari, 2007, referring to Lindsay & O’Connell, 1995, 102 and Corder, 1973, 259. See Bencini, 2017, 244: «A speech error (also known as slip of the tongue) is operationally defined as a deviation from a speaker’s intended utterance. This definition requires knowing what a speaker’s intended utterance is, which limits the classification of errors to instances in which the intended utterance is uniquely inferable from context, or when it can be verified through other means, such as in experimental paradigms that are specifically designed to elicit errors where the target utterance is either provided or constrained to an identifiable set of alternatives. Errors occur in all languages (including sign languages) and across input and output modality (e.g. reading comprehension, written production)». I thank professor Mambrini for his precious suggestions about the problematic nature of the concept of ‘intention’. In the case of speech errors - especially with an eye to the philological notion of ‘error’ - the intention is a problematic yet necessary concept, at list for a working framework, not necessarily true from a hermeneutical perspective, but useful to define, classify and study the copyists’ activity.

This last definition, explicitly referring to a deviation from the intended production, rules out the mistakes for lack of knowledge of the used language. This kind of contextually appropriate mistakes have been called ‘miscues’: they are peculiar to non-native speakers and to children⁶.

This kind of errors can combine, in L2 learners and children, with the use of forms and structures that deviate from the prescriptive norm.

(2.2.3) You dooed* [did] it⁷!

Though miscues and mistakes due to lack of knowledge can be useful to investigate linguistic patterns and mechanisms in learning a language, a third kind of linguistic errors will be the focus here. They are, as said earlier, the so-called slips, namely “unintended, nonhabitual deviation[s] from a speech plan”⁸. A more complete, broadly accepted definition is:

A slip of the tongue [...] is an involuntary deviation in performance from the speaker’s current phonological, grammatical or lexical intention⁹.

Unlike the miscues, the slips are typically produced by fluent speakers, usually on common, everyday words. A slip can be a lexical variation as well as a sub-lexical one. The former replaces a word with a whole different one (although, we will see, with some regularities). The latter can result in nonsense realizations, as it happens with sound exchange:

(2.2.4) mank of aberica* [Bank of America]¹⁰.

Today’s linguistics tries to obtain a round comprehension of the linguistic, psychobiological and biogenetic conditions for the slips¹¹. First thing to do is to collect examples. From Meringer’s collection on, many corpora of slips have been compiled. Nevertheless, the recollection itself is considered by all means problematic when it comes from the mere observation of free spoken and

⁶Goodman, 1982. Goodman refers specifically to learning errors (on this, see Grandi, 2015 and Archer & Bryant, 2001).

⁷I personally witnessed this miscue from a two-year old native English speaker.

⁸Dell et al., 1993, 284.

⁹Boomer & Laver, 1968, 123.

¹⁰Fromkin, 1984, 15.

¹¹Chiari, 2004.

written production. The frequency of one type over another in a repertoire, for example, could be influenced by its author's higher interest in - and therefore likelihood to pay attention to - it; and no remarks on the average frequency can be made. For this reason, some have tried to artificially reproduce the conditions for the slips. In an experiment by I. Chiari, the participants had to write 20 utterances under dictation. On average, 22.7 errors for participant were registered¹². Concerning the slips of the tongue, from the analysis of a corpus of recorded speech Garnham concluded that errors in normal native adult English speakers occur at a rate of one or two errors every thousand words¹³. It is of course very difficult to determine the frequency of such phenomena, but those numbers at least show that it is a noticeable factor in written and spoken production. In the next paragraph, I will focus on the reasons why the linguists have been interested in studying the slips.

Linguists study the slips for many purposes. Firstly, scholars can aim to define predictive tendencies:

- 1) per predire i tipi di errore che possono verificarsi, 2) per predire i tipi di errore che non possono verificarsi, 3) per predire i tipi di errore che hanno maggior probabilità di verificarsi e 4) per evidenziare le condizioni che favoriscono o impediscono l'occorrenza degli errori¹⁴.

In reality, the predictive purpose is much more difficult than it may look like: the classification of the phenomena risks to be arbitrary and to collect under the same categories occurrences with similar outputs but different geneses. Many contextual factors, then, can be overseen or overstated

¹²Bencini 2017, 246 describes a method linguists use to artificially produce slips in their subjects: «Psycholinguists over the last 50 years have [...] set up distributions experimental procedures to make errors more likely. In one such technique, called SLIP (Spoonerisms of Laboratory-Induced Predisposition), speakers are presented with pairs of words on a computer screen and are asked to read them silently. Every few trials, on a tone, speakers are cued to produce the most recent word pair as quickly as possible, e.g. "barn door" . By skillfully setting up the preceding word pair sequence, (e.g. "dog bone" , "dust ball" "dead bug" "deer back" "doll bed") the phrase "barn door" on occasion will be produced erroneously as "darn bore" . Nature breaks at its joints: the types and distributions of errors reveal how the system is built to begin with. [...] we wouldn't expect (and do not observe) an error like "noord bar" where final /n/ switches with initial /b/, or where a vowel switches with a consonant. This type of experiment, then, provides data to cognitive science, just like setting up experiments where we get atoms to collide provides data to physics" cf. e.g. Baars, 2013; Baars et al., 1975; Dell et al., 1997; Lane & Ferreira, 2010.

¹³Garnham et al., 1982.

¹⁴Dressler et al., 1987, 54. («1) To predict the types of error that may happen. 2) To predict the types of error that cannot happen, 3) To predict the types of error that are more probable to happen, 4) To highlight the conditions that ease or obstacle the happening of the errors».

depending on the lack of accuracy in recording the slip or the impossibility to determine them. Finally, linguists have different opinions on the idea that «the tongue slips into patterns»¹⁵ and on the degree of language-dependency of the slips' types and frequency¹⁶.

It has been observed, though, that «some sorts of errors that could occur do not (e.g. [in speech errors] we do not observe function words exchanging with content words)»¹⁷. This must mean that involuntary speech errors follow some rules, the same rules that control the language production. Many scholars have indeed studied slips in order to gain a better understanding of how language works¹⁸. Some recurring mechanisms of error reveal regularities that non-deviant speech doesn't reveal:

Generating everyday utterances is a prodigious act of linguistic creativity in the face of the computational complexity of the task. [...] speaking involves selecting, retrieving and building novel combinations of units at different levels of representation, from semantics to syntax, to morphology and phonology. At each level there are different rules or regularities that speakers unconsciously follow, from rules about word order to rules about word building to rules about the sequencing of sound units”¹⁹.

This approach to slips has its roots in the last years of the 19th century as well, precisely in 1896, when Roman Jakobson published the book *Fundamentals of Language*. A section of the book dealt with anomalous performances in speech production («language disturbances»), particularly children's aphasias. For this phenomenon, the author writes, there have often been calls for the coop-

¹⁵Cf. Fromkin, 1984; Nooteboom, 1974; Wells, 1973, 14. Chiari, 2004, 24: «Tutti i lapsus paradigmatici (e in particolare le interferenze semantiche) sembrano poco suscettibili di predicibilità ed egualmente classificati mediante criteri larghi e arbitrari, forse con la sola eccezione degli errori polari» («All paradigmatic lapses (and in particular semantic interferences) seem to be little susceptible to predictability and equally classified by broad and arbitrary criteria, perhaps with the sole exception of polar errors»).

¹⁶Chiari, 2004, 25 and Poulisse, 1999 claim that different languages show similar phenomena.

¹⁷Harley, 2006, 5.

¹⁸Chiari, 2004, 23-24 (see f. 28 and f. 30 for further bibliography). Fromkin, 1971: «While we may not be able to explain as yet the exact mechanisms involved in speech errors, the errors made are not only highly constrained, but provide information about speech performance which non-deviant speech obscures. In other words, if we had no record of errors in which consonant clusters are split into segments, we would not be able to justify the assumption that clusters in performance are strings of individual discrete segments».

¹⁹Bencini, 2017, 245.

eration of professional figures such as «otolaryngologists, pediatricians, audiologists, psychiatrists, and educators; but the science of language is passed over in silence, as if disorder in speech perception had nothing whatever to do with language» (p. 56). Oppositely, «to study adequately any breakdown in communications we must first understand the nature and structure of the particular mode of communication that has ceased to function» (p. 55). According to Jakobson, the language structure was based on two axes: the axis of selection (paradigmatic axis) and the axis of combination (syntagmatic axis). In his opinion, the elements of language were acquired by children in a certain order, that was the reverse of the order in which the aphasics lost them²⁰. Whereas Jakobson's general conclusions have been usefully applied also to the study of non-pathological speech errors, further studies have concluded that the singular classes and types of mistake are very different between pathological forms of speech (such as aphasia) and common slips of the tongue²¹.

Nevertheless, the idea that the non-pathological language 'malfunctionings' can be used to understand some features of the language production and comprehension remains valid for many scholars. As Fromkin writes:

An analysis of speech errors provides evidence for the psychological reality of theoretical linguistic concepts such as distinctive features, morpheme structure constraints, abstract underlying forms, phonological rules, and syntactic and semantic features. Furthermore, such errors reveal that linguistic performance is highly rule-governed, and that in many cases it is grammatical rules which constrain or monitor actual speech production²².

To understand slips at this level, one needs to produce a theory on how they work. Several scholars attempted to do so, as I will summarize in the following paragraph.

²⁰cf. Jakobson & Halle, 2002.

²¹e.g. Gleason. 1993 Dressler et al., 1987.

²²Fromkin, 1971. Fromkin also suggests that the features and properties of language production «can be independently controlled, such as nasality, voicing, place of articulation (if considered as a single multi-valued feature) etc.; but that some properties are highly dependent on the existence of other properties of the segment». And thus, «to explain the occurrence of particular kinds of errors, a specific ordering of rules is posited, which ordering may or may not coincide with the organization of a grammar». See also Bencini, 2017, 246: «errors involve linguistic units such as phonemes, syllables, morphemes and phrases, which may be exchanged, moved around or stranded during spoken production. Errors provide evidence that the units of phonology, morphology and syntax are both representational (i.e., linguistic), and processing (i.e., psycholinguistic) units».

2.3 SLIPS OF THE TONGUE, EAR, PEN AND EYE: ORIGINS AND TYPES

Linguists have tried to explain how language works, in great detail of passages. From the mid-20th century on, there has been a consensus on seeing language production as a two stages process. According to this theory, when we plan a sentence, we go through different levels of representation: firstly, we access a semantic/conceptual level, then a syntactic level, and only then a phonological one. At that point, the construction process can translate into a physical act of speech²³.

In some scholars' opinion, the same might happen in the production of a singular word too: we access the semantic level, then the syntactic level, and at that point only we retrieve the phonological form we need²⁴. This theory is known as 'serial theory'²⁵. Other scholars, though, disagree. They think that the access to these levels could be simultaneous ("parallel theories"), like in Dell's "interactive model of speech production"²⁶. According to Dell²⁷, the sentence is slotted into smaller frames in our mind. For each frame, different levels of processing act at the same time (sentence level, morphological level, phonological level).

Both schools have used the speech errors as proofs to validate their theories. According to Dell:

for each slot, the more highly activated item is selected. Several units may be active at each level of representation at any one time. If there is sufficient random noise, an item might be substituted for another one. As items are coded for syntactic category and position, the other units that are active at any one time tend to be similar to the target in these respects"²⁸.

²³Dell et al., 1993, 150: «this structure-content distinction became the cornerstone of modern psychological theories of language production».

²⁴Harley, 2006. See Bencini, 2017, 247-249 for an account of cognitive models of language production.

²⁵Fromkin, 1971; Shattuck Hufnagel, 1979.

²⁶Butterworth, 1980; Caramazza, 1997; Caramazza & Miozzo, 1997; Dell, 1986; Sperberg-McQueen, 2009.

²⁷Dell, 1986.

²⁸Harley, 2006: «This model well explains the tip-of-the-tongue state: where the speaker knows the word but cannot (often momentarily) access it. Often, in seeking for the right term, other words with similar sounds (interlopers), number of syllables, initial letter, stress pattern, grammatical gender». Same was described by Freud in the Signorelli example. See Freud and Timpanaro. On the TOT see Brown & McNeill, 1966; Burke et al., 1991; Harley & Bown, 1998; Jones & Langford, 1987; Meyer & Bock, 1992; Perfect & Hanley, 1992; Vigliocco et al., 1997.

On the other hand, Fay and Cutler²⁹, from a ‘serial’ perspective, suggest that the lexicon could be ‘mentally organized’ or better accessed by phonological similitude and words may be accessed through a semantic network. Semantic errors may happen when there is an error in accessing the semantic network, and phonological errors may happen in selecting the final form.

What does all said so far tell us about philology? In the next paragraphs, I will analyze the four great types of slips, in comparison with what has been said about them in the philological practice. As for the textual criticism, in linguistics as well the slips can be analyzed as slips of the ear, tongue, speech and eye. Undoubtedly, of the four ‘types’ of slips (tongue, eye, pen, ear), the speech errors are the most investigated by both schools. I will consequently start from their analysis, and only then will I pass on to the three other groups. For each type, I will give an account of some literature taken from contemporary linguistics and I will then compare it with some examples taken from philological traditions, in order to assess whether and to what extent the categories used for the slips can be applied to the study of some copyists’ errors. One should not forget, though, the reciprocal influence between linguistics and philology that set the ground for the current study of slips. The risk could be that of a circular influence between the disciplines, where the conclusions drawn by linguistics seem applicable to textual criticism because the latter had an influence on the former *ab origine*.

2.3.1 SPEECH ERRORS

As said earlier, speech errors, despite implying by definition a deviation from some rule(s), nonetheless show some regularity. Scholars have found some linguistic tendencies that speech errors usually comply to (the word ‘tendencies’ is to be preferred to ‘rules’ because they only highlight general patterns and show exceptions)³⁰. In the first place, there are not productions of phonosyntactic sequences that are forbidden by language (Phonotactic regularity effect). In other words, phonematic errors usually generate sequences that abide to the phonematic rules of the given language. Due to its

²⁹Fay & Cutler, 1977.

³⁰For the next paragraphs I will be following Dell et al., 1997; Harley, 2006.

pervasiveness (violations constitute less than 1% in Stemberger's corpus), Wells called it 'the first law of speech errors'. But other have asked how much these data are influenced by a collector's bias to note only what they perceive as 'allowed' sound sequences³¹.

Secondly, scholars claim that speech errors tend to produce familiar sequences of phonemes ('familiarity bias'), often resulting in existing words ('lexical bias')³². Were the slips actually random reorganizations of the planned phonosyntactic sequence, the percentage of realizations resulting in non-existing words should be much higher than what is registered in the corpora: a sequence of random phonemes has a minuscule probability of resulting in an existing word³³. In fact, though, this could derive too from a bias in the collection of examples, as it is known that slips of the tongue that give 'nonsense' result often go unnoticed in the receiver's perception³⁴.

More interestingly, the majority of the slips that do not result in a linguistic unity, are nevertheless somehow adherent to the grammatical and syntactical coherence³⁵. Against the odds is also the tendency for the speech error to be similar to its target: this is called the 'similarity effect'³⁶. The two effects of the familiarity bias and the similarity effect often combine in what has been called 'mixed errors', where the slip results in an existing word that is also similar to the target. Again, there are much more mixed errors (in which both happen) than randomness would make us expect³⁷. Mixed errors have been explained in many ways. The reasons behind them are discussed and highly hypothetical. Butterworth³⁸ suggests that the self-correcting abilities are more likely to fail if the wrongfully chosen word sounds similar to the meant one, or if it is related in meaning. Giusberti *et al.* underline the role of the 'ideative parallelism' in inexplicable slips: the insertion of parallel thoughts that may influence the realization into becoming an existing word not related to the lexical context³⁹.

³¹Dell *et al.*, 1993; Wells, 1973.

³²Nooteboom, 1974, 153.

³³Nooteboom, 1974, 153.

³⁴The difficulty of collecting verbal lapses, which occur unpredictably and are often unnoticed, is one of the main obstacles to the linguistic study of error. Cf. Cutler, 1982, 7-28.

³⁵Chiari, 2004.

³⁶Harley, 2006, 11.

³⁷Dell & Reich, 1981; Harley, 1984; Shallice & McGill, 1978.

³⁸Butterworth, 1980.

³⁹Giusberti *et al.*, 1985.

The ‘similarity effect’ in word exchanges encompasses rhythmic, phonemic and morphological patterns. Firstly, the syllables involved in the slip - many scholars noticed - are both weak or both strong⁴⁰. Similarly, vowels tend to exchange with vowels and consonants with consonants, and the slips are particularly frequent between similar sounds⁴¹. At a morphological level, it is highly infrequent that, in slips of the tongue, the target word and the produced word belong to different classes: in other words, nouns exchange with nouns and verbs with verbs. Nevertheless, errors of this kind are attested.

A different criterion rules on phonemes swaps or words swaps, where two or more words or parts of words in the target sentence exchange positions. For this kind of slips, it has been noticed that sounds tend to exchange between near positions, whereas words exchange also at a good distance in the sentence.

All this is about the general tendencies observed in the collections of slips of the tongue. Scholars have also tried to divide them into types. Of course, being a controversial field, many different classifications can be drawn.

To show the regularity of the speech production, Bencini drew a type-systems of the so-called “grammatical encoding errors”⁴². Firstly, she divided the errors into two groups: Functional processing Errors and Positional processing Errors.

- The Functional processing Errors can be:
 - function assignment errors (also called reverse role errors), where two words are assigned inverse function and thus processed according to the syntax of the sentence.

(2.3.5) Seymour sliced the salami with a knife*: Seymour sliced the knife with a salami⁴³

⁴⁰Boomer & Laver, 1968; Nootboom, 1974 all investigate the influence of stress on errors in speech. Boomer and Laver conclude that ‘The origin syllable and the target syllable of a slip are metrically similar, in that both are salient (stressed) or both are weak (unstressed), with salient-salient pairings predominating’. This means that the rhythmic structure is usually unaltered, as well as the syllabic structure Fromkin, 1971.

⁴¹Harley, 2006.

⁴²Bencini, 2017, § 4 will be my trace for this section.

⁴³Fromkin, 1984, 243-269.

- Lemma selection errors: they can involve substitutions of entire words i.e. lexical substitutions (see e.g. 2.3.6) or result in non-existing blends (2.3.7). Lexical substitutions can be only semantic (2.3.8 and 2.3.9) or form-based (2.3.10 and 2.3.11). In the latter examples, the lexical substitutions are also phoneme substitutions⁴⁴.

(2.3.6) At low speeds it's too light*[heavy]⁴⁵

(2.3.7) stummy* [stomach/tummy]⁴⁶

(2.3.8) toes* [fingers]

(2.3.9) wife* [husband]

(2.3.10) equivocal* [equivalent]

(2.3.11) hysterical* [historical]⁴⁷

- Among the lexical substitutions, the group of the semantic interferences⁴⁸ is particularly noticeable. Semantic interferences happen when words are replaced with others on meaning-related grounds. In Hotopf's speech errors collection, they were the largest group⁴⁹. Some examples are:

* Antonymic substitutions

(2.3.12) Ich konstatiere die Anwesenheit von so und soviel Herren und erkläre somit die Sitzung für geschlossen* [öffnen]⁵⁰.

* Semantic relationship

⁴⁴Hotopf, 1983. In speech the substitution almost always occurs between 'full words (94, 9%), while in writing mainly between 'empty' or grammatical words (56,6%).

⁴⁵Garrett, 2001.

⁴⁶Fromkin, 1984, 243-269. See also Fromkin, 1971, f. 3, with the comparison of blends with a *portmanteau* (a juxtaposition of adjectives, namely furious-fuming) in Lewis Carroll.

⁴⁷Examples from 2.3.8 to 2.3.11 Fay & Cutler, 1977.

⁴⁸Chiari, 2004.

⁴⁹Hotopf, 1983.

⁵⁰« Ladies and gentlemen! I register the presence of the quorum and therefore I declare the session closed* [open].» The example can be found in Freud, 1914 and is quoted by Timpanaro, 1976, 123-124.

(2.3.13) Integrator* [differentiator]

(2.3.14) Contemporary* buildings [adjacent]

* Thematic influence of the co-text⁵¹

(2.3.15) A judgement was *passed [formed].

* Inversion in the assertion/negation

(2.3.16) i tuoi occhiali mi piacciono, ma anche i miei non mi piacciono* [mi piacciono o non mi dispiacciono]⁵²

* Apparently inexplicable substitutions

(2.3.17) near the viaduct* [time table].

- The Positional processing Errors: in the model of the two stages speech production, the morphological information (the ‘position’ of each segment of a linguistic unit) and the phonological one (the retrieval of the apt sounds) are unspecified at the function level. The positional processing errors comprise the mis-selections at the morphological and the phonological level. The morphological errors can be divided in “morpheme strand errors” (2.3.18) and “morpheme shift errors” (2.3.19).

(2.3.18) Fancy getting your model renosed* [nose remodelled]⁵³

(2.3.19) Point outed* [Pointed out]⁵⁴

The phonological errors have been formalized as such:

– Anticipations

⁵¹For the expression “co-text” see Bar-Hillel, 1970; Petöfi, 1971.

⁵²Chiari, 2004: “I like your glasses, but I don’t like mine either”

⁵³Garrett, 2001

⁵⁴Garrett, 2001.

- (2.3.20) phoneme anticipation: Sole*[role] of simplicity⁵⁵
- (2.3.21) Anticipatory addition of a phoneme: flat*[fat] and placid⁵⁶
- Perseverations
 - (2.3.22) Beef needle* [noodle]⁵⁷
- Exchanges
 - (2.3.23) phoneme exchange: Heft lemisphere* [left hemisphere]⁵⁸
- Omissions and deletions of individual segments (phonemes)
 - (2.3.24) Acquired dyslexias* [dyslexias]⁵⁹
- Additions
 - (2.3.25) phoneme addition: Moptimal* [optimal] number⁶⁰
- Multi-segmental material
 - (2.3.26) consonant cluster exchange: Smart*[start] smoking⁶¹
 - (2.3.27) rhyme exchange: Hunk of jeep* [heap of junk]⁶²

The “tongue-slips-into-patterns” principle, as we see from the examples above, does not necessarily refer to the types of errors, which as already said are mostly subdivided into operational categories, but it is certainly applicable to the regularity of the syntactic, morphological and phonemical structure, that are respected most of the times.

⁵⁵Fromkin, 1973.

⁵⁶Cutler, 1988.

⁵⁷Fromkin, 1973

⁵⁸Fromkin, 1973.

⁵⁹Cutler, 1988.

⁶⁰Fromkin, 1973.

⁶¹Fromkin, 1973.

⁶²Dell & Reich, 1981.

All I said so far has been applied to slips of the tongue, i.e. involuntary performance errors made while speaking. As said before, though, the slips have been studied also in other kinds of performance, namely the acoustic one (slips of the ear), the written one (slips of the pen), the reading activity (slips of the eye). The four types have traits in common but show some differences too, related to their many modes of appearance. Although the speech errors are undoubtedly the most studied, the other four groups have been made subjects of study.

2.3.2 SLIPS OF THE EAR

Making sense of what we hear from other people's speech on the grounds of our knowledge and understanding of the world is a human tendency, visible in the children's "reinterpretation" of inexplicable sentences as well as in the so called "folks etymologies"⁶³. This tendency is not failed by the properly called slips of the ear, namely the misperceptions in speech processing. As for the slips of the tongue, the failing of this process has been used as a key point for insights on the mechanism of speech perception. Nevertheless, when compared to the slips of the tongue, the slips of the ear adhere even more to the semantic coherence: unlike the speech errors, the slips of the ear are essentially the result of a hypothesis testing, thus oriented at being semantically meaningful⁶⁴. A slip of the ear is particularly prone to happen when the phonetic signal is unclear: in such cases, according to Garnes and Bond's experiments, "listeners use semantic information to aid in their final decoding of the message"⁶⁵.

Of the over two hundred slips of the ear presented by Browman⁶⁶, 85% involve a single word (2.3.28), while in others multiple words are conflated (2.3.29) or whole words are omitted (2.3.30). Browman distinguishes between acoustic misperception and wrong lexical selections based on cor-

⁶³Fromkin, 1980, 233: "Gladly, Thy cross I'd bear" was interpreted by a child as "Gladly, the cross-eyed bear"; the Latin word asparagus has been transformed into the English term "sparrow-grass".

⁶⁴Goldstein, 1980.

⁶⁵Garnes & Bond, 1975. See Cole, 2016, 116: «Their experiment consisted in having a person listening to sentences like "paint the fence and the date", "check the time and the gate". When the sound of the first consonant (here d and g) was artificially made unclear, listeners tended to fill the gap with the most 'likely' combination».

⁶⁶Browman & Fromkin, 1980

rectly perceived acoustic data (2.3.31), which can be independent from misperceived acoustic data or can be triggered by them. Garnes and Bond's corpus⁶⁷ has 890 items divided in groups as sound-based (2.3.32), word-based (2.3.33), multiple word (2.3.34), miscellaneous (2.3.35). The latter authors trace some tendencies in their data: as said, most of the misperceptions result in words; usually, the stress intonation pattern of the original word is respected in the slip; stress vowels are perceived correctly; mis-segmentation seldom involves phrasal boundaries (as the group noun-verb)⁶⁸.

(2.3.28) carcinoma* [Barcelona]

(2.3.29) prodigal son* [popping really slow]

(2.3.30) get my car tuned up* [go to the car and get the tuna]

(2.3.31) Iowa you* [Iowa U, as in University]

(2.3.32) cake* [cape]

(2.3.33) glazed* [raised]

(2.3.34) urban space* [herb and spice]

(2.3.35) shed sunlight* [shed some light]

2.3.3 SLIPS OF THE PEN

The errors in written production have been studied both on the side of the writing (slips of the pen) and reading (slips of the eye). About the slips of the pen, the benchmark study is Hotopf's "Lexical slips of the pen and tongue: what they tell us about language production"⁶⁹. Hotopf defines his object of interest as the inadvertent and non-established errors in writing, as distinguished from the mis-spellings due to lack of knowledge (in children, L2 learners or L1 writers dealing with newly

⁶⁷Bond & Garnes, 2016.

⁶⁸See Garman, 1990, 163.

⁶⁹Hotopf, 1983.

learnt technical terms). His attention was focused on errors in the original first-hand production of written texts. Hotopf's collection gathers slips taken from texts written by himself and by some of his students, and from a previous collection by Wing and Baddeley⁷⁰. Among the collected slips, pronunciation appears to have an influence in around one on five examples, with «vanishingly few appearing to result from confusions along a visual dimension»⁷¹. Many types of slips are considered by Hotopf. The emphasis should be put once more on the purely descriptive nature of the following groups: as far as the deep processing error they arose from, it is difficult to determine.

- Feature-based slips: graphical features of letters are misinterpreted or wrongly traced, and often “graphotactic constraints on well-formedness make it result in another letter or group of letters that combine form and existing order” (e.g. ex. 2.3.61: speech[*speed]).
- Letter-based slips: omission, addition and transpositions of a letter can result in non-words, but also in other words (ex. 2.3.36, ex. 2.3.37). A specific sub-case is the one that involves a contraction between two words. Not only ex. 2.3.38 (which stands in between the slip and the mis-spelling) but mostly an example like 2.3.39. In this example, pronunciation is key, because the second word is represented as a compendium, so no visual/graphic factors are involved. Same goes for ex. 2.3.40, ex. 2.3.41 and ex. 2.3.42. Other examples have a visual influence instead, like ex. 2.3.43, which was written on a line immediately below the word ‘predominantly’. A hybrid type is that involving more than one letter that do not constitute a syllable: omissions like ex. 2.3.44 and ex. 2.3.45.

(2.3.36) to* [too]

(2.3.37) produced* [produce]

(2.3.38) his* [he is]

⁷⁰Wing & Baddeley, 1980, revised in Wing & Baddeley, 2009.

⁷¹See Garman, 1990, 165. See Garman, 1990, 165-168 for the next summary of Hotopf's categorization.

(2.3.39) Freudian* [Freudian &]

(2.3.40) ridgid* [rigid]

(2.3.41) Ques* [cues]

(2.3.42) 8* [H]

(2.3.43) thant* [than]

(2.3.44) repitions* [repetitions]

(2.3.45) scientic* [scientific]

- Morpheme-based slips. Slips that involve morphemic parts, usually the suffixes. Some, again, are influenced by pronunciation (2.3.46). Many are influenced by surrounding words: 2.3.47, 2.3.48, 2.3.49. Contractions across a word boundary also occur: 2.3.50.

(2.3.46) has reach* [reached] to

(2.3.47) using bothing* [both] approaches

(2.3.48) slowing* [slowly] catching up

(2.3.49) difference* [different] intelligence tests

(2.3.50) forbiddencies* [forbidden tendencies]

- Word-based slips. Slips that involve whole words can be: omissions (2.3.51), additions (2.3.52), transpositions (2.3.53), substitutions. Substitutions are semantically related (antonyms or cohyponyms: 2.3.54) or sound-related (2.3.55, 2.3.56). It should be emphasized that many slips are not certainly assigned to one or the other group, because the slip and the target word are

both homophonous and suffix-related (2.3.57, 2.3.58, 2.3.59). As said before, the semantically related errors were the largest category⁷²

(2.3.51) went to room* [the room]

(2.3.52) saw the the* movement

(2.3.53) is it* [it is]

(2.3.54) when we meet the students next term* [week]

(2.3.55) there* [their]

(2.3.56) good* [could]

(2.3.57) societies* [society's]

(2.3.58) reference* [referents]

(2.3.59) greater* [great a]

2.3.4 SLIPS OF THE EYE

The errors made while reading are easily self-corrected and often unnoticed. R. Cowie⁷³ took track of the errors he himself made while reading silently over three months. Although he recorded only 42 examples, 12 of them occurred in the one hour he devoted exclusively to this collection. This may imply that most of them go unnoticed in the reader's common experience.

The author noticed some factors that could be influencing in reading errors. Firstly, expectation: the readers' idea of what they will read. The errors with 'zero' expectation are low-level errors in scanning the text, typically not content-related. External expectation is influenced by what the reader

⁷²O'Connell & Kowal, 1994, 4.

⁷³In an unpublished 1985 paper extensively quoted in Garman, 1990, 167-169.

already read of the text. Finally, external expectation has a role when even non semantic-related errors impose over the result of the scanning.

The second factor is called by Cowie ‘spacial structure’. It can be conservative (it preserves the number and length of the correct words) or radical. This comprises conflated words, conflated strings and “atmospheric” errors. The last involve the most diverse associations, involving the reader’s personal thoughts and knowledge. Below are shown examples taken from Cowie’s organization of his own eye slips.

- (2.3.60) stornoway* [extemporary] - Conservative structure, zero expectation
- (2.3.61) speed* [speech] - Conservative structure, external expectation
- (2.3.62) Cowies* [copies] - Conservative structure, internal expectation
- (2.3.63) his programmized* [his promised - programme] - Conflated words, zero expectation
- (2.3.64) Thoothpaste* [Bathroom - Tissue] - Conflated words, external expectation
- (2.3.65) Sentry* [the contract - Gerald Seymour] - Conflated words, internal expectation
- (2.3.66) much much more* [much more money - March 31] - Conflated strings, zero expectation
- (2.3.67) more chilly people* [still more people to camps or chilly...] - Conflated strings, external expectation
- (2.3.68) Jethro Tull* [Jethro - Richard B. Shull] - Conflated strings, internal expectation
- (2.3.69) Star Trek* [Glide path - Stanerra] - Atmospheric

It is then evident from these examples that pure reading without vocalizations seemed to bring the author to much freer outputs than in the corpora of the other types, and much less sound-influenced ones. It is also true, though, that the corpus is far too small and subject-specific to have any universalized value. What is more, the distinction among groups is not always evident from the

examples provided, but the organization of the material could be usefully applied to philology, both in the conservative-non conservative division and in the internal-external-atmospheric influences of the slips. For now, then, I won't provide examples taken from manuscripts, but I will use Cowie's distinctions later in this chapter (see par. 2.5).

2.4 COMBINED SLIPS. SLIPS OF THE TONGUE, PEN, EAR, EYE IN PHILOLOGY

O'Connell and Kowal⁷⁴ write that «transcribing is itself a genre of human language use». The transcription involves at least two activities between writing and reading/listening. This is known to philology. Many philologists have pointed out that, for the copying activity, multiple factors should be taken into account. As Dain writes⁷⁵, the copying activity involves:

- **Reading:** the copyist or the dictator reads from a base text.
- **Writing:** the copyist transcribes the text.
- **Speaking:** it can be actual dictation in the case of professional *scriptoria*, or self-dictation, which was probably often loud.
- **Listening:** again, it can be self-listening or actual listening to the dictator.

So, theoretically, every category of error taken into account by the philological research can be looked for in philological repertoires of errors as well. But how do they combine? Does the copying activity influence the presence of one or the other? How much can we compare the past copying activity to modern language experiments? Lindsay studied the patterns of the changes made by transcribers of various sources. As it is expected, 'non-fundamental' parts of speech were the most frequently deleted in transcription:

⁷⁴O'Connell & Kowal, 1994.

⁷⁵Dain, 1949, 50.

Adverbs were 43% and 38%, and conjunctions 24% and 32%, respectively, of transcribers' word deletions. [...] Phrases expressing quantity (e.g., a little bit, a bit of some of those), referring to types (e.g., types of things, kinds of and things like), or involving cognitive verbs (e.g., you know and I think) are also deleted.”⁷⁶

According to this same study, the search for meaning is the transcriber's primary strategy, as shown by the relationship between intruding and substituted word, usually belonging to the same grammatical class and semantically related to one another. We need to notice, though, that transcription errors that changed the grammatical category, and thus perturbed the overall sense, were rare but attested (2.4.70; 2.4.71).

(2.4.70) in any case* [indicates]

(2.4.71) Washington* [watching them]

The slips made while transcribing an auditive source are an original mixture of ear misperceptions and semantically coherent modifications. The same conclusion about the pursue for sense were reached by Chiari in a 2006 experiment⁷⁷. Chiari recorded chunks of speech from Italian tv programmes, including both controlled speech from newscasts and spontaneous speech from real-life tv. She afterwards asked twenty participants to transcribe them. Then, she analysed their transcribing errors. Firstly, she divided the errors into four main groups: substitution, addition, deletion, movement.

Substitutions, where an element is switched with another at any linguistic level, occurred 205 times (45.1%). The great majority of them involved words from the same category. As we saw for the other categories of slip, some utterances mix meaning with sound factors (2.4.72), while others have only semantic motifs (2.4.73; 2.4.74).

(2.4.72) un grande* [profondo] cambiamento ('a big* [deep] change')

⁷⁶Lindsay & O'Connell, 1995, 103-104.

⁷⁷see above, Chiari, 2006.

(2.4.73) rendere possibile* [flessibile] il patto (“make an agreement possible* [flexible]”)

(2.4.74) scegliere elettrodomestici* [apparecchi] di classe A (“choose A-class household-electric* [devices]”)

More than half of the substitutions errors involve lexical elements (52.7%), followed by function words (19%) and conjugation verb (16.6%). Even in word substitutions, though, the general meaning of the sentence is more preserved than the opposite (totally preserved 38.7%; partially preserved 22.6%), whereas the percentage of complete misunderstandings is in a minority but still significant (38.7%).

Additions are typical of the transcription of spoken discourse. They involve mostly function words (ex. 2.4.75). Since Chiari’s starting material was spoken discourse, not surprisingly the transcribers often added ‘and’ to make sense of asyndetic structures (ex. 2.4.76), which is understandable as the writer trying to give a structure to asyndetic written material. General meaning is preserved almost in all occurrences.

(2.4.75) sentiamo l’inviato > sentiamo ora l’inviato (To the correspondent > Now to the correspondent)

(2.4.76) ho parlato le ho chiesto > ho parlato e le ho chiesto (I talked I asked > I talked and I asked)

Deletions proved to be more endangering for meaning preservation. 33.2% of the examples lead to misunderstanding (2.4.77)

(2.4.77) in economia non (“not”) sono tranquillo > in economia sono tranquillo;

Finally, **movement** has been registered rarely (2.4% of the occurrences). Movements always involved phrasal segments as opposed to single words, and didn’t change the overall meaning of the sentence.

(2.4.78) sull’appennino centrale e sul medio versante > sul medio versante e sull’appennino centrale

Chiari's hypothesis, considering the results of the experiment, is:

ordinary understanding practices are strictly focused on meaning rather than form, so that, even with the best possible audio quality, when trying to concentrate attention on the reconstruction of linguistic form, we tend to shift and rely on our understanding strategies, that lead us to re-create text in a plausible way⁷⁸.

The general hypothesis by Lindsay and Chiari - that transcription pursues meaning even when it is incorrect - has been reached by many philologists over time. For the comparison with the philological theory, two further remarks by Chiari are particularly interesting:

The presence of an error (especially those that imply substitution of verb tense or person, and singular/plural switching) often produces the occurrence of other errors in the following words, since the transcriber tends to repair textual cohesion signals. For example, since the transcriber has erroneously perceived a singular subject (*il corridore*) in the utterance (*I soccorritori avrebbero avuto problemi*), the rest is conjugated with a verb agreement in the singular form (*avrebbe avuto problemi*)⁷⁹.

The idea that a transcription error generates more errors can be found often in philologists' words. It is often assumed that this 'chain of errors' happens during multiple transcriptions (the first copyist writes a singular subject instead of a plural one, a second copyist adjusts the text), but Chiari's experiment shows it happening in a single occurrence.

Another phenomenon described by Chiari sounds familiar to philologists:

It is interesting to note that participants who were given the same utterances to transcribe tended to make the same errors and repairs (typical is the deletion of 'anche' in the utterance *E un quasi decalogo di consigli pratici è arrivato anche dal ministero delle attività produttive*)⁸⁰.

⁷⁸Chiari, 2006.

⁷⁹Chiari, 2006. The Italian sentences can be translated as: «the rescuers have problems» and «the runner has problems».

⁸⁰Chiari, 2006. The translation of the sentence is: «And an almost decalogue of practical advice has also come from the Ministry of Labour»

Polygenetic errors are one of the most difficult group to delimit and define. Different scholars have different opinions on what could and what could not be polygenetic. In this case, a word deletion that could be judged significant for a stemmatic reconstruction is proven to have happened independently in two places. Moreover, the actual evidence that two persons can committ an “unlikely” mistake independently is in stark contrast with the idea that transcribers are mostly unpredictable and that each of them has peculiar, irreproducible habits.

As far as philology is concerned, demonstrations are impossible, and for obvious reasons. We have neither ‘subject’ that could undergo ‘experiments’, nor complete data referred to singular persons. Even the analysis (suggested by Maas) of the *codices descripti* compared to their antigraph often doesn’t account for the number of lost copies between the two and thus the impossibility to trace individual profiles⁸¹. What is more, we can’t discern slips from voluntary phenomena, nor slips of the tongue from slips of the pen, or of the ear, or of the eye. What we can do, on the other hand, is register the frequent presence of phenomena that could account for the characteristics described for the slips.

They were all written, they imply dictation or self-dictation and thus hearing or ‘mental hearing’, they implied reading (either by the dictator or the scribe). So, what might the features and characters of the copyists’ slips be like? It is of course impossible to define them scientifically. Nevertheless, the task is not very different from what I have shown so far about what linguists do, namely use a repertoire of recorded errors that have been divided in hypothetical, arbitrary types. Starting from what I wrote in the previous pages, and combining it with the philological theories, I will try to trace a scheme of the types of slips. For each of them, I will give some examples. I will combine the types and the features of the different types of slips, and once more combine them with the common knowledge coming from philology.

A crucial factor, both philology and linguistics say, is the search for meaning. Rarely slips are only sound- or vision-related. To this we should add, the percentage of semantically coherent slips is probably increased in manuscript traditions by the correction and self-correction business implied in

⁸¹On the other hand, Maas’s suggestion is perfectly viable when one deals with two manuscripts whose direct relationship can be asserted via bibliological, mechanical or philological methods.

the transcription passages, for which nonsense readings are more probably corrected. Nevertheless, nonsense words are attested. Usually, they show a certain coherence with the semantic and syntactic co-text (again, the totally incoherent may have been corrected). But we find also aberrant occurrences. Eg, the *Palatinus* lat. 1631, a 5th century witness of Vergilius' *Bucolica*, writes in its first *manus*, later corrected⁸².

(2.4.79) Verg., *Ecl.*, IV 57-61

Orphei Calliopea, Lino formonsus* [formosus] Apollo,
Pan etiam, arcadiedicacat* [Arcadia mecum] si iudice certet,
pan etiam arcadiedicacat* [Arcadia dicat] se iudice victum.

60 Incipe, parve puer, risu cognoscere matrem,
matri longa decem tulerum* [tulerunt] fastidia menses.

We see here that “chain” or “cascade” of errors that is described by Chiari as well as by numerous philologists. The nonsense group *arcadiedicacat* may be an original mistake, or it may also have been already present in the antigraph, and thus copied twice by a omeoarchton mistake.

2.5 CONCLUSION. A SCHEME FOR THE SCRIBAL SLIPS

The linguistic studies on the performance slips and the philologists' perspective on the copyists' errors are, needless to say, very different in many ways. If the former's goal is to determine how the slips are shaped by the language construction patterns in a speakers' or writer's mind, the latter is concerned with the distinction between slips, results of physical damages, voluntary modifications and other kinds of variations in the manuscript witnesses. Moreover, the division into “eye, ear, pen and tongue” is not feasible in the philological studies, that only have manuscript sources to deal with.

⁸²The following text is derived from various parts of [Conte & Ottaviano, 2013](#). These are the involved apparatus lines (p. 55): «58 arcadia mecum] arcadiedicacat P (corr.P2) 59 arcadiae Ra (arcadie P, corr. P2) dicet: dicat Rωγ1 (dicacat P) 61 tulerunt P2 (tulerum P)» *Formonsus* is recorded on p. 23, where it is said that it is a very common rendering of the word in other witnesses as well.

Nevertheless, Some similarities appear as well. Firstly, in both fields it is recognized that the mechanic modifications and the semantic ones are not two conflicting types of variation, but rather two interpretative lenses to look at the same instances, often coexisting. Secondly - both philologists and linguists recognize it - transcription is a process that involves all four among “eye, ear, pen and tongue”. Since the mechanical classification was mainly a functional one, with no actual assumptions on how the copyist’ errors were really made, in the nex chapter I will try to devise another kind of classification, that takes in some considerations from the linguistic studies. In order to tho so, I will combine the types of slip that have been analyzed in the previous paragraphs. The following scheme will be later applied to a casuistry of alleged copyist’s slips.

1. Tendencies:

- (a) Phonematic Plausibility
- (b) Familiarity Bias
- (c) Lexical Bias (or partial adherence)
- (d) Similarity Effect

2. Grammatical Encoding:

(a) **Based on**

- i. Visual features (letter - morpheme - word)
- ii. Acoustic features (Misperception or wrong selection)

(b) **Positional Processing:**

- i. Anticipations
- ii. Perseverations
- iii. Exchanges
- iv. Additions

v. Multi-segmental (...Havet)

(c) **Functional Processing:**

i. **Function Assignment.** Anytime the function of a lemma changes in the alleged slip. For Latin and Greek, it mainly encompasses differences in the case, but also number

ii. **Lemma Selection.** The selected lemma is different in the alleged slip. It can be a semantic substitution (some sub-types will be seen later) and/or form-based.

3. **Spacial Structure:**

(a) **Conservative.** Each word is replaced by a word. It can preserve rhythm or not.

(b) **Non Conservative** (Blends, word divisions)

4. **Influence:**

(a) **Internal.** I will use this definition for alleged slips that are affected by the meaning/aspect of the word they substitute.

(b) **External.** I will use this definition for alleged slips that are affected by the meaning/aspect of other words in the texts. One of them can be the 'chain of errors'.

(c) **Atmospheric.** I will use this definition for alleged slips that may be affected by thoughts and ideas external to the text.

Chapter 3

SEMANTIC ERRORS IN ANCIENT GREEK AND LATIN MANUSCRIPTS

An analysis of the textual variants in any Greek or Latin tradition will show many examples that appear to be coherent with the types of slip that are described by the linguists. This doesn't mean that they could not have other origins: as for 'modern' slips of the pen, we can never rule out the possibility that they are voluntary changes for some (any) reason. Nevertheless, I have described above how, despite knowing that it is only a working model, effective not completely true, Classical Philology has used the mechanical model to catalogue and describe scribal errors for centuries. A semantic model might indeed reunite instances that have different origins, but it may nonetheless be interesting to apply it to an archive of readings and to test its boundaries and applicability. In this chapter, I will reuse the taxonomy of slips that I have presented in par. 2.5, and I will apply it to two case studies, namely a collation of a single manuscript and a repertoire of variant readings that I collected from several critical editions, collations and other philological secondary literature. This will allow me to test the applicability of a semantic classification of scribal errors, that does not take into account, as classifications, only the graphical-phonetical types of similitude between two alternative readings.

In this first case study, I will test the semantic classification against a more traditionally graphical-phonetical one. I will use as a source the text of Ovid's *Amores* as transmitted by a single manuscript.

Out of the many variant readings that can be collected from the manuscript, I will show as examples some instances that fit in the mechanical classification, as well as a casuistry to which the semantic model of the slips can be applied.

3.1 THE VARIANTS THE SANGALLENSIS 864

The focus of Chapters 1 and 2 has gone from the philologist's attitude towards scribal errors, to their classification, to finally recalling the linguistic state of the art on the slips of the pen, tongue, eye and ear. As it has been shown, there is a discrepancy within the philological debate, on whether the scribal modifications are to be considered from the mechanical point of view, or from the semantic one. It is usually the case that the semantic nature of some variants is recognized, but not systematized, since the graphical-phonetical categories are the only ones to prove safe for an extendable taxonomy. The discrepancy is only increased if we look at the linguistics, that mostly consider the psycholinguistic nature of the slips, although with an eye to their "grammatical encoding". As it has been said, the two taxonomies are not conflicting, as much as they are coexisting. But is it allowed to apply the linguistic subdivision of slips to the variants found in ancient manuscripts? In the next pages, I will provide a case study: the analysis of the variants taken from a single manuscript. As said above (see par 1.2.3), a manuscript is not the text of a single copyist, but a melting pot where many different individual interventions are overlapping. Therefore, conclusions on the "copyist's personality" would be out of place, and I will perform another kind of analysis. I will provide a first division of the variants according to the visual aspect and grammatical encoding, that will be nearer to the "traditional" philological taxonomies. Then, taking the same instances and adding new ones from the same manuscript, I will divide them into psycholinguistic types, so that the whole taxonomy that I derived from par. NUM is applied and seen in action. This will allow me to test the fitness of the linguistic categories of slip for the analysis of the scribal mistakes.

I based my case study on a collation from a 1927 article by Jacques Henry Bornecque¹. It is a long list of readings taken from the manuscript Sang. 864 containing, among others, Ovid's *Amores*. I checked each reading with the digitized version of the manuscript², corrected the mistakes and added some readings that had gone unnoticed.

3.1.1 MECHANICAL ERRORS

SOUNDS MOVEMENTS

As said, a sound movement can generate a lexical switch, as in 3.1.80 and 3.1.81.

(3.1.80) Ov., *Am.*, 3.6.49-50:

illa gemens patruique nefas delictaque Martis
50 errabat nudo per loca sola pede.
delictaque] dilectaque **Sang. 864**

(3.1.81) Ov., *Am.*, 2.15.23-24:

me gere, cum calidis perfundes imbribus artus,
damnaque sub gemma perfer euntis aquae
perfer euntis] fer pereuntis **Sang. 864**

WORD MOVEMENTS

it can be irrelevant for the meaning (3.1.82) or imply some changes (3.1.83, where the verb is misplaced and attributed to the previous sentence, thus altering the whole meaning).

¹Bornecque, 1927.

²https://www.e-codices.unifr.ch/it/mirador/csg/0864/csg-0864_008.

From the description: «This codex consists of four independently produced parts, probably not written in St. Gall: 1. Horace, *Odae* (incomplete at the end, with some glosses); 2. Lucan, *Pharsalia* (incomplete at the end, heavily glossed); 3. Sallust, *De coniuratione Catilinae* (complete) and *De bello Iugurthino* (with some chapters missing); 4. Ovid, *Amores* (incomplete at the end, heavily glossed) and a page from the *Metamorphoseon*».

(3.1.82) Ov., *Am.*, 1.2.27:

ducentur capti iuvenes captaeque puellae

capti iuvenes] iuvenes capti **Sang. 864**

(3.1.83) Ov., *Am.*, 2.2.49:

poena minor merito. Nocuit mala lingua duobus

Vir doluit

merito. Nocuit] nocuit. Merito **Sang. 864**

OMISSIONS

Most of the omissions, like linguistics predicts, are of ‘non fundamental’ words (3.1.84). But there are also omissions of necessary constituents, without which the sense is lost or altered (3.1.85, 3.1.86).

(3.1.84) Ov., *Am.*, 2.14.21:

ipse ego, cum fuerim melius periturus amando,

ego] *om.* **Sang. 864**

(3.1.85) Ov., *Am.*, 1.15.39-40:

pascitur in vivis Livor! post fata quiescit,

40 cum suus ex merito quemque tuetur honos.

quiescit] *om.* **Sang. 864**

(3.1.86) Ov., *Am.*, 2.6.55:

55 explicat ipsa suas ales Iunonia pinnas,

ales] *om.* **Sang. 864**

ADDITIONS**SOUND ADDITIONS**

(3.1.87) Ov., *Am.*, 1.2.35:

35 blanditiae comites tibi erunt Errorque Furorque,
Errorque] Terrorque **Sang. 864**

WORDS ADDITIONS

They can be repetitions due to distraction (3.1.88) or sense-based additions, either altering the sense and structure (3.1.89) or not (3.1.90).

(3.1.88) Ov., *Am.*, 3.6.54:

Ilia, ab Idaeo Laumedonte genus
ab] ab ab **Sang. 864**

(3.1.89) Ov., *Am.*, 3.8.65-66:

65 o si neclecti quisquam deus ultor amantis
tam male quaesitas pulvere mutet opes!
quisquam] quisquam est **Sang. 864**

(3.1.90) Ov., *Am.*, 3.8.18:

heu, ubi mollities pectoris ilia tui?
tui] tui est **Sang. 864**

SUBSTITUTIONS

It is the category that groups the biggest variety of phenomena, from the point of view of the study of the slips. As I said before, they can be divided according to a wide range of systems. I will list only the most noteworthy.

SPACIAL STRUCTURE

It can be conservative, meaning that a word replaces a word (3.1.91), or innovative, as in the conflation (3.1.92) and the word division (3.1.93).

(3.1.91) Ov., *Am.*, 1.9.42:

ipse ego segnis eram discinctaque in otia natus

natus] nudus **Sang. 864**

(3.1.92) Ov., *Am.*, 2.16.13:

non ego, si medius Polluce et Castore ponar,

si medius] semideus **Sang. 864**

(3.1.93) Ov., *Am.*, 3.4.5:

5 ut iam servaris bene corpus, adultera mens est

adultera] ut altera **Sang. 864**

A GENERAL TENDENCY: THE RYHTMIC PATTERN

if similarity effect is present, it can imply sound movement (3.1.80), addition (3.1.94), deletion (3.1.95), substitution (3.1.96). In many of these cases, we witness a tendency to preserve the rhythmic pattern. Of course, the similarity effect can be minor or irrelevant (3.1.97) and the sound pattern can be not respected (3.1.98).

(3.1.94) Ov., *Am.*, 1.10.10:

10 nec facies oculos iam capit ista meos

facies] faciles [l eraso] **Sang. 864**

(3.1.95) Ov., *Am.*, 1.3.21:

carmina nomen habent exterrita cornibus Io

habent] habet **Sang. 864**

(3.1.96) Ov., *Am.*, 1.10.49:

non fuit armillas tanti pepigisse Sabinas,

pepigisse] tetigisse **Sang. 864**

(3.1.97) Ov., *Am.*, 2.11.41:

ipsa roges, Zephyri veniant in lintea pleni,

soli] pleni **Sang. 864**

(3.1.98) Ov., *Am.*, 2.11.13-14:

nec medius tenuis conchas pictosque lapillos

pontus habet; bibuli litoris illa mora est.

pictos] uirides **Sang. 864**

VISUAL MISTAKES

Vision is a crucial passage in transcribing. The errors of vision encompass all the ‘traditional’ types of palaeographical mistakes. I will give here just an example. Example 3.1.99 shows an easy mistake (t for c) generating a semantic error (see later).

(3.1.99) Ov., *Am.*, 2.3.9:

ista mares tractent; tu spes depone viriles.

tu spes] cuspes **Sangallensis**

A phenomenon linked to the visual aspect of the transcription is the interpretation of compendia. This is a mechanic factor of misinterpretation but can’t again be separated from the copyist’s interpretation. In two cases, forms of the lemma *causa-ae* are replaced with *cura-ae* (3.1.100, where the sound

similarity with the next *cur* has certainly an influence, and 3.1.101). Both terms can be found as *CA* with different (but very similar) overwritten signs. Another canonical example of visual confusion between compendiated prepositions: *perdidit* for *prodidit* (3.1.102).

(3.1.100) Ov., *Am.*, 2.4.10:

10 centum sunt causae, cur ego semper amem³.

causae] curae **Sangallensis**

(3.1.101) Ov., *Am.*, 2.12.17:

Nec belli est nova causa mei.

causa] cura **Sangallensis**

(3.1.102) Ov., *Am.*, 1.8.109:

Vox erat in cursu, cum me mea prodidit umbra,

prodidit] perdidit **Sangallensis**

3.1.2 SEMANTIC ERRORS

Both linguistics and philological theory told us that most of the slips have a reason to intrude in the text, be it a chain of thoughts or an ‘atmospheric influence’ or a semantic relation between two terms. (3.1.91). Looking back at the previous examples we can take a glance at this phenomenon.

- In ex. 3.1.80 (*delictaque*] *dilectaque*) *delicta*, the object of *gemens*, becomes *dilecta*, an adjective coordinated with the subject *illa*. The text is still sound, though almost opposite in its overall sense: «Bemoaning the crime of her uncle, beloved by Mars, with unshod feet she wandered through lone places».
- In ex. 3.1.81 (*perfer euntis*] *fer pereuntis*) what is a sound exchange (*f* and *p*), combined with a wrong word division, changes the meaning: *perfer* becomes *fer*, with only a slight shift in meaning, and most of all the ‘running’ (*euntis*) water becomes ‘extinguishing’ (*pereuntis*).

- In 3.1.85 the omission of *quiescit* leaves a readable text: «It is the living that Envy feeds upon after doom, when each man's fame guards him as he deserves».
- In ex. 3.1.87 (*error*] *Terror*), the internal expectation is certainly a crucial factor for associating *furor* with *terror*.
- Additions often are sense-driven too: like ex. 3.1.90 (*ubi mollities pectoris ilia tui?*] *tui est*), where the implicit verb *est* is made explicit.
- Especially in substitutions it is interesting to see what happens semantic-wise. Ex. 3.1.91 (*natus*] *nudus*) is taken from a poem (Ov. *Am.* 1.15) that compares the soldier and the lover, and shows that the most notorious mythological soldiers were won by love as well. Verse 42 suddenly introduces the poet: «For myself, my bent was all to (lit. I was born to) dally in ungirt idleness». But in the Sangallensis it becomes «For myself, I was naked to dally in ungirt idleness».
- In ex. 3.1.94 (*facies*] *faciles*) the hyperbaton between *facies* and *ista* is smoothed out by reading the first word as an adjective of *oculos*. *Ista* can be thus read as the subject: «She no longer takes my yielding eyes».
- Ex. 3.1.99 (*tu spes*] *cuspes*) is taken from a poem where Ovid questions the “masculinity” of his rival in love. At v. 8 he wrote: «bellica non dextrae convenit hasta tuae»⁴. Thus at v. 9, instead of laying aside the “manly hopes”, the Sangallensis has the advice of putting down the “manly spears” (*cuspes*). A voluntary change? Possibly. But also a single letter modification (from t to c).

Many other lexical substitutions have semantic implications.

Many lexical substitutions involve synonyms, a known phenomenon as seen earlier. An example will suffice (3.1.103), but several can be found.

(3.1.103) Ov., *Am.*, 1.3.3:

⁴the warlike spear fits not your right hand.

a, nimium vului - tantum patiatur amari;⁵

uolui] petii **Sangallensis**

In a subtler way, sometimes synonyms can only be conceptual (3.1.104).

(3.1.104) Ov., *Am.*, 2.1.19:

Iuppiter, ignoscas! nil me tua tela iuvabant⁶

tela] uerba **Sangallensis**

In Ov., *Am.*, 2.1, the poet says that he had precedently sung heroes and battles, and his poetry was as powerful as Jove's lighting; but nothing compared the puissance of his beloved's refusal, in whose presence, Jove's bolts came as useless. The reference to the divine weapons is, as it is obvious, a metaphor for a particularly intense poetic mood. Maybe the reading *tela* arose from the literal meaning of the metaphor.

Another typical lexical substitution happens when a word that had already appeared in the text substitutes another word. It is the famous *Echoschreibung*, or - as it was called before - 'internal expectation'. This kind of mistake abides to specific semantic reasons. In ex. 3.1.105, the poets asks for kisses (*oscula*) and it is logical to anticipate that he will receive *oscula*, like we find in the Sangallensis. In the beginning of the same poem (ex. 3.1.106, the author was describing his suffering in knowing that his beloved had betrayed him. The 'intercepted notes' (*deceptae... tabellae*) that should reveal her actions become, for the Sangallensis, *decepte...puelle*, deceived girls.

(3.1.105) Ov., *Am.*, 2.5.51:

qui modo saevus eram, supplex ultroque rogavi

oscula ne nobis deteriora daret.

Risit et ex animo dedit optima⁷

optima] oscula **Sangallensis**

(3.1.106) Ov., *Am.*, 2.5.3-5:

- vota mori mea sunt, cum te peccare recordor
 ei mihi, perpetuum nata puella malum!
 5 Non mihi deceptae nudant tua facta tabellae⁸
 tabellae] puelle **Sangallensis**

For some substitutions, we can't find a reason that lays beneath the text. The ex. 3.1.107 probably reveals an external influence⁹. The word *supplicitas* is a very rarely attested one, and only in mediaeval times. It is found for example in the *Derivationes* by Osbern Pinnock of Gloucester (1123–1200) (*Supplex, cis; unde suppliciter adv. et haec supplicitas, tis, et supplico, as*) and in medieval liturgical literature and poems (*AHMA XXI 171.13–14*¹⁰: *Perfida supplicitas*). It is impossible to say if our copyist had in mind something like that, but it is still peculiar that a rare word linked to the Christian imagery made it into the text. Many words can come to the copyist of the Sangallensis from the Christian lexicon, even though we can't be certain (see ex. 3.1.109¹¹)

(3.1.107) Ov., *Am.*, 1.11.9–10:

- nec silicum venae nec durum in pectore ferrum,
 10 nec tibi simplicitas ordine maior adest.
 simplicitas] supplicitas **Sangallensis**

(3.1.108) AA.VV., *AHMA*, XXI 171.13–14¹²

13. Humilis simplicitas, / Stabilis fidelitas / Deperit / Interit frugalitas.
 14. Perfida supplicitas, / Invida malignitas / Oritur, / Moritur benignitas.

(3.1.109) Ov., *Am.*, 2.16.8:

- dat quoque baciferam Pallada rarus ager
 baciferam] paciferam **Sangallensis**

⁹Your breast has in it no vein of Hint or unyielding iron, nor are you simpler than befits your station.

¹⁰Bannister et al., 1886, vol XXI Carmen 171, *De Pugna Vitiorum*

¹¹Here and there its fields bring forth, too, the berry bearing tree of Pallas

¹²?, vol XXI Carmen 171- De Pugna Vitiorum)

CHANGES IN FUNCTION

We have seen above that the majority of slips doesn't involve changes in lexical and morphological functions, but a small minority does. This same tendency is reflected also by the Sangallensis. Other than the already discusses ex. 3.1.99 (*tu spes] cuspes*), we find instances of different phenomena. There are switches from past participles to nouns (3.1.110), from pronouns to adjectives (3.1.111), and also non conservative substitutions (3.1.112). The general tendency is to obtain a plain or plainer syntax. In ex. 3.1.110, the question "Of what avail will it be to me to have sung of swift Achilles?" becomes "Of what avail will it be to me Achilles, the swift singer?". Odd epithet aside, the elegant construction of *cantatus* is replaced by a sequence of two appositions and their substantive. In ex. 3.1.111, by anticipating the adjective *mea*, the parallelism is restored between two *cola* that, in the Sangallensis' version, both feature the construction *nec mea*¹³. In ex. 3.1.112 ("Above all else, have him see the presents another has sent. If no one has sent, you must ask of the Sacred Way"), the Sangallensis' text says "if (he) has sent you none etc." *Alter* is considered to be the subject of the first sentence of v. 100, as it is logical to imagine, so after the verb an object complement is supplied. Thus the verb *do* is returned its two valences (give something - to someone).

(3.1.110) Ov., *Am.*, 2.1. 29:

Quid mihi profuerit velox cantatus Achilles?

cantatus] -tor **Sangallensis**

(3.1.111) Ov., *Am.*, 1.4.9:

nee mihi silva domus, nec equo mea membra cohaerent

mihi] mea **Sangallensis**

(3.1.112) Ov., *Am.*, 1.8.99-100:

¹³"My dwelling-place is not the forest, nor are my members partly man and partly horse". The translation is not affected by the variant.

munera praecipue videat, quae miserit alter.
 100 si dederit nemo, Sacra roganda Via est
 nemo] sibi nil **Sangallensis**

MULTISEGMENTAL CHANGES

In the experiment by Chiari – and with many voices confirming it also from the philological side – the so called chains of errors has been shown. For unknown reasons, in studying the transcription slips, it has been observed that an error calls for more errors. In philology, the same phenomenon has been explained with subsequent layers of modifications. But technically, it could have happen a ‘chain of errors’ in the Sangallensis’ copyist’s transcription as well. In ex. 3.1.113¹⁴, the Sangallensis inserts two minor variations: *-que* for *et* and *lassarat* for *lassarit*. The first one, though, introduces a syntactic change: the *quae* that was linked to *aequora* becomes an adjective *quaeque* connected to *opes*. The fact that this variation is followed by a nonsense reading, *lassarat*, which has sound resemblances with *arando*, makes it possible that the chain of errors happened in a single process.

(3.1.113) Ov., *Am.*, 2.10.33:

quaerat avarus opes et, quae lassarit arando,
 aequora periuro naufragus ore bibat.
 et quae lassarit arando] queque lassarat arando **Sangallensis**

Similarly, in ex. 3.1.114¹⁵ a tendency for the sound *e* seems to prevail and to generate a cascade of errors, partially repaired by the copyist. Same partial reparation united with nonsense outputs, probably indicative of a chain of errors, is found in 3.1.115¹⁶.

(3.1.114) Ov., *Am.*, 2.11.40:

¹⁴Let the grasping trader’s quest be wealth, and his perjured mouth drink in when he is wrecked the billow his ploughing keel has tired.

¹⁵hitherward let blow the winds, hitherward the tide roll the waters!

¹⁶I know one who bruits it about she is Corinna.

huc venti spirent, huc agat aestus aquas!

Huc venti spirent] Hec (u suprascr) uentus spectet **Sangallensis**

(3.I.II5) Ov., *Am.*, 2.17.29:

novi aliquam, quae se circumferat esse Corinnam.

circumferat esse Corinnam] Corinnam fecerat se oi(expunctus) esse **Sangallensis**

In ex. 3.I.II6, the poet offers to “bring votive gifts and lay them at thy feet”. Here the chain of variations produces a coherent output: the word order is altered and the *munera vota*, maybe felt as lacking something, becomes “uncountable votes”. In this case, it looks more probable that some sort of voluntary modification has intervened, or at least some attempt to correct some underlying mistake.

(3.I.II6) Ov., *Am.*, 2.13.24:

ipse feram ante tuos munera vota pedes

tuos munera vota pedes] pedes innumera uota tuos **Sangallensis**

3.I.3 A NOTE: A FACTUAL OBSTACLE TO THE STUDY OF THE SCRIBAL ERRORS

To study the copyists’ slips, one has virtually no alternatives but to start from the published collations, or the critical apparatuses that ultimately come from collations themselves. Theoretically one could start directly from manuscripts, but it is unpractical to do so for an extensive collection of examples; moreover, far from all the manuscripts are available online. The collations are a great instrument, but they imply the risk of reasoning over nothing. While checking my collation with the digitized manuscript, I found several errors. It is common knowledge that every collation or apparatus criticus has them. In the future chapters, whenever it is possible, I will try to check the readings directly from their source. But most of the times, a lapse of faith will be necessary.

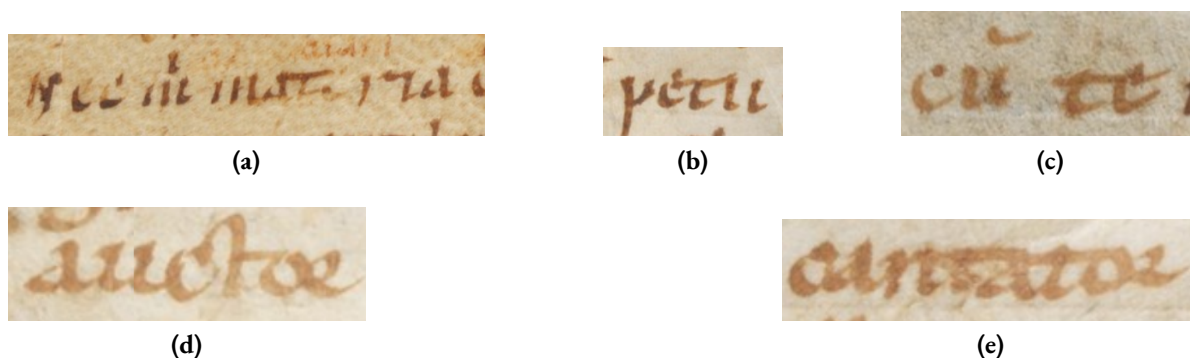


Figure 3.1 Sections of the Sangallensis 864 where the collation is wrong

- In Ov., *Am.*, 1.1.19 (*nec mihi materia est numeris levioribus apta*) the collation claims that *mibi* has been omitted, but it is not (see fig. 3.1a).
- In Ov., *Am.*, 1.3.3 (3.1.103), instead of the synonymical exchange *volui* - *petii* the collation has *perii* (see fig. 3.1b).
- In Ov., *Am.*, 1.8.109 (*Vox erat in cursu, cum me mea prodidit umbra*) there's not *tu* instead of *me*, but *te* (see fig. 3.1c).
- Finally, Ov., *Am.*, 2.6.34 (*Milvus et pluviae graculus auctor aquae*) does not have *auctae* for *auctor* (see fig. 3.1d and compare with 3.1e of 3.1.110).

As can be seen, the readings found in a manuscript can be either divided into mechanical types or in semantic categories, and that the two taxonomies are not contradictory, but complementary one to the other. In the same spirit, in the next paragraphs I will divide an archive of readings based on the semantic categories inspired by the linguistics' taxonomy of the slips.

3.2 SEMANTIC PATTERNS IN AN ARCHIVE OF READINGS

In Chapter 2 it has been pointed out that linguistics generally recognizes a psycho-linguistic aetiology of error. In other words, between production and target there must not necessarily be a graphic-phonetic similarity; when, however, there is a similarity, the slip is easier to make. The similarity is an

incentive for a mechanism of a purely mental nature. In general, linguistics classifies with respect to the meaning, and not to the mechanical genesis, every lexical slip, in which both the target and the production are linguistic units. The philology, despite often recognizing the double nature of errors, needs operational models to define and classify the variations in the texts. Under this premise, the most certainly recognizable and most immediately investigable categories have always been those that framed the errors under their ‘mechanical’ nature. On the basis of the suggestions implicit in many concrete philological experiences (see above), we could instead deepen the analysis of the scribal errors according to models that are closer to those elaborated by linguistics, with a greater attention to the psycho-linguistic element. An investigation of this kind would certainly not aim to set aside or marginalize the types used with profit for millennia of philological practice, nor to elaborate an innovative universal taxonomy of errors. As the last paragraphs showed, the two conceptual models are equally valid, despite answering to different research questions.

In the next paragraphs, I will present the comparative analysis of readings taken from multiple sources. For the current purposes, the mechanical causes will not be used as a yardstick for comparing errors: the analogy between instances will be based on psycholinguistic motivations. The aim of my research will not be to legitimize what a humanist would have considered ‘interpolatory conjectures’, based only on the semantic needs and careless of the mechanical mode of realization: instead, I will try to explore the possibilities and the limits of the two approaches to the study of error and, where necessary, to mitigate an excessively mechanical conception of errors that, sometimes, transpires in the motivations in defense or in rejection of readings or conjectures.

My effort will be based on a solid research line. Indeed, a psychological *ratio corruptelae* is already implicitly assumed in many textual interventions.

About some papyrus fragments of the work of Nonnus of Panopolis, dating back to the seventh century, Pasquali wrote:

Una o due [sc. varianti del papiro] si possono, con un po di buona volontà, riportare a un errore di lettura; la maggior parte, senza alcun dubbio no. Per lo più lamanuense ha

sostituito alla parola che aveva per modello, un'altra di uguale valore ritmico, di uguale numero di sillabe, di uguale terminazione: φιλοσταφύλω : πολυσταφύλω ; τετάνυστο : κεκόνιστο; στέψειεν : σφίγξειεν; Γλάυκοιο : Βάκχοιο; φονῆα : νομῆα; γλυκερός : δροσερός. Questa sostituzione non si spiega se non supponendo che egli abbia prima letto almeno un gruppo di parole, probabilmente tutto lesametro, cercando dimprimerselo nella mente, e abbia poi scritto, ripetendoselo tra sè, a memoria. Che abbia badato molto al senso non si può affermare; ma ciascuno di noi cerchi di ricordarsi come egli stesso ha trasformato [...] versi danteschi: immutata rimane solo la rima, e forse una parola che ha fatto più impressione.¹⁷.

A substantial proportion of the conjectures in the texts, however, takes little account of similar considerations. Conjectures often respond to two principles: the graphical resemblance between replaced and replacing chunk of texts, which is based on the empirical fact that there is a certain similarity between target and production in many cases, and the coherence of the reading for the interpretation of the text. See an example:

(3.2.117) *Carm. Anacr.*, 15P [= 14B] 30-32¹⁸:

30 πιοῦσα δ' ἀγχορεύω
 καὶ δεσπότην κρέκοντα
 πτεροῖσι συγκαλύπτω
 ἀνακρέοντ **P**] κρέκοντα **Wahl, rec. Bergk 1882, West** : ἐμοῖσι **Stephanus**
 : ἄν ἄβροις **Rose** : σὺν ἄβροις **Sitzler** : γέροντα **Bergk 1843**

The carme is pronounced, in the literary fiction, by a dove sent by Anacreon to the young Bathullos. The name of the alleged author is often repeated: Ἄνακρέων μ' ἔπεμψε (v. 7); ἐγὼ δ' Ἄνακρέοντι / διακονῶ τοσαῦτα, (vv. 13-14); ἀφαρπάσασα χειρῶν / Ἄνακρέοντος αὐτοῦ (vv. 26-27). At v. 31, however, the name of the author handed down by the Par. suppl. gr. 384 (**P**), is metrically impossible: there is no doubt that the name of the poet has been inserted in the text in an

¹⁷Pasquali, 1952, 114. For the fragments see ?.

¹⁸Text apparatus adapted from West, 2012.

inappropriate way. What term has been replaced? To what ratio does the error obey? The editors of the text have made different hypotheses. Estienne in 1554 proposed ἐμοῖσι¹⁹, assuming the intrusion in the text of an explanatory gloss referred to δεσπότην. Rose hypothesized, instead, an incorrect reading of the text, based on a known palaeographic exchange: «καὶ δεσπότην ἀνακρέοντ' quod pro ἀνακρ = ἀνακρ (ἀναβρ) cum compendio οἰς male lecto scriptum fuisse existimo: ἄν ἄκροισ, ἄν ἄβροισ. Cf. Bast tab I 6 ἀνακρ»²⁰. Sitzler's proposal went in a similar direction. The most widely accepted conjecture, κρέκοντα²¹, assumes instead a generic phonetic similarity, which would have led a copyist to make an Echoschreibung-like mistake (see par. 3.2.5)²².

Wahl's conjectural proposal, as well as Bergk's first conjecture, presupposed an error for *Echoschreibung*, due to the influence of a name that was continually repeated, that would be introduced by mistake, thanks to a somewhat similar textual basis²³; Rose's conjecture alone sought, instead, a rigorously paleographic justification for the exchange, reducing the involvement of the copyist's 'mental' rewriting to a minimum.

There are, then, some categories of errors whose psychological ratio has been explicitly recognized: this is the case, for example, of the macro-category of errors that we could define 'predominant idea slips'²⁴, a wide group that includes both the properly Freudian lapses (in which the emergence of a removed thought is expressed), whose existence is questionable, and the errors that are influenced by a thought that was particularly present at the moment of copying (with or without direct influence of the surrounding text) or in the whole life of the copyist²⁵.

I will base the following repertoire on the taxonomy shown in par. 2.5. It is worth noticing once again that an example falling in a category doesn't imply that it is automatically excluded from

¹⁹Estienne, 1554.

²⁰Rose et al., 1868, 16.

²¹Wahl 1783. Cf. Bergk 1834, 306: «Scripsi κρέκοντα, cum ante γέροντα proposuissem, columba postquam vinum vidit, saltat et dominum chordas pulsantem obumbrat; ac Fischeri commentarius testatur nescio quem, fortasse Valpergam, δεσπότην κρέκοντα coniecisse»; West, 2012, 13.

²²Sitzler, 1897.

²³Cf. Fränkel 1983 2, 77.

²⁴Condello, 2013, 76.

²⁵Which must be taken into account when formulating hypotheses on *lectio difficilior*: cf. Pasquali, 1952, 484-485, on his frequent confusion between «tradizione» ("tradition") and «traduzione» ("translation"), and on the nature of *lectio facilior* which, for a philologist, the former had compared to the latter.

the others. As the organization of taxonomy clearly showed, each reading can be analyzed under a plurality of perspectives, as will be clear from the next case study.

The material at my disposal was enormous, and mostly neglected. As I wrote above, it is a common opinion among philologists that the textual notes are often understudied. Even more, the collations are often compiled by philologists, but rarely published. Another goal of the next chapter will be to prove how much scholarship material can be found both in collations and textual notes. My focus, as already said, will be the mental nature of many slips, but many other classifications could be drawn.

To make the survey more linear and organic, the repertoire is devised as follows:

- The examples discussed come from the manuscript traditions of various authors and are taken from the apparatus of the corresponding critical editions or from published collations. It was not intended to draw on existing repertoires - with a few exceptions - to provide new material for discussion wherever possible.
- The investigation focused on lexical substitutions, a field that is easy to investigate and in which a large number of different error phenomena occur. The field of syntactical changes, for example, was not further explored.
- The repertoire is intended to give a coherent picture of various types of errors. Each example has been discussed with specific regard to a textual feature specifically, with advantages for the clarity of analogical categorization but, often, to the detriment of literary or content-related insights, for which reference should be made to specific bibliography. The passages listed are very different from each other: in some cases the attention is drawn on a *lectio singularis*, to study its genesis and aetiology; in many others, however, there are philological debates on two or more readings of equal testimonial value. Finally, sometimes the dispute revolves around conjectures, which are analyzed in comparison with examples of similar scribal errors.

3.2.1 THE GENERAL TENDENCIES OF THE SLIPS

The general tendencies identified for the slips all point to the direction of the semantic plausibility, or partial adherence of the written or spoken production to plausibility, even when it is different from the target. The productions that result in ‘nonsense’ words are particularly interesting to verify the existence of these tendencies. Nevertheless, as said before, it is more difficult to evaluate their pervasiveness in written traditions, partially because nonsense words tend to be emended by the tradition, partially because modern scholarship is often less inclined to record them. The great majority of the slips presented in the textual notes or in the collation comply to the ‘general rules’ of phonotactic plausibility, familiarity bias and similarity effect.

Despite this, it can happen to find readings that break these general rules, but this is usually a symptom of linguistic ignorance of the copyist, as in the next example, where a copyist of a Latin work has to transcribe some Greek words contained in it.

(3.2.118) *Macr., Sat.*, 1.23.7²⁶:

ut Posidonius scribit in libris quibus titulus est Περὶ ἡρώων καὶ δαιμόνων

ἡρώων] ΝΠΙΩΩΝ **OL** : ΠΙΩΩΝ **B1** : ΠΠΙΩΩΝ **B2**

The ‘impossible’ sequences ππωωω and νπωωω are clearly due to a scribe who has a superficial knowledge of the Greek alphabet, but no experience of the language at all. The absence of phonematic plausibility is used as a criterion to determine whether a copyist knew a language. Had they even the slightest knowledge of it, they would have not produced impossible sequences of letters.

The general tendency of respecting the language formation rules can be seen for example in the compound words.

COMPOUND WORDS

The compound words are usually long and often uncommon, making them ideal attractors of transcription mistakes. The textual notes of the critical editions testify for this phenomenon. In the

²⁶Text from [Kaster, 2011](#), apparatus from [Kaster, 2010](#)

next examples, notice how many words not attested elsewhere, and often with an unclear meaning, appear from the modification of compound words. Even more than for other kinds of variation, it is impossible to say how they generated, whether from a voluntary act or from an unconscious reworking of the text. Since, though, a compound word is often a combination of two common lexemes, it is easy to hypothesize that some of them may be coinages by a scribe, that adhere to the construction rules of the language. Some other, however, could be words whose existence is not testified anymore by the surviving ancient Greek or Latin literature.

The proper names are a part of the discourse that is often invested by involuntary change. The *utrum in alterum* is more probably going in the direction of erasing the proper name, bringing it back to a known form.

(3.2.119) Eur., *Med.*, Hyp. 27:

Τὸ δράμα δοκεῖ ὑποβλέσθαι παρὰ Νεόφρονος διασκεύασας

παρὰ Νεόφρονος **WFD(S)**] Νεώφρονος **D**

: γενναίοφρονος **A** : πανὺ εὐφρόνως **Hn**

30 : παναίοφρονος **P et Ambros. Gr. 598**

Neofronos, the hypothesis says, would have staged a *Medea* before Euripides. His name has been changed into an adjective attested in Byzantine times, with the meaning of ‘noble, courageous’ by the Par. gr. 2712 (**A**). It becomes an adverbial locution in **Hn** (Kobenhavn, Det Kongelige Bibliotek 417) instead, while the common model of the Pal. 287 (**P**) and the Ambr. gr. 598 writes a rather unexpected compound. The word παναίοφρονος is not attested anywhere else, and yet its structure and composition reflect the rules of the Greek language²⁷. The modification complies to the tendencies of the slips, therefore it could be one. To assess the probability of it being a voluntary change one would need to know how easily such word could come to a copyist’s mind. In the case of an *hapax legomenon*, this is particularly hard to do.

²⁷I wish to thank Professor M. Magnani, who points out that the mechanical origin of the word might be a palaeographical misunderstanding of a correct antigraph: πα(ρὰ) ναιόφρονος, with αι read as ε.

(3.2.120) Soph., *Aj.*, 1056:

νύκτωρ ἐπεστράτευσεν, ὡς ἔλοι δορί

ἔλοι δορί] ἔχοι δορί **R** : ἔλοι δόρει **G^{2pc}Q** : ἐλοιδόμενι **L^{yp}F^{yp}N^{yp}O^{yp}, G^{yp}**

Menelaus is recalling the moment when he and the other Greek commanders found out of Ajax's homicidal plot against his own army. He says that Ajax marched against them, by night, to take them with his spear. A concretion of the last two words — so a very small itacistic variation from the graphical-phonetical perspective — generates in a group of manuscripts the phrase ὡς ἐλοιδόμενι, “in order to reproach us”. The construction ὡς + imperfect tense would suit the idea of a plot that has not been carried on²⁸.

(3.2.121) Eur., *Med.*, 558-560:

καλῶς γ' ἄν, οἴμαι, τῷδ' ὑπηρέτεις λόγῳ,

εἴ σοι γάμον κατεῖπον, ἥτις οὐδὲ νῦν

560 τολμᾶς μεθεῖναι καρδίας μέγαν χόλον.

μέγαν χόλον] μελάγκολος **gE**

The compound μελάγ-χολος, ον, ‘dipped in black bile’, can be found in Soph. *Trach.* 573 (μελάγκολος / ἔβαψεν ἰδὸς θρέμμα Λερναίας ὕδρας). It is the only attested use in classical times, and moreover its use is literal, to talk about an arrow that has been dipped in black bile. In the variant from **gE**, it seems to be used as a noun adjective with the figurative meaning of ‘wrathful’, that is only used in later Greek (Poll. *Onom.* 6 124: Ὀργίλος, ὑπέρθυμος βαρύθυμος, ἄμετρος ὀργήν, τραχὺς ὀργήν, ἔκμετρος, χολώδης ἐπίχολος ἀκρόχολος μελάγκολος). Even in later Greek, the adjective it is not very common, although the name μελαγχολία is. From our point of view, the concretion of two common words has led to a less common one. But our perspective, as said above, is tampered.

²⁸See LSJ9 s.v. ὡς IIB.2: «ὡς is also used with past tenses of the indic. to express a purpose which has not been or cannot be fulfilled».

The cases when the copyists have a sequence of words in the antigraph and turn it into a single term are not so rare. The most peculiar cases are those in which this single term is not attested elsewhere, or is very rare. In general, this kind of error would seem to go ‘against trivialization’, and it is a standing proof of the amount of reworking that was involved in the transcribing activity.

(3.2.122) DL, *Vitae*, I 30 103:

Ἄνδρων δ' ἐν τῷ Τρίποδι Ἀργείους ἄθλον ἀρετῆς τῷ σοφωτάτῳ
 τῶν Ἑλλήνων τρίποδα θεῖναι· κριθῆναι δὲ Ἀριστόδημον
 Σπαρτιάτην, ὃν παραχωρῆσαι Χείλωνι.
 Ἀριστόδημον] ἀριστοτέληδημον **B1**, **corr.** **B2** : ἀριστ**ό**δημον **P**

Although an ‘impossible’ compound, the variant ἀριστοτέληδημον, recognized as a mistake by the corrector as well, has an element of interest. The original name has been mentally divided into its two parts Ἀριστό- and -δημον and between the two another functioning end (-τέλη) has been inserted. Usually, blends²⁹ like that arise when a copyist finds two variants in the antigraph and juxtaposes them instead of choosing between them. Even supposing that there were two variants, Ἀριστότελην and Ἀριστόδημον, the formation of the erroneous one is compliant with the tendency of lexical plausibility.

(3.2.123) Soph., *OC*, 58-61:

οἱ δὲ πλησίοι γύαι
 τόνδ' ἵππότην Κολωνὸν εὐχονται σφίσιν
 60 ἀρχηγὸν εἶναι καὶ φέρουσι τοῦνομα
 τὸ τοῦδε κοινὸν πάντες ὠνομασμένοι.
 59 ἵππότην] ἵπποδότην **K**

²⁹Cf. f. 46.

The word ἵπποδότης is a *hapax legomenon*, but ἵπποδέτης (binding horses) exists, which is an epithet of Heracles according to Pausanias³⁰. The compound is created starting from a non-compound word, and again complying with the formation rules of the ancient Greek language. It can be an existing word that we have lost track of, as well as a neoformation, probably involuntary, that sounds plausible.

(3.2.124) Aristot., *EN*, 1124b, 7:

οὐκ ἔστι δὲ μικροκίνδυνος οὐδὲ φιλοκίνδυνος διὰ τὸ ὀλίγα τιμᾶν,
μεγαλοκίνδυνος δέ, καὶ ὅταν κινδυνεύῃ, ἀφειδῆς τοῦ βίου ὡς οὐκ ἄξιον ὄν
πάντως ζῆν.

μικροκίνδυνος] πυκνοκίνδυνος **L(b), M(b), Asp.**

The great men does not seek the danger for small reason, but for great ones. In this case, is the adjectival component of the compound word that is interested by a variant. The danger can be small (μικρο-) or frequent (πυκνο-). This second adjective is a *hapax*, even though πυκνός is associated with κίνδυνος in late Greek.

(3.2.125) Ap. Rh., *Arg.*, IV 1697:

οὐκ ἄστρα δίσχανεν, οὐκ ἀμαρυγαί
μήνης, οὐρανόθεν δὲ μέλαν χάος, ἠδέ τις ἄλλη
ὠρώρει σκοτίη μυχάτων ἀνιοῦσα βερέθρων.

μέγα χάος **AKD et Sac ut vid.**] μέλαν χάος **cett.** : μελάγχροος **RQC**

μελάγχροος, dark-skinned, seems to be referred to the sky (οὐρανό-θεν).

³⁰Paus. 9.26.1.

(3.2.126) Aristot., *EN*, III7a, 14:

ἀλλ' οἱ μὲν ἀνδρεῖοι διὰ τὰ πρότερον εἰρημένα θαρραλέοι,
οἱ δὲ διὰ τὸ οἴεσθαι κράτιστοι εἶναι καὶ μηδὲν ἄν παθεῖν
14 ἄν παθεῖν **Asp.**] ἀντιπαθεῖν **codd.**

The confident (οἱ δὲ) are bold not out of true courage, but out of the illusion of immunity. They believe they will never suffer anything. The reading accepted by Bywater comes from Aspasius' commentary (86.2: θαρροῦσι δὲ καὶ οὐ μὴν διὰ τὰ αὐτά, ἀλλ' οἱ εὐέλπιδες διὰ τὸ οἴεσθαι κρείττους εἶναι καὶ μηδὲν ἄν παθεῖν). The verb ἀντιπαθεῖν is also often used in the Aristotelian corpus, thus it is somehow a *lectio facillior* for cotextual reasons.

3.2.2 THE SIMILARITY EFFECT

The linguistic studies tell us that the slips are likely to show similarity between lemma and target. What is more, the rhythmic structure is often left unvaried, as are the phonemes with the accent. It could be hypothesized that the readings that are compliant with these two tendencies (same rhythm, same accented phonemes), especially for the texts in prose, that don't have to abide to strict metrical rules, arose from slips and not from voluntary modifications.

(3.2.127) Ath., *Deipn*, I 27.7-9:

Δημοδόκου γοῦν ἄδοντος (*Od.* VI 262) κοῦροι πρωθῆβαι ὠρχοῦντο·
καὶ ἐν τῇ Ὀπλοποιίᾳ (*Il.* XVIII 572) δὲ παιδὸς κιθαρίζοντος ἄλλοι
ἐναντίοι μολπῆ τε ὀρχηθμῶ τε ἔσκαιρον.
ἐναντίοι **Kaibel coll. k 412**] ἐν μανία **E**

The same kind of modifications can be sought for in poetry too, even though the metric aspect needs to be accounted for (see also ex. 3.2.217).

(3.2.128) Ap. Rh., *Arg.*, 1.1325:

αὐτὰρ Ἵτλαν φιλότῃτι θεὰ ποιήσατο νύμφῃ
 1325 ὄν πόσιν, οἷό περ οὔνεκ' ἀποπλαγχθέντες ἔλειφθεν'
 1325 ἔλειφθεν **cett.**] ἔβησαν **MRQ**

(3.2.129) Ap. Rh., *Arg.*, 2.1030-1032:

1030 τοὺς παρανισσόμενοι καὶ δὴ σχεδὸν ἀντιπέρηθεν
 νήσου Ἀρητιάδος τέμνον πλόον εἰρεσίησιν
 ἡμάτιοι· λιαρὴ γὰρ ὑπὸ κνέφας ἔλλιπεν αὔρη.
 1030 παρανισσόμενοι **F N, L (A)**] παραμειβόμενοι **Fγρ Nvl, Lvl Kvl S G k**

(3.2.130) Ap. Rh., *Arg.*, 2.357-359:

τοῖσιν τ' Ἐνετήιος ἐμβασίλευσεν
 πρῶτα Πέλοψ, τοῦ καὶ περ ἄφ' αἵματος εὐχετόωνται.
 358 Ἐνετήιος **Fγρ Lvl Svl Gvl Bγρ**] μενεδήιος **cett.**

THE FUNCTIONAL PROCESSING AND LEXICAL SELECTION

The linguists claim that slips that change the part of speech of a specific word exist, although they are rare. As far as the scribal activity goes, it is unclear whether it is possible to properly talk about slip, or it is better to talk about a radical misunderstanding of the sentence that was being copied.

(3.2.131) *Carm. Priap.*, IV 4:

Obscenas rigido deo tabellas
 ducens ex Elephantidos libellis
 360 dat donum Lalage rogatque temptes
 si pictas opus edat ad figuras.
 361 pictas **cett.**] pietas **AH**

Lalage, an unsatisfied woman, begs the god to help her put into action the erotic pictures that she offers to him. Here the subject of the "opus edere" is no more the god, but the woman's pietas. The reading well suits the ironic tone of the poem, since the woman is actually performing a religious sacrifice, though a quite unpious one in its content. An adjective is substituted by a noun in the nominative case, that works as a subject for the protasis in l. 361. The insertion is easier here because the subject is only implicit.

3.2.3 INTERNAL INFLUENCE: HYPONYMS AND HYPERNYMS

In the final summary of the traits and the taxonomy of the slips of the pen, eye, ear and tongue (see par. 2.5), I have defined the internal-influenced slips as those where the trigger to the slip itself was internal to the target, external-influenced slips those whose trigger was in the text, but not in the target, and finally atmospheric-influenced those whose trigger came from outside the text. The actual belonging of a slip to one or the other category is hard to determine even by the slip's author. So, when analyzing the copyists' variations, the rigorous taxonomies should be avoided. Nevertheless, I will try to find some subdivisions where one or the other influence can be conjectured more effectively.

The three kinds of influence can be of a mechanical nature (either auditive, visual or both), but they can also be of a semantic nature. Since the purpose of this work is indeed to investigate this latter kind of variations, the next sub-categories will pertain to this group.

THE REPLACEMENT OF HYPONYMES BY HYPERNYMS

With the terms ‘hyponym’ and ‘hypernym’ the semantics indicates the relationship between a specific, or subordinate, lexeme and a more generic, or superordinate lexeme³¹: couples such as ‘vermillion’ and ‘red’, ‘dog’ and ‘animal’. By definition, therefore, a hypernym can replace a wide range of words. Such substitutions usually imply a loss of detail in the conveyed content, but not a radical change in the sense of the text (as in the sentence ‘I am wearing a red dress’ compared to ‘I am wearing a vermillion dress’).

The substitution of an hyponym with the corresponding hypernym could be regarded as a kind of trivialization: first of all because the lexeme acquires in extension and loses in intension³²; secondly because some particularly extended hypernyms can be applied to a very wide variety of situations and contexts; this is the case, in English, of nouns such as ‘thing’ and verbs such as ‘do’ and ‘say’: ‘claim’, ‘ask’, ‘adfirm’ and the like are all specific subcategories of saying; in a hypothetical act of copying, it’s easy to write ‘say’ instead of ‘claim’, thus transmitting the general concept but not the specific term. Applying these considerations to philology requires, once again, caution. First of all, it can in no way be said that, in a choice between two variants, the one to be discarded is necessarily the one whose meaning appears to be more extensive: the relationships of hyponymy change radically depending on the context in which the terms are used. An example on ancient Greek is provided in the very same pages where the two terms are used for the first time by their coiner, Lyons. The author writes that τέκτων, κυβερνήτης, σκυτοτόμος are iponyms of δημιουργός limitedly to some Platonic production only³³, whereas elsewhere they would belong to different semantic fields.

Moreover, a much greater difficulty is to establish between which lexemes there is a relation of hyponymy in each language: it is known that this is one of the categories that varies more from one idiom to another³⁴, as it is clear from the comparison of ‘parentes’ in Latin and ‘parents’ in English with the more extensive ‘parenti’ (relatives) in Italian, or ‘padres’ (parents) in Spanish compared to

³¹Lyons, 1963, 68-71; partial revision in Lyons, 1977, I 291.

³²Beccaria, 2004, 301.

³³Lyons, 1963, 70-71.

³⁴Beccaria, 2004, 417.

the less extensive ‘padri’ (fathers) in Italian. For classical languages, some recurrent variants could be due to hyponymy relationships: very generic terms could have been introduced in the text instead of several hyponymes, due to the inevitable simplification that the copying pericope often suffered between the memorizing and the transcription. See a likely example:

(3.2.132) Eur., *Hipp.*, arg. 16-17 (204 Diggle):

τραχυνόμενον δὲ αὐτὸν ἢ Φαίδρα τῆ καταμανθούσα.
 τροφῶ ἐπέπληξεν, αὐτὴν δὲ.
 καταμανθούσα] ἰδοῦσα **O**

The verb καταμανθάνω indicates a specific way of seeing³⁵. The copyist of the Laur. 3110 (**O**) spontaneously replaced it with a more generic verb. In a prose text, and therefore in the absence of metric constraints, it is even easier that the substitution acts according to exclusively mental mechanisms, without any graphic-phonetic relation between lemma and variant. In such a case, if **O** had been *codex unicus*, the substitution would probably have gone unnoticed.

This single example should be substantiated by comparable cases. In the following pages, some likely categories of replacements that meet this criterion will be exemplified for the Greek language, but the topic would deserve a more in-depth investigation and a broader data collection. This is therefore intended as a preliminary survey.

Λέγω

The modes of saying are subordinate, in Greek, to the verb λέγω. We find, in fact, in the texts, frequent substitutions of many *verba dicendi* in favour of the verb λέγω.

(3.2.133) Ar., *Nub.*, 444-453:

³⁵cf. LSJ9.

τοῖς τ' ἀνθρώποις εἶναι δόξω
 445 θρασύς, εὐγλωττος, τολμηρός, ἴτης,
 [the list of epithets continues for vv. 446-451]
 ταῦτ' εἶ με καλοῦσ' ἀπαντῶντες,
 δρώντων ἀτεχνῶς ὅτι χρήζουσιν [...].
 452 καλοῦσ' **R**] καλοῦσιν **V** : λέγουσ' **ENΘ**

Strepsiades lists the adjectives he would like to be called with after the Socratic 'metamorphosis'. The family α (Rav. 429 = **R** and Marc. 474 = **V**) hands down the reading καλοῦσ', which in **V** is erroneously reported in full. The forms of the verbs καλέω and λέγω are, in this case, perfectly equivalent from the metric and the semantic point of view, but the former has a meaning that is more closely related to the context.

(3.2.134) Ath., *Deipn*, 3.79, 34-35 (113d)³⁶:

εἰς δὲ τὰ ΚΑΠΤΥΡΙΑ τὰ καλούμενα τράχτα μίξεις ὥσπερ καὶ εἰς ἄρτον.
 34 καλούμενα] λεγόμενα **B**

Chapter III.79 of the *Deipnosophists* is dedicated to the various names by which bread is designated. Expressions such as ὁ ΑΡΤΟΠΤΙΚΙΟΣ ἄρτος καλούμενος (ll. 9-10), καλεῖται τις ἄρτος ΑΠΑΛΟΣ (l. 15), οὗτος δὲ ὁ ἄρτος λέγεται Καπαδόκιος (ll. 17-18) are frequent. The copyist of the Laur. 60.1 (**B**), an apographer from the Marcianus, accustomed to the repetition of terms meaning 'called', 'named', at l. 34 made a hypernymic trivialisation in favour of the verb λέγω.

(3.2.135) Soph., *Aj*, 594-595³⁷:

³⁶Here and beyond, text and apparatus from [Kaibel, 1887](#).

³⁷Here and beyond, text and apparatus from [Dawe, 1996](#).

TEK. πρὸς θεῶν, μαλάσσου. AI. μῶρά μοι δοκεῖς φρονεῖν,
 εἰ τοῦ μὸν ἦθος ἄρτι παιδεύειν νοεῖς.
 594 φρονεῖν] λέγειν L^{SYR} H^{YP}

Ajax responds abruptly to Tecmessa, who tries to talk sense into him, claiming that ‘she thinks nonsense’³⁸. The text would be consistent too if he said that she ‘talks nonsense’. However, we would lose the construction with two opposed verbs for the act of thinking (δοκεῖς φρονεῖν, εἰ [...] νοεῖς, vv. 594-595).

(3.2.136) Soph., *El.*, 1302-1307³⁹:

ἀλλ', ὦ κασίγνηθ', ὧδ' ὅπως καὶ σοὶ φίλον
 καὶ τοῦ μὸν ἔσται, τάσδ' ἐπεὶ τὰς ἡδονὰς
 πρὸς σοῦ λαβοῦσα κοῦκ ἐμάς ἐκτησάμην.
 1305 κοῦδ' ἄν σε λυπήσασα δεξαίμην βραχὺ.
 αὐτὴ μέγ' εὕρεῖν κέρδος- οὐ γὰρ ἄν καλῶς
 ὑπηρετοίην τῷ παρόντι δαίμονι.
 1305 δεξαίμην **Fac Os PZg**] δεξαίμην **L** : βουλοίμην **Nc, et idem fere rell.**

Electra reassures her brother: she will behave according to his indications and will not make their intention of revenge prematurely manifest, because there is no victory for her if it does not also benefit Orestes. The correct reading is certainly δεξαίμην (a similar use, for example, in Men. *Sam.* 422-423: οὐδ' ἄν ἐπὶ γενέσθαι τὸ γεγονός, μὰ τοὺς θεοὺς, / πρᾶγμα' ἔδεξαίμην). The most exhaustive comments to the passage⁴⁰ dwell on the fact that δεξαίμην is the result of a typical oncial error (on which see the reverse error in Neap. II F. 9 = L and Flor. Laur. 28, 25 = F^{ac}, δεδεγμένη for λελεγμένη

³⁸ «'Tis a foolish hope» (Jebb, 1896, 97); «It seems to me that you are thinking foolishly» (Garvie, 1998).

³⁹In this case, the apparatus is adapted from Dawe, 1996 and Finglass, 2007.

⁴⁰Kamerbeek, 1953, 171; Finglass, 2007, 488.

in 1298⁴¹), while βουλοίμην must be a trivialization. The fact that λεξάιμην is palaeographically similar to δεξαίμην, however, does not in itself explain the error, which is also influenced by the meaning of the sentence.

(3.2.137) Soph., *El.*, 558-562:

ΗΛ. καὶ δὴ λέγω σοι. πατέρα φῆς κτεῖναι. τίς ἄν
 τούτου λόγος γένοιτ' ἄν αἰσχίων ἔτι,
 560 εἴτ' οὖν δικαίως εἴτε μή; λέξω δέ σοι,
 ὡς οὐ δίκη γ' ἔκτεινας, ἀλλὰ σ' ἔσπασεν
 πειθῶ κακοῦ πρὸς ἀνδρός, ᾧ τανῦν ζύνει.
 560 λέξω **codd.**] δείξω **Morstadt.**

The conjecture by Morstadt⁴² is defined ‘palaeographically elegant’ by Finglass⁴³, who however rejects it with the motivation that the repetition καὶ δὴ λέγω σοι ... λόγος ... λέξω δέ σοι is not problematic in tragedy. The error implied by Morstadt, however, is not plausible only from a palaeographic point of view: the expression in v. 558 could have caused a partial *Echoschreibung* with a semantic variation.

All said above doesn’t mean that the conjecture should be accepted because λέγω is a more common verb than δείκνυμι, or a ‘simpler’ one: as already said, in many cases there are no *simple* and *difficult* words, but only lexemes whose meaning is, in a given context, more extensive or, on the contrary, more specific. Observe the next case:

⁴¹Tuyn, 1970, 124 n. 141.

⁴²Morstadt 1864, 21. The conjecture is rejected by Campbell, 1873 II, Jebb, 1894, Wilson & Lloyd-Jones, 1990, Dawe, 1996³.

⁴³Finglass, 2007, 265.

(3.2.138) Eur., *Alc.*, 425-426:

425 πᾶσιν δὲ Θεσσαλοῖσιν ὧν ἐγὼ κρατῶ
 πένθους γυναικὸς τῆσδε κοινοῦσθαι λέγω
 426 λέγω **VLP**] θέλω **BO**

Admetus orders all Thessalians to join him in mourning Alcestis's death. The Par. 2713 (**B**) and the Laur. 3110 (**O**), closely related to **B** (to which it is united by a series of typically Byzantine errors⁴⁴ modify the sentence with θέλω: in this specific case, a *verbum voluntatis* could seem more appropriate to an order given by Admetus to his subordinates. The verb λέγω is attested with the meaning of 'order, tell someone to do something (τινὰ τι)': cf. e.g. Aesch. *Choe.* 551-552: τᾶλλα δ' ἐξηγοῦ φίλοις, / τοὺς μὲν τι ποιεῖν, τοὺς δὲ μή τι δρᾶν λέγων. This particular meaning of λέγω is actually very specific and θέλω would be less intensive than it is.

A verb as widespread and with such an extensive meaning as λέγω is probably easier to be inserted into the text even where the surrounding text is not semantically relevant:

(3.2.139) Ar., *Nub.*, 844-846:

Φε. οἴμοι- τί δρᾶσω, παραφρονοῦντος τοῦ πατρός;
 845 πότερον παρανοίας αὐτὸν εἰσαγαγὼν ἔλω,
 ἢ τοῖς σοροπηγοῖς τὴν μανίαν αὐτοῦ φράσω;
 845 ἔλω **R etc.**] λέγω **V**

Pheidippides wonders what to do with Strepsiades, who seems to have gone mad: whether to have him judged mad by a court, or even to arrange his funeral. λέγω is the *lectio singularis* of the Marc. 474 (**V**), and represents an imperfect anagram of the certainly correct reading. The correctness of ἔλω can be demonstrated through the stemmatics. Even if it were not so, however, the verb would

⁴⁴Parker, 2007, lxii.

be the technical word of ‘have someone imprisoned for something (τινά τινος)’, cf. Ar. *Nub.* 591: ἦν Κλέωνα τὸν λάρον δώρων ἐλόντες καὶ κλοπῆς. The reading in **V**, instead, is perhaps slightly influenced by the next verse: the second of Pheidippides’ hypothesis ends with a *verbum dicendi*.

(3.2.140) Eur., *El.*, 630-633⁴⁵:

630 OP. οὐ πού τις ὅστις γνωριεῖ μ’ ἰδών, γέρον;
 ΠΡ. δμῶες μὲν εἰσιν, οἳ σέ γ’ οὐκ εἶδόν ποτε.
 OP. ἡμῖν ἂν εἶεν, εἰ κρατοῖμεν, εὐμενεῖς;
 ΠΡ. δούλων γὰρ ἴδιον τοῦτο, σοὶ δὲ σύμφορον.
 633 δούλων **Tr**] λέξων **L**

Orestes has just been recognized by Electra and her elderly husband: it is the latter who suggests to the two siblings to kill Clytemnestra and Aegisthus and provides the details of the plan. Shortly before, the old man had seen Egistus heading towards the pastures for a sacrifice, followed only by some servants. In the verses above, Orestes is asking for details about him: could anyone among them recognize him? In case of victory, will they willingly obey? The answer of the Elder is affirmative: ‘obedience is the typical attitude of slaves’. In the Laur. 32.2 (**L**), which writes λέξων, there is the correction δούλων⁴⁶: the substitution wouldn’t be, in this case, motivated by any relation of hyponymy, since it would involve two terms that don’t seem in any way connected. The correction would be more understandable accepting Denniston’s⁴⁷ observation: «nisi fortasse δείλων pravo accentu voluit».

⁴⁵ Here and beyond, text and apparatus from [Basta Donzelli, 1995](#).

⁴⁶ **L** shows a series of corrections made by Demetrius Triclinius (cf. [Turyn, 1970](#), 244-258) in two successive stages, as shown by the comparison with **P**, that part of the scholarship production regards as an apographer (later divided into two parts, marked as Vat. Pal. gr. 287 and Laur. Conv. soppr. 172) derived from **L** between the first and the second triclinian intervention.

⁴⁷ [Denniston, 1996](#).

Finally, a small replacement from the palaeographic point of view is that between λέγω and ψέγω. However, it may be argued that the case rightly falls into the category discussed here: sometimes, in fact, the two terms can be used almost antonymically, as they contrast the action of ‘adfirm, approve’ and ‘criticize’.

(3.2.141) Eur., *Andr.*, 418-420⁴⁸:

πασι δ' ἀνθρώποις ἦν
 ψυχῇ τέκν' - ὅστις δ' αὐτ' ἄπειρος ὦν ψέγει,
 420 ἦσσον μὲν ἀλγεῖ, δυστυχῶν δ' εὐδαιμονεῖ.
 419 ψέγει] λέγει **LGe Stob.**

Children are everything to parents: “The childless who find fault with them may suffer less, but are unlucky in their happiness”⁴⁹, says Andromache. The Laur. 32, 2 (**L**) and the Scor. X I 13 (**Ge**), together with Stob. *Anth.* IV 24b 19.3, with a replacement of *verbum dicendi*, show a text with a different meaning: those who say, without having experience, that children are everything to their parents, suffer less but have a sad, unfortunate happiness.

The same replacement has been suggested by conjecture in some passages:

(3.2.142) Eur., *Alc.*, 694-698:

σὺ γοῦν ἀναιδῶς διεμάχου τὸ μὴ θανεῖν
 695 καὶ ζῆς παρελθῶν τὴν πεπρωμένην τύχην,
 ταύτην κατακτάς- εἴτ' ἐμὴν ἀψυχίαν
 λέγεις, γυναικός, ὦ κάκισθ', ἠσσημένος,
 ἦ τοῦ καλοῦ σοῦ προύθανεν νεανίου;
 697 λέγεις] ψέγεις **Herv. 2**

⁴⁸Here and beyond, text and apparatus from [Garzya, 1978](#) The purpose of this work has been relevant in the choice of this edition. Most of the erroneous variants are not noted in editions that present a less extended apparatus criticus.

⁴⁹[Lloyd, 1994](#), 51.

In the second edition by Hervagius, published in Basel in 1544, there is the reading ψέγεις: in all probability, it is not a variant coming from a witness, but a conjecture perhaps prompted by the context of the previous verses or by the meaning of λέγω in the sense of ‘to name’⁵⁰; however «ψέγω (‘to find fault with’) calls for at least a neutral object, rather than something unambiguously bad, like ἀψυχία»⁵¹.

(3.2.143) Soph., *El.*, 1418-1423:

Χο. τελοῦσ’ ἀραί- ζῶσιν οἱ

γᾶς ὑπαὶ ὑπαὶ κείμενοι.

1420 παλίρρυτον γὰρ αἴμ’ ὑπεξαίροῦσι τῶν κτανόντων

οἱ πάλαι θανόντες.

καὶ μὴν πάρεισιν οἶδε- φοινία δὲ χεῖρ

στάζει θυηλῆς Ἄρεος, οὐδ’ ἔχω ψέγειν.

1423 λέγειν **codd.**] corr. **Erfurdt**

The Chorus gives an opinion on Orestes and Pilad, who committed the murder of Clytemnestra. The sentence, in the version handed down by the manuscripts, seems elliptical; to think that after λέγειν one had to assume an aposiopesis raises doubts about the comprehensibility of the verse⁵². Erfurd’s conjecture has been unanimously accepted⁵³.

(3.2.144) Soph., *El.*, 1464-1468:

⁵⁰Dale, 1961, 106.

⁵¹Parker, 2007, 191.

⁵²Hermann, 1827, 539.

⁵³Hermann, 1827; Jebb, 1894 (which indicates a specular corruption in Aesch. *Choe.* 989); Campbell, 1907 (which rectifies his choice in the edition of the text where, defining the conjecture ‘intolerably frigid’, kept the transmitted reading. Cf. Campbell, 1873 II); Wilson & Lloyd-Jones, 1990; Dawe, 1996³; Finglass, 2007 519-520 (the Chorus, claiming to have nothing to argue against matricide, would shape the public’s opinion).

ΗΛ. καὶ δὴ τελεῖται τὰπ' ἔμοῦ- τῷ χρόνῳ
 1465 νοῦν ἔσχον, ὥστε συμφέρειν τοῖς κρείσσοσιν.
 ΑΙ. ὦ Ζεῦ, δέδορκα φάσμι' ἄνευ φθόνου μὲν οὐ
 πεπτωκός- εἰ δ' ἔπεστι νέμεσις οὐ ψέγω.
 1467 ψέγω **Dawe**] λέγω **codd.**

The v. 1468 has been variously interpreted⁵⁴. «If nemesis attended word, be it unsaid» is Jebb's translation⁵⁵, which accepts the transmitted reading. According to Dawe, who explicitly claims the conjecture ψέγω⁵⁶, this sense of οὐ λέγω has an “unexpected twist” with respect to the usual sense of the expression⁵⁷: for Aegisthus it would be undeniable that there was *nemesis*, and the vague and indirect expression would be a way of alluding to it with subtle hypocrisy. Finglass⁵⁸, on the contrary, chooses λέγω and objects to Dawe's comment that hypocrisy would be more effective if Aegisthus was reluctant to accept the gods' anger towards Orestes.

Λόγος

Even more extensive and polysemic than the verb λέγω is its co-radical λόγος. The word is not inserted in the text only to replace hyponymes, but its intrusion is also favoured by the relative ease with which assonant bisyllables tend to exchange each other, as Lapini pointed out about exchanges between λόγος and other nouns such as χρόνος and πόνος⁵⁹. Formal, semantic and contextual reasons contribute, therefore, to the frequent use of λόγος as a substitute for a large number of words.

(3.2.145) Soph., *OC*, 248-251⁶⁰:

ἀλλ' ἴτε.

⁵⁴The implications of the passage are discussed in [Wilson & Lloyd-Jones, 1990](#), 75.

⁵⁵Jebb, 1894.

⁵⁶Dawe, 1996³; [Wilson & Lloyd-Jones, 1990](#), 75 attribute it to Erfurdt.

⁵⁷Dawe, 1979, 201.

⁵⁸Finglass, 2007, 535.

⁵⁹Lapini, 1996, 115-116.

⁶⁰Here and beyond, text and apparatus from [Dawe, 1996³](#).

τὰν ἀδόκητον χάριν,
 250 πρὸς σ' ὅ τι σοι φίλον οἴκοθεν ἄντομαι,
 ἢ τέκνον, ἢ λέχος, ἢ χρέος, ἢ θεός.
 251 λέχος **Reiske**] λόγος **codd.**

Reiske's unanimously accepted conjecture («ἢ λέχος aut ἢ ἴλοχος hoc est ἄλοχος eodem sensu. conjunx») ⁶¹ restores the correct sense of the text: Antigone's entreaty to the Chorus invokes what they hold most dear at home: a son, a bride, a treasure or a deity.

(3.2.146) Soph., *Aj.*, 1012-1016:

οὗτος τί κρύψει; ποῖον οὐκ ἔρεϊ κακὸν
 τὸν ἐκ δορὸς πολεμίου νόθον,
 τὸν δειλίᾳ προδόντα καὶ κακανδρίᾳ.
 1015 σέ, φίλτατ' Αἴας, ἢ δόλοισιν, ὡς τὰ σὰ
 κράτη θανόντος καὶ δόμους νέμοιμι σούς.
 κακὸν] λόγον **P**

In the Heid. Pal. gr 40 (**P**), the presence of the *verbum dicendi* immediately preceding the object complement contributes to a trivialization – born almost automatically – that generates an accusative of the internal object. The relationship of hyponymy is respected: probably a copyist, taking κακὸν as a noun (and therefore 'evil speech'), replaced it with λόγον, 'speech' without connotations other than those, implicit, suggested by the rest of the passage.

(3.2.147) Eur., *Hipp.*, 509-515 ⁶²:

⁶¹Reiske 1793, 30.

⁶²Here and beyond, text and apparatus from [Stockert, 1994](#).

510 ἔστιν κατ' οἴκους φίλτρα μοι θελκτήρια
 ἔρωτος, ἦλθε δ' ἄρτι μοι γνώμης ἔσω,
 ἅ σ' οὔτ' αἰσχροῖς ἐπ' ἐπὶ βλάβηι φρενῶν
 παύσει νόσου τῆσδ', ἦν σὺ μὴ γένηι κακῆ.
 δεῖ δ' ἐξ ἐκείνου δῆ τι τοῦ ποθουμένου
 515 σημεῖον, ἢ πλόκον τιν' ἢ πέπλων ἄπο,
 λαβεῖν, συνάψαι τ' ἐκ δυοῖν μίαν χάριν.
 514 πλόκον **Reiske**] λόγον **KΩΛ et ιΣη** : λόγων **V et ιΣν**

The Nurse suggests that Phedra conquers the heart of Hippolytus with remedies and magic formulas (ἐπωιδὰ καὶ λόγοι θελκτήριοι, v. 478). For a correct procedure a σημεῖον of the beloved is needed: a shred or a curl, according to Reiske's conjecture, which is almost unanimously accepted. The manuscripts and the scholia report the readings λόγων or λόγον; the latter is also present in the Berol. P. 5005 (**K**), a 6th or 7th century codex. There have been attempts to defend the transmitted reading, which emphasizes the magical nature of the verbal medium and the possibility of using it as σημεῖον in a ritual; but Barrett defines the transmitted λόγον as 'absurd'⁶³. A broad and documented demonstration of the frequency of λόγος's insertion could help dispel doubts about passages like this, where the sense clearly requires Reiske's conjecture.

(3.2.148) Soph., *Aj.*, 1266-1270:

φεῦ, τοῦ θανόντος ὡς ταχεῖά τις βροτοῖς

⁶³Barrett, 1964, 255. See Fitton, 1967, 28-29: «πλόκον is a specious emendation of λόγον which B. [scil. Barrett] calls 'absurd'. How could the Nurse catch a word from Hippolytus? But the Greeks were closer to primitive feeling here — thinking of words as physical (winget etc.), spreading pollution, and folk tales tell us of disaster caused by the dropping of stray words». Cf. Segal, 1993, 255 f.19 and Faraone, 1999, 8-9 for examples of rituals involving the use of clothes and locks of hair.

- χάρις διαρρεῖ καὶ προδοῦσ' ἀλίσκεται,
 εἰ σοῦ γ' ὄδ' ἀνὴρ οὐδ' ἐπὶ σμικρὸν πόνων,
 1270 Αἴας, ἔτ' ἴσχει ἴσχει μνηστῖν, οὐ σὺ πολλὰ καὶ
 τὴν σὴν προτείνων προὔκαμες ψυχὴν δορί-
 1268 σμικρῶν πόνων T] σμικρῶν λόγων **rell.** : σμικρὸν λόγον **Reiske**
 : σμικρὸν χρόνον **J.G. Jaeger**

Sic transit gloria mundi: according to Teucer, the respect for the deceased Ajax quickly disappeared from Agamemnon, who not only unfairly forbids his burial, but even no longer mentions him. «Not even with a few words» translates Stanford⁶⁴, who prints the reading σμικρῶν λόγων⁶⁵. Other editors, on the other hand, have expressed doubts about the phrase: in fact, it is attested the use of ἐπὶ with genitive to specify way (cf. e.g. Plat. *Symp.* 192 c: ἐπὶ μεγάλης σπουδῆς); σμικρός λόγος indicates a short, concise speech (cf. e.g. Soph. *El.* 415-416: Ἡλ. λέγ' ἀλλὰ τοῦτο. πολλά τοι σμικροὶ λόγοι / ἔσφηλαν ἤδη καὶ κατώρθωσαν βροτούς, OC 620: δόρει διασκεδῶσιν ἐκ σμικροῦ λόγου); finally, Soph. *El.* 414 reads ἀλλ' οὐ κάτοιδα πλὴν ἐπὶ σμικρὸν φράσαι⁶⁶. However, the combination ἐπὶ σμικρῶν λόγων is problematic: Jebb, for example, considers it doubtful that in this place λόγων could mean 'accounts', and nevertheless considers the conjecture σμικρὸν λόγον «hardly satisfactory when λόγον is added»⁶⁷. J.G. Jaeger⁶⁸ and Dawe tried to solve the difficulty by introducing another bisyllable that was satisfactory meaning-wise.

There are some contexts in which the term λόγος is used with particular and specific meanings: recognizing these cases allows to exclude them from the category of hyponymic substitution.

(3.2.149) Soph., *OC*, 64-69:

⁶⁴Stanford, 1963, 214.

⁶⁵Cf. Hermann, 1827; Campbell, 1873, II; Kamerbeek, 1953, I, 240.

⁶⁶Jebb, 1896, 188-189.

⁶⁷Reiske's conjecture is accepted by Wilson & Lloyd-Jones, 1990, 37-38; Garvie, 1998, 240.

⁶⁸Jaeger 1811, 163.

- ΞΕ. τοιαῦτά σοι ταῦτ' ἐστίν, ὧ ξέν', οὐ λόγοις
τιμώμεν', ἀλλὰ τῆ ξυνουσίᾳ πλέον.
- ΟΙ. ἦ γάρ τινες ναίουσι τούσδε τοὺς τόπους;
- 65 ΞΕ. καὶ κάρτα, τοῦδε τοῦ θεοῦ γ' ἐπώνυμοι.
- ΟΙ. ἄρχει τις αὐτῶν, ἢ ἐπὶ τῷ πλήθει λόγος;
- ΞΕ. ἐκ τοῦ κατ' ἄστου βασιλέως τάδ' ἄρχεται.
- ΟΙ. οὗτος δὲ τίς λόγῳ τε καὶ σθένει κρατεῖ;
- ΞΕ. Θησεὺς καλεῖται, τοῦ πρὶν Αἰγέως τόκος.
- 70 66 λόγος **codd.**] κράτος **Bonitz** : σθένος **Meineke 1858 138** : τέλος **Bergk** : ἰσχύς **Σ**

Oedipus asks a inhabitant of Colonus about the political regime in his city. In a scholium in **L** (*schol. at Soph. OC 66, I 401 Pap.*) we read: ἡ ἐν τῷ πλήθει ἐστὶν ἡ ἰσχύς, τουτέστιν δημοκρατοῦνται. Under the influence of the scholium, various conjectures have intervened to eliminate the term λόγος: however, it has been argued that here the term has the specific meaning of ‘power of discussion’⁶⁹, extension of the παρρησία which is the cornerstone of democratic activity⁷⁰. Note, however, λόγος at v. 63, which may have favoured the *Echoschreibung*.

Among its many meanings, λόγος can also mean ‘law, rule, principle’⁷¹: the replacement of νόμος with λόγος is a frequent corruption, attested sometimes, for example, in Gorgias’s *Encomium of Helen*.

(3.2.150) Gorg., *Hel.*, 14 1-3⁷²:

⁶⁹Jebb, 1914, 223. Campbell, 1879 I, Dawe, 1979 II, Wilson & Lloyd-Jones, 1990 (“the words mean ‘has the people a say?’”), Guidorizzi, 2008 also accepted the transmitted reading, defended by Pearson, 1924, 156.

⁷⁰Radermacher, 1909, 164. Cf. Wilson & Lloyd-Jones, 1990, 21 e Guidorizzi, 2008, 216-217.

⁷¹Cf. LSJ9.

⁷²Here and beyond, texts and apparatus from Donadi, 2016.

τὸν αὐτὸν δὲ λόγον ἔχει ἢ τε τοῦ λόγου δύναμις πρὸς λόγου τῆς δὲ ἢ τε τῶν
φαρμάκων ἔχει πρὸς τὴν τῶν σωμάτων φύσιν.

ι λόγου] νόμου γ (- η) δ (-La Ald E)

The manuscript tradition of the *Encomium of Helen* is bipartite: the Burn. 95 (Crisippianus) (A) opposes a group of manuscripts β of which the γ, δ, ζ subfamilies are part. Therefore, the reading λόγου is confirmed, at least on an archetypal level, by the stemmatics.

(3.2.151) Gorg., *Hel.*, 16.5-9:

ἰσχυρὰ γὰρ ἦ
5 ἀλήθεια τοῦ νόμου διὰ τὸν φόβον ἐξωικίσθη τὸν ἀπὸ τῆς
ὄψεως, ἥτις ἐλθοῦσα ἐποίησεν ἀσμενίσαι καὶ τοῦ
καλοῦ τοῦ διὰ τὸν νόμον κρινομένου καὶ τοῦ ἀγαθοῦ τοῦ διὰ τὴν νίκην
γινομένου. 5 πόνου Donadi 1982, Donadi 1977-1978, 74-75 (cf. 14. 90)] λόγου E Unt.

The reading λόγου is handed down by the Laur. 57, 52 (E) alone, a manuscript whose placement in the stemma codicum is problematic: «it is the most manipulated of the apographs of Σ [...]; in the “hot spots” it intervenes conceptually, while rejecting the singular readings of M and N»⁷³. It is probable, in fact, that in this case the substitution is conjectural, and not introduced by a slip of the tongue.

(3.2.152) Gorg., *Hel.*, 21 I-4:

ἀφείλον τῶι λόγωι δύσκληϊαν γυναικός, ἐνέμεινα τῶι νόμωι
ὄν ἀρχῆι ἐν ἀρχῆι ἐθέμην λόγου, τοῦ καταλῦσαι μώμου

⁷³Donadi, 2016, XLII.

λόγον καὶ δόξης ἐβουλήθη, ἀδικίαν γράψαι τὸν λόγον ἀδικίαν
μὲν δὲ, ἐμὸν δὲ παίγνιον.

5 ἰ τῷ νόμῳ] τῷ μύμῳ ὃν ἐνεθέμην λόγῳ **A^{corr}** : τῷ λόγῳ νόμῳ ὃν ἐθέμην ζ

The *suppositus* ζ, dependent on β, is identified by a group of five manuscripts. The double reading suggests that a marginal variant, or s.l., was read in the ζ antigraph.

The concept of λόγος is fundamental within the Gorgian work⁷⁴: its discussion occupies paragraphs 8-14, or one third of the work, and the statement λόγος δυνάστης μέγας ἐστίν (8. 3) is famous. With the term, Gorgias refers to any kind of verbal production, from the arrange of a trial to scientific (13.1-2: τοὺς τῶν μετεωρολόγων λόγους), philosophical (13.8: φιλοσόφων λόγων λόγους) or poetic (9.1-2: λόγους ποιήσιν ἅπασαν καὶ μέτρον λόγον λόγον μέτρον). A λόγος, or rather the sum of several λόγοι (15.2-3: τῷ τετάρτῳ λόγῳ), is the very work of Gorgias (3.2: ὁδε ὁ λόγος); it is either oral or written (13.7: γραφεῖς). In one case, Gorgias uses the term to indicate the concept of relation (14, cf. e.g. (213)): in the latter case, in which the term has a particular meaning, part of the tradition replaces it with νόμος. The replacement of λόγος by νόμος is found in other works, such as:

(3.2.153) Aristot., *EN*, 5-6 1134a 30-1135⁷⁵:

ἔστι γὰρ δίκαιον, οἷς καὶ νόμος πρὸς αὐτούς-
νόμος δ', ἐν οἷς ἀδικία- ἢ γὰρ δίκη κρίσις τοῦ δικαίου καὶ
τοῦ ἀδίκου. ἐν οἷς δ' ἀδικία, καὶ τὸ τὸ ἀδικεῖν ἐν τούτοις (ἐν οἷς
δὲ τὸ ἀδικεῖν, οὐ πᾶσιν ἀδικία), τοῦτο δ' ἐστὶ τὸ πλεον αὐτῷ

5 νέμειν τῶν ἀπλῶς ἀγαθῶν, ἔλαττον δὲ.

διὸ οὐκ ἄρχειν ἄνθρωπον, ἀλλὰ τὸν λόγον, ὅτι ἑαυτῷ
τοῦτο ποιεῖ καὶ γίνεται τύραννος.

6 λόγον] νόμον **Mb**

⁷⁴Macdowell, 1991, 13.

⁷⁵Text and apparatus from Bywater, 1890, 103.

Aristotle is dealing with justice and injustice within a political community, and their relationship with the νόμος: to avoid the ἀδικεῖν (i.e. the bad distribution of goods and evils), we must not let one man, but the rational principle (λόγος), rule. The Marc. 213 (**Mb**) has νόμον: the variant is favoured by *Echoschreibung* (it is present at l. 30 and 31) and by the exchange of assonant two-syllable words, but above all it generates a text that is acceptable also from the point of view of the meaning. In this specific case, however, the two terms indicate two different and not overlapping concepts.

It is, moreover, hypothesized by Richards for Diogene Laerzio:

(3.2.154) DL, *Vitae*, I 102 8-13⁷⁶:

Μετὰ χρόνον δὲ παραγενόμενος εἰς τὴν τὴν Σκυθίαν καὶ δοκῶν τὰ
νόμιμα παραλύειν τῆς πατρίδος πολὺς ὦν ἐν τῷ ἑλληνίζειν,
10 τοξευθεὶς ἐν κυνηγεσίῳ πρὸς ἀδελφοῦ τελευτᾷ, εἰπὼν διὰ μὲν
τὸν λόγον ἐκ τῆς Ἑλλάδος σωθῆναι, διὰ δὲ τὸν φθόνον ἐν τῇ
οἰκείᾳ ἀπολέσθαι. ἔνιοι δὲ τελετὰς Ἑλληνικὰς ἐπιτελοῦντα δια-
χρησθῆναι.

8 λόγον **BPFΦ et Schol. Plat.**] νόμον **Richards**

Anacarsis, who returned to Scythia after a time in Athens, had adopted the Hellenic costumes so much that it seemed disrespectful to his brothers, who killed him. Dying, Anacarsis claimed to have been saved in Greece because of the λόγος, and to die at home because of envy. This is a widely accepted reading⁷⁷. Richards, however, states that the reading λόγον makes no sense: «He means that he had returned home διὰ τὸν νόμον, though he was said (see just before) τὰ νόμιμα»⁷⁸.

⁷⁶Apparatus from [Marcovich, 1999](#).

⁷⁷[Hicks, 1950](#) (who translates “my reputation”); [Long, 1964](#); [Marcovich, 1999](#); [Dorandi, 2013](#).

⁷⁸[Richards, 1904](#), 345.

As seen in the above examples, the cases in which λόγος is substituted by other bisyllables are, precisely, those in which the term has a specific and non-expandable meaning and the terms that replace it cannot be considered its hyponyms.

Ποιεῖν

As in the English language, the verb indicating *to do* can assume a multiplicity of meanings and, consequently, can rather effectively replace various verbs indicating other actions.

(3.2.155) Ar., *Nub.*, 1196-1200:

ΣΤ. πῶς οὐ δέχονται δῆτα τῆ νουμηνία
 ἀρχαὶ τὰ πρυτανεῖ, ἀλλ' ἔνη τε καὶ νέα;
 ΦΕ. ὅπερ οἱ προτένθαι γὰρ δοκοῦσί μοι παθεῖν-
 1200 ὅπως τάχιστα τὰ πρυτανεῖ ὑφελοίατο,
 διὰ τοῦτο μιᾶ.
 1198 παθεῖν **Ald.**] ποεῖν **RV**

The Rav. 429 (**R**) and the Marc. 474 (**V**) both have the reading ποεῖν. Hermann⁷⁹ states that he accepts it out of respect for the prestige of the two *codices*, even though he admits that it may have been born «ex interpretatione». Even Starkie⁸⁰, who prints παθεῖν, believes that ποεῖν could be a gloss. It's certainly possible that someone wanted to make explicit with the verb ποεῖν the particular meaning of παθεῖν; but, reading δοκοῦσί μοι π-, a copyist could naturally be led to complete the expression with the verb that most easily conveyed its meaning: in fact, a hypernym. The hypothesis is all the more likely because in this case the verb παθεῖν is used with a particular construction: the

⁷⁹Hermann, 1827, 161-162. Cf. also Rogers, 1950.

⁸⁰Starkie, 1911, 260. Cf. also Dover, 1968, Sommerstein, 1982.

meaning of the sentence is ‘their case seems to be that of the fore-tasters’⁸¹. The verse is also handed down by Ath. *Deipn.* 171c and the corresponding passage Ath. *Epit.* 2.1 57, 14, in both cases with the reading ποεῖν.

(3.2.156) Soph., *Aj.*, 646-649:

ΑΙ. ἅπανθ' ὁ μακρὸς ἀναρίθμητος χρόνος
 φύει τ' ἄδηλα καὶ φανέντα κρύπτεται-
 κοῦκ ἔστ' οὐδέν, ἀλλ' ἀλίσκεται
 χῶ δεινὸς ὄρκος χαὶ φρένες.

650 647 φύει] φαίνει **Herwerden, rec. Nauck**: ποιεῖ **Stob.**

The v. 647 is paraphrased by Kamerbeek⁸² with ‘brings to light what is hidden (causes to grow like plants the seed of which has been hidden in the ground)’. According to most editors⁸³, the sentence needs a causative verb, with the meaning of ‘make’, to make the φύει of the textual tradition seem appropriate, and Herwerden’s conjecture was consequently rejected. The most common verb (but also the most banal) to indicate the work of time is ποιέω, which is found in the tradition of Stobaeus (Stob. I 97.15).

(3.2.157) Soph., *Aj.*, 1364-1368:

ΑΓ. ἄνωγας οὖν με τὸν νεκρὸν θάπτειν ἔἴην;
 1365 ΟΔ. ἔγωγε- καὶ γὰρ αὐτὸς ἐνθάδ' ἴξομαι.
 ΑΓ. ἢ πάνθ' ὁμοῖα- πᾶς ἀνὴρ αὐτῷ πονεῖ.

⁸¹Starkie, 1911, 260.

⁸²Kamerbeek, 1953, I 135.

⁸³Campbell, 1873 II; Jebb, 1896; Wilson & Lloyd-Jones, 1990; Dawe, 1996³; Garvie, 1998.

ΟΔ. τῷ γάρ με μᾶλλον εἰκὸς ἴμαυτῷ πονεῖν;

ΑΓ. σὸν ἄρα τοῦργον οὐκ ἐμὸν κεκλήσεται.

1367 πονεῖν] φρονεῖν **Lacsscr** Γ

Agamemnon criticizes the feelings of empathic compassion that Odysseus attributed to himself (567-568) with an expression that has been variously judged: according to some, he wants to reproach Odysseus for his individualistic attitude⁸⁴, while according to others the feeling of compassion escapes the logic of Agamemnon, who therefore mocks it⁸⁵. The sentence, of a proverbial kind⁸⁶, is variously handed down in the final part: after πονεῖ, the most attested variant is φρονεῖ, symmetrically reproduced in φρονεῖν of the following verse: a variant perhaps alternative rather than hyponymic, since the two meanings seem to be in this case two ways of acting, one of them with a practical attitude and the other with a rather intellectual one. The readings φρονεῖ (see v. 1366) and φρονεῖν (see v. 1367) are reported by Dawe among the most remarkable concordances of **GQR** with other codes, said to be «the least likely to have arisen from accident»⁸⁷. The verb ποιεῖ is perhaps, according to Dawe, found in Par. gr. 2735 (**C**): according to this reading, clearly trivialized, «every man acts for himself».

(3.2.158) Soph., *El.*, 947:

ΗΛ. ἄκουε δὴ νυν ἧ βεβούλευμαι τελεῖν.

947 τελεῖν **Lr A dett**] ποεῖν **LGRZc^{ac}** : ποιεῖν **FZc^{pc}**

Electra explains to Chrysothemis her plan to kill Aegisthus. The reading ποεῖν is accepted by the majority of publishers⁸⁸, but rejected by Campbell⁸⁹, Pearson⁹⁰ and Dawe⁹¹. Kamerbeek, who chose

⁸⁴Weinstock 1936, 58.

⁸⁵Garvie, 1998, 247.

⁸⁶Bühler, 1982, IV 100.

⁸⁷Dawe, 1979, 14 and 17.

⁸⁸Hermann, 1827 I; Campbell, 1873 II; Kamerbeek, 1953 V; Finglass, 2007.

⁸⁹Campbell, 1873 II.

⁹⁰Pearson, 1948.

⁹¹Dawe, 1996³.

ποεῖν «with misgivings [...], following our best tradition», noted that the *utrum in alterum* is in favour of τελεῖν, which perhaps seemed to lack an object complement. Campbell added that the emphatic perfect βεβούλευμαι fits well with a verb of decisive action, such as τελεῖν.

Πρᾶγμα

In some cases, it seems that the noun πρᾶγμα can be a hypernym replacing several terms.

(3.2.159) Eur., *Hipp.*, 383-388:

εἰσὶ δ' ἠδοναὶ πολλαὶ βίου,
μακραί τε λέσχει καὶ σχολή, τερπνὸν κακόν,
385 αἰδώς τε- δισσαὶ δ' εἰσὶν, ἡ μὲν οὐ κακή,
ἡ δ' ἄχθος οἴκων- εἰ δ' ὁ καιρὸς ἦν σαφής,
οὐκ ἂν δὴ ἦσθην ταῦτ' ἔχοντε γράμματα.
387 γράμματα **MOVΛ etB^{yp} et Σnbv et Eust.**] γράμματα **K**: πράγματα **BA et D^{yp}**

Καιρός has, in the 5th century, various meanings, all related to the idea of 'right, proper, relevant'. In this context, in particular, the term has a philosophical connotation: it is the sum of the characteristics that identify a being⁹². If the two types of αἰδώς, the positive and the negative, were certainly distinguishable, there would be two terms to define them; since this is not the case, one is forced to use the same word for both. The linguistic reference was missed by a part of the tradition, in which we read the generic reading πράγματα, which shifts the discourse away from the field of language theories.

(3.2.160) Soph., *El.*, 680-697:

⁹²Barrett, 1964, 231.

- 680 κάπεμπόμην πρὸς ταῦτα τὸ πᾶν φράσω.
 κεῖνος γὰρ ἐλθὼν ἐλθὼν ἐς τὸ κλεινὸν Ἑλλάδος
 πρόσχημ' ἀγῶνος Δελφικῶν ἄθλων χάριν,
 ὅτ' ἦσθετ' ἀνδρὸς ὀρθίων γηρυμάτων
 δρόμον προκηρύξαντος, οὗ πρώτη κρίσις,
 685 εἰσῆλθε λαμπρός, πᾶσι τοῖς τοῖς ἐκεῖ σέβας-
 δρόμου δ' ἰσώσας τῆ φύσει τὰ τέρματα
 νίκης ἔχων ἐξῆλθε πάντιμον γέρας.
 686 τέρματα] πράγματα **Suda praeter ArcF**

The Pedagogue implements Orestes and Pilad's plan to enter the palace of Aegisthus: he must announce that Orestes died during a chariot ride, and that two foreigners are about to arrive at court to return the remains of the young man to his mother. The brachylogical expression of v. 686 is paraphrased by Kaibel⁹³: λαμπρὰ μὲν ἡ φύσις ἦν αὐτοῦ, οὐχ ἦττον δὲ λαμπρὸν τὸ δρόμου τέλος. His appearance was splendid, and so was his performance: Sophocles is using the *topos* of the epinics that praise appearance and athletic performance⁹⁴. The τέρματα, technical term for racing with the chariot, become πράγματα in Suda (δ 1535, II 141-142 A.), making the expression both more understandable and more banal: Orestes equalled in appearance things related to racing.

Γίγνομαι **AND** γένος

γίγνομαι and γένος are also sufficiently polysemic and vague to be used, sometimes, as substitutes for different terms. The relationship of hyponymy is, however, less clear than the previous examples.

(3.2.161) Soph., *Aj.*, 1130:

- 1130 Με. ἐγὼ γὰρ ἂν ψέξαιμι δαιμόνων νόμους;
 1130 νόμους] γένος **GRZc²YP et ut vid. Fs^{YP}**

⁹³Kaibel, 1896, 177. Cf. Wilson & Lloyd-Jones, 1990, 54; Finglass, 2007, 306. For the perplexities raised by τῆ φύσει cf. Jebb, 1894, Campbell, 1907, 138.

⁹⁴Kamerbeek, 1953, V 96.

The expression δαιμόνων γένος is quite frequent: it is found for example in Aesch. *Sept.* 236 (οὔτοι φθονῶ σοι δαιμόνων τιμᾶν γένος), Eur. fr. 557,2 Kn. (ἐγὼ μὲν εὔτ' ἂν τοὺς κακοὺς ὄρω βροτῶν / πίπτοντας, εἶναι φημι δαιμόνων γένος.), Critias fr. 19,46 Sn.-Kn. (οὔτω δὲ δὲ πρῶτον οἴομαι τινα / θνητοὺς νομίζειν δαιμόνων εἶναι γένος), Plut. *De Def. Or.* 416e 8-9 (οἱ τὸ τῶν δαιμόνων γένος), but also in Christian production, for example in Clem. Al. *Strom.* VII 6 32 1.2 (πότερον διαπνεῖται ὡς τὸ τῶν δαιμόνων γένος;), Euseb. *PE* 15 7.3 Mras (τὸ τῶν μοχθηρῶν δαιμόνων γένος). The fact that, in the substitution, the case is also modified suggests that this frequent expression has appeared, spontaneously and in an unconscious way, to the mind of a copyist.

(3.2.162) Ar., *Nub.*, 949-954:

νῦν δείξετον τὸ πισύνω
 950 τοῖς περιδεξίοισιν
 λόγοισι καὶ φροντίσι καὶ
 γνωμοτύποις μερίμναις,
 λέγων ἀμείνων πότερος
 φανήσεται.
 955 954 φανήσεται] γενήσεται V

In this case, the two variants both indicate a future result: the replacement does not change the meaning of the text.

(3.2.163) DL, *Vitae*, I 1:

Τὸ τῆς φιλοσοφίας ἔργον ἔνιοί φασιν ἀπὸ βαρβάρων ἄρξαι.
 I ἔργον PF] γένος Φ

The correct reading is certainly ἔργον, handed down by Laur. 55, 1 (**F**) and from Par. gr. 1759 (**P**), two manuscripts among those that report in full the text of Diogenes Laertius⁹⁵. Τὸ τῆς φιλοσοφίας ἔργον indicates philosophy as a practice, as a discipline: the sentence concerns, in fact, the hypothesis that the barbarians practiced philosophy first. Cf. Gal. *Plac.* VIII 3 K. (τῆς θεωρητικῆς φιλοσοφίας ἔργον) and Plut. *De Alex. fort.* 328a 7 (τούτοις γὰρ ὀρίζουσι φιλοσοφίαν οἱ λόγον αὐτὴν οὐκ ἔργον νομίζοντες). The phrase τὸ γένος, handed down by Vat. gr. 96 (**Φ**), the so-called *Excerpta Vaticana*, indicates instead the type, the kind of something, like e.g. in Plut. *Quomodo adul.* 19 and 7-8 (παρὰ δ' Ὀμήρῳ σιωπώμενόν ἐστι τὸ τοιοῦτο γένος τῆς διδασκαλίας) and in Ath. *Deipn.* XI 66 14 (ἀρχαϊκὸν ἦν ἦν τὸ τοιοῦτον [δὲ] τῆς ἀγωγῆς γένος). However, the sentence is completely intelligible and acceptable even with the erroneous variant: and ἔργον – if γένος were the only reading to be transmitted – would hardly have been accepted as a conjecture.

(3.2.164) DL, *Vitae*, I 17:

10 διαλεκτικοὶ δὲ ὅσοι περὶ
τὴν τῶν λόγων τερθρείαν καταγίνονται.

10 κατατρίβονται **BP, Dorandi**] καταγίνονται **F, Hicks**

Diogenes reviews the names of the main philosophical schools, briefly describing their etymology: the dialectics are characterized by ‘verbal jugglery’⁹⁶. Hicks and Marcovich prefer καταγίνονται⁹⁷: διαλεκτικοὶ are those who *deal* (cf. LSJ9) with ‘verbal jugglery’. Dorandi however chooses κατατρίβονται: between the Neap. III B 29 (**B**), the Par. gr. 1759 (**P**) and the Laur. 69, 13 (**F**), the three oldest continuous manuscripts, **F** is contaminated with the ‘vulgate’ tradition of *excerpta* and, however useful, its usage requires caution. The verb κατατρίβω, moreover, is used in the sense of ‘spending time, using it completely (doing something)’ (Dem. Eubul. 9.1: κατέτριψε τὴν ἡμέραν δημηγορῶν,

⁹⁵Dorandi, 2013, 21.

⁹⁶Hicks, 1950.

⁹⁷Hicks, 1950; Marcovich, 1999.

Xen. *Mem.* IV 7 5.7-8: ἔφη δὲ καὶ ἱκανὰ εἶναι κατατρίβειν ἀνθρώπου βίον), but also has in itself the sense of ‘consume’, ‘waste’ (Ar. fr. 221.1 K.-A.: αὐλοῖς καὶ λύραισι κατατριμμαὶ χρώμενος): the verb could well describe the continuous and repetitive character of the action described as τὴν τῶν λόγων τετριθείαν.

These cases are just some of the many cases that can be investigated: for the sake of simplicity of investigation, I have chosen lexemes whose role of hyper-identification was as evident as possible. Following these examples, we can define a ‘trivialization’ as an error that increases the extension and decreases the intension of the lexeme. As noticed several times, however, there are no fixed substitutions that meet this requirement: it is necessary to evaluate it case by case, with constant attention to the uses and meanings of the lexemes involved in the exchange.

3.2.4 GLOSSES, SYNONYMS

Other errors involving lexical exchanges cannot be ascribed to the category of hyponymic substitution. Often, instead of a given term, part of the textual tradition can have a synonym or a word whose meaning is similar but not identical to it. This kind of relationship can be called of co-ponymy (‘vermillion’ and ‘crimson’ are co-ponyms compared to ‘red’). Many of these exchanges are included by the commentaries in the category of the intruding gloss; but on the other hand, it is often admitted that copyists insert synonyms because they practice an interpretative, and not merely mnemonic, copying.

The phenomenon of the intruding gloss is, often, well recognizable thanks to the comparison with existing lexicons or clues scattered in the text:

(3.2.165) Soph., *Aj.*, 864-865:

τοῦθ' ὑμῖν Αἴας τοῦπος ὕστατον ἕροεῖ,
865 τὰ δ' ἄλλ' ἐν Ἄιδου τοῖς κάτω μυθήσομαι.

864 ὕστατον] ἔσχατον **GQR**

The two terms are often associated in lexicons: Cf. e.g. Hsch. IV 221 846 (ὕστατα- ἔσχατα) and 847 (ὕστατον- ἔσχάτιον, τελευταῖον).

In some circumstances, it is doubtful whether the erroneous variant was introduced in the text as a distraction or as a gloss: this is the case, for example, of two variants handed down for Eur. *Alc.*, specifically with regard to character names.

(3.2.166) Eur., *Alc.*, arg. II, l. 23 (34 Diggle):

προλογίζει ὁ Ἀπόλλων.

865 864 Ἀπόλλων] ἥλιος **V**

This hypothesis is preserved by the Vat. gr. 909 (**V**) and only partially by the Par. gr. 2713 (**P**) and the Laur. 31, 10 (**O**). After a brief summary of the plot, the text mostly provides erudite indications, such as information on the dating, the context and some considerations (derived from Aristot. **Po.** 1453a) on the positive ending, which makes the drama closer to the comic genre (τὸ δὲ δράμα κωμικωτέραν ἔχει τὴν καταστροφήν, l. 16; τὸ δὲ ἔχει ἐστὶ σατυρικώτερον, l. 21). It seems peculiar that **V** de-personifies the god Apollo, writing that the prologue is pronounced by Helios. Maybe that, in this case, it was a gloss that was based on the identification between the two figures, perhaps born in an orphic-pythagorean environment, known to Aeschylus and Euripides and widely spread from the Stoic doctrine onwards⁹⁸. In a witness belonging to the other branch of the tradition, the Pal. gr. 287 (**P**) we find a similar case: in the list of characters, **P**, probably feeling the need to give a proper name to the character, instead of Θάνατος writes χάρων: since late antiquity, the two figures had already lost the clear distinction that characterized them in classical times⁹⁹.

⁹⁸ Buffière, 1956, 187-200.

⁹⁹ Alexiou, 1978, 221, 224-25.

SYNONYMS AND CO-HYPONYMS

In many other cases, the event of a gloss intrusion can be excluded, not only with a rather weak *argumentum e silentio* (absence in the lexicon of the corresponding associations between *lemma* and *interpretamentum*), but also and foremost with the reflection on the co-hyponymic and non-synonymic meaning of the two terms: the difference in meaning is slight enough not to distort the general content of the text but, at the same time, marked enough to exclude a gloss intrusion. Often, moreover, there is such a marked graphic-phonetic similarity between the two terms that the possibility of error is much more likely than the intrusion of gloss. However, in this case even more than in others, it would be reductive to speak of paleographic error: the term introduced for *lapsus oculi* or *calami* is in fact consistent with the context and the sense of the text. This means that the text has been understood by the copyist correctly, and reworked during the memorization. This phenomenon is very different from the trivialization: often the transcriber is not unconsciously simplifying: the ‘correct’ and the ‘wrong’ variant (linguistically, the ‘target’ and the ‘production’) are equivalent in use and difficulty. From the phonetic and metrical similarity between substitute and substituted derives one of the main pitfalls of synonymic substitutions¹⁰⁰: often nothing, in syntactic, content or even metrical coherence, allows to suspect a corruption. Perhaps in this way some of the textual variants from which it is more difficult to choose have been generated: in these cases, often, the choice ratio will be based on considerations of style and content.

A probably co-hyponymic substitution is between τέλος and μόνον.

(3.2.167) sch. Pind., *N.*, 8 85 5-6:

5 ὁ Ἀρχέμορος ὑπὸ τοῦ δράκοντος διεφθάρη, οἱ δὲ ἐπ’ αὐτῷ.
τοῦ μόνου ἄρξαντι τὰ Νέμεα ἔθησαν.

¹⁰⁰Some examples of this genre are discussed by West in the comments to Hesiod’s works: Cf. West, 1978, 392 *s.v.* *variants, systematic* and West, 1966, 451-452 *s.v.* *variants, systematic*. Among the discussed variants, some cannot be traced back to oral variants.

6 μόρου] τέλος **D (Laur. 32, 52) subscr.**

(3.2.168) *Od.*, XXIV 123-124:

σοὶ δ' ἐγὼ εὖ καταλέξω μάλα πάντα καὶ ἀτρεκέως καταλέξω,
ἡμετέρου θανάτοιο κακὸν τέλος, οἷον ἐτύχθη.

125 124 τέλος] μόρον **M^{yp}**

(3.2.169) *Opp.*, *Hal.*, III 115:

ὣς ἄρα καὶ κεστρεὺς ἐδάη τέλος οἷον ἰκάνει,
κεῖται δὲ προπεσών, μίμνων μόρον ἀγρευτῆρος.

116 τέλος] μόρον **Σ**

The two nouns are synonymous because they share the translated meaning of ‘death’: one as an extension of ‘end, completion’, the other from ‘destiny, fate’. However, the surviving lexicons and scholia never use one to gloss the other, while it happens that both are used as glossants (Suda τ 247, IV 517 A.: Τέκμων: τέλος, μόρον, θάνατον). It seems more likely that the metric and semantic equivalence of the two terms made them perfectly substitutable even in ancient variants.

Other replacements seem less systematic, but have similar characteristics:

(3.2.170) *Soph.*, *Aj.*, 998-1001¹⁰¹:

¹⁰¹Text and apparatus by [Wilson & Lloyd-Jones, 1990](#).

ὄξεια γάρ σου βάζεις ὡς ὡς θεοῦ τινος
 διῆλθ' Ἀχαιοὺς πάντας ὡς οἴχη θανών.
 1000 ἀγὼ κλυὼν δύστηνος ἐκποδῶν μὲν ὦν
 ὑπεστέναζον, νῦν δ' ὀρῶν.
 1000 δύστηνος **IQpt**] δειλαιοσ **HGR ADXrXsXz**

In Sophocles δύστηνος is present sixty-one times, while δειλαιοσ only fifteen (e.g. Soph. *Ant.* 1310-II: δειλαιοσ ἐγὼ, αἰαῖ, / δειλαία δὲ συγχέκραμαι δύα.). In addition, the former is found nine times in the *Ajax*, where, on the contrary, the latter is not attested. In itself, the numerical probability has no probative value, but the last data leads to the question: if δειλαιοσ was not introduced in the text for *Echoschreibung* - even from a distance - then how would the error be born? Lexicons do not attest such a gloss in one sense or the other. The first adjective in this case is to be found in most of the tradition (**HGR** are representatives of the same family, while **ADXrXsXz**, from the Byzantine era, present a contaminated text, probably deriving from Moscopulous's edition¹⁰²) and it seems clearly a *lectio facilior*, both in Sophocles and in tragedy in general, a lexeme typical of self-pity on stage. The choice between the two adjectives, perhaps, is not as immediate as it seems in most editions¹⁰³: it is necessary to face the possibility that a substitution like δύστηνος for δειλαιοσ is polygenetic.

(3.2.171) Soph., *Aj.*, 223-226:

Χο. οἶαν ἐδήλωσας ἀνδρὸς αἴθονοσ
 ἀγγελίαν ἄτλατον οὐδὲ φευκτάν,
 225 τῶν μεγάλων Δαναῶν ὑπο κληζομέναν,
 τάν ὁ μέγασ μῦθος ἀέξει.
 223 αἴθοποσ **L1 s.l. ADXsZcT, Suda**] αἴθωνοσ **L^{ac} rell.**

¹⁰²Dawe, 1979, 35

¹⁰³Hermann, 1827 I chooses δειλαιοσ. On the contrary, δύστηνοσ is in Jebb, 1896; Campbell, 1873 II; Wilson & Lloyd-Jones, 1990; Dawe, 1996³; Garvie, 1998.

The two adjectives αἴθων¹⁰⁴ and αἴθοψ have very similar meanings¹⁰⁵, connected to being ‘burning, incandescent’, both literally and figuratively, to indicate pride and value (Eur. *Rhes.* 122: αἴθων γὰρ ἀνὴρ καὶ πεπύργωται θράσει): a comparable case can be found in Hes. *Op.* 363¹⁰⁶, where for αἴθοπα λιμόν Bergk¹⁰⁷ conjectured αἴθονα, based on various parallels (Aesch. *Sept.* 448: αἴθων τέτακται λῆμα; Eur. *Rhes.* 122; Aeschin. 3.184: λιμόν τ’αἴθωνα, cf. Plut. *Cim.* 7; Callim. *H.* 6.67: λιμόν / αἴθωνα; schol. ad Lycophr. 1396 (II 385): ὁ δ’ Ἐρυσίχθων ἐκαλεῖτο, ὡς φησιν Ἡσίοδος διὰ λιμόν; Sud. α 133, II 165-166 A.: λιμόν αἴθων).

(3.2.172) Eur., *Phoen.*, 10-12:

10 ἐγὼ δὲ παῖς μὲν κλήζομαι Μενοικέως,
[Κρέων τ’ ἀδελφὸς μητρὸς ἐκ μιᾶς ἔφυ,]
καλοῦσι δ’ Ἰοκάστην με-

11 μιᾶς ἐκ μητρὸς L] ἐκ μιᾶς μ. **Pr1**: ἐκ μιᾶς γαστρὸς **AaRf et vol. Pr2**

The verse, excerpted for the first time in Paley’s edition¹⁰⁸, defines – in a way that is considered redundant¹⁰⁹ – the relationship between Creon and Jocasta. The variant ἐκ μιᾶς γαστρὸς conveys the same content.

(3.2.173) Eur., *Med.*, 261:

¹⁰⁴The presence of αἴθονος with ο instead of ω could be explained by the analogy of normal adjectives in -ων.

¹⁰⁵The reading αἴθοπος is accepted by Kamerbeek, 1953 I; αἴθωνος, instead, by Jebb, 1896; Campbell, 1873 II; Wilson & Lloyd-Jones, 1990; Dawe, 1996³; Garvie, 1998 (which traces a brief etymological picture). Publishers are mainly divided on the relevance of the suffix -οψ in this context: according to Jebb the adjective would refer only to ‘completion’. According to Kamerbeek, instead, it would have lost its original meaning and the two readings would be perfectly synonymous.

¹⁰⁶Cf. Kamerbeek, 1953 I, 64-65.

¹⁰⁷Bergk, 1878.

¹⁰⁸Paley, 1860.

¹⁰⁹Mastronarde, 2004, 144-145.

σὲ τὴν σκυθρωπὸν καὶ πόσει θυμουμένην

261 θυμουμένην] μισουμένην **Nv**

So Creon defines Medea. Only the Vindob. gr. 17 (**Nv**) shows the participle μισουμένην. The two verbs θυμώω and μισέω, have a similar meaning, but not identical, so much so that in lexicons and scoliographic collections there are no cases in which one is used to gloss the other. More than a gloss, one can think of a synonymic, perhaps almost hypernymic substitution: θυμώω is properly ‘hate with anger’, while the copyist of **Nv** reports the most common verb to indicate hate. **Nv** gives evidence in several places of a rather free copying; see, for example:

(3.2.174) Eur., *Med.*, 287-289:

κλύω δ' ἀπειλεῖν σ', ὡς ἀπαγγέλλουσί μοι,

τὸν δόντα καὶ γήμαντα καὶ γαμουμένην

δράσειν τι. ταῦτ' οὖν πρὶν παθεῖν φυλάξομαι.

289 τι. ταῦτ' οὖν] τε πολλά τοὺς (**sic**) **Nv**

(3.2.175) Eur., *Med.*, 351-354:

προυννέπω δέ σοι,

εἴ σ' ἡ ἑπιούσα λαμπὰς ὄψεται θεοῦ

καὶ παῖδας τῆσδε τερμόνων χθονός,

θανῆι

5 351 προυννέπω] προτρέπω **Nv**

(3.2.176) Eur., *Med.*, 606-608:

MH. τί δρῶσα; μῶν γαμοῦσα καὶ προδοῦσά σε;

IA. ἀράς τυράννοις ἀνοσίους ἀρωμένη.

MH. καὶ σοῖς ἀραία γ' οὔσα τυγχάνω δόμοις.

608 ἀραία γ' οὔσα] ἀράς διδοῦσα **Nv**

In this case, evidently, the immediate co-text induces the copyist to a real mental 'reworking' of the original dictation.

(3.2.177) *Ar., Av.*, 1379-1380¹¹⁰:

Κι. ὄρνις γενέσθαι βούλομαι

1380 λιγύφθογγος ἀηδῶν.

1380 λιγύφθογγος **RVEAΓUB^{2γρ} λΣΕΓ**] λιγύμοχθος **B^{2γρs} γρΣΕΓ₃**

: λιγύμυθος **Mq^{γρ}ΣVEΓ₃**

Λιγύφθογγος occurs in Homeric poems only in the formula κηρύκεσσι λιγυφθόγγοισι (*Il.* 2.50, 9.10 etc.). It is used by Thgn. 241 (σὺν αὐλίσκοισι λιγυφθόγγοις), a passage that according to Dunbar¹¹¹ Aristophanes could have in mind because it follows at short distance the verses Σοὶ μὲν ἐγὼ πτέρ' ἔδωκα, σὺν οἷσ' ἀπείρονα πόντον / πωτήσῃ, κατὰ γῆν ἐπ' ἀειρόμενος / ῥῆϊδίως (*vn.* 237-238); it is also found in Bacchyl. *Ep.* 5 22-23 referring precisely to birdsong: πτάσσοντι δ' ὄρνι- / χες λιγύφθογοι. The two variants, metrically equivalent, do not make any difference in meaning: λιγύμυθος is, however, more prosastic and perhaps late, while λιγύμοχθος was chosen by Lenting¹¹² according to the criterion of *lectio difficilior*: «Vera videtur lectio [...] quae et dithyrambicum colorem refert, quem hic riserit Comicus; nec aut per librarii errorem, aut a magistri audacia oriri potuit». The other publishers unanimously adopt λιγύφθογγος.

¹¹⁰ Here and beyond, text and apparatus from Dunbar, 1995.

¹¹¹ Dunbar, 1995, 668.

¹¹² Lenting, 1839, 57.

(3.2.178) DL, *Vitae*, I 8 84:

Τὴν δὲ γοητικὴν μαγείαν οὐδ' ἔγνωσαν, φησὶν Ἀριστοτέλης
 85 ἐν τῷ Μαγικῷ καὶ Δείνων ἐν τῇ πέμπτῃ τῶν Ἱστοριῶν.
 84 μαγείαν **F**] καὶ μαγίαν μαγίαν : μαντεῖαν **P**

Diogenes is describing the habits and customs of the barbarian peoples, with particular attention to the sapiential disciplines that could be compared to Greek philosophy. A few lines earlier, the author wrote about the Magi (I 7.3-4): ἀσχεῖν τε μαντικὴν καὶ πρόρρησιν, καὶ θεοῦς ἐμφανίζεσθαι λέγοντας. In the above mentioned passage, Diogenes claims that the Magi themselves would be completely inexperienced in magic: but the Par. gr. 1759 (**P**) makes a substitution that, though minimal from the paleographical point of view, gives back a rather coherent meaning in itself.

(3.2.179) DL, *Vitae*, I 20 9-11:

εἰ δὲ αἵρεσιν νοοῖμεν πρόσκλισιν δό-
 10 γμασιν ἀκολουθίαν ἔχουσιν, οὐκέτ' ἂν προσαγορεύοιτο αἵρεσις-
 οὐ γὰρ ἔχει δόγματα.
 9-10 δόγμασιν **B**] ἐν δόγμασιν **FP** : νοήμασιν **P(Q) F2**

Skeptics cannot be considered a true philosophical school because they do not have a coherent and absolute doctrine: νόημα has the philosophical meaning of ‘concept’¹¹³, but it is not suitable to define the principles that characterize a philosophical school. In this case the partial semantic affinity between the terms and the proximity of the verb νοοῖμεν have favoured the error.

¹¹³Cf. LSJ⁹.

(3.2.180) Eur., *Andr.*, 425:

425 λάβεσθιέ μοι τῆσδ', ἀμφελίζαντες χέρας,
425 χέρας] δέμας **B**: χείρας **M**

Menelaus orders the slaves to bring him Andromache, with her hands tied. The copyist of the Par. gr. 2713 (**B**) writes however δέμας, a term that indicates the body as a whole: the meaning has been intensified but not radically changed, due to an exchange of partially assonant two-syllable words.

(3.2.181) Ar., *Nub.*, 2-3:

ὦ Ζεῦ βασιλεῦ, τὸ χρεῖμα τῶν νυκτῶν ὅσον-
ἀπέραντον.
3 ἀπέραντον **REpcKNΘγρΣRVE**] ἀπέρατον **VE^{ac} λΣΕ Πz**

The night is a difficult time for Strepsiades: the old man can't sleep, tormented as he is by his son's debts. On the adjective reported at χρεῖμα τῶν νυκτῶν, the manuscripts do not agree: some report an adjective related to περαίνω ('complete, put an end'), while others an adjective related to περάω ('cross, go beyond'). The two adjectives are so similar, and the error is so easily polygenetic, that the stemma does not help us. The metrics in this case are not resolute either. But the meaning allows to surely choose the version with the ν, despite the contrary opinion expressed in the Suda¹¹⁴: ἀπέρατος in classical Greek is used for something that should not be crossed (Aesch. *Suppl.* 1049-50: Διὸς οὐ παρβατός ἐστιν / μεγάλη φρήν ἀπέρατος), while ἀπέρατος applies for example to time (Plat. *Polit.* 302a: χρόνον ἀπέραντον) and air (Ar. *Nub.* 393: τὸν δ' ἀέρα τόνδ' ὄντ' ἀπέραντον). However, the position recorded in Suda and the frequent oscillation in the manuscripts suggests that the two adjectives became, at a certain point in their use, almost synonymous.

¹¹⁴Sud. α 3035 (I 272 A.): Ἀπέρατον: ἀπειρον, μέγα, οὐ πέρασ οὐκ ἔστιν. οἱ δὲ τοῦ ν γράφοντες ἀμαρτάνουσιν. Ἀριστοφάνης Νεφέλαις- τὸ χρεῖμα τῶν ὅσον ἀπέρατον. καὶ αὐθις αὐθις- ὁ δὲ Χοσρόης ἀπέραντον καλουμένην εἰρήνην λαμπρῶς παρέλυσεν.

(3.2.182) *Ar., Nub.*, 648-651:

Στ. τί δέ μ' ὠφελήσουσ' οἱ ῥυθμοὶ πρὸς τάλφιτα;

Σω. πρῶτον μὲν εἶναι κομψὸν ξυνουσία,

650 ἐπαίειν θ' ὁποῖός ἐστι τῶν ῥυθμῶν

κατ' ἐνόπλιον, χῶποῖος αὖ κατὰ δάκτυλον.

649 κομψὸν Πz] σοφὸν V

Κομψός is said to be a person of subtle and profound intellect. The epithet is used by Aristophanes both ironically (cf. *Vesp.* 1317: ἐπὶ τῷ κομῶς καὶ κομψός εἶναι προσποιεῖ) and honestly admired (cf. *Av.* 195: μὴ ἔγωγ νόημα κομψότερον ἤκουσά πω). The Marc. 474 (V) replaces it with an assonant synonym with a more generic meaning: it cannot, however, be excluded that the variant derives from a gloss.

3.2.5 EXTERNAL INFLUENCE: THE CO-TEXT

In hyponymic and co-hyponymic substitutions, the memory defect of the copyist affects a specific word, which is replaced by another lexeme similar to the first one in meaning. However, the apparatus also records cases of lexical exchanges in which there does not seem to be any semantic link between the substitute and the substituted word: the wide category includes both errors influenced by factors external to the text, in a material sense (the gloss intrusion) or in a psychological sense, and errors that arise through the influence of the co-text, whose cause can be reconstructed with a broader look at the surrounding text. In Havet's *Manuel de Critique Verbale Appliquée Aux Textes Latins*¹¹⁵, an entire section – the fifth – is entitled *Context*¹¹⁶: in it are listed various errors that have in common

¹¹⁵Havet, 1911.

¹¹⁶I use here the word 'context', as opposed to 'co-text', to reflect the use of the french word 'contexte' by Havet, who was indiscernibly referring both to the text preceding and following a certain word, and to the general situation surrounding the copyist during the transcription. For the expression "co-text", specifically referred to the linguistic context, see Bar-Hillel, 1970; Petöfi, 1971.

the fact of having been generated by the influence of syllables, words, phrases that are close, previous or subsequent to the variant: it is the errors that *Madvig* - it is Havet himself, at the beginning of the section, to refer to his definition - gathers under the name *Accomodandi ad proxima in codicibus*¹¹⁷. The definition is extremely generic, so much so that Havet himself gathers there the most disparate categories of error, including *saut du même au même*¹¹⁸, false rhymes¹¹⁹, anticipations (e.g. *pucula* for *pocula*¹²⁰), anasyllabicisms (e.g. *domo* for *modo*¹²¹), but also lexical substitutions. For the purpose of these pages, on the other hand, only this last category, namely the lexical substitutions, will be taken into account: how and how much the surrounding text that a copyist is reproducing may have influenced their error? How often and according to what degree of adherence to the text do these errors occur? Not least, what is their influence on the text and how much endangering for the text reconstruction can they be, in the absence of competing readings?

THE ECHOSCHREIBUNG

One of the best known cases of context-influenced error is that of the *Echoschreibung*. Fränkel, with regard to the collation of the manuscripts of the *Argonautica*, argues that this is the most frequent type of error he has encountered: not only do copyists often insert terms they have recently copied into the text, but sometimes they also take up words that are at a great distance in the poem by mistake¹²². In many cases, errors due to this reason are easily detected, since the suspicion is triggered by the explicit repetition of a term. However, the direct influence of a previous term does not exhaust the reasons for the error: the copyist repeated a term by mistake; but why did this error occur there and not elsewhere? How much was it influenced by the graphical-phonetic similarity between target and production? Even in such a case, semantic and psychological factors that influence the slip should be recorded.

¹¹⁷ *Madvig*, 1877, 758 (*s.v. accomodandi*).

¹¹⁸ *Havet*, 1911, § 434.

¹¹⁹ *Havet*, 1911, § 495.

¹²⁰ *Havet*, 1911, § 472.

¹²¹ *Havet*, 1911, § 470.

¹²² Fränkel 1983², 46.

(3.2.183) *Carm. Anacr.*, 9P [= 8B] 4-9¹²³:

ἐμαίνεται' Ἀλκμέων τε
 χῶ λευκόπους Ἰορέστης
 τὰς μητέρας κτανόντες-
 ἐγὼ δὲ μηδένα κτάς,
 5 πίων δ' ἐρυθρὸν οἶνον
 θέλω, θέλω μανῆναι.
 8 ἐρυθρὸν] λευκόν **P^mgg**

The poem is an invocation to the mania provoked by wine, legitimated by examples of illustrious Greeks who have committed follies: but the wine the poet drinks becomes white in a marginal note of the Par. Suppl. gr. 384 (**P**). We can be sure that the wine mentioned in this passage was red and not white, and not only for a matter of conformity to the *topoi* of Greek literature (the white wine, judged by Athenaeus ἀσθενῆς καὶ λεπτός¹²⁴, seems unsuitable for this kind of Dionysian drunkenness): at v. 5 we find in fact χῶ λευκόπους Ἰορέστης. The recurrence at short distance of the two antonyms to indicate the colors of the wine has modified the drink in the cups, generating a consistent variant that tradition has brought up to us. In this case, the *Echoschreibung* generated a co-hyponymic variation, with the replacement of two terms indicating one colour (and, specifically, the two specialised as attributes of the wine).

(3.2.184) *Carm. Anacr.*, 23 (23B):

Θέλω λέγειν Ἀτρείδας,
 θέλω δὲ Κάδμον αἰδεῖν,
 ὁ βάρβιτος δὲ χορδαῖς

¹²³Text and apparatus from West, 2012, 6-7.

¹²⁴Ath. *Deipn.* I 47, 28.

ἔρωτα μοῦνον ἤχεϊ.
 5 ἤμειψα νεῦρα πρώην
 καὶ τὴν λύρην ἄπασαν-
 κάγω μὲν ἤιδον ἄθλους
 Ἡρακλέους, λύρη δέ
 ἔρωτας ἀντεφώνει.
 10 χαίροιτε λοιπὸν ἡμῖν,
 ἥρωες- ἡ λύρη γάρ
 μόνους ἔρωτας αἶδει.
 11 ἥρωες **St.**] ἔρωτες **P**

The poet would like to sing the deeds of the Atrides, of Cadmus, of Heracles, but his lyre persists in producing love compositions. The heroes may get over it: Anacreon says goodbye to them. The final line was restored by Henri Estienne, the first editor of the text: in the Par. Suppl. gr. 384 (**P**) we read ἔρωτες. An error clearly dictated by the presence of the terms ἔρωτα (v. 4) and ἔρωτας (vv. 9 and 12), but also by the meaning of the sentence and, perhaps, by an incorrect interpretation of v. 10, according to which the poet would exhort the loves to rejoice, because they will be the protagonists of his songs.

(3.2.185) Soph., *El.*, 1205-1206:

1205 Ορ. μέθες τόδ' ἄγγος νυν, ὅπως τὸ πᾶν.
 Ηλ. μὴ δῆτα πρὸς θεῶν τοῦτό μ' ἐργάσῃ, ξένε.
 1205 ἄγγος] ἄλγος **GR, verum G^{SYF}**

A stranger has brought back to Electra the urn containing Orestes' ashes: as a condition for revealing his identity to her, however, the stranger insists a long deal (see 1171-1231) that she leave the

alleged remains of her brother. According to the text of the Laur. Conv. suppr. 152 (**G**) and the Vat. gr. 2291 (**R**), Orestes insists with his sister that she ‘lays down the pain’. The error has certainly suffered, from a formal point of view, the influence of v. 1201 (μόνος γὰρ ἦκω τοῖσι σοῖς ἀλγῶν κακοῖς): but, in the erroneous version, Orestes’ request is not meaningless from a thematic point of view, since he is about to reveal to Electra that her pain has no reason to exist: in a certain sense, the slip - to use a term from Havet - is an ‘anticipation’, but of an ideological nature.

(3.2.186) Eur., *El.*, 310-313:

310 ἀνέορτος ἱερῶν καὶ χορῶν τητωμένη
 ἀναίνομαι γυναῖκας οὔσα παρθένος,
 αἰσχύνομαι δὲ Κάστορ’, ὃς πρὶν ἐς θεοὺς
 ἐλθεῖν ἔμ’ ἐμνήστευσεν, οὔσαν ἐγγενῆ.
 311 γυναῖκας **Barnes**] δὲ γυμνάς **LP, suprascr.** γυναῖκας **L2 vel L1**
 315 : δὲ γυμνάς οὔσα παρθένους **Kirchhoff, toto verso ante 310 traiecto**

Electra describes to Orestes (whose identity she does not yet know) the miseries in which she is forced to live and her own state of isolation, accentuated also by her shame of *πάρθενος* towards other women. Certainly also due to the influence of ll. 307-308 (αὐτὴ μὲν ἐκμοχθοῦσα κερκίσι πεπλους / ἢ γυμνὸν ἔξω σῶμα καὶ στερήσομαι) the Laur. 32, 2 (**L**) and the Pal. 287 (**P**) report the reading δὲ γυμνάς, which Kirchhoff tried to save by transposing the verse: “and I baulk at being a naked maiden”¹²⁵. Again, a term was not repeated by pure mnemonic echo: it was inserted into the text in a manner that is consistent with the verse that contains it and also with the previous statements of Electra.

Dawe cites the error to justify a conjecture in Theod. Prod. *Rhod. et Dos.* III 65:

τότε προήχθην καὶ φιλήσαι τὸ στόμα

¹²⁵A defence of the intervention in Kovacs, 1995, 306-310. Against, instead, cf. Seaford, 1996, 319 f. 38. Cropp, 1988, 120.

καὶ προσπλακῆναι τῷ τραχίλῳ γνησίως-
 ὡς δ' οὖν μετασχῶν γλυκερῶν φιλημάτων
 65 ἦτουν φανῆναι καὶ γυναιῖα τὴν κόρην,
 "ἐπίσχεσ ἄρτι κάκ μόνων φιλημάτων
 ἡμᾶς γινώσχοις" ἀνταπεκρίνατό μοι.

«I asked the girl to appear as a woman' is a request which would leave Rhodante or any other girl baffled», comments the author, who proposes that γυναιῖα at l. 65 is a corruption for γυμνάδα, therefore the opposite exchange to the one in the Euripides text. The comparison, therefore, is quoted simply to prove the mechanical verisimilitude of the error, to show that the exchange took place elsewhere and, therefore, is not a daring conjecture. But in the case of the *Electra*, the error had co-textual reasons that do not exist in this passage.

Here we notice a first example of a trend that will often be highlighted in the next pages: the systematic minimization of semantic and psychological reasons, in favour of mechanical motivations, which will be particularly evident in some examples in the next paragraph, where instead the psychological ratio will be fundamental cause of errors.

THE ERRORS SUGGESTED BY THE CO-TEXT AS A WHOLE

There are, in the handwritten witnesses, substitutions of terms that seem to be influenced by the general sense of a passage, but without the repetition of a single word being noticed. Havet, in his *Manuel de critique verbale*, defines them as 'suggested by the whole context': one of the passages mentioned is Verg. *Aen.* XI 185-186 (*huc corpora quisque suorum / more tulere patrum*), where the Laur. 39 I (M) writes *morte* for *more*. That section of the text deals precisely with funerals. The copyist, therefore, who comes from transcribing many terms referring to the semantic field of death (lastly the term *corpora* in v. 185), was inclined to see one even where there was none. In truth, it should be noted that in v. 182 there was the word *mortalibus*, so the case is partially similar to the examples of *Echoschreibung* just surveyed. The underlying reasoning, however, is clearly extensible to

other examples: in the next pages, I will list some cases in which the copyist does not repeat a specific word among those just copied; rather, what will mislead the copyist will be the sense of the passage in general and the semantic fields involved in it or, even, the general content and the plot of the work they are reproducing.

(3.2.187) Soph., *OT*, 941-942:

ΙΟ. τί δ'; οὐχ ὁ πρέσβυς Πόλυβος ἐγκρατὴς ἔτι;

ΑΓ. οὐ δῆτ', ἐπεὶ νιν θάνατος ἐν τάφοις ἔχει.

942 ἐν τάφοις] ἐν δόμοις **FacHN**

Dawe's commentary on the passage is noteworthy:

the variant δόμοις for τάφοις is stylistically superior, and it is easy to see how τάφοις could have started life as a gloss. But it is none too well attested, and the messenger might be no great stylist, to the question 'Isn't Polybus still in power?' blunting replying: 'No; he is dead and buried'.

In other words, the *utrum in alterum* would be in favour of δόμοις because of the funereal subject of the verse, which could well be accompanied by a gloss involving Polybus's tomb. The discussed variant, however, is preceded by the word θάνατος: if a *corruptelae ratio* should be invoked, it is not that of the intruding gloss, but - in all probability - that of a common slip of the pen born from the influence of the previous word. Dawe's comment is emblematic of the lack of consideration given to psycholinguistic error, and of the search for the mechanical cause as a guarantee of plausibility of conjecture.

(3.2.188) Soph., *El.*, 1458-1463:

Αι. οἴγειν πύλας ἄνωγα κἀναδεικνύναι
 πᾶσιν Μυκηναίοισιν Ἀργείοις θ' ὄραᾶν,
 1460 ὡς εἴ τις αὐτῶν ἐλπίσιν κεναῖς πάρος
 ἐξήρετ' ἄνδρὸς τοῦδε, νῦν ὄρων νεκρὸν
 στόμια δέχεται τὰμά, μηδὲ πρὸς βίαν
 ἐμοῦ κολαστοῦ προστυχῶν φύση φρένας.
 1460 πάρος] μάτην **GR**, **verum G^{sup}**

Aegistus has been deceived with the false news of Orestes' death: addressing the citizens of Mycenae and Argos, he invites them to acknowledge that past empty hopes are now useless. The model of Laur. Conv. Soppr. 152 (**G**) and Vat. gr. 2291 (**R**) writes μάτην at the end of the verse, replacing adverb to adverb and emphasizing the vanity of the hopes mentioned by Aegistus. According to Finglass this would be an attempt to improve the text by inserting a more incisive word: but the adverb, redundant in itself, seems instead the result of an interpretative copying, which maintains the syntactic function of the word to be copied but adjusts its meaning to the words immediately preceding it.

(3.2.189) Eur., *Med.*, 326-329:

KP. φιλω̄ γὰρ μάλλον οὐ δόμους σέ.
 MH. ὦ πατρίς, ὡς σου χάρτα νῦν μνεῖαν ἔχω.
 KP. πλὴν γὰρ τέκνων ἔμοιγε φίλτατον πολύ.
 329 πολύ] πόλις **B2**

By **B2** scholars conventionally mean the corrections to Par. gr. 2713 (**B**), approximately contemporary to the manuscript (10th-11th century), made by a second hand. Page defines the variant “no more than an ingenious and unnecessary conjecture”: the verse would thus repeat, in fact, the content of

Creon's previous line (v. 327). There is no need to think of a voluntary intervention: it is possible that the variant is born in an involuntary way due to the influence of the previous verses. Again, even if with different conclusions, the hypothesis of the slip is not taken into consideration: the "semantically acceptable" nature of the exchange is necessarily traced back to a voluntary intervention.

(3.2.190) Soph., *OT*, 1319-1323:

XO. καὶ θαῦμά γ' οὐδὲν ἐν τοσοῖσδε πῆμασιν
 1320 διπλᾶ σε πενθεῖν καὶ διπλᾶ κακά.
 OI. ἰὼ φίλος,
 σὺ μὲν ἐμὸς ἐπίπολος ἔτι μόνιμος- ἔτι γὰρ
 ὑπομένεις με τὸν τυφλὸν κηδεύων.
 1322 ἐμὸς ἐπίπολος] ἐμοῖς ἐπὶ πόνοις Lγρ

The Chorus has just discovered Jocasta's suicide and the resulting blinding of Oedipus. The protagonist, back on stage, turns to the Chorus, commenting in amazement on its constant presence at his side, even in such harrowing circumstances. The word ἐπίπολος is, as far as we know, a sofolean coinage modeled on ἀμφίπολος and πρόσπολος, to indicate the idea of a person who remains at someone's side. A scholium in the Laur. 32, 9 (schol. ad Soph. *OT* 1322, I 209 Xenis) states: γράφεται καὶ ἐμοῖς ἐπὶ πόνοις. The variant intervenes on an extremely rare term with minimal (if metrically incorrect) palaeographic modification. It is probably not a case of *Echschreibung*: the term πόνος does not appear anywhere near v. 1322. The error must have been inspired in the copyist by the generic theme of pain, which has been continuously repeated in previous verses (ἐν τοσοῖσδε πῆμασιν v. 1319, πενθεῖν, θροεῖν κακά v. 1320).

(3.2.191) Soph., *El.*, 426-427 :

πλείω δὲ τούτων οὐ κάτοιδα, πλὴν
πέμπει μ' ἐκείνη τοῦδε τοῦ φόβου χάριν.
427 τάφου **N**] τάρβους **J**

With these words Chrysothemis concludes the speech with which she relates to Electra that Clytemnestra had ordered her, through a dream harbinger of bad omens (ἐκ δειμάτων του νυκτέρου, δοχεῖν ἐμοί, v. 410) to place offerings on the tomb of her father (μήτηρ με πέμπει πατρὶ τυμβεύσαι χόας, v. 406). If the copyist of the Ien. Bos. q. 7 (**J**) makes a mistake that can be easily explained (a repetition of a very similar hemistich, τοῦδε τοῦ τάρβους πέρι, v. 412), it is the copyist of the Matr. 4677 (**N**) who makes a more remarkable inattention. It should be noted that the word τάφος is present, in the work, only twice, at vv. 1218-1219 (ΗΛ. ποῦ δ' ἔστ' τάφος ταλαιπώρου τάφος; / ΟΡ. οὐκ ἔστι- τοῦ γὰρ ζῶντος οὐκ ἔστιν τάφος). It is not, therefore, a question of lexical influence: the meaning of v. 410 could, however, still be present in the mind of the copyist, who modifies the syntagma of v. 427 to obtain a uniformity of meaning between the motivations given by Chrysothemis at the beginning of the speech and those given at the end.

(3.2.192) Eur., *Med.*, 373-375:

τήνδδ' ἐφῆκεν ἡμέραν
μεῖναι μ', ἐν ἧι τρεῖς τῶν ἐμῶν ἐχθρῶν νεκρούς
375 θήσω, πατέρα τε καὶ κόρην πόσιν τ' ἐμόν.
374 ἐχθρῶν **om. A(add. Ar)D**] νεκρούς ἐγώ **D**

These words are pronounced by Medea immediately after Creon announced her exile from Corinth for the following day. The woman promises to take revenge against Creon, his daughter and Jason himself. Already on l. 278, having heard the will of Creon, the woman had declared: ἐχθροὶ γὰρ ἐξιῶσι πάντα δὴ κάλων; now she reiterates the fact that her husband, the king who had

welcomed her to Corinth and his daughter are, for her, adversaries to kill. Two manuscripts, the Par. gr. 2712 (**A**) and the Laur. 31,15 (**D**), omit the word ἐχθρῶν. **D** also adds ἐγώ at the end of the verse, a clue perhaps that a copyist tried to fill a gap in his own model. It is not difficult to hypothesize a mechanical error for such omission: the previous word, ἐμῶν, begins and ends with the same letters. However, it should be noted that the phrase οἱ ἐμοί ἐχθροί, in its various declensions, is found twelve times in Euripides; of these, seven attestations are in the *Medea*: the apparatus never records the loss of the noun except in this case. It is therefore possible that the error was also generated by the influence of the next verse, which enumerates three terms of kinship¹²⁶.

(3.2.193) Ar., *Nub.*, 1117-1118:

πρῶτα μὲν γάρ, ἦν νεᾶν βούλησθ' ἐν ὄρα τοὺς ἀγρούς,
 ὕσομεν πρώτοισιν ὑμῖν
 1117 ἀγρούς] ὑγρούς **Rac**

The Clouds that make up the Chorus promise the judges a favorable treatment, in case of a favorable judgment: among the various privileges offered, there is that of making it rain on their fields first. But the verb ὕσομεν immediately following and the anticipatory thought of the fields swollen with rain transformed τοὺς ἀγρούς into τοὺς ὑγρούς in the mind of the copyist of the Rav. 429 (**R**), who noticed the slip and corrected it. Contemporary corrections to the copy act are, for us, a precious source to really understand which mistakes are plausible and how much the psycholinguistic ratio influences them.

(3.2.194) Ar., *Av.*, 494-495:

¹²⁶On the model of **D** for vv. 1-700 there is no certainty: for this section, the manuscript has a common ancestor with Athos, Μονὴ Ἰβήρων 209 (**E**), but the fact that this is not a direct ancestor is proved by many readings in which **D** agrees with other manuscripts (especially **A**) against **E**. Cf. Diggle, 1983, 343-345.

εἰς δεκάτην γάρ ποτε παιδαρίου κληθεὶς ὑπέπινον ἐν ἄστει,
 495 κἄρτι καθηῦδον, καὶ πρὶν πρὶν δειπνεῖν τοὺς ἄλλους οὗτος ἄρ' ἦσεν
 495 δειπνεῖν **RVM9q**] δὲ πίνειν **MA** : δὲ πιεῖν **ΓU**

Pisthetaerus tells Euelpides about when, in town for a banquet, he had drunk some wine and fell asleep before the feast; awakened by the crowing of a rooster, he thought it was dawn and left. In reality, the banquet had not yet taken place and, because of a hasty rooster, Pisthetaerus lost it. The verb ὑπέπινον must have suggested to the model of the Ambr. L 39 sup. (**M**) and the Par. gr. 2712 (**A**) to replace, in the next verse, the action of the banquet with that of drinking: δὲ πίνειν was generated with the only movement of the ι and with a different *divisio verborum*. The variant δὲ πιεῖν seems, finally, generated to rectify the ametric nature of the reading in **M** and **A**.

(3.2.195) Soph., *Aj.*, 364-367:

ὄρᾳς τὸν θρασύν, τὸν,
 365 τὸν ἐν δαίσις ἄτρεστον μάχας,
 ἐν ἀφόβοις με θηρσί δεινὸν χέρας;
 οἴμοι γέλωτος- οἶον ὑβρίσθην ἄρα.
 367 ἄρα] τάλας **Fs**^{γρ}

Ajax laments his wretched fate, comparing it to the glories of yesteryear. The variant overwritten in the Laur. 28, 25 (**F**) is a modification so to speak ‘intensive’ and pathetic, because it inserts in the passage a final adjective linked to the self-pity of the protagonist, intensifying the meaning of the verse in a way that is consistent with the previous sentences.

(3.2.196) Ar., *Nub.*, 383-384:

οὐκ ἤχουσάς μου τὰς νεφέλας ὕδατος μεστὰς ὅτι φημί
 ἐμπιπτούσας εἰς ἀλλήλας παταγεῖν διὰ τὴν πυκνότητα;
 384 πυκνότητα] ὑγρότητα **V**

Socrates illustrates to Strepsiades his theory on the genesis of thunder: the clouds, heavy with rain, strike each other producing thunder. The cause of this phenomenon is, according to all the manuscripts, their density (πυκνότης). The Marc. 474 (**V**) alone attributes it to their being full of water (ὑγρότης). A repetition of ὕδατος μεστὰς in the previous verse, which probably arose due to the influence of the latter, and rather uninfluenced by purely mechanical reasons.

(3.2.197) Eur., *Med.*, 502-503:

νῦν ποῖ τράπωμαι; πότερα πρὸς πατρὸς δόμους,
 οὓς προδοῦσα καὶ πάτραν ἀφικόμην;
 503 πάτραν] πρῶταν **Vc**

Medea bitterly notes that she does not know where to go if she is expelled from Corinth: she certainly cannot return to her native house, which she betrayed for Jason along with her homeland. The error of the Vat. gr. 910 (**Vc**) probably derives from the association of ideas between her father's house and her first house.

(3.2.198) Eur., *Alc.*, 1089:

τί δ'; οὐ γαμεῖς γὰρ ἀλλὰ χηρεύσῃ λέχος;
 1089 λέχος **BOV**] χηρεύεις μόνος **LPQ**

«LPQ's χηρεύεις μόνος clearly will not do: we need a future, not a present, and μόνος is absurdly redundant»¹²⁷. The variant has a co-textual origin: the second half of the verse, partially lost in the memory of a copyist, was replaced with material that reiterated and specified οὐ γαμεῖς.

A copyist, reading a text, can develop a 'false expectation' on how the text will go on, wrongly adapting a term to the previous words:

(3.2.199) Pind., *O.*, II 22-23:

ἔπεται δὲ λόγος εὐθρόνοις
 Κάδμοιο κούραις
 22 εὐθρόνοις] εὐφρονος Π2

P. Oxy 17.2092 (Π2)'s copyist, reading ἔπεται δὲ λόγος εὐ-, did not notice the word that separated εὐθρόνοις from the related noun (κούραις); instead, the copyist believed that the word beginning for εὐ- was an adjective related to λόγος, making the structure of the sentence more prosaic and partially changing its meaning.

(3.2.200) Eur., *Cyc.*, 507-510:

ὑπάγει μ' ὁ φόρτος εὐφρων
 ἐπὶ κῶμον ἦρος ὤραις
 ἐπὶ Κύκλωπας ἀδελφούς.
 510 φέρε μοι, ξεῖνε, φέρ', ἀσκὸν ἔνδος μοι.
 510 ἔνδος μοι] ἐν δομῆς A

¹²⁷Parker, 2007, 268.)

In the verses quoted, the Cyclops demands to be given the wineskin (ἀσκὸν ἔνδοσ μοι). The Par. gr. 2712 (A), however, perhaps thinking of ἔνδοσ, moved only one letter, the σ, and derived from the ‘Housmanian’ anagram a prepositional phrase of place¹²⁸.

(3.2.201) Carm. Anacr., 18 [17.18B] 1-4:

Δότε μοι, δότ' ὦ γυναῖκες

Βρομίου πιεῖν ἀμυστί-

ἀπὸ καύματος γὰρ ἤδη

προδοθεὶς ἀναστενάζω

5 4 προδοθεὶς] πυρωθεὶς **sscr. P**

The poet asks for a glass of wine, because he is exhausted from the heat. The variant πυρωθεὶς must have come about through the influence of ἀπὸ καύματος.

(3.2.202) Ar., *Nub.*, 1174-1176:

καὶ δοκεῖν

1175 ἀδικοῦντ' ἀδικεῖσθαι, καὶ κακουργοῦντ', οἶδ' ὅτι-

ἐπὶ τοῦ προσώπου τ' ἐστὶν Ἀττικὸν βλέπος.

1176 τὰττικὸν and τακτικὸν **S1**] Ἀττικὴ **S3**

Pheidippides has, according to his father, an innocent and unsuspected look just as he prepares to commit injustices: the typical aspect of the Athenian. In fact, however, the description of the young man is that of someone who is putting a fraudulent plan into practice; and τακτικὸν is, in fact, the βλέπος according to a variant: an adjective derived with a minimal change from τὰττικὸν, but in its own way appropriate to the context from the point of view of the meaning.

¹²⁸See Housmann's examples on syllabic anagrams in Diggle & Goodyear, 1982, 221.

In the following examples I will try to delimit a phenomenon that is partly different from the previous one: in these cases, in fact, the wrong terms are introduced by a copyist without the influence of the adjacent terms nor of the semantic fields involved in the passage being copied; the context that is misleading is, so to speak, the ‘narrative’ one: confusion can arise from a notion or from a judgment of the copyist on the characteristics of the object to which the copied words refer. Two examples taken from Havet’s *Manuel de Critique Verbale Appliquée Aux Textes Latins* about the Plautine tradition may serve as a clarification. In § 541, Havet informs the reader that in *Ep.* 14, the family known as the Palatina replaces *curriculo* with *Curculio*, the name of the eponymous protagonist of another play; or, in *Ep.* 42, the Pal. Vat. 1612 (**B**) writes *amabo* for *ambo*, without particular contextual suggestions, just because the copyist - says Havet - «attends les tournures de la comédie». The knowledge and cultural background of the copyists often allows them to go back in their memory to facts or notions pertinent to the work they are copying: it is from this source - the influence of the context in the broadest sense - that some lapses come, such as those mentioned in the following pages.

(3.2.203) Eur., *Bacch.*, 451-452:

μέθεσθε χειρῶν τοῦδ’ - ἐν ἄρκυσιν γὰρ ὦν

οὐκ ἔστιν οὕτως ὠκὺς ὥστε μ’ ἐκφυγεῖν.

451 μέθεσθε **Burges**] μείνεσθε **LP**

Μέθεσθε is a unanimously accepted correction: the reading handed down by Laur. 32, 2 (**L**) and Vat. Pal. gr. 287 (**P**) is μείνεσθε: in the previous verses the guards had reported to Pentheus about the miraculous escape of the Bacchae. In this case, the tradition has inserted a verb profoundly suitable for the tragedy tout court, but inappropriate for the passage itself: the influence of the general context has prevailed over that exerted by the immediate context.

(3.2.204) Eur., *Med.*, 399-400:

πικρούς δ' ἐγὼ σφιν καὶ λυγρούς θήσω γάμους,
 400 πικρὸν δὲ κῆδος καὶ φυγὰς ἐμὰς χθονός.
 400 κῆδος] κῦδος **WNv**

The difference between the error and the original reading is minimal and due to a variation that is properly itacistic. The meaning, however, is influenced by it. In the original verses, Medea makes explicit her future plans for Jason and Glauce (πικρούς δ' ἐγὼ σφιν καὶ λυγρούς θήσω γάμους, / πικρὸν δὲ κῆδος) and for herself (καὶ φυγὰς ἐμὰς χθονός). The erroneous reading simplifies the structure of the verses, removing the *enjambement*: v. 399 establishes the consequences that will fall on Jason and his future wife, while v. 400 is completely referred to Medea. Moreover, the 'bitter glory' that Medea would claim to desire seems to contain, implicitly, a foreshadowing of the finale of the tragedy and of the fame of matricide *par excellence* that would accompany her character forever. Of the two manuscripts that report the erroneous reading, the Vindob. gr. 17 (**Nv**), dated around 1500, «textum mixtum exhibet cuius fontem vel fontes non facile reperies. [...] D et W fortasse non relinquendi». the Ath. Iber. 209, olim 161 (**W**) and the Laur. 31, 15 (**D**) agree with **Nv** in some errors (e.g. see 411: δίκαια for δίκαι; see 604: φευξοῦμαι for φευξοῦμαι; see 607: τύραννος for τυράννοις). The two manuscripts, although linked by «certa proximitas» diverge on this reading: it is perhaps possible that precisely **W** is, for this passage, a model of **Nv**, of which some peculiarities have already been highlighted above¹²⁹.

(3.2.205) Eur., *Med.*, 593-594:

εὔ νυν τόδ' ἴσθι, μὴ γυναικὸς οὔνεκα

¹²⁹Van Looy, 1992, XXI and XVIII.

γῆμαί με λέκτρα βασιλέων ἄ νῦν ἔχω

594 γῆμαί] τλῆναι Π13 (def. Tedeschi 1986)

The second episode of the Medea is entirely occupied by the quarrel between the protagonist and Jason, who tries to defend his choice to marry Glauce and to appease the anger of his betrayed companion: the purpose of his new union would be mainly to protect the children of first bed, giving them royal blood brothers who would legitimize their status; Jason specifies, on the other hand, that the choice qualifies him as a wise man and immune to passions (vv. 547-550) and is not dictated by annoyance towards the bed of Medea or by lust for a new bride (ll. 555-556). The verses reported are the last, desperate attempt to reiterate his motives in front of the contemptuous treatment by the woman. A papyrus dated to the 1st century B.C. (Pap. Heid. G 1385) reports the reading τλῆναι με λέκτρα. G. Tedeschi alone, in an article from 1986¹³⁰, defended it: with this reading, the verse would allude to the Homeric passage in which Tethys confesses to having been forced to join Pelaeus (*Il.* XVIII 433-434: καὶ ἔτλην ἀνέρος εὐνήν / πολλὰ μάλ' οὐκ ἐθέλουσα); the verse would also be consistent with Jason's attempt to show that his feelings for Medea are still standing; the manuscripts' reading would finally be a trivialization based on a typically Euripidean expression (*Ion.* 297: γαμεῖ λέχος; *Tro.* 44: γαμεῖ βιαίως σκότιον Ἀγαμέμνων λέχος. *Hel.* 784: ἦ γὰρ γαμεῖν τις τᾶμ' λέχη; *El.* 936: γῆμαντι καὶ μείζω λέχη). However, in this passage, Jason is reporting, in order to deny it, Medea's opinion: it is her who believes that he wants to join Glauce γυναικὸς οὐνεκα: at the end of the long and heated dialogue, Jason would like to reiterate at least the falsity of this recrimination. The accusation can't be to bear the new bride, but to join her more than willingly: it would not make sense, therefore, to attribute to Medea a verb like τλῆναι. Probably, the variant was born by general influence of Jason's tones and justifications, but the misogynistic slip cannot be excluded.

(3.2.206) Soph., *OT*, 863-872:

¹³⁰Tedeschi, 1986

- εἴ μοι ξυνείη φέροντι μοῖρα τὰν
 εὔσεπτον ἀγνείαν λόγων
 865 ἔργων τε πάντων, ὧν νόμοι πρόκεινται πρόκεινται
 ὑψίποδες, οὐρανία ἔν
 αἰθέρι τεκνωθέντες, ὧν Ὀλυμπος.
 πατήρ μόνος, οὐδέ νιν
 θνατὰ φύσις ἀνέρων
 870 ἔτικτεν, οὐδὲ μήποτε λά-
 θα κατακοιμάσῃ.
 μέγας ἐν τούτοις θεός, οὐδὲ γηράσκει.
 870-871 λάθα] λάθρα **LacGacRZc**

The above mentioned verses come from the beginning of the second stasimos, in which the chorus is poured out in expressions of praise for pure words and actions, which are like laws that descend directly from the Olympus and are not generated by mortals. With the variant in vv. 870-871, the sentence changes radically its meaning: the subject, i.e. the oblivion, which is hoped never to put divine laws to rest, is replaced by the adverb meaning ‘hiddenly, secretly’. It is therefore assumed that the verb κατακοιμάσῃ is, in the erroneous structure of the sentence, referred to the last known subject: human nature (θνατὰ φύσις) of v. 869. The new meaning would be, therefore: the divine laws have as their only father the Olympus; the mortal nature of men has not generated them and it is hoped that it will not put them to rest *in secret*. The erroneous version replaces a consideration of the eternity of divine laws with what may seem a hint of future developments in the plot: the copyist who has been in error has perhaps unconsciously expressed his anticipating thoughts on the plot of the tragedy that the passage has triggered in him.

τοιγὰρ φυτεύων παῖδας οὐκέτ' ἄν φθάνοις,
 οἱ γηροβοσκήσουσι καὶ θανόντα σε
 περιστελοῦσι καὶ προθήσονται νεκρόν.
 665 οὐ γὰρ σ' ἔγωγε τῆιδ' ἐμῆι θάψω χερί-
 τέθνηκα γὰρ δὴ δὴ τοῦπὶ σ'. εἰ δ' ἄλλου τυχῶν
 σωτῆρος αὐγὰς, κείνου λέγω
 καὶ παῖδά μ' εἶναι καὶ φίλον γηροτρόφον.
 665 θάψω] θάλψω **V**

Admetus reproaches his father for his decision not to sacrifice himself, but to let Alcestis die. The son announces, moreover, his own revenge: he won't participate in the funeral of the parent, when the time comes. The copyist of the Vat. gr. 909 (**V**), however, with the addition of a single letter, transforms the meaning of the sentence: instead of not burying him, Admetus would threaten not to warm him up himself. Perhaps a reminiscence of the resurrection that the father denied his son? Or, simply, a lexical reminiscence of the style of the funeral lament, pertinent to the theme of the death of the parent?

(3.2.208) Tyrnt., X 26-30 :

αἰσχρὰ τὰ γ' ὀφθαλμοῖς καὶ νεμεσητόν ιδεῖν,
 καὶ χροῖα γυμνωθέντα· νέοισι δὲ πάντ' ἐπέοικεν,
 ὄφρ' ἐρατῆς ἦβης ἀγλαὸν ἄνθος ἔχηι,
 ἀνδράσι μὲν θηητός ιδεῖν, ἐρατός δὲ γυναιξὶ
 30 ζῶδός ἐών, καλὸς δ' ἐν προμάχοισι πεσών.
 29 ἐρατῆς] ἀρετῆς **NA**

The vocal anagram inserts a term that does not fit with the syntax in which it is inserted, but whose meaning reveals its genesis by association of ideas with the surrounding verses and, in general, with the production of Tyrtaeus.

(3.2.209) Ar., *Av.*, 120-122:

120 ταῦτ' οὖν ἰκέται νῶ πρός σέ δεῦρ' ἀφίγμεθα,
εἴ τινα πόλιν φράσειας ἡμῖν εὐερον
ὥσπερ σισύραν ἐγκατακλινῆσαι μαλθακῆν.

121 εὐερον **RVEMΓBLM^{2mg} ΣS Zonar.**] εὐάερον **Aq**: ἀέριον **UB^{2mg}**

Pisthetaerus and Euelpides reveal the reasons why they went in search of Urupa: they want him to advise them on a pleasant city, where they can live peacefully. The comedy will then evolve into the foundation of Nubicuculia, the city suspended halfway between sky and earth. At this point of the text, however, it is too early to think about it: yet some copyist must already have had in mind the future development: the Par. gr. 2712 (**A**) and the subfamily **q¹³¹** have εὐάερον, whereas the Vat. Urb. 141 (**U**) defines the city ἀέριον. The same variant is found in the margin of Par. gr. 2715 (**B**).

(3.2.210) Eur., *El.*, 432-441:

XO. κλειναὶ νᾶες, αἶ ποτ' ἔβατε Τροίαν
τοῖς ἀμετρήτοις ἐρετμοῖς
πέμπουσαι χορεύματα Νηρηίδων,
435 ἴν' ὁ φίλαυλος ἔπαλλε δελ-
φίς πρόιραις κυανεμβόλοι-
σιν εἰλισσόμενος,

¹³¹«**q**: consensus codicum **PHC** (vel duorum ex his) et **VV17LB** (vel duorum ex his)» [Dunbar, 1995, 53.](#))

πορεύων τὸν τᾶς Θέτιδος
 κοῦφον ἄλμα ποδῶν Ἀχιλῆ
 440 σὺν Ἀγαμέμνονι Τρωίας
 ἐπὶ Σιμουντίδας ἀκτάς.
 435 φίλαυλος **Tr. et Ar.**] φιλάδελφος <L>

The chorus of the *Electra* defines the dolphin ‘fond of the aulos’: we are able to reconstruct it thanks to the parody of Euripides in Aristophanes’ *Frogs* (Ar. *Ran.* 1317-1319: ἴν’ ὁ φίλαυλος ἔπαλλε δελφίς / πρόρραις κυανεμβόλοις / μαντεῖα καὶ σταδίους). Perhaps the reading handed down from the Euripidean manuscript tradition arose from the influence of the general context, in a tragedy in which the theme of the alliance and affection between siblings is core.

(3.2.2II) Eur., *Med.*, 290-291:

290 κρεῖσσον δέ μοι νῦν πρὸς σ’ ἀπεχθέςθαι, γύναι,
 ἢ μαλθακισθένθ’ ὕστερον μεταστένειν.
 290 γύναι] πλέον **gV** : ζένε **Plut. Mor. 124b**

The vocative at the end of the verse is loosened from the syntax and, as such, subject to corruption. The Ath. Vat. 36 (**gV**) in fact attempts to insert a two-syllable word that is somehow pertinent to the syntax of the verse, which probably seemed incomplete. Plutarch, on the other hand, introduces an epithet appropriate to the character of Medea, the foreigner *par excellence*, and which, however, has no relevance in the rest of the Euripidean production. The verses are referred to the attitude to be held towards unwelcome invitations, especially by people of high rank or foreign guests (ἡγεμόνων καλούντων ἢ ξένων ἐπιφρανέντων): one may wonder, therefore, if Plutarch already read v. 290 in that form, if it is a slip of the author or if the Plutarchean tradition has been influenced by the sentence preceding the quotation.

(3.2.212) Ath., *Deipn*, I 27, 7-9:

Δημοδόκου γοῦν ἄδοντος (*Od.* VI 262) κοῦροι πρωτῆβαι ὠρχοῦντο·

καὶ ἐν τῇ Ὀπλοποιίᾳ (*Il.* XVIII 572) δὲ παιδὸς κιθαρίζοντος

ἄλλοι ἐναντίοι μολπῇ τε ὀρχηθῆναι τε ἔσκαιρον.

412 ἐναντίοι **Kaibel coll. k**] ἐναντίοισι **C** : ἐν μανία **E**

There are various types of dances: some more frenetic, others involving the use of the ball, others even more harmonious and calm, as in some scenes from Homeric poems. The copyist of the Laur 60, 2 (**E**), one of the witnesses of the epitome of the *Deipnosophists*, perhaps unconsciously associated the dance with scenes of Dionysian settling, wrote ἐν μανία.

(3.2.213) Ar., *Nub.*, 1494-1496:

Στ. σὸν ἔργον, ὦ δᾶς, ἰέναι πολλὴν φλόγα.

1495 Μα.α ἄνθρωπε, τί ποιεῖς;

Στ. ὅ τι ποιῶ; τί δ' ἄλλο γ' ἦ

διαλεπτολογοῦμαι ταῖς δοκοῖς τῆς οἰκίας;

1496 οἰκίας] αἰτίας **V, verum V^{yp}**

Strepsiades, just before setting fire to the Think Tank, makes fun of sophisticated logic. The verb διαλεπτολογοῦμαι is an Aristophanesque coinage, which unites διαλέγομαι and λεπτολογέω: cf. 319-320: Στ. ταῦτ' ἄρ' ἀκούσασ' ἀκούσασ' αὐτῶν τὸ φθέγμ' ἢ ψυχὴ μου πεπότηται / καὶ λεπτολογεῖν ἤδη ζητεῖ καὶ περὶ καπνοῦ στενολεσχεῖν. The copyist of **V**, at the end of v. 1496, writes αἰτίας (but the correct reading is written in the margin of the code): perhaps a slip of the tongue, due to the parodic use of terms related to logic and Socratic disquisitions

(3.2.214) Eur., *Andr.*, 358-360:

αὐτοὶ τὴν δίκην ὑφέξομεν
 ἐν σοῖσι γαμβροῖς, οἷσιν οὐκ ἐλάσσονα
 360 βλάβην ὀφείλω προστιθεῖσ' ἀπαιδίαν
 360 ἀπαιδίαν **ALP BvIVvl**] ἀβουλίαν Π7**VBMO**

Andromache, taken prisoner after the capture of Troy, is assigned to Neottolemus, with whom she has a son; but Hermione, daughter of Menelaus and lawful wife of Neottolemus, accuses Andromache of making her barren. In a verbal confrontation with Menelaus, father of Hermione, the Trojan woman states that she is ready to stand trial and, if found guilty, to be punished (βλάβην ὀφείλω) for Hermione's infertility. Part of the tradition replaces infertility with the ἀβουλία, *i.e.* lack of judgment, superficiality in making decisions. Is this, perhaps, a variant born from the influence of the rest of Andromache's discourse? Does the ἀβουλία refer to her hypothetical bad behavior, in causing the infertility of the 'rival'? One may also wonder whether ἀπαιδίαν, in the absence of attestations, would be considered an acceptable conjecture. Murray finally draws attention to the conjecture ἀκυμίαν (a term not attested but connected with the verb κύω), attributed to Headlam, which evidently presupposed a double paleographical error starting from ἀβουλίαν, and - perhaps - the insertion of the gloss ἀπαιδίαν.

(3.2.215) Ar., *Nub.*, 414-417:

εἰ μνήμων εἶ καὶ φροντιστῆς καὶ τὸ ταλαίπωρον ἔνεστιν
 415 ἐν τῇ ψυχῇ, καὶ μὴ κάμνεις μήθ' ἔστως μήτε βαδίζων,
 μήτε ῥιγῶν ἄχθει λίαν μήτ' ἀριστᾶν ἐπιθυμεῖς,
 οἴνου τ' ἀπέχει καὶ γυμνασίων καὶ τῶν ἄλλων ἀνοήτων
 417 οἴνου] ὕπνου **EM**

Among the behavioral requirements to be a wise man, the *Cloud's* Chorus also indicates abstaining from frivolousness. These characteristics clearly target on the one hand the portraits of an abstinent and indefatigable Socrates, on the other hand some key elements of Athenian life, such as the gymnasiums, that are dismissed as ἀνόητα. The manuscripts Est. α. U.5.10 (III D 8) (**E**) and Ambr. L 39 sup. (**M**), both from the 14th century, show a different reading: the wise man should not abstain from wine, but from sleep. The two manuscripts have very close wording, if we do not consider the corrections made on **E** with the help of a witness belonging to another branch of the tradition. In this case, the variant in the model of **E^{ac}** and **M** is ancient: it dates back at least to the 5th century A.D., because it is also reported by the *Etymologicon* of Orion, where it is read¹³²:

Εὐνοῦχος. παρὰ τὸ τὴν εὐνήν ἔχειν καὶ ἐπιμελεῖσθαι- ἔχειν γὰρ τὸ φυλάττειν. Ὅμηρος- ὡς μοι κῆπον ἔχει πολυδένδρεον. ὁ δὲ εὐνοῦχος παρὰ τὸ τὸ εὖ τοῦ ἔχειν, ἐστερημένου τοῦ μίσεσθαι, ἅπερ ἀρχαῖοι ἀνόητα ἐκάλουν. Ἄριστοφάνης, ὕπνου τ' ἀπέχεσθαι καὶ ἀνοήτων.

The *Etymologicon Magnum* gives the same definition, but is even more explicit in Aristophanes' quotation: ὕπνου τ' ἀπέχεσθαι καὶ τῶν ἄλλων ἀνοήτων (cf. *Et. Magn.* 457.32). That the character of Socrates abstains from wine is a fact in contrast with the testimonies of Plato and Xenophon, who indeed emphasize his resistance to the effects of alcohol¹³³ Socrates who abstains from sleep to reflect on philosophical questions, however, is an image known to Platonic production; cf. e.g. *Plat. Symp.* 220c-d:

ἐπειδὴ ἐσπέρα ἦν, δειπνήσαντες - καὶ γὰρ θέρος τότε γ' ἦν - χαμεύνια ἐξενεγάμενοι ἅμα ἐν τῷ ψύχει καθηῦδον, ἅμα δ' ἐφύλαττον αὐτὸν εἰ τὴν νύκτα ἐστήξει. ὁ δὲ εἰστήκει μέχρι ἕως ἐγένετο καὶ ἥλιος ἀνέσχεν ἔπειτα ὄχρετ' ἀπιῶν προσευζάμενος τῷ ἡλίῳ.

But think also of dialogues that begin or continue at night: *Prot.* 310b 6-7:

¹³²Orion, *Et.* ε 58.29-34

¹³³Plat. *Symp.* 220 a: ἐν τ' αὖ εὐωχίαις μόνος ἀπολαύειν οἶός τ' ἦν τὰ τ' ἄλλα καὶ πίνειν οὐκ ἐθέλων, ὅποτε ἀναγκασθεῖν, πάντας ἐκράτει, καὶ ὁ πάντων θαυμαστότατον, Σωκράτη μεθύοντα οὐδεὶς πώποτε ἐώρακεν ἀνθρώπων; Xen. *Mem.* I.6.5-6: σίτα τε σιτῆ καὶ ποτὰ πίνεις τὰ φαυλότατα.

ἔστι δὲ τί, καὶ τοῦ ἔνεκα τηνικάδε ἀφίκου;

Symp. 226b-c:

τὸν μὲν οὖν Ἐρυζίμαχον Φαῖδρον καὶ ἄλλους τινὰς ἔφη ὁ καὶ ἀπιόντας, τὸν δὲ ὕπνον λαβεῖν, οἶχεσθαι Ἀριστόδημος πάνυ πολὺ, ἅτε μακρῶν τῶν οὐσῶν, ἐξεγρέσθαι δὲ πρὸς ἦδη ἀλεκτρούων καταδαρθεῖν, ἐξεγρόμενος δὲ ἀδόντων μὲν ἄλλους καθεύδοντας καὶ οἰχομένους, Ἀγάθωνα δὲ καὶ Σωκράτη ἡμέραν μόνους καὶ καὶ πίνειν ἐκ φιάλης μεγάλης ἐπὶ.

Note, in this last passage, also the mention to wine. Abstention from sleep is, in other words, a prerequisite for devoting as much time as necessary to debates and reflections. In Aristophanes' parodic perspective, sleep could be part of the ἀνόητα that distract the wise from the fundamental questions raised in the Think Tank: as if to say, sarcastically, that sleep is just as useless as sophisticated reflection is useful. On the other hand, the reading οἴνου could be born for implicit adaptation to the figure of the ascetic and abstinent wise man: the *utrum in alterum* and the attestation in *Etymologica* shed new light on the variant of **EM** which, even if erroneous, would still be consistent with Socratic literature.

This last example is emblematic of the 'danger' inherent in this type of error: the two readings, one correct and the other erroneous, both adapt to the context, one because it is correct, the other precisely because it has been influenced by it. But how to distinguish them? These erroneous readings often cannot be discarded for content reasons. Most of the cases surveyed are divided between readings that the stemmatics prove to be erroneous or that have not fully adhered to the context and have therefore been identified and amended: but the demonstrable tendency to make such errors invites us to reflect on which and how many similar changes may remain unsuspected in our texts, on how many and what conjectures may be wrongly judged implausible, and on the need to study the phenomenon extensively in search of common lines and tendencies.

ANTINOMIES

It has been stated that the previous examples have psychological and semantic nature together with – or even before – the paleographic one. This consideration is particularly evident in the case of the exact opposite error to synonymic substitution: antonymic substitutions. I prefer to use this term to the phrase ‘polar error’, which seems to be a subcategory of it. As seen above (see par. 1.2.5), the occurrence of polar errors is a fact as much proclaimed as it is singular, in philology as in everyday life: instead of a term the writer or the speaker produces the exact opposite. According to Freud, this was the perfect ground for studying the emergence of repressed thoughts; according to the most widespread contemporary linguistic theories, it is a malfunction in the psycholinguistic mechanism of word choice. Whatever its origin, their attestation in oral and written production has been reported quite frequently; of course, the result of the error is usually a sentence with the opposite meaning to the original one. In philology, however, it is rare to find examples that fully fall into the category of polar slip. In many cases, the graphic similarity between the target and the production is so marked that it seems more likely that the copyist misinterpreted the spelling and content of the text, and not that the error originated by psycholinguistic slip. Even where the auditive or visual similitude is not remarkable, there are often cotextual reasons that might have misled a copyist into writing the opposite of a word. The properly called ‘polar error’, instead, appears to be what we might call an ‘atmospheric’ slip, where some unconscious thought would lead a copyist to produce an opposite result to the target. For some of the next examples, a similar influence can be hypothesized, but for most of them a textual influence, be it internal or external, is a good enough explanation.

(3.2.216) DL, *Vitae*, I 70 8-9:

τὴν γλῶτταν μὴ προτρέχειν τοῦ νοῦ.

θυμοῦ κρατεῖν. μαντικὴν μὴ ἐχθαίρειν. μὴ ἐπιθυμεῖν ἀδυνάτων.

9 μὴ ἐχθαίρειν] ἐχθαίρειν **B**

These precepts are part of a long list of maxims attributed to Hippocrates. The copyist of the Neap. III B 29 (**B**) modifies the sense of one of them that, from favorable towards the oracular practice, is changed into deeply adverse.

(3.2.217) Ar., *Nub.*, 213-216:

Στ. οἶδ' - ὑπὸ γὰρ ἡμῶν παρετάθη καὶ Περικλέους.

ἀλλ' ἢ Λακεδαιμῶν ποῦ ἔστιν;

215 Μα. ὅπου ἔστιν; αὐτῆί.

Στ. ὡς ἐγγυὺς ἡμῶν. τοῦτο μεταφροντίζετε,

ταύτην ἀφ' ἡμῶν ἀπαγαγεῖν πόρρω πάνυ.

215 μεταφροντίζετε **schol.** Σ**R**, **cj. Bentley**] μέγα φροντίζετε **South.** : πάνυ φροντίζετε **a**

: παλιν **Sauppe** : νυν **Starkie**

When he arrives at the Think Tank, Strepsiades lacks all abstract thought. That is why, when the Disciple shows him Sparta on a map, he is horrified and - believing he is really looking at Greece - tells him to move it further away from Athens. Much of the tradition (a brings together the α and β families) maintains that Strepsiades says "only take care of this". Probably, however, πάνυ¹³⁴ was generated by μέγα (by synonymy, by glossa intrusion or by the influence of v. 216), which remains only in Suda (μ 348, III 341 A.: Μέγα: ἀντὶ τοῦ μεγάλως. Ἀριστοφάνης Νεφέλαις- τοῦτο μέγα φροντίζετε.). Bentley¹³⁵ hypothesized, however, that a scholium at v. 215¹³⁶ was a trace of an ancient reading μεταφροντίζετε, an Aristophanesque coinage with the meaning of 'change idea, think again'. If this were so, a word division and a trivial paleographic exchange (τ / γ) would have created a trivialising version with almost the opposite meaning: in the case of μέγα, in fact, τοῦτο would refer to the mission to move Sparta, made explicit in the next verse, to which the disciples should devote

¹³⁴ Accepted by Blaydes, 1890; Rogers, 1950.

¹³⁵ Bentley, 1842, 330-331.

¹³⁶ Schol. in Ar. *Nub.* 215e (I.3 54 Holwerda): φροντίζετε] βουλεύεσθε.

body and soul according to Strepsiades; in the case of μεταφροντίζετε¹³⁷, instead, τοῦτο would stand for ‘the decision to put Sparta near Athens’, i.e. the previous verse.

(3.2.218) Pind., *O.*, 6.91:

γλυκὺς κρατὴρ ἀγαφθέγκτων ἀοιδῶν-
91 ἀγαφθέγκτων] ἀφθόγγων **A**

In this way Pindar defines Aineas, the coryphaean: but in the Ambr. C 222 inf. (**A**) the ‘sweet crater’ is filled with songs ‘devoided of voice’. This could be an example of a real polar error: the meaning changes radically and with a meaningless outcome. However, it should be noted that the paleographic similarity is not absent: indeed ἀφθόγγων is almost perfectly ‘contained’ in the letters that compose ἀγαφθέγκτων.

(3.2.219) *Carm. Priap.*, 12.1:

Quaedam iunior Hectoris parente,
Cumaeae soror, ut puto, Sibyllae,
i iunior] senior **B³P²** : non iunior **F²** : minor **E¹**
: non minor **E²M²** : canior **Birt**

The described woman is said to be ‘younger’ than Hecuba, with a litotes that implies that she is indeed very old. The adjective must have been perceived as contradictory in its literal meaning, and thus it has been reverted in *senior*, *non iunior*, *non minor*. The conjecture *canior* goes in the same direction.

¹³⁷Cf. [Dover, 1968](#).

(3.2.220) *Carm. Priap.*, 2.5:

Nec Musas tamen, ut solent poetae,
ad non virgineum locum vocauit.

4 virgineum] inguineum **X²** : ingenuum **Y²TB'PVX'f(s.ras.)** : inguen **FH**

The place where the poem is sung would be unsuited for the Muses, being 'so not virginal'. It is clear that the place is denoted as not suited for the Muses. Some copyists write that it is 'not innocent', but another reading is antonymic: the place is not 'inguineum', not suited for sexual content. So the whole expression has been antinomically interpreted. The Muses, in this interpretation, have been called.

(3.2.221) *Verg., Ecl.*, 7.69:

uictum frustra contendere Thyrsin.

70 7.69 contendere **codd.**] concedere **a**

(3.2.222) *Macr., Sat.*, 3.3.11:

cavetur enim in iure pontificio ut

11 in iure **cett.**] inique **MBVOL**

(3.2.223) *Opp., Hal.*, III.10:

10 κέρδιστον ἐν ἀθανάτοισι νόημα

III.10 ἀθανάτοισι] ἀνθρώποισι **M U Z**

In the following two examples, the influence of an adjoining term changes a target by opposition or analogy: the antinomy, in these cases, is purely contextual.

(3.2.224) Soph., *OT*, 380-389:

380 ὦ πλοῦτε καὶ τέχνη τέχνης
 ὑπερφέρουσα τῷ πολυζήλω βίῳ,
 ὅσος παρ' ὑμῖν ὁ φθόνος φυλάσσεται,
 εἰ τῆσδέ γ' ἀρχῆς οὖνεχ', ἦν πόλις
 δωρητόν, οὐκ αἰτητόν, εἰσεχείρισεν,
 385 ταύτης Κρέων ὁ πιστός, οὐξ ἀρχῆς φίλος,
 λάθρα μ' ὑπελθὼν ἐκβαλεῖν ἱμείρεται,
 ὑφεῖς μάγον τοιόνδε μηχανορράφον,
 δόλιον ἀγύρτην, ὅστις ἐν τοῖς κέρδεσιν
 μόνον δέδορκε, τὴν τέχνην δ' ἔφυ τυφλός.
 390 384 αἰτητόν] ὠνητόν **G**

Oedipus complains of the power and the insidious goods: in particular the command of the city of Thebes, which was given to him although not requested. The opposition with δωρητόν pushed the copyist of the Laur. Conv. suppr. 152 (**G**) to insert the exact antonym, namely ὠνητόν, instead of αἰτητόν.

(3.2.225) Soph., *Aj.*, 223-226:

οἶαν ἐδήλωσας ἀνδρὸς αἴθονος
 ἀγγελίαν ἄτλατον οὐδὲ φευκτάν,

225 τῶν μεγάλων Δαναῶν ὑπο κληζομέναν,
 τὰν ὁ μέγας μῦθος ἀέξει.
 224 φευκτάν] φερτάν **P**

Tecmessa just announced that Ajax has been struck by madness. The oxymoronic contrast of the unbearable message that cannot be escaped is eliminated by Heid. Pal. gr. 40 (**P**): ἄτλατον οὐδὲ suggests in fact a synonymic dictology, favored by the great palaeographic similarity.

Many antinomies have a minimal relevance from the auditive and visual perspective. They might have been caused by common misinterpretations of a single grapheme. Nevertheless, the impact on the meaning is often significant, so much that we must imagine that a copyist understood the sentence in a very different way.

(3.2.226) Soph., *Aj.*, 1137:

Τευ. πόλλ' ἂν καλῶς λάθρα σὺ κλέψειας κακά.
 1137 καλῶς **L in lin.**] κακῶς **L s. l.** : κακά **rell** : καλά **NacP**

(3.2.227) Pl., *Lys.*, 221b4:

— οὐκοῦν ἐὰν ἀπολλύηται τὰ κακά, ἅ γε μὴ τυγχάνει ὄντα
 κακά, τί προσήκει τοῖς κακοῖς συναπόλλυσθαι;
 221b4 κακοῖς] καλοῖς **WL**

(3.2.228) Theophr., *Char.*, 10.1-2:

ἔστι δὲ ἡ μικρολογία φειδωλία τοῦ διαφόρου ὑπὲρ τὸν
καιρόν

Pros. 10 μικρολογίας] μακρο- **A**

(3.2.229) Plut., *Lib.*, I.7 f.14:

τὸ μὲν γὰρ εὐγενῶς εὐτυχεῖν ἀνδρός, τὸ ἄνεπιφθόνως εὐηνίου
ἀνθρώπου, τὸ δὲ τοῖς λογισμοῖς περιεῖναι
τῶν ἡδονῶν σοφοῦ, τὸ δ' ὀργῆς κατακρατεῖν ἀνδρός, εὐ οὐ τοῦ τυχόντος;

I.7f.14 ἀτυχεῖν (**Mez**)] εὐτυχεῖν **Ω**

A common example of a minimal oversight leading to a semantic overturning of a phrase or a sentence is the addition or omission of negative particles against the model. Here is a small list of examples.

(3.2.230) Pl., *Men.*, 89e5:

MEN. Ἔστι ταῦτα· ἀλλ' ἀρετῆς διδάσκαλοι οὐ δοκοῦσί σοι εἶναι;
ΣΩ. Πολλάκις γοῦν ζητῶν εἶ τινες εἶεν αὐτῆς διδάσκαλοι, πάντα
ποιῶν οὐ δύναμαι εὐρεῖν.

89e5 Πολλάκις] οὐ πολλάκις **WL**

(3.2.231) Pl., *Men.*, 94b7:

ἀγαθοὺς δὲ ἄρα ἄνδρας οὐκ ἐβούλετο ποιῆσαι;

94b7 οὐκ ἐβούλετο] ἐβούλετο **L**

(3.2.232) Tib., *El.*, 1.6.46:

45 Haec ubi Bellonae motu est agitata, nec acrem
Flammam, non amens verbera torta timet;

1.6.46 non amens **Bg2 edd**] et amens **Bg**

(3.2.233) Ap. Rh., *Arg.*, 2.1180:

1180 λήθομεν ἔμπεδον, οἳ τε θεοῦδέες οὐδὲ δίκαιοι.

2.1180 οἳ τε **SM**] οὐδὲ **cett.**

(3.2.234) Macr., *Sat.*, 2.5.1:

Sed si garrulus non putabor, volo de moribus feminae pauca praemittere,
ni quisquam vestrum habeat seria et discenda quae proferat.

2.5.1 ni quisquam] ut quisque **C**

(3.2.235) Macr., *Sat.*, 7.1.25:

25 Hanc ergo nullus honestus actus locusve, coetus nullus excludat,
quae ita se aptat ut ubique sic appareat necessaria tamquam abesse
illam nefas fuerit.

7.1.25 coetus nullus] coetus **A**

(3.2.236) *Macr., Sat., 3.II.4:*

fateor te non immerito de usurpata in mensam libatione quaesisse

5 3.II.4 non immerito **NDG**] non merito **P**

(3.2.237) *Macr., Sat., 2.7.9:*

Consistes aegre, et citius decidas.

10 2.7.9 et citius] nec citius **OLβ2**

The collections of *sayings* are lively, unauthorial texts whose textual transmission has a great mobility. A ‘Lachmannian’ reconstruction of the text is not only impossible, but even counter-effective. The changeability of the text is favoured by their non continuous content, and also by the fact that the popular wisdom is often self-contradictory. Thus, we find a great deal of sayings that are transmitted in two antonymic versions.

Here is a list from the *Menandri Sententiae*¹³⁸:

- Greg E 266 Κακῶς] καλῶς Vat 1276
- Herm A 21 δυστυχεῖ] εὐτυχει O
- Herm O 609 καλῆς] κακῆς
- 23 κρείσσονας] ἥττους Schn. p. 214
- 34 ἀνδρὸς κακ[ς πράσσοντος ἐκποδῶν φίλοι ἐμποδῶν F, φεῦγε c : φύγε V : φίλει Hac : ἔσο Hpc

¹³⁸Examples from [Pernigotti, 2008](#).

- 44 κακόν] καλόν B
- 53 καλλίστατον] λαλίστατον Theon.2 καχώτερον Erbse
- 114 καλῶς] κακῶς C1 D

For the same reasons why they are a fertile ground to find antinomies, the *Menandri Sententiae* show many interesting variations:

- 43 τέχνη κε μή Schol II] τέθνηκεν ἢ cett.
- Greg A 94 λάλει] λέγε
- Greg Γ 148 γυναικί κόσμος] γυναικικός Vat 1276
- Greg Δ 194 εὐρίσκειν] εὐρεῖν Vat 1276
- Greg E 225 ἔστι Δίκης] ἔστι δίκαιος Vat 1276
- Greg Z 285 χρόνον] τρόπον Coll
- Greg H 319 κακοῦργον] πανοῦργον S
- Greg H 320 πειράζεται] γνωρίζεται Cs Taur
- Greg Ψ 851 ἔρωσ] ἔρκος Vat 1276
- Herm Z 278 δρόμον] δόμον L2mg
- Herm H 306 λαλεῖν L] λέγειν cett
- Herm Σ 709 ποτὲ] πότερον O
- 55 ἀρχῆς] ἀρετῆς K slav.

- 142 βίον] οἶκον A, λόγον D
- 44 άνευ προφάσεως] άναπροφάσεως F

3.2.6 ATMOSPHERIC INFLUENCE

As seen above (p. 1.2.5), from time to time it happens to find some editors' remarks on the "freudian" nature of this or that variant. But how can one distinguish between context-driven involuntary modifications on one side, and on the other slips that have to do with the surfacing of repressed thoughts or wishes? Is it really possible to deduce what a copyist was thinking in the moment of the transcription, in a context where we can't even reconstruct the age of most of the deviant readings? The answer is of course negative. Nevertheless, in some peculiar cases, the influence of the copyists' life on a reading can be ascertained. It is the case with anachronisms, such as the Christianisms (see p. 1.2.5). Although well known, the category of slips has never received a systematic survey. In the next pages, I will list some new possible examples that have not yet been discussed.

INTENSIFICATION

A subcategory of the variants influenced by the general context is when a copyist inserts a term that is not influenced by the specific theme of the work or of a section of it, but rather by the semantic fields of its genre as a whole. The specific lexicon may lead us to think: it is specific, so it must be right, but we find many readings that are provably not original, and yet very specific to the genre.

PHILOSOPHY

(3.2.238) Aristot., *EN*, 1097a, 9:

άπορον δέ και τί ώφεληθήσεται ύφάντης ή τέκτων προς την αύτοϋ
 τέχνην είδώς τό αύτό τοϋτο άγαθόν, ή πώς ιατρικώτερος ή
 στρατηγικώτερος έσται ό την ιδέαν αύτην τεθεαμένος.
 9 τό αύτό τοϋτο άγαθόν] τό αύτοαγαθόν **Mb**

The contemplation of the Platonic Good does not benefit the *technai*. τὸ αὐτὸ τοῦτο ἀγαθὸν refers to the Platonic Good Aristotle has referred to in the previous paragraphs. In Aristot. αὐτοαγαθὸν it is found only once (Met. 996 at 29 Bk) but it is found instead in the comments to the EN to indicate exactly the Platonic form of the Good.

(3.2.239) Pl., *Gorg.*, 478e :

ΣΩ. εὐδαιμονέστατος μὲν ἄρα ὁ μὴ ἔχων κακίαν ἐν ψυχῇ, ἐπειδὴ τοῦτο μέγιστον τῶν κακῶν ἐφάνη.

ΠΩΛ. δῆλον δῆ.

ΣΩ. δεύτερος δέ που ὁ ἀπαλλαττόμενος.

5 ΠΩΛ. ἔοικεν.

ΣΩ. οὗτος δ' ἦν ὁ νομοθετούμενός τε καὶ ἐπιπληττόμενος καὶ δίκην διδούς.

ΠΩΛ. ναί.

3 νομοθετούμενος] νομοθετούμενος **L**

Who commits an injustice must be be punished. Only after they being reproached and punished, could they become happy again. The lemma νομοθετέω appears here for the first time in the *Gorgias*¹³⁹. The copyist of the Lobcovicianus VI 1 (**L**) writes νομοθετούμενος (lqsordained by law')¹⁴⁰. Members of the lexical family νομοθετ- can be found more than four hundred times in the Platonic *corpus*¹⁴¹. Of these, only four are in the *Gorgias*, all far from 478e. Nevertheless, 335 attestations all come from the *Laws* (335 instances). The reading certainly has co-textual reasons, since the sentence is about a wrongdoer that is corrected by the law. But the scribe's knowledge of Plato's recurring concepts and terms might have played a role in it.

(3.2.240) Pl., *Gorg.*, 178a 8-10:

¹³⁹It will appear also at 479a 1 (νομοθετεῖσθαι), 488a 4 (νομοθετεῖν), 488b 1 (νομοθετήσης), 497b 1 (νομοθετεῖς), 525c 8 (νομοθετήματα).

¹⁴⁰It is worth noticing that the probable antigraph of **L**, namely the Vindob. suppl. gr. 7 **W**, has the correct reading νομοθετούμενος. See Wilson, 1995, 23. Access to the digitized manuscript's correct *folium* at: https://digital.onb.ac.at/RepViewer/viewer.faces?doc=DTL_6393878&order=1&view=SINGLE.

¹⁴¹411 times, plus nine in the spurious or dubious works. Cf. Tlg online.

ὅταν γὰρ νομοθετώμεθα, ὡς ἔσομένους
 ὠφελίμους τοὺς νόμους τιθέμεθα εἰς τὸν ἔπειτα χρόνον· τοῦτο δὲ μέλλον
 ὀρθῶς ἂν λέγοιμεν. 3 λέγοιμεν] ἐλέγχοιμεν **WL**

The *elenchos* is Socrates' favourite method to prove his interlocutors wrong. In this case, the verb that has been earlier been defined as a hypernym¹⁴² is here replaced by a term that would appear much less common. But, for someone who knows the platonic lexicon, this variation might come natural, even though we can't exclude a voluntary modification.

THE CHRISTIANISMS

There are words, phrases or concepts that everyone has to deal with on a daily basis and that they hear repeated over and over again: for example, the specific vocabulary of their profession, or the repeated formulas of the religious liturgy, particularly suitable for their fixed and mnemonic character. The mind becomes so accustomed to these *formulae* that it tends to include them in the written or spoken production, even unintentionally, where the discourse provides references of some kind, such as a similar word or syntagma. For the Christian copyists, this mechanism easily occurs, as is well known, precisely with formulas and expressions of their religion, that are often found in texts of the pre-Christian Greek and Latin literature (see par. 1.2.5). Although the category has been previously explored, new examples can be useful in assessing its real presence in Ancient Greek as well as Latin traditions.

(3.2.241) Ar., *Nub.*, 12-14¹⁴³ .:

ἀλλ' οὐ δύναμαι δειλίαιος εὔδειν δακνόμενος
 ὑπὸ τῆς δαπάνης καὶ τῆς φάτνης καὶ τῶν χρεῶν
 15 διὰ τουτονὶ τὸν υἱόν.

¹⁴²See par. 3.2.3.

¹⁴³Here and beyond, text by Dover, 1968. Extended apparatus according to Starkie, 1911.

14 υἰόν] θεὸν υἰὸν **Rac**

The Rav. 429 (**R**)¹⁴⁴, the oldest manuscript of Aristophanes, is dated to the second half of the 10th century and contains twice as many singular errors as the β family, a family of 21 manuscripts derived, as **R**, from α¹⁴⁵. The copyist of **R**, in this case, inserted a typical syntagma of the liturgy, which was later corrected by the same hand: θεὸν υἰὸν is a frequent expression to indicate the figure of Christ within the trinity (e.g. Basil. Epist. 236, 6.13-16: συνάπτοντας λέγειν- πιστεύω εἰς Θεὸν Πατέρα. Καὶ πάλιν ἐν τῇ τοῦ Υἱοῦ ὁμολογίᾳ τὸ παραπλήσιον ποιεῖν, τῷ κοινῷ συνάπτειν τὸ ἴδιον καὶ λέγειν- εἰς Θεὸν Υἱόν.)

(3.2.242) Eur., *Alc.*, 128-129¹⁴⁶:

πρὶν αὐτὸν εἶλε δῖόβολον
πλῆκτρον πυρὸς κεραυνίου.

128 δῖόβολον] διάβολον **B**

It's likely that this oversight was suggested to the copyist of the Par. 2713 (**B**) by the hellish atmosphere of the passage, and perhaps also by the frequent association of the devil with the verb αἶρέω (e.g. Chrys. *Hom. in Mt.* PG LVIII 773, 14: τότε αὐτὸν ὁ διάβολος εἶλεν) and with the action of throwing flaming darts (e.g. Bas. *Hom. in Ps.*, PG XXIX 248, 16: τὰ πεπυρωμένα βέλη τοῦ διαβόλου). However, the slip did not change the syntactical function of the lexeme, which remains an adjective referred to πλῆκτρον: the Christianity is inserted in the text by pure allusion, almost by automatism.

(3.2.243) Thgn, I 865¹⁴⁷:

¹⁴⁴About the manuscript cf. Orsini, 2011.

¹⁴⁵Olson, 2002, lxxx.

¹⁴⁶Here and beyond, texts and apparatus are taken from Garzya, 2011.

¹⁴⁷Text and apparatus from Young 1971 2.

865 Πολλοῖσ' ἀχρήστοισι θεὸς διδοῖ ἀνδράσιν ὄλβον

865 θεὸς] θεοῖς **I**

The copyist of the Marc. gr. 774, *olim* 520 (**I**) made a very common mistake: the harmonization of the ending of a term to that of one or more contiguous words. The false agreement was even simpler in this case, where the modified noun was preceded by two adjectives in the plural dative case. But the Christian perspective on the texts of the ‘paganism’ probably influenced the copyist who defined the gods ‘many’ and ‘useless’.

(3.2.244) Ath., *Deipn*, 1.1.15-21:

καὶ ἐστὶν ἡ ἢ τοῦ λόγου οἰκονομία μίμημα τῆς τοῦ δείπνου πολυτελείας καὶ ἡ
 τῆς βίβλου διασκευὴ ἐν δείπνῳ. τοιοῦτον ὁ θαυμαστὸς οὗτος
 οὗτος τοῦ λόγου οἰκονόμος Ἀθηναῖος ἥδιστον λογόδειπνον
 εἰσηγεῖται κρείττων τε αὐτὸς ἑαυτοῦ γινόμενος, ὥσπερ οἱ ῥήτορες,
 5 ὑπὸ τῆς ἐν τῷ λέγειν θερμότητος πρὸς τὰ ἐπόμενα τῆς βίβλου βαθμηδὸν
 ὑπεράλλεται.

2. οἱ δ' ἐν τῷ δῆθεν δῆθεν ἐπιδημήσαντες δειπνοσοφισταὶ ἦσαν Μανσοῦριος [...]

2.1 δείπνω **Kaibel**] δείπνω **CE**

The long speech of the Deipnosophists is set during a banquet, which marks the tones and parts. The words λόγος and δείπνον often recur, juxtaposed and combined, in the last lines of par. 1 (see the underlined parts): the two terms, not synonymic in themselves, in these particular circumstances are almost equivalent (cf. § 4). The witnesses of the epitome, the Par. suppl. gr. 841 (**C**) and the Laur. LX (**E**) both report ἐν τῷ λόγῳ. The expression ἐν τῷ δείπνῳ ἐπιδημεῖν is not attested elsewhere, although in fact the combination would seem better agreeing with a concrete noun, such as the

banquet, rather than with its ‘figurative equivalent’, the discourse; cf. e.g. Ath. II.1 97 30 (ἐν Δελφοῖς ἐπιδημοῦντος Φιλίππου), Ath. VIII 43 (ἐν Ἰλίῳ ἐπιδημεῖν). The exchange conjectured by Kaibel¹⁴⁸ may have been influenced by the fact that the verb ἐπιδημέω¹⁴⁹ and the noun λόγος are constantly associated in Christian theology to indicate the incarnation or descent of the Word (cf. e.g. Athanas. *Exp. in Ps.* XVII 496.11 Montfaucon: Ὅταν γὰρ ἐπιδημήσει μοι λόγος; Epiph. *Pan.* II 278.13 Holl: ἄνωθεν ἐπεδήμησεν ὁ θεὸς Λόγος καὶ ἐλθὼν ἐσαρκώθη ἀπὸ; Eus. *Comm. in Ps.* XXIII 692.29 Montfaucon: ἐπεδήμει ὁ τοῦ Θεοῦ Λόγος).

(3.2.245) Soph., *El.*, 916-919¹⁵⁰:

ἀλλ', ὦ φίλη, θάρσυνε. τοῖς αὐτοῖσί τοι
οὐχ αὐτὸς αἰεὶ δαιμόνων παραστατεῖ.
νῶν δ' ἦν ὁ πρόσθε στυγνός- ἡ δὲ νῦν ἴσως
πολλῶν ὑπάρξει κῦρος ἡμέρα καλῶν.

920 918 στυγνός] γυμνός **Zr, Gnom.**

These are the words with which Chrysotethmes comforts Electra: destiny will not be forever adverse to the two sisters, as it had been until then. The intrusion of an adjective like γυμνός could have been determined by a variety of reasons. It is possible, for example, that it derives from a generic reminiscence of the episode of the expulsion from Earthly Paradise (Gr. Naz. *Carm. mor.*, PG XXXVII 594.9: Κεῖνον Ἀδὰμ τὸν πρόσθεν ἐλεύθερον, ὃς γυμνός ἦεν; Id., *Carm. de se*, PG XXXVII 998.12-13: Καὶ Χριστοῦ μ' ἀπέδυσσε χάριν, καὶ γυμνὸν ἔθηκεν, / Ὡσπερ Ἀδὰμ τοπρόσθε χόος καὶ πτώσιος ἀρχὴν) or also from the resemantization that the term had undergone in the patristic Greek, in which it had assumed a wide range of figurative meanings, including ‘disclosed, in the open’ and also ‘non embodied, in spirit’¹⁵¹.

¹⁴⁸ Accepted by Olson, 2002.

¹⁴⁹ Cf. Lampe, 1961, 520-521 (b2-4, f).

¹⁵⁰ Here and beyond, texts and apparatus from Dawe, 1996³.

¹⁵¹ Lampe, 1961, 325.

3.2.7 CONCLUSIONS

In Part I of this work I reviewed the consideration that the copyist's errors have had in the philological discipline, with a brief historical excursus and a general review of the most noteworthy positions. After that, I analyzed the role and aetiology of the slips of the pen, tongue, eye and ear in the language formation theories, together with the categories used by the linguistics to divide and study the slips' databases that have been compiled from the 19th century on. In Chapter 3, then, I have explored the applicability of some linguistic frameworks to the study of the scribal errors. Firstly, I have divided some variants from a single manuscript into two different taxonomies, one oriented to the graphical-phonetical aspect of slips, and the other based on a psycholinguistic grouping inspired by the linguistic studies. After having exemplified with this real life example the coexistence of the two overlapping taxonomies, I tried to apply them to an archive of readings taken from critical editions and manuscript collations of various ancient Greek and Latin sources. At the end of this experiment, some considerations can be drawn. Linguistics and philology are incomparable under many points of view. On the one side, the linguistic studies on the slips of the pen, tongue, ear and eye largely rely on the judgement of the slip's performer on the causes and the aetiology of the slip itself. On the other side, as said above, the philologists tend not to speculate on the individual drives of the copyists' errors, at least not in a systematic fashion, since this activity almost necessarily requires a degree of speculation. Nevertheless, if we leave aside the most individual-related remarks on the slips, the general framework of analysis developed by the linguists has potentials of applicability in the study of certain types of variation. A certain benefit that this study can bring to the philological debate over the errors is its systematic nature. Books and articles are written dealing with the topic of the performance errors under a linguistic perspective. For the philological academic production, the picture is quite different. The absence of specific literature on the types of *corruptelae ratio* prevents from any evaluation both on the number and on the types of variants. Moreover, the remarks on specific readings or the methodological remarks are often scattered in the comments, in the apparatus, in the footnotes to other kinds of contents: as a consequence, examples, conjectures, and statements

that could support the often reiterated concept according to which most of the errors have both mechanical and psychological causes are hard to track down and collect. The study of the error, if rethought and deepened with attention to the semantic and psycholinguistic dimension, has in itself great potential for the study of the transmission of texts and for the diagnostic analysis of corrupts. Understanding which terms and which syntactical structures were frequently misunderstood is useful to have an idea of the language of the copyists: which terms had become synonymic, which had been resemanticized due to the influence, for example, of the Christian language; and is, therefore, useful for the evaluation of existing conjectures: which conjectures presuppose very probable phenomena? How many, among the conjectural amendments refused because ‘non necessary’ or ‘non likely’, are instead reflected in the errors of the witnesses? In how many cases has the transmitted text been defended even in the presence of a frequent phenomenon of error? What readings that could be proven to be wrong due to the stemmatics would be unsuspected in the absence of other witnesses? Theoretical discussions on these and similar matters could have many advantages. First of all, they could clarify the relationship between the mechanical factor and the psychological factor behind the errors. Secondly, they would offer clues to identify potential corruptions that have gone unnoticed in classical texts so far. In addition, they would clarify by comparison concepts such as *lectio faciliior* and *difficilior* and *utrum in alterum*. Finally, they would offer the solid background to isolating new types of polygenetic error and to partially redefine the canons for judging the conjectures plausible or necessary, on which the judgement might not only depend on the number of letters and the graphic similarity of the graphemes, but also on the attestation of similar instances of error. For the psycholinguistic analysis of error, the collection of cases and the comparison have an even greater importance than for the isolation of mechanical categories. In this kind of taxonomy, the main difficulty and the greatest methodological risk lies in the identification of the criteria according to which to isolate a category of error. The possibility of reconstructing arbitrary aetiologies and reasons that are valid only *a posteriori* for the explanation of errors cannot be completely avoided. Uncertainty is contributed to by the fact that certainly, for each error there are several different causes and that, in many cases

of lexical substitution, a voluntary intervention or a gloss intrusion cannot be excluded. The only partial remedy to this uncertainty is, without doubt, the extensive cataloguing of examples. The more cases of errors taken from handwritten witnesses we will accumulate, the more it will be possible to define exactly which psycholinguistic categories are functional and internally coherent, which phenomena are really recurrent, which characteristics share certain errors. If philology, compared to the linguistics of error, is forced to deal with the mind of the unknown copyist, it has - with respect to the latter - the undoubted advantage of having at its disposal, through manuscript witnesses, a vast pool of examples to compare and categorize. A part of this material is already collected to some extent in the variants recorded by the apparatus of critical editions. It is true, however, that most of the data useful for the study of errors is still confined either in the manuscript witnesses themselves, or, at most, in the collations - partial or complete - that are rarely published or systematically investigated; this omission is in itself perfectly reasonable: an excessive amount of data is an impediment to the reading of the apparatus; the readings from the *codices descripti* are useless to the *constitutio textus*; it is finally impossible, for a single person, to organize such a large amount of information. What is more, the materials such as the collections of examples and the repertoires, that are non-continuous in their structure, are difficult to consult in print-like formats, such as Chapter 3 of this work.

The Digital Humanities studies on the critical editions can usefully contribute to the resolution of this last criticality, and consequently to some of the previous ones. The production of critical editions is a fundamental area, as for literary studies, also in the field of Digital Humanities: the needs and goals of the ecdotic science and the related disciplines are also reflected in the editing and publication of Scholarly Digital Editions (SDEs). These new publications are accompanied by new sets of problems, but also new, great potentials. In the next Part, I will try to show under which perspectives the production of SDEs is not at all "old wine in a new bottle"¹⁵²; it is a new field that requires methodological reflections in itself and that can provide new answers to the problems of traditional ecdotics. The operations that the philologist can carry out thanks to information technology are, in fact, growing both in the quantitative aspect as well as in the qualitative side:

¹⁵²Driscoll & Pierazzo, 2016, 1-15.

online catalogues, digital reproductions of manuscripts and text repositories have greatly facilitated the retrieval of materials, which codicology and palaeography exploit for new applications. In Part II, I will provide a review of the SDEs that exist and that have been devised, with a focus on their relationship with the *constitutio textuus* and the critical materials. I will then focus on methods and tools that are useful for representing the variants in a digital environment. Finally, I will model the materials presented in Chapter 3 and find other applications for the same framework.

Part II

DIGITAL HUMANITIES

Chapter 4

DIGITAL HUMANITIES AND TEXTUAL VARIATION

In Part I of this work I have presented a view on how the variants have been treated in the philological debate. Particularly, My focus was on one broad type of variations, namely those variants that, often arising from involuntary modifications on the texts, have semantic implications on the rendering on the text itself. I have then presented a collection of commented examples taken from different texts of the Ancient Greek and Latin literature. The outlook and the structure of my collection of variants was a traditional one, resembling those of the similar works published throughout the centuries by the Classical philologists. Its outlook was formed by a small portion of a text, with indications of title, author and passage; a section of the apparatus criticus, where the lemma and its corresponding readings were paired. Underneath, a brief comment in natural language that tried to analyse and explain the possible causes of one or more variants.

An archive as such encompasses a limited number of use cases and categories. Even so, its limits as a scholarly tool are self evident: examples from different authors and traditions are juxtaposed according to a specific set of criteria (specifically, the semantic categorization of scribal errors). In other words, this archive builds up on the preexisting sources of variants, such as collations, textual notes and other archives of readings, adding itself to them. If I wanted to further elaborate on it, maybe

describing the variants according to a different taxonomy, I would have to look at each individual instance, maybe comparing it with each individual instance of other repertoires, hoping to find extensive indexes at the end of each book.

In this Part II, I will inquire if these issues can be overcome by a digital representation of an archive of readings. To do so, I will have to widen the field of enquiry. The archive of readings, the textual notes and the collation all belong to a super-category that can be defined as non-continuous sources of texts.

To see how and in what degree this kind of material has been taken into account by the Digital Humanities, I will start with a brief report on the subject of the variants as it has been dealt with by the Digital Humanities. In order to soften what could seem like an abrupt turn from the traditional field of philology to that of the Digital Humanities, I will start with a brief methodological reflection on the shift of paradigm between the traditional on-print philological publications and their equivalents in the digital world. In this paragraph and in the next one, I will deal with the Scholarly Digital Editions (SDEs) and the representation of the Textual Notes (TN), namely the *apparatus criticus* and the commentary material, in them. After that, I will show the main existing methods for the representation of the TNs and the new resources that can be integrated into the TNs for the explanation and analysis of the variants.

Finally, in Chapter 5, I will show a model for the representation of my traditional archive of variants (see Chapter 3) as a digital archive and I will present some related fields to which this model could be possibly extended.

4.1 CRITICAL EDITIONS: THE DESIGN AND THE CONTENT

Before analysing in depth the methods, practices and tools related to the TNs representation, an introductory paragraph, of a theoretical nature, seems necessary. I do agree to the common belief in the Digital Humanities that there should not be a sharp distinction between traditional and digital humanists, and that in many cases the division is already more blurred than one may think. The

theoretical reflection on the differences and similarities between printed-like and traditional critical editions could be of some interest from the purely philological perspective, other than the digital one. The scholars and the students of the humanistic disciplines make use of the editions of the primary sources on a daily basis, as a starting material for any research. Especially Classicists, then, are usually accustomed to referring to the critical editions of the texts they are studying. As it often happens, though, it is only when an instrument has to be replaced or complemented with the new one that the nature of this instrument is thoroughly questioned. What are the hermeneutic features of a critical edition? Are they altered, diminished or enhanced by their homologous instruments in the digital world, the SDEs? Does the digital turn provide advantages in terms of usability, and more than that: is the 'traditional' scholarly word willing to give them a chance?

It can be argued that the traditional Humanities often hold a degree of mistrust for the Digital Humanities field. The reasons for this attitude are manifold. They probably involve the novelty of the field, if compared to the traditional philology, which on one hand makes it difficult to define its boundaries and features, and on the other hand has the unfixeness and sometimes the experimental roughness that go with its innovative nature. This mistrust may also have to do with the attitude of hyperspecialization of many academic disciplines as well, of which the Digital Humanities stand as a somehow threatening exception¹. In facts, though, the humanities - and the Classics among them - are already deeply involved in the 'digital transformation'. Online corpora and archives are used to query the texts both from primary sources and secondary literature. Moreover, every scholar uses digital means to write, study, communicate. What is the leap - if there is one - between the digital manifestation of 'traditional' activities on one side and, on the other side, tasks and research topics that more properly go by the the name of Digital Humanities? This question requires long answers - the name Digital Humanities itself is variously discussed - that it is impossible to recall here in their integrity. Nonetheless, for a general introduction to the theme, I will focus on three points suggested

¹«By the mid-20th century, the modern research university assumed its present form, with segmented humanities departments separated from the natural and social sciences as well as from vocational and professional schools. Digital work challenges many of these separations, promoting dialogue not only across established disciplinary lines but also across the pure/applied, qualitative/quantitative, and theoretical/practical divides» (Burdick et al., 2012, 7).

by the book *Digital_Humanities*, edited by A. Burdick *et al*, that will be useful also for the next paragraphs².

The book, published in 2012, set a decisive point in the definition of what Digital Humanities had been so far and what their future developments would be, especially in terms of a theoretical framework. Its landscape is of course larger than classical scholarship and critical editions, therefore some of its intuitions should be adjusted to the specific topic of this work, even more so because the critical editions and the TNs are a singularly eccentric topic compared to other humanistic fields, even in their long-known printed form, as I will say later in this paragraph. For this reason, it is even more important to ponder over some of its theoretical features. In the next paragraphs, I will focus on the relationship between the design and the content in the digital editions and how it has been addressed by the book *Digital_Humanities*.

Firstly, the book highlights an element that has often been overlooked. ‘Traditional’ and digital practices have a great difference in the way they address design. Needless to say, the *conceptual* design of a scholarly work, its content architecture, has always been a prerogative of the researchers. But there are many cases where its outlook has only been a matter for graphic designers and publishers. In the digital world, however, both constituents of the design of a project are more and more blended, and often co-dependent. Burdick *et al*. talk about the «visual turn» in scholarship, outlining the tendency to «“authoring” the visual» in order to shape intellectual concepts³. This way, design becomes not only a graphical aid to understanding, but also an «intellectual method». In the field of Digital Humanities, «theoretical issues get tested in the design of implementations, and implementations are *loci* of theoretical reflection and elaboration»⁴.

²Burdick *et al*, 2012.

³Burdick *et al*, 2012, 42: «In recent years the humanists have become increasingly involved in what is often referred to as the “visual turn” in scholarship, sometimes related to the “spatial turn” that has favored mapping. As digital tools have become prevalent, the interest in “reading” the visual has extended to “authoring” the visual—using visual means to express intellectual concepts. What might it mean to make a visual argument, for instance, or to shape a concept through graphical means?»

⁴?, 13: «For digital humanists, design is a creative practice harnessing cultural, social, economic, and technological constraints in order to bring systems and objects into the world. Design in dialogue with research is simply a technique, but when used to pose and frame questions about knowledge, design becomes an intellectual method. In the hundred-plus years during which a self-conscious practice of design has existed, the field has successfully exploited technology for cultural production, either as useful design technologies in and of themselves, or by shaping the culture’s technological

For sake of accuracy, it should be added here that some fields of the humanities were involved in the design of their endeavours even before the digital transformation. This is for example the case of the critical editions. Even though the standard structure of a critical edition is thought to be more or less the same, there are numerous cases where it is adapted to one or the other specific needs of the editor(s). In facts, if one observes them carefully, almost every critical edition has its own specificities that allow the editor to represent its content more effectively, be they in the marginalia, in the shape, structure and positioning of the TNs and so on. According to the type of textual tradition that each editor wants to account for, and how much they want this account to be detailed, they can chose different layouts for their editions: with a small, minimalist apparatus, with parallel versions, with multiple layers of TNs and so on. This choice can by all means be defined as a design choice, one that deeply impacts not only on the instrument usability, but also on its structure and, ultimately, on the content itself. In paragraph 4.1.2 I will discuss in a more detailed way how the design/content relationship affects the digital turn as well. What is more, not only editing *is* - and was - a matter of design too. But also, design can be a kind of editing, as Burdick *et al.* remind:

Editing is the creative, imaginative activity of making, and as such, design can be also seen as a kind of editing: It is the means by which an argument takes shape and is given form. Genetic editions, in which variants, versions, pentimenti, and amendments can be incorporated into a display or trail of evidence have been the dream of literary scholars since the rise of scientific philology in the 19th century.⁵

These considerations can be inscribed in the more general and widely discussed topic of what the SDEs currently are and how they will develop in the future. Firstly, and even more as design gains a new importance with digital editions, the humanist should be involved in it at any passage⁶.

imaginary. As Digital Humanities both shapes and interprets this imaginary, its engagement with design as a method of thinking-through-practice is indispensable. Digital Humanities is a production-based endeavor in which theoretical issues get tested in the design of implementations, and implementations are loci of theoretical reflection and elaboration».

⁵Burdick *et al.*, 2012, 18: «The potential for [the digital editions'] full realization even beyond the confines of the textual record will revitalize long-standing traditions of humanistic work and allow humanists to re-approach these traditions in innovative ways with new research questions and tools».

⁶Burdick *et al.*, 2012, 19: «The form that knowledge takes in digital environments and the arguments it expresses in its information structures can be deeply infused with humanistic values, but only if humanists are involved».

The concept of design should then - as it is in Burdick's work - be understood in its broader sense, namely one that embraces both its structural pole and its visual pole. The importance of this assessment will become evident when, in the next paragraph, I will discuss the concepts and forms of the SDEs. It is commonly stated among digital humanists - less so, arguably, between "traditional" ones - that the digital revolution is potentially a "new golden age" of editing⁷. Even though many criticalities still need to be addressed (as I will say in paragraph 4.1.1), it is most certainly true that tools, methods and resources for online editing are getting published and developing fastly. Burdick *et al.* claim that «the potential for their full realization even beyond the confines of the textual record will revitalize long-standing traditions of humanistic work and allow humanists to re-approach these traditions in innovative ways with new research questions and tools». Whether this is true or not, it is undeniable that the new instruments and publications have a great potential.

Nevertheless, many have argued that the change of mean from printed paper to computer doesn't *per se* imply a change in the concept of edition⁸. An old edition that has been scanned and uploaded on a platform as a PDF file does remain an old edition, just as microfilms in the 20th century didn't change the shape, the *design* of the books they miniaturized. The concept of edition was wide and multifaceted in the 'printing' world as well. In the digital world, the more new tools for text analysis are issued and become established, the more the definition of "edition" can be questioned. As said earlier, almost any scholar nowadays, even the most traditional classicist, uses some digital tool to perform one task or another⁹. But not every text made use of via a computer is a digital edition. So, what makes an edition on a computer a true digital edition? And what makes it critical? I will recall the debate on it in paragraph 4.1.1.

⁷Burdick *et al.*, 2012, 18: «editing has been revived with the advent of digital media and the Web, and will continue to be an integral activity in textual as well as time-based formats. The parsing of the cultural record in terms of questions of authenticity, origin, transmission, or production is one of the foundation stones of humanistic scholarship upon which all other interpretive work depends. But editing is also productive and generative, and it is the suite of rhetorical devices that make a work».

⁸Cf. Driscoll & Pierazzo, 2016, whose stated purpose is to understand «what digital scholarly editing actually is: is it a new discipline or a new methodology? Are we simply putting 'old wine in new bottles', or are we doing something which has never been done—indeed, never been doable—before?» (Driscoll & Pierazzo, 2016, 3).

⁹Burdick *et al.*, 2012, 38-39: «There is simply no way we can process and make sense of the volume of cultural data—including traditional printed materials—without the help of a computer to process, index, select, and cluster data on a comprehensible scale».

But what are the implications of involving a computer in our scholarship? To what extent can research processes on the texts be automated, and what novelties can come from it in terms of a better comprehension of long-known and studied works? In the next paragraphs, I will analyse some answers to those questions. After a state-of-the-art paragraph on the definition and the development of digital critical editions, I will focus my attention on the design of the TNs in them. I will then focus on the advantages and the weaknesses of the most used method and I will analyse some published digital works. As I said earlier, the *Apparatus Criticus* is the most common way with which textual variation has been represented in printed critical editions, and I will argue that it is the one on which the debate among the Digital Humanities community has been more thorough. Nevertheless, it is not at all the only way to represent variants and variance, neither in the printed field nor in the digital one. Thus, I will finally focus on other digital resources that have been or could be applied to this field and that can especially suit my need of developing an archive of readings from multiple sources.

4.1.1 SOME REMARKS ON THE DEVELOPMENT OF THE SCHOLARLY DIGITAL EDITIONS

As Fischer¹⁰ notices, while more and more tasks are performed by humanists through digital means and with digital method and resources, «the most important sources for the classicist's work, critical editions of primary texts, are kept in libraries, on bookshelves, between the covers of costly print editions». The most recent critical editions are indeed an irreplaceable tool for the study of the ancient Greek and Latin texts, but they are also copyrighted by their publishing houses. Many of those, though, are available for purchasing as downloadable files on the publishing houses' websites. On the other hand, the history of the critical editions traces back of centuries, so that the editions published in the 19th century and middle-20th century are freely usable, and more and more are scanned and archived in free online repositories. Are these digital version of traditional editions to be considered SDEs? Arguably not, as I will say in the next paragraph.

¹⁰Fischer 2019, 206.

DIGITIZED EDITIONS, DIGITAL EDITIONS, SCHOLARLY DIGITAL EDITIONS

As I said earlier, there has from time to time been a degree of uncertainty in the distinction between a digitized ‘traditional’ edition and properly born-digital editions. The use of a computer as an instrument for the dissemination of a content does not necessarily change its form and underlying concepts. Nevertheless, it would be false to say that the one process is totally independent from the other. In the case of the editions of classical texts, the digitization of old editions was and still is the first step for a transformation into a properly digital object. After that, though, the reworking of the textual content into other forms is a necessary step for the creation of a digital edition. It has been claimed that the ’90 were the golden age for the digitization of content, whereas the first decade of the XXI century took upon the duty of reworking all that material. Actually, the scanning and the OCRing continues to this day. Moreover, their remarkable progresses in the last years, in terms of the OCRing of the ancient Greek and Latin texts, have boosted the process of acquisition of new editions.

For the steps that come after the OCRing, though, there is still no standard for the digital editions. Despite some solutions and methods being much more widespread than others, there is nothing that can compare to the stability of the printed critical edition’s format as far as consistence and persistence. This is to be ascribed mostly to the field’s newness, but also – as I said in paragraph 1.1 – to the fact that SDEs were born in an era when the critical edition’s framework and the methods of the reconstructive philology that it reflects were deeply questioned by philologies that had been often and wrongfully considered ancillary until then, firstly medieval philology¹¹. A natural consequence of this origin is that often there has been a need to reinvent the genre and adapt it to the most different textual situations.

¹¹ Apollon et al., 2014, 22: «But the contemporary phenomena of production, propagation, and reduplication of texts; their contents and the mechanisms they bring into play; and their combination with graphics and multimedia has a breathtakingly futurist character and requires raising the problem of extending the domain of textual criticism and that of critical editions».

Despite this lack of standardization, it is clear that a digital edition and a digitized traditional edition are very different. A straightforward definition of the difference between a digitized edition and a digital edition is provided by Sahle:

A digital edition cannot be given in print without significant loss of content and functionality. [...] Scholarly digital editions are scholarly editions that are guided by a digital paradigm in their theory, method and practice¹².

The quotation as it is needs an explanation. What does it mean that a digital paradigm must guide the theory, method and practice of an edition? Evidently, the need of a shift in the conception of the edition itself is called for, even before the modification in its external outlook. It is useful here to go back to what was said in the last paragraph about the relationship between content and design in the digital products. We could say that a SDE originates from a different *design* than a traditional edition. The conceptual architecture of a digital edition allows for the actual and effective processing of its content. The processing of the information contained in the text is primarily achieved through annotation¹³. Later in this chapter (see par. 4.1.3) I will list and discuss the annotation languages that are most suitable for the structure representation and for the content annotation of the SDEs. For now, it will suffice to say that a processable marked up text is a text on which machines can read information expressed through standardized meta-content, namely data on the text itself.

¹²Sahle, 2016, 27-28.

¹³Buzzetti, 2009, 48: «the problem of text representation becomes of paramount importance in order to qualify a digital edition as a properly digital one, namely as a kind of edition that makes allowance for effective processing of its information' content. Now, as far as text representation is concerned, its standard form is provided by a marked-up string of characters».

A conceptual point here can be addressed. On-paper editions have markup too¹⁴. Typographic conventional rules tell the human reader that a defined passage of a text is contained in a said page, is part of a said chapter or line, is prose or poetry, is direct or indirect speech and so on. In a few words, most of the printed signs that don't correspond to a sound constitute meta-information on the text. Often, though, the distinction between "markup" and text are difficult to infer for a machine, and there are formats that are more suitable for a computer to read and process. Moreover, the implicit information that a human reader can easily extract from a text must be made explicit for a machine to understand¹⁵.

To sum up, a digital edition should have a fully digital structure, designed for digital methods and platforms, and not only imitative of a 'traditional' edition, like a PDF could be. Such a digital edition should auspiciously overcome the «flat data models» that resemble those of their printed homologues, and be rather conceived as a «network of resources»¹⁶.

To fully consider the case I am talking about, namely that of SDEs, a fundamental addition needs to be made. That is, in fact, the critical nature of printed editions and the way their features have been transposed in digital forms. With 'critical nature' I mean the fact that editions should involve «prejudiced speculation, however rigorously controlled its prejudices and pre-judging assumptions or

¹⁴«Historically, the word markup has been used to describe annotation or other marks within a text intended to instruct a compositor or typist how a particular passage should be printed or laid out. Examples include wavy underlining to indicate boldface, special symbols for passages to be omitted or printed in a particular font, and so forth. As the formatting and printing of texts was automated, the term was extended to cover all sorts of special codes inserted into electronic texts to govern formatting, printing, or other processing. Generalizing from that sense, we define markup, or (synonymously) encoding, as any means of making explicit an interpretation of a text. Of course, all printed texts are implicitly encoded (or marked up) in this sense: punctuation marks, capitalization, disposition of letters around the page, even the spaces between words all might be regarded as a kind of markup, the purpose of which is to help the human reader determine where one word ends and another begins, or how to identify gross structural features such as headings or simple syntactic units such as dependent clauses or sentences» <https://tei-c.org/Vault/P5/1.5.0/doc/tei-p5-doc/it/html/SG.html>.

¹⁵See par. 4.1.3 on XML TEI P5 and 4.1.4 on other resources for the study of the variations.

¹⁶Berti, 2019, 229, quoting Van Zundert, 2018: «The few digital editions of classical texts that exist are meritorious for being both scholarly and online. However, they are based on a flat data model or, rather, on a print-oriented data model, such as those exported from the widely used Classical Text Editor». Berti, 2019, 230: «The development of a standard data model is also the basis for another innovative concept of digital scholarly editions: the idea of a distributed architecture. Most recently, Joris van Zundert made a case for digital editions that are conceived as a network of resources as opposed "to the architectural nature of the majority of current digital scholarly editions, which are still mostly monolithic data silos" (→2018)». Driscoll & Pierazzo, 2016, 68: «The digital environment proves totally adequate for representing both the reconstructed interpretative text (when considered necessary by the editor) and its chronological dimension. The conventional paper edition, on the other hand, tends to privilege either a single stage or a few stages of the tradition».

ideologies might be»¹⁷. The absence of this feature could cause a regress in the scholarly soundness of the editions, as stated by many:

The risk inherent to projects is that “old” texts may be digitized and diffused in expeditious fashion without benefiting from the contribution of the methods and norms of scholarly editing. There is the risk that this problem, already exposed in paper scholarly editions, will become worse in digital editions¹⁸.

Thus, two sets of problems can hinder the quality of digital editions: their excessive adherence to the printed paradigms, and on the opposite side their hasty processing, supported by the idea that a processable, marked-up text is *per se* an improvement from printed editions, regardless of the actual loss in content from the starting edition. A SDE, instead, should ideally have a fully digital content and at the same time prevent from quality loss in terms of textual criticism. Hopefully, the digital methods should provide solutions to improve textual criticism as well, but whether this goal has been achieved or not is still a matter of controversy between the Digital Humanities enthusiasts and its detractors¹⁹.

What is more, for many ancient Greek and Latin works, their text is present on the Web, in one or another format, in more than one version, partly because more and more old editions are scanned and OCRed, and partly because increasingly new original editions are published as born-digital products. The relationship of a given edition with *the* text as an abstract entity is a hermeneutical problem that philologists need to face. In his *Introduction to the Analysis of the Literary Text*, C. Segre wrote that each edition is an ‘image’ of the text, which «does not have a material nature», and should never be identified with the text, otherwise the risk is to «conceal [its] unavoidable problematic nature»²⁰. The concept was resumed by Buzzetti²¹ to describe the status of each Digital Edition compared to the text of a work. It could be argued that there is a major difference between the kind of *image*

¹⁷Sutherland & Deegan, 2016, 13.

¹⁸Apollon et al., 2014, 23.

¹⁹Berti, 2019, 225: Monella 18: classical philologists don’t need /want digital editions

²⁰Segre & Kemeny, 1988, 378 and 376.

²¹Buzzetti 2009, 45.

represented by a printed edition and the ‘image’ represented by a digital edition. This difference can be found in the – at least potential – fluidity of the digital text, as I will say in the next paragraph.

THE FLUID TEXT: FEARS AND REALITY

The text of a traditional critical edition is the result of a series of processes and researches brought on by its editors, from the analysis of manuscript witnesses and indirect transmission, to grammatical and semantic remarks regarding the variants. Nonetheless, the most part of this process is hidden from the reader, or at best verbally summarized in an introduction that can be more or less thorough. On the contrary, the digital edition allows the editor to show virtually *everything*: digitized manuscripts, grammatical structure, links to external or internal references, bibliographic information and more. It must be pointed out that the “full automation” that Driscoll seems to be describing is far from being reached:

Within the digital paradigm, [...] the editor does not write the edited text. Rather, it is developed gradually from the material documents, from visual evidence through the transcription and through the application of critical, historical, stylistic and philological knowledge²².

What Driscoll is presumably referring to are those digital editions where the text and the TNs don’t appear as sequences of strings composed by the editor, but are inferred from instructions on what to visualize among the versions offered by the manuscript witnesses. This is, though, just a different method for visualizing and composing the critical editions. The opinion and the instructions of the editor are still crucial, and it couldn’t be elsewise²³.

If anything, the increasing availability of material other than the text can be very useful in showing the editorial process and in giving the user a depth of access that was before inconceivable. Nonetheless, some scholars have argued against this abundance of materials, claiming that it could be endangering for the user experience:

²²Driscoll & Pierazzo, 2016, 31.

²³Berti, 2019, 228: «the actual critical text (as presented in the digital edition of William of Auxerre) does not exist in the code, nor do the entries of the critical apparatus exist in the code as such but only potentially, in potentia, potentialiter».

As stated by Robinson ‘it appears that rather few readers (indeed, rather often, only editors) actually want to see all the images, all the transcripts, all the collations’, and while ‘printed editions acted as filters’ [Robinson 2010, 150] the digital medium provides readers with an overload of unregulated data that struggles to become information, since ‘value [...] is added through [a] chain of literary agents, specialist readers, editors and publishers’ [Deegan & Sutherland 2016, 115]. Others have reminded editors of their responsibilities as providers of critical texts, rather than simply of witnesses [Stussi 1994, 245-246; Robinson 2013, 105-132]. Yet it is likely that some of these critiques are connected with the uneasiness of a new textual model that is endemic in digital texts, a model based on variation and plurality of manifestations and representations²⁴.

As other fields of knowledge have come to realized, too much information may equate to no information at all, if not properly presented. One could argue, as Driscoll does in the passage quoted above, that this feeling in this specific case is conveyed by an initial suspicion and uneasiness with new forms of editions, those feelings arising from the impression that «electronic editions have translated them from a stable environment with difficult but well-known problems into a river of Heraclitean flux, in which everything is changing from moment to moment»²⁵. Sutherland has also argued that «for most reading and scholarly purposes the stable or stabilized paper text is currently not only sufficient, it is best»²⁶. According to Sutherland, interpretive variants require a fixed, stable text, whereas multiple, highly interlinked editions may even end up freezing the readers’ selective capacities, «redirecting them towards a wilderness of locally variable and meaningfully inert features». On the other hand, this same feature can be praised as a long-awaited multiplicity that allows for diverse interpretation, more choice and, on another level, for a sort of postmodern desecration of the figure of the critical editor that would have long been invested with the romantic privilege of unquestionable judgment.

Those two attitudes can be said to be both extreme and ultimately not accounting for the complexity of the reality. It can’t be denied that taking sensible philological decisions over a text implies

²⁴Driscoll & Pierazzo, 2016, 50

²⁵Driscoll & Pierazzo, 2016, 52. See Sperberg-McQueen, 2009, 130

²⁶Sutherland & Deegan 2016, 22-23.

competence and professional skills. This fact isn't changed even by a radical shift in the methods and the displays of editions. Unreliable editions can be discredited in the digital world as they were in the printed one.

The multiplicity of data, if well governed, should not be problematic in itself. There are two meanings of the idea of *multiplicity* that are much more respondent to the actual renewal of the critical editions. The first one is the multiplicity of genre. If fed with the necessary data, a single digital edition can be either genealogical, reconstructive or documentary according to what the reader needs²⁷. Ultimately, if an epistemological change happens in such a scenario, it happens in the figure of the reader, and not in the editor. The reader's activity becomes more diversified and customized in the choice of what they want to access, and not in their presumed will to replace the editors' job²⁸.

The fear of a fluid text, thus, one that forms according to the reader's arbitrary decisions, doesn't account for a fact especially, namely that readers won't use editions that don't suit their needs. Thus expert readers will continue to rely on expert judgement (even just their own) while the non-philologists will still probably want a fixed text to read from. As Robinson wrote in an article that dates to 2004:

It is so easy to pile data on data that one might do just that and no more. Confronted with all this the reader might well think: please dear editor, I just want to read one text and one text only. Give me a print edition. My own view is this: if all the edition does is present all the information it is not an edition at all. It is an archive, an inert pile of dead data awaiting human intelligence to breathe life into it. [An edition] must not just present the differences, it must seek to explain them²⁹.

Besides the fluidity of genres conveyed by the digital turn in the publishing of editions, there is a second kind of noteworthy meaning of fluidity. That is, the fluidity of publication. Printed editions have a publishing date, and to alter their assets means to issue a new edition, something that requires

²⁷ Apollon et al., 2014, 118: «Widely different epistemological projects, formerly incompatible, can now cohabit and interact by means of layered markup within a common digital environment. One example is Woolf Online».

²⁸ Apollon et al., 2014, 33-35.

²⁹ Robinson, 2004, 4-5.

great planning and many people involved. Digital Editions, on the contrary, only reflect a certain stage of development of a project. Parts of it can be added, erased, changed, with all that it means in terms of scholarly use and intellectual property³⁰.

Nevertheless, it may also mean something else. The alleged easiness of changing and improving a digital publication – alleged because digital publications are costly and time consuming as well³¹ – has probably lead to the point where «numerous initiatives have been launched without abiding by the essential editorial choices and possible textual conjectures that may be required prior to making heritage texts available on the Internet»³². If one compares the fears about the fluid texts and the overload of useless material with the actual result of many editions being published without the necessary complementary material, the situation could appear paradoxical. And yet, at least for the digital editions of classical works, the lack of critical material, and not its excess, is a serious problem.

4.1.2 THE TEXTUAL NOTES IN THE SCHOLARLY DIGITAL EDITIONS

The discourse on SDEs was necessary as an introduction to the general topic of the critical editions in the digital humanities. Nevertheless, it is time to go back to the main focus of this dissertation, that is, the TNs and the destiny of the Apparatus Criticus in the SDEs. In the next paragraphs, I will illustrate the potentials of a digital Apparatus Criticus. I will then analyse its actual renditions in the available digital projects both from a theoretical perspective and from the point of view of a recollection of projects. As will be shown, there is a strong discrepancy between the great possibilities that can be conveyed by the innovative solutions found by the editors of SDEs, and the actual spread disappearing of the TNs in most digital projects. Some reasons for this discrepancy will be hypothesized.

In the process of re-designing the old instruments and genres that the Digital Humanities are variously carrying on, the critical editions have an important role, for several reasons.

³⁰ Apollon et al., 2014, 21. Driscoll & Pierazzo, 2016, 29: the process of a fluid publication in a double sense. What we see on the screen is often generated in real time from the current state of data, representing the current state of the editorial knowledge in a project. This is one aspect of fluidity. The other is the loss of a distinct moment of publication.

³¹ See f. n° 49.

³² Apollon et al., 2014, 24.

Firstly, the critical material is crucial to define the scholarly soundness of an edition. An edition that can be called Scholarly needs to be critical.

the edition deserves the attribute of being ‘critical’ through the apparatus, if discursively problematic: because it summarizes the diasystem of the tradition, and because it carries out a full assessment, even if not always conclusive, of the readings³³.

Secondly, the idea of a renewed digital version of the TNs are seen by many as an opportunity to change the features that in the format of traditional apparatuses are regarded as a drawbacks. One of them is the physical constraint of the page, that allows for only so much material and forces to choose between minimalist apparatuses and copious ones, the latter being unpractical in terms of usability and the former providing little critical information. In the digital world, this issue does not exist anymore, because the apparatus could be custom-tailored according to each reader’s preferences and needs³⁴.

The digital apparatus allows indeed to store in it great amounts of material. Nonetheless, the technical ability to store all the available material in the apparatus does not equate to the utility of doing so. An apparatus that shows all the critical material without a critical selection is altered in its own nature, becoming an archive of non-taxonomized variants.

The apparatus is indeed different from the descriptive *lectio variorum* one can get by, say, applying any collation software to the transcription of the witnesses. The apparatus is critical—*i.e.* interpretative—in that it accommodates certain variant readings, and excludes some others³⁵.

³³Segre, 1978, 497. See Driscoll & Pierazzo, 2016, 63. See also e.g. Monella, 2012, 5-6: «after the *constitutio textus* – (re)construction of the text – the supposedly “wrong” variants are not thrown away, but kept in the recycle bin of the apparatus criticus: text editors must expose the process that led them to their choices, so that erudite readers can falsify their work and possibly make different choices by “recovering” readings from the apparatus recycle bin».

³⁴Berti, 2019, 226.

³⁵Driscoll & Pierazzo, 2016, 75.

So the core question becomes how to maintain the apparatus' critical role without failing to exploit the new possibilities offered by the digital medium and the digital method³⁶. As Fischer³⁷ puts it, we need to determine «what is actually critical about a digital critical apparatus [...] and what is digital about it».

The two, symmetrical challenges are on one side to avoid the inert «bag of variant» derived from automatic collation and scarcely reworked materials, and on the other side to remove by digital means the idea of the apparatus as a «graveyard of variants, with no bearing on the conditions of the living», something that has already come up in chapter 4.1.2 about the inertness of the TNs³⁸.

POTENTIALS OF A DIGITAL APPARATUS

As I said earlier, a critical section of a digital edition could theoretically have many potential advantages over a printed one - the hyperlinks, the customization, the dynamic nature. As Robinson summarized it more than fifteen years ago, there are six things an edition should do:

1. Present a text
2. Present the different historical forms of the text
3. Present the differences between the historical forms of the text
4. Explain the relationship between the different historical forms
5. Explain how the editor edited
6. Let the reader test the editor's methods and conclusions³⁹.

³⁶Buzzoni, 2016, 64: «A crucial problem which arises when dealing with the apparatus in the digital medium is how to make it respond to modern scholarly needs, without either drastically reducing or completely concealing its critical nature». In f. 23, Buzzoni makes this example: «The complete list of both formal and substantial variants provided by Nila Vázquez in a separate section of her 2009 edition of *The Tale of Gamelyn*, oddly titled 'Apparatus criticus of the Edition' (pp. 336–79), can indeed be useful for the reader; this apparatus records the raw results of the collation, however (see note 200, 332), to which the critical process has still to be applied. See Vázquez, 2009. For a more detailed discussion of the critical nature of the apparatus see below».

³⁷Fischer 2019, 204.

³⁸Berti, 2019, 223. «Some have even gone so far as to express their contempt (or ignorance) by calling it outright "crapparatus" (as reported by →Keeline 2017, 349)».

³⁹Robinson, 2004, 1.

A digital edition could in his opinion perform all the tasks better, except for the first one, where digital editions and printed ones are at least equivalent.

In the years that followed and up to now, the task that many editions improved – in the field of Classics at least – is actually the first one, the text presentation, with well-formed graphical user interfaces and with sophisticated search functions. Other philological traditions, like that of medieval studies, have often focused on the points 2, 3 and 4. What I will focus my attention to, as I believe there is much work left to do, are the tasks of points 5 and 6, although solutions for it have been developed and others have been suggested at an experimental level. First of all, the relationship between the lemma and the reading can be described through digital means⁴⁰. Secondly, as I already said above, a SDE can be truly critical in that it «furnishes the reader with all the documentation necessary to evaluate it and to produce another»⁴¹. Finally, the treatment of variants gains new life as readers can be provided with «more context, as well as more ‘paratextual elements’»⁴², of course with the concerns that the representation of every variant on every word must raise, as said in Chapter 3⁴³.

The idea of adding more contextual and paratextual material, that seems appealing for many scholarly purposes, urges scholars to find not only new methods for the representation of the TNs, but also a new ‘conceptual space’ in which to pigeonhole this critical section, that may be resembled more to those discursive critical and explicative notes below the critical texts in some XXIX century

⁴⁰ Apollon et al., 2014, 119: «Online digital presentation offers new possibilities for concretizing the relationship between the TNs and the work. A number of constraints imposed by the surface of the printed page disappear».

⁴¹ Driscoll & Pierazzo, 2016, 60: «Paradoxically, the ‘new’ digital medium goes in the direction indicated by thoroughly traditional philologists like the Italianist Domenico De Robertis, according to whom an edition can be called critical in a strict sense only if it furnishes the reader with all the documentation necessary to evaluate it and to produce another, maybe different edition that is nevertheless based on the same material» In the footnote, the authors quote De Robertis, who states that «in order to be considered excellent (‘eccellente’), a critical edition should provide ‘[i] materiali necessari e sufficienti per un’altra edizione critica della stessa opera condotta secondo differenti criteri di utilizzazione dei medesimi testi’. [The necessary and sufficient materials for another critical edition of the same work produced according to different criteria of use of the same texts (my translation)]». De Robertis, 1985].

⁴² Driscoll & Pierazzo, 2016, 71: «The apparatus gains new life and is hopefully used by more readers in a variety of different ways in the hyper-textual environment. The possibility of giving more context, as well as more ‘paratextual elements’—both epitextual and peritextual— is a major improvement from the scholarly point of view, since it provides the tools to better interpret the text, and ‘enhance[s] our opportunities of penetrating deeply into its discourse’, just as envisaged by Dino Buzzetti (Buzzetti, 2009, 45). [my italics]».

⁴³ Robinson, 2004, 3: «To present the differences between the historical forms of the text. In print editions, you might do this in an apparatus, giving a summary view of the most significant variants. In a digital edition, you can indeed see every variant on every word».

editions⁴⁴. My focus will be, then, on finding spaces for digital textual notes (DTN) that go along classical texts.

Nevertheless, this optimistic view of the possibilities of DTN is hindered by a fact. In current SDEs there is a factual reality that cannot be ignored, and that has to be analyzed in its causes and repercussions. This is, as anticipated in par. 4.1.1, the absence of any critical material from many digital editions. Any discussion on potential developments should start with the analysis of how digital editions have treated the variation so far and of why they have often chosen not to do so.

THE DISAPPEARANCE OF THE APPARATUS CRITICUS

The status and the digital treatment of the critical materials in the SDEs has been a matter of interest for many scholars, and not infrequently the renunciation to representing it has been noticed⁴⁵. Many explanations have highlighted different reasons for it.

Firstly, there is a legal reason for which the digital representation of the TNs is discouraged. Differently from the editions' text, which is usually assumed to be reproducible, the apparatus is considered to be the truer intellectual property – proving again that it is in the critical material that the work of an editor primarily resides⁴⁶. What is more, to avoid any copyright issue, even the projects that digitize plain texts often take them from old out-of-copyright editions. Needless to say, the great repertoires of plain texts, even when from centenary editions, are an enormous resource for many

⁴⁴Berti, 2019, 229: «mark-up of critical notes can include information about types and categories of each apparatus entry.¹⁴ With textual annotation it can be specified whether it is about variant readings and if variance is substantive or just orthographical; other textual categories could indicate if they concern conjectures, deletions, corruptness, transpositions, lacunae, marginal or interlinear additions, punctuation, speaker attribution or structural differences regarding boundaries between books, chapters, paragraphs, poems, stanzas, verses etc. Intertextual annotation could make explicit if it refers to sources, parallels, testimonia, later usage, or nachleben, *i.e.* modern allusions and imitations. Other type attributions for critical annotation can be exegetical, metrical, and rhetorical, or even more specifically, figure of speech, trope or style. Options and possibilities are endless».

⁴⁵Berti, 2019, 223: «Just like the halo is vanishing in a secularized world, so does the critical apparatus seem to disappear in digital scholarship».

⁴⁶Sutherland & Deegan, 2016, 87: «it seems to be the assumption that verbatim reproduction of previous publications is, within certain limits, fair game. The apparatus criticus is another story: this is scholarly creation and is considered to be protected by copyright».

digital tasks. Nevertheless, it can't be denied that those archives of texts often become canonical and unique, and their use is a loss of great steps in the textual constitution and analysis⁴⁷.

There are, then, reasons that are inherent to the constitution of the apparatus criticus itself. As said before, we can define markup as a highly symbolical structure of codified strings that are inserted in a given text to provide meta-information on the text's content or structure. This definition is applied to digital markup as well as to the brachylogical, extremely conventional sets of strings that surround the readings in the TNs⁴⁸. As it is known, the printed textual notes leave a good deal of interpretation to the human reader. The lemma the entry refers to, the sigla that abbreviate the manuscript signatures, some vague indications like *recc.* and the now mostly deprecated *dett.*, *fortasse recte* and so on: all this needs not only a human's semantic abilities, but also a competent human's ones. Moreover, the TNs use characters from at least two alphabets (Latin, Greek but often also Hebrew) and are printed in very small format, and all this is, according to all, a complication for the clean OCRing that is the premise to any text manipulation.

As for this latter process, the passage from a non completely clear and distinct language to a discrete markup language is very hard for a machine to perform automatically. In short, each passage of the

⁴⁷Berti, 2019, 223: «A child of the print culture, the critical apparatus has been abandoned in digital corpora, regrettably removing all critical features of the original print publications (including introductions, apparatus fontium and indices), providing the plain text only, which, to make things even worse, is often not taken from the most recent scholarly edition for restrictive copyright reasons». Monella, 2012, 2: «If the distinctive feature of a scholarly edition ultimately lies in how it accounts for (and discusses) the textual tradition and the resulting textual variance, we must conclude that in classics, “comprehensively digital” scholarly editions have simply not taken off. Great projects like TLG and Perseus do not (currently) give variants, while existing digital scholarly editions like Musisque Deoque, Curculio, Euripidis Scholia, Hyperdonat and Catullus Online are not based on digital transcriptions of primary sources and the automatic collation of those transcriptions». Driscoll & Pierazzo, 2016, 6: «There is a vast number of electronic versions of cultural heritage texts freely available on the Internet. Many of them, unfortunately, are all but unusable, for a variety of reasons. They may be the result of uncorrected ('dirty') OCR taken from old, out of copyright editions, and may therefore bear little resemblance to their originals; or they may be totally missing the critical apparatus, which copyright status and the difficulty of representation on a scrollable page are the main reasons for its rare appearance alongside the main text [...]. The result is that without the apparatus the reader cannot have any real idea what he or she is actually reading. One could—and people regularly do—argue that the availability of these mutilated texts is better than nothing, but in many ways these texts are actually worse than nothing, since they are misleading and fuel the idea that texts exist outside the dialectic between documents and editors, and that editions can possibly establish texts once and for all, undermining in this way the very survival of textual scholarship itself».

⁴⁸For a praise of the syntetic language of the TNs see Pasquali 1964, 52-53.

digitization of existing TNs requires a great amount of time and specialized personnel, one of the reasons -⁴⁹.

Although many projects are still published without any apparatus, the situation seems to be on the verge of a change. The Perseus Digital Library has the encoding of variants as one of the fields of study and expansion of the project⁵⁰. More than that, for projects like the Homer Multitext Project⁵¹, whose motto is «As many Homers as you like», variation is the core concept, even though in a slightly different sense⁵². The standard way to represent the TNs has been defined by the Text Encoding Initiative. It is a thorough method to represent much of the conventional formulae that can be found in the TNs, although some have found criticalities in it. In the next paragraph, I will briefly present it.

4.1.3 THE TEI P5 MODULE 12: USAGE AND CRITIQUES

Most of the digital editions that currently exist are encoded in some form of a markup language called eXtensible Markup Language, XML⁵³. A markup language is a way of encoding a document by inserting in the text some labels that define the structural or representational features of the text⁵⁴. What makes XML so versatile is that it provides the structure of the markup but not the vocabulary, meaning that it can be personalized and defined for each specific task. The standardization and the use of a common vocabulary for similar tasks, though, are needed for interoperability and exchange

⁴⁹«The apparatus criticus is an area in which I have decided not to use the TEI mechanisms for apparatus criticus readings and variants, because in a project of this kind it seems to me that it would involve an unjustifiably large overhead of markup. I believe the information familiar to those who know how to read the apparatus criticus of a classical text can be provided in textual segments. [...] Such a project would require more personnel and a much larger budget, and I don't think the benefit would be worth the cost». [Mastrorarde, 2004](#). About it, see [Driscoll & Pierazzo, 2016](#), 213.

⁵⁰[Boschetti, 2007](#)

⁵¹<http://www.homer-multitext.org/>.

⁵²On the implications of the Homer Multitext Project for the text constitution see [Magnani, 2018](#), 97-99.

⁵³<https://tei-c.org/>.

⁵⁴«Strictly speaking, XML is a metalanguage, that is, a language used to describe other languages, in this case, markup languages. [...] Encoding a text for computer processing is, in principle, like transcribing a manuscript from scriptio continua 2; it is a process of making explicit what is conjectural or implicit, a process of directing the user as to how the content of the text should be (or has been) interpreted. By markup language we mean a set of markup conventions used together for encoding texts. A markup language must specify how markup is to be distinguished from text, what markup is allowed, what markup is required, and what the markup means. XML provides the means for doing the first three; documentation such as these Guidelines is required for the last». <https://tei-c.org/Vault/P5/1.5.0/doc/tei-p5-doc/it/html/SG.html>.

of data. Thus the Text Encoding Initiative (TEI), currently at its fifth release (P5), has been developed with the purpose of establishing a common set of rules and terms for the description and encoding of texts. The TEI P5 encompasses potentially all the tasks required to a humanist in terms of text encoding, and its being language independent makes it suitable for the purposes of any kind of textual study⁵⁵. Among the available modules, the Module *ic* is entirely dedicated to the encoding of the Apparatus Criticus. The basic structure of an apparatus entry is this:

```

1 <app>
2 <rdg wit="#M1">reading 1</rdg>
3 <rdg wit="#M2">reading 2</rdg>
4 <rdg wit="#M3">reading 3</rdg>
5 </app>

```

Numerous elements can be added to further specify the provenance and the nature of each reading. Among others, one can insert the lemma, the hand, the responsibility and the degree of certainty of a conjecture⁵⁶. An editor can also encode the type and cause of the readings, but the explanation must be done with some natural language indicators.

```

1 <app>
2 <lem wit="#E1 #Ra2">though</lem>
3 <rdg wit="#La" type="orthographic">thouh</rdg>
4 </app>

```

In a printed edition, specific sections are reserved to the the TNs of the work and there are generalized rules for linking each note to the text, which admittedly can sometimes leave room for

⁵⁵A list of the available modules will show its range of operability: «Simple Analytic Mechanisms; ; Certainty and Uncertainty; Common Core; Metadata for Language Corpora; Print Dictionaries; Performance Texts; Tables, Formulae, Figures; Character and Glyph Documentation; Common Metadata; Feature Structures; Linking, Segmentation, and Alignment; Manuscript Description; Names, Dates, People, and Places; Graphs, Networks, and Trees; Transcribed Speech; Documentation Elements; TEI Infrastructure; Text Criticism; Default Text Structure; Transcription of Primary Sources; Verse». Source: <https://tei-c.org/Vault/P5/1.8.0/doc/tei-p5-doc/it/html/ST.html>.

⁵⁶about the witnesses see Reading placement: <https://tei-c.org/release/doc/tei-p5-doc/it/html/ref-att.placement.html>
witness information: <https://www.tei-c.org/release/doc/tei-p5-doc/it/html/TC.html#TCAPLW>

ambiguity. Typically, for example, in the so called negative apparatus, where the lemma is not repeated in the TNs, each reading is vaguely connected to a verse or to a line, and it is left to the reader to assess where exactly the reading should be placed. For the AppCrit module as well, one of the most discussed issues is the way the XML TEI P5 links each apparatus entry to its position in the text. To do so, there are three methods:

1. the location-referenced method. It is the most similar to the method used by the printed editions. It declares for each apparatus entry the approximate location in the text it is referred to. In the next example, *WBP.1* identifies a line in the text.

```

1 <app loc="WBP.1">
2   <rdg wit="#La">Experiment</rdg>
3   <rdg wit="#Ra2">Eryment</rdg>
4 </app>

```

2. the double-end-point-attached method. It explicitly states the beginning and the end of the lemma in the text. *WBP.1* and *WBP-A2* identify two anchor elements positioned respectively before and after the lemma. In the next example, a case is shown where the sentence ‘Experience though noon Auctoritee’ has two variant readings: ‘Experiment’ and ‘Eryment’.

```

1 <app from="#WBP.1" to="#WBP-A2">
2   <rdg wit="#La">Experiment</rdg>
3   <rdg wit="#Ra2">Eryment</rdg>
4 </app>

```

3. the parallel segmentation method. This method tries to avoid the sharp division between base text and TNs. The apparatus element is put in the text where the lemma is supposed to be:

```

1 <l n="1">
2 <app>
3 <lem wit="\#E1 \#Hg">Experience</lem>
4 <rdg wit="\#La">Experiment</rdg>
5 <rdg wit="\#Ra2">Eryment</rdg>
6 </app>
7 though noon Auctoritee
8 </l>

```

Both the location-reference method and the double-end-point-attached method can be used with an in-line apparatus as well as with an external apparatus, thus with standoff markup. The in-line apparatus is inserted within the text⁵⁷:

```

1 <l>Swaz hi gât umbe</l>
2 <l>daz sint alle megede,</l>
3 <l>die wellent ân man</l>
4 <l>
5 <app>
6 <rdg wit="\#Mu" hand="\#m1">alle</rdg>
7 <rdg wit="\#Mu" hand="\#m2">allen</rdg>
8 <witDetail wit="\#Mu">
9 <mentioned>n</mentioned> nachgetragen.
10 </witDetail>
11 </app>
12 disen sumer gân.
13 </l>

```

The external apparatus has a section or file where only the text is encoded, and a separate section or file for the apparatus.

⁵⁷The <l> tag stands for each line of the text

This TEI module takes the conceptual framework of the traditional critical editions and transfers it into digital means, although with some differences. The base text, that is necessarily present in printed critical editions, in one or another form, can be avoided with the parallel segmentation method⁵⁸.

Provided that the TNs in its traditional form is highly codified, often ambiguous, and standardized only in its main features, but in several cases not in the details, the TEI XML for AppCrit successfully encodes a majority of information contained in it.

Despite its evident advantages, many voices from the digital philology field have raised to point out some criticalities of the AppCrit module. For this reason, the TEI initiative has appointed an expert panel to discuss and formalize them. Among the many topics discussed by the panel, some are particularly relevant here. In the first place, the *App* element is only applicable at the sentence level. This means that, due to the impossibility of the overlapping of markup, it can't contain more than a sentence or a paragraph:

the <app> element itself, which seems to have been considered as a phrase- or word-level only element. Editors of texts whose length varies considerably between the witnesses (for example: poems showing a different number of stanzas, or both poetic and prose texts with many omissions) have found the <app> element, for example, nested in the <l> element, as prescribed by the Guidelines, somewhat awkward⁵⁹.

Another criticality of traditional critical editions can be found in digital editions as well. Almost every edition has an *apparatus criticus* that, though it is standardized in its main features, often uses abbreviations and typographic signs that are not universally accepted, in order to describe the features of a particular textual tradition at best. Indeed the textual traditions are so different among each other that a scheme is hardly reusable, in printed editions as well as in TEI marked up editions.

⁵⁸Driscoll & Pierazzo, 2016, 75: «The parallel segmentation also has an evident theoretical advantage over the other two since the much-disputed concept of 'base-text' remains in the background: 'the texts compared are divided into matching segments all synchronised with one another. This permits direct comparison of any span of text in any witness with that in any other witness'. Further on in the same section one reads that the parallel segmentation method 'will also be useful where editors do not wish to privilege a text as the "base" or when editors wish to present parallel texts'».

⁵⁹Driscoll & Pierazzo, 2016, 77.

As it is evident from the list of the possibilities of representation of the TNs through XML TEI, the AppCrit module has been thought as a translation of the critical edition framework. The goal of Chapter 5, though, will be to devise a framework for encoding a database of readings taken from different textual traditions. Therefore, an archive of readings that encompasses different texts, traditions, and many types of textual transmission, has to use a scheme that is as linear and universal as possible. This way, if on one hand the complexity of the matter will have to be simplified to some extent, on the other hand the model will be extensible and will favour interconnections between different texts. Moreover, a simple, straightforward structure could be translated into TEI P5, should the need come. Another crucial need of such an archive will be that of using resources and methods that can be useful for commenting and explaining the readings themselves. In the next paragraphs, I will analyse some of them, whereas their implementation will be shown in the next chapter, when I will describe my archive.

4.1.4 OTHER RESOURCES FOR THE STUDY OF TEXTUAL VARIATION

As things stand today, the TEI P5 Module for the AppCrit is the most widely accepted, most complete and most standardized starting ground to encode variants, despite its downsides. But in order to be more expressive and more versatile, the model might be integrated through other resources for the study of the variation. I will list just some, focusing on the methods and technologies that have been implemented, explored or experimented by the Perseus Digital Library and its most recent evolution, the Scaife Viewer. As I will say at the end of this chapter, the archive has been specifically designed to interact with this online library of texts, for a number of reasons.

THE SEMANTIC MARKUP

If we think in terms of the conceptual structure of a traditional critical edition, we can say that there is an implicit semantic relationship between each element in it. The reader, knowing the conventional uses of this instrument, is in most cases able to understand this implicit scheme. The reader is just

interpreting the signs on the page, as far as both the text and the TNs are concerned. For example, it would be easy for an average user of critical editions, who had to clarify the semantic relationships in a notation like “1.2.3: Rosa] Rosae **D**” by saying for example that “the word *Rosa* in book 1, poem 2, line 3 has a variant reading *Rosae* in manuscript Vat. Lat. 1, whose conventional *siglum* is D”, provided that they have the critical edition’s prefatory material at hand.

The same implicit semantic can be found in the XML TEI P5 markup, and is verbalized in natural language in its Guidelines themselves⁶⁰. This would not be an issue, as long as the reader is able to understand it. Nevertheless, it has been argued that its own implicitness may lead to unnecessary simplifications and that a semantic model would make it explicit, thus not leaving the consistency of the TEI semantic value only to the readers’ understanding⁶¹.

Several proposals have been made to derive an explicit semantic out of the TEI model⁶². Its advantages are manifold: the ability to map in a verifiable way a markup language and thus operate more efficiently on it, for example translating it into another markup language; the possibility to automatically derive facts from documents; finally, the advances in terms of presenting a document to a human reader in a more complete and exhaustive fashion after it is automatically computed⁶³.

Ciotti and Tomasi write that:

In order to finalize the model from an LOD cloud perspective — as regards the collection of TEI-based documents — various methods will have to be explored, beginning with the creation of an RDF triple store by converting some pertinent elements of the refined TEI XML files into RDF through XSLT. Experiments in converting XML files into RDF have already been undertaken: “a transformation to RDF has to create the URIs of its resources and connect them through the RDF triple structure consisting of subject, predicate and object” (Breitling 2009).

The first link that could and should be expressed in a functioning semantic manner is the link between the reading and its passage in the text. As seen about the XML TEI mark-up, the issue of

⁶⁰<https://tei-c.org/guidelines/P5/>.

⁶¹Ciotti & Tomasi, 2016, 1.

⁶²For a list of the main proposals see Ciotti & Tomasi, 2016, 6. Romanello et al., 2009 may be added to the list.

⁶³Sperberg-McQueen et al., 2010.

linking each instance of the apparatus criticus to its proper location in the text is highly problematic. If in the printed critical editions such information could be provided with a degree of ambiguity, the digital format by its nature requires discrete, complete information. In the next paragraph, I will show a method that has achieved that result.

THE BASE TEXT AND TEXT REFERENCING

The first step towards the creation of a net of semantic relationships is to be able to assign to each element a URI. This includes also the editions' base text, if existing. I wrote earlier that the TEI module for the AppCrit has several ways to link each reading to its specific position in the text. The text referencing is a much more complex issue than it could seem by a first look, and it is indeed connected to the problem of the implicit semantic of the markup languages. f

As Chris Blackwell and Neil Smith wrote:

We were surprised to find that, despite the centuries-long tradition in disciplines like classical studies of citing texts by canonical reference, this experience had not been generalized in the digital humanities community. Even the most forward-looking digital projects a decade ago were relying on textual references that failed to represent the semantics implicit in conventional canonical citation, and were expressed in notations such as URLs that, while machine-actionable today, were closely tied to specific ephemeral technologies⁶⁴.

Blackwell and Smith originally developed the CITE architecture to face this problem in the development of the Homer Multitext project, but the framework proved effectively extensible and has since then been used for projects involving a wider range of works, as I will say later.

The CITE Architecture includes:

- standards for citing scholarly resources with a technology-independent but machine actionable URN notation

⁶⁴<http://www.homermultitext.org/>.

- APIs for services to retrieve scholarly resources identified with the CITE architecture's URN notation
- some code libraries for working with URN notation, and the CITE services⁶⁵

The URN, or Uniform Resource Name, as defined by the Internet Engineering Taskforce, has the purpose of being “a persistent, location-independent resource identifier”⁶⁶. A URN is a URI, or Uniform Resource Identifier, that identifies a resource by a name without giving information about its existence on the Internet nor its location. The URNs are “semantically complete, technology independent, machine actionable”, thus having the qualities of persistence and durability and being fully informative.

The CITE architecture has also defined the CTS protocol, or Canonical Text Services protocol, that “defines interaction between a client and server providing identification of texts and retrieval of canonically cited passages of texts”. The CTS protocol uses the URNs defined by the CITE architecture to retrieve text passages, and “it is specified in a way that allows to create CTS URNs for any possible text passage in a document”⁶⁷.

To sum up, a CTS URN is a string of characters that identifies a given passage in a text. The CTS URN can be addressed by a URL (Uniform Resource Locator), that defines the location of the resource in the Internet. For a CTS request, the request parameters (see below) are added to the “base url”⁶⁸

THE CTS URN NOTATION

In the Homer Multitext Project website, it is explained that “CTS URNs refer to a passage of text in terms of two hierarchies”⁶⁹. The first one is conceptually similar to the FRBR hierarchy⁷⁰, although with two main differences. Firstly, it is aimed at representing the bibliographic entities not from a

⁶⁵<http://cite-architecture.org/about/>.

⁶⁶<https://tools.ietf.org/html/rfc8141>.

⁶⁷<http://cite-architecture.org/about/>.

⁶⁸<http://cite-architecture.org/about/>.

⁶⁹<https://www.homermultitext.org/hmt-doc/cite/cts-urn-overview.html>.

⁷⁰<https://vocab.org/frbr/core>

librarianship perspective, but as they are cited by scholars. Secondly, it organizes the works in text groups, a feature that is absent in FRBR. The meaning of ‘text group’ can vary. It can identify a group of works written by or attributed to the same author, or a canonical corpus (e.g. the *Patrologia Latina*). Similarly to FRBR, here too a *work* is an abstract entity, namely the conceptual idea of a product that has a title and is expressed in its many versions and translations. This abstract entity can be specified by referring to a specific edition or translation (the *version* in FRBR) or exemplar (FRBR’s *item*).

The second hierarchy is the reference to “a passage expressed in a logical citation scheme”⁷¹. In the case of specific editions or translations, “CTS URNs can further specify a span of text with a subreference. Subreferences identify indexed substrings, or a range between an indexed pair of substrings”.

The syntax of a CTS URN is composed of a sequence of conventional strings divided by a colon. Each of those strings, depending on its position, identifies either an author/workgroup, a work, a version, a passage or a subreference:

The basic syntax of a CTS URN is:

```
urn:cts:CTS_NAMESPACE:WORK:PASSAGE:SUBREFERENCE?
```

- The Namespace is defined as “a namespace prefix resolving to a unique URI”. For example, “the namespace Registry identifies the CHS registry of ancient Greek transmitted by manuscript copying with the namespace *greekLit*”:

```
urn:cts:greekLit:
```

- The Work element is formed by at least one among textgroup, work, edition, translation, exemplar. If two or more are present, they are separated with a dot. Expanding on the previous

⁷¹<https://www.homermultitext.org/hmt-doc/cite/cts-urn-overview.html>.

example, the CHS registry of ancient Greek identifies the textgroup Homer with *tlg0012* and the work Iliad with *tlg001*⁷². Thus, the Iliad is referenced by this CTS URN:

```
urn:cts:greekLit:tlg0012.tlg001:
```

And a specific English translation of the Iliad is marked by ‘mth-or’:

```
urn:cts:greekLit:tlg0012.tlg001.mth-01:
```

- The Passage citation refers to a singular passage or to a range of passages. It consists of components separated by a dot, each of which represents a level in the hierarchy of the text. To point at a range of passages, the first and last passage of the range should be indicated in their extensive form, separated by a hyphen. So Iliad I.1 would be:

```
urn:cts:greekLit:tlg0012.tlg001:1.1
```

And Iliad I.1-7 would be:

```
urn:cts:greekLit:tlg0012.tlg001:1.1-1.7
```

- If the CTS URN points to a leaf-level node of the file (that is, a node that contains text), it is possible to extend the reference to a portion of this node, typically a word. A subreference can have a literal string and an index between square brackets.

If both a substring and an index, *n*, are included, the reference points to the *n*th occurrence of the substring in the cited node. If a substring is given, but no index value, then it is taken to mean the first occurrence of the substring in the cited node. If an index is given, but no substring, it is taken to mean the *n*th code point in the cited node”

⁷²<http://www.homermultitext.org/hmt-docs/cite/cts-urn-overview.html>. All the next examples are taken from here.

The following CTS URNs will respectively refer to the word *Achilles* in verse 1, to the first character of verse 1, and to the second occurrence of the word *the* in verse 10, all in a specific English translation of the Iliad.

```

1 urn:cts:greekLit:tlg0012.tlg001.mth-01:1.1@Achilles
2 urn:cts:greekLit:tlg0012.tlg001.mth-01:1.1@[1]
3 urn:cts:greekLit:tlg0012.tlg001.mth-01:1.10@the [2]

```

Finally, it is possible to make a subreference to a textual section that does not match any node, as long as the first and last token are used as references:

```

1 urn:cts:greekLit:tlg0012.tlg001.mth-01:1.1@Achilles-1.10@Atreus

```

With this system, I am able to point at tokens with the highest degree of granularity possible. Moreover, the CTS URN's structure allows to point to a sections of a work in general, or to specific editions and translations. This clears the air from the ambiguity of the 'fixed text' that would work as a canon, that is the risk with SDEs that lacks of commentary or TNs material. As I will show in Chapter 5, this will be a crucial feature when representing an archive of readings. Conceptually, a reading becomes a variant when there is another reading that can be located in the same spot of the text and that could work as an alternative to it. The concept of lemma, reading and variant is thus interlinked to the edition in use, its base text and the textual choices made by its editor. By associating a reading with a CTS URN, not only will it be clearly positioned in a text, but the information about it will be machine-processable without the ambiguities of the printed critical editions, partially remaining in the XML TEI module for critical apparatus. What is still left to the human reader to assess, though, is how the reading affects the surrounding text, how it should be understood with this or another variant, and what is their real weight in the overall understanding of a passage. All this information can be made machine-processable too, with a treebank.

TREEBANKS AND VARIATION

With the CTS paradigm, the implicit semantic relationships between text hierarchies are made explicit. Nevertheless, the connections and interrelations that, at any level, are within the text, need other instruments to be highlighted. Within the components of any sentence there are morphological, syntactic and semantic relationships. As in a written commentary these connections can be pointed at with a linguistic description of a subsection of a text, this task for a digitized text can be accomplished with a treebank.

A treebank is an annotated corpus of texts in which each text is split into gradually smaller sub-unit (sentences, phrases, words), and for each sub-unit a set of metadata is provided, with lemmatization and morphological annotation for each word. Furthermore, the relationships between sub-units within a sentence are described. Different layers of linguistic annotation can be added (morphosyntactic, semantic, pragmatic) with a highly encoded system of annotation⁷³.

In other words,

A dependency treebank is a corpus containing a symbolic representation of the syntax of one or more texts. It can be defined as a set of sentences parsed according to the linguistic formalism of dependency grammar⁷⁴.

The types of annotations differ from treebank to treebank. For ancient Greek and Latin the pragmatic layer is rarely encoded, whereas the morphology and the lemmatization are always present⁷⁵. The potentials of such an annotation for texts are numerous. From computational treatment of data, to machine translation and linguistic researches of many kinds, several tasks would be performed more easily and more effectively if the morphosyntactic, or even the semantic and pragmatic relationships were to be made explicit.

⁷³Bamman & Crane, 2010; Bamman et al., 2009; Celano, 2014; Celano & Crane, 2015; Mambrini, 2011, 2016

⁷⁴Celano, 2019, 279.

⁷⁵Berti, 2019: All dependency treebanks for Ancient Greek and Latin contain morphological annotation and lemmatization. Only a few Ancient Greek and Latin texts have also been enriched with some semantic and/or pragmatic annotation.

The treebanks can be compiled in a totally manual way or by using human controlled automated processes, at least for some passages such as the morphological analysis and the lemmatization. It has been found useful to have two users annotate the same text and then compare their results⁷⁶. The source of the treebank looks like this:

⁷⁶See later in this paragraph.

```

1 <sentence subdoc="1-2" id="2383098" document_id=
  ↳ "urn:cts:greekLit:tlg0011.tlg003.perseus-grc1">
2   <annotator>dlliba10</annotator>
3   <word id="1" form="ἀεὶ" lemma="ἀεὶ" postag="d-----" head="8" relation="ADV"
  ↳ cite="urn:cts:greekLit:tlg0011.tlg003:1"/>
4   <word id="2" form="μέν" lemma="μέν" postag="g-----" head="8" relation="AuxY"
  ↳ cite="urn:cts:greekLit:tlg0011.tlg003:1"/>
5   <word id="3" form="," lemma="," postag="u-----" head="5" relation="AuxZ" cite=
  ↳ ""/>
6   <word id="4" form="ᾧ" lemma="ᾧ" postag="i-----" head="5" relation="AuxZ" cite=
  ↳ "urn:cts:greekLit:tlg0011.tlg003:1"/>
7   <word id="5" form="παῖ" lemma="παῖς" postag="n-s---mv-" head="8" relation="ExD"
  ↳ cite="urn:cts:greekLit:tlg0011.tlg003:1"/>
8   <word id="6" form="Ἀαρτίου" lemma="ἄρτιος" postag="a-s---mg-" head="5" relation=
  ↳ "ATR" cite="urn:cts:greekLit:tlg0011.tlg003:1"/>
9   <word id="7" form="," lemma="," postag="u-----" head="5" relation="AuxX" cite=
  ↳ ""/>
10  <word id="8" form="δέδορκά" lemma="δέρκομαι" postag="v1sria---" head="0" relation=
  ↳ "PRED" cite="urn:cts:greekLit:tlg0011.tlg003:1"/>
11  <word id="9" form="σε" lemma="σὺ" postag="p-s---a-" head="13" relation="SBJ"
  ↳ cite="urn:cts:greekLit:tlg0011.tlg003:1"/>
12  <word id="10" form="πεῖράν" lemma="πεῖρα" postag="n-s---fa-" head="13" relation=
  ↳ "OBJ" cite="urn:cts:greekLit:tlg0011.tlg003:2"/>
13  <word id="11" form="τιν" lemma="τις" postag="p-s---fa-" head="10" relation="ATR"
  ↳ cite="urn:cts:greekLit:tlg0011.tlg003:2"/>
14  <word id="12" form="ἐχθρῶν" lemma="ἐχθρός" postag="a-p---mg-" head="13" relation=
  ↳ "ADV" cite="urn:cts:greekLit:tlg0011.tlg003:2"/>
15  <word id="13" form="ἀρπάσαι" lemma="ἀρπάζω" postag="v--ana---" head="8" relation=
  ↳ "OBJ" cite="urn:cts:greekLit:tlg0011.tlg003:2"/>
16  <word id="14" form="θηρώμενον" lemma="θηρῶ" postag="v-sppema-" head="13"
  ↳ relation="ADV" cite="urn:cts:greekLit:tlg0011.tlg003:2"/>

```

```

17 <word id="15" form="." lemma="." postag="u-----" head="0" relation="AuxK" cite=
    ↪ ""/>
18 </sentence>

```

This is the tree of the first sentence of Sophocles' *Ajax* that can be found in the Ancient Greek and Latin Dependency Treebank (AGLDT)⁷⁷. Each token is described through its lemma, its morphological analysis (the so called Part of Speech tag, developed according to the Guidelines by G. Celano⁷⁸) and its syntactic boundaries in the sentence.

Its preferred visualization is a tree-shaped graph, which makes powerfully visible the implications of the linguistic annotation (see fig)⁷⁹.

Insert fig.

A large collection of treebanks of Greek and Latin texts is available for download on the Perseus Digital Library Github page. The project is the earlier treebank for the ancient Greek and Latin. Started in 2006, it currently contains more than 500.000 annotated tokens for the ancient Greek and almost 80.000 tokens for the Latin corpus, for a total of 44 annotated works⁸⁰. Its aim is to anchor each treebank to the text and have it interact with “a reading environment with canonical standards for the presentation of text and a large body of digitized resources, which include XML source texts, morphological analyzers, machine-readable dictionaries, and an online user interface”⁸¹.

The treebanks could be an irreplaceable instrument to study textual variation. First of all, the text of the treebank is the result of continuous editorial choices. The compiler has to understand and show the morphology, syntax and semantics, and this implies also applying their own choice to passages that have more than one textual rendition in the editions or in the manuscript tradition, between which the philologist is expected to choose. This means that treebanking has to deal with

⁷⁷ Compiled by Daniel Lim Libatique under the supervision of G. Celano and G. Crane.

⁷⁸ Celano, 2014.

⁷⁹ Mambrini, 2016.

⁸⁰ citealp[284]celano_dependency_2019

⁸¹ Bamman & Crane, 2010

variation⁸². Not only, the variations that the scholar has to deal with are not only the ambiguities inherently present in every natural language, but also the textual oscillations that have been debated for centuries⁸³.

A scholarly treebank [...] reflects an interpretation of a single scholar, based not only on the scholar's philological acumen but also on an inevitable degree of personal taste and opinions [...] a syntactic interpretation of a sentence is always the interpretation of an individual and therefore subject to debate.⁸⁴

A treebank gives much more information than an edition provided with text and translation, and in a much more immediate way than a commentary. Some textual choices that in the Treebank are to be made explicit, are only evident through the commentary in a traditional edition.

For example, verses 6-7 of Sophocles' *Ajax* are⁸⁵:

εὖ δέ σ' ἐκφέρει
κυνὸς Λακαίνης ὡς τις εὐρινὸς βᾶσις.

The word εὐρινὸς could be either a genitive or a nominative. Each editor's choice would not be visible unless verbally specified with a note.

In his commentary, Finglass points out:

Well does your course bring you to your goal, like that of a keen-scented Laconian dog. [...] I take εὐρινὸς as a genitive, from εὐρις [...]. Others interpret it as a nominative, [...] applying the adjective to another noun by enallage, with 'keen-scented course of a dog' standing for 'course of a keen-scented dog'⁸⁶.

⁸²Beaulieu et al., 2012, 398: «At the bottom layer, the choice of a form implies the choice of a text. For a textually controversial and problematic corpus like that of Greek tragedy this task is far from trivial». Beaulieu et al., 2012, 399: «The annotation of syntactical irregularities is a very challenging problem both for corpus linguistics and for classical philology (where irregularities are often simply eliminated as transmission "errors")».

⁸³Bamman & Crane, 2010: «While ambiguity is of course present in all languages, the individual ad hoc decisions that annotators make in resolving syntactic ambiguity when creating modern treebanks have, for heavily studied Classical and other historical texts, been debated for centuries».

⁸⁴Bamman et al., 2009, 10

⁸⁵The next examples are taken from Sophocles' *Ajax* and particularly from the treebank that is available in the AGLDT. The *Ajax* will be the subject of paragraph 5.4 in chapter 5.

⁸⁶Finglass, 2011, 140.

In contrast, the treebank available on the AGLDT⁸⁷ allows to visualize the sentence as in 4.1.

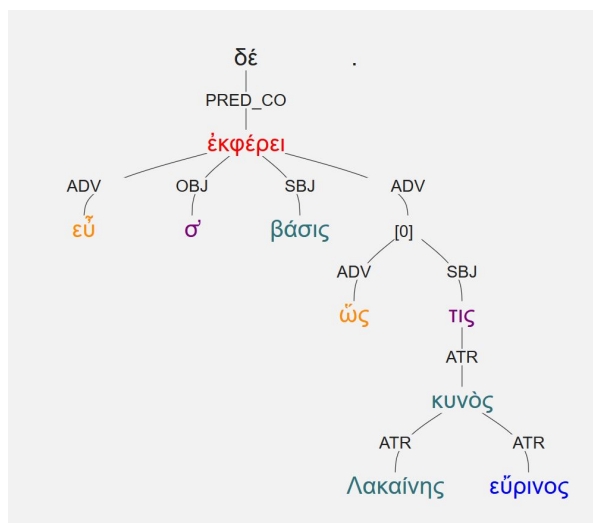


Figure 4.1

Thus we know for sure that the compiler of the treebank agreed with Finglass' interpretation. Otherwise - if εὐρίνος was considered a nominative - the tree would have looked like 4.2.

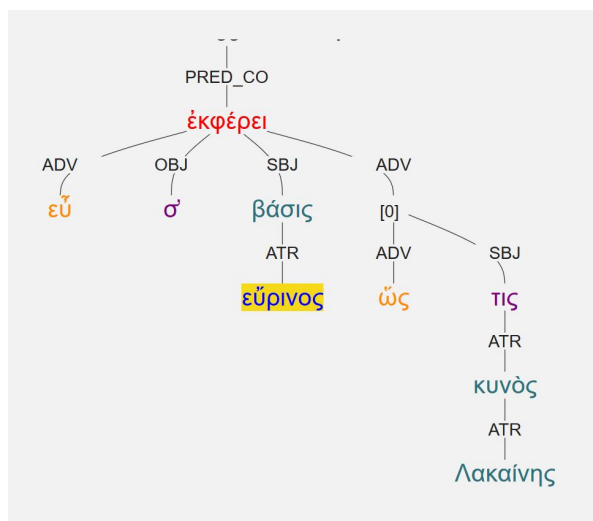


Figure 4.2

For editions that don't have commentaries, some divergences can be inferred by looking at the translation. For example, Soph. *Aj.* 158-159 is:

⁸⁷https://perseusdl.github.io/treebank_data/.

καίτοι σμικροὶ μεγάλων χωρὶς
σφαλερὸν πύργου ῥῦμα πέλονται.

Lloyd-Jones – Wilson’s translation is: «yet small men without the aid of great men are unsafe guardians of a wall», whereas Finglass’ is: «And yet small men separated from great ones are an unsafe tower of defence». The difference between the two sentences is subtle from the semantic point of view, but not irrelevant as far as the part of speech tagging is concerned. In Lloyd-Jones and Wilson’s interpretation, small men are characterized as unsafe guardians of a wall. Their description is literal and the genitive πύργου is thought to be an objective genitive of “being guardians”. Finglass’s translation, however, interprets the predicative complement as a metaphorical image. The word πύργου is an attributive genitive of ῥῦμα. This level of analysis can be accounted for by a semantic treebanking.

The thorough analysis of one single text does not, once again, account for the TNs and critical materials. The scholarly debate on treebanks has been aware of the necessity to address variation and has figured out some solutions.

One attempted solution has been to record the variations in a textual companion that would work as a commentary on the annotations⁸⁸. It may be objected that using such a powerful visual aid to the comprehension of the text as the treebank is and having it accompanied by a textual commentary can sound redundant and not completely efficient.

It should be added to this that the creation of a treebank for a text does not only record the existing variations, but also creates new variations. Not only because, as remarked above, a new treebank

⁸⁸Beaulieu et al., 2012, 400: «the choice of a form implies the choice of a text. For a textually controversial and problematic corpus like that of Greek tragedy this task is far from trivial. [...] A model of a fully documented treebank (where the files of the tragedies are accompanied by a textual companion that records the activity of the editor/annotator) is currently the experimental model used for the annotation of Sophocles. [...] A scholar working with a printed edition would be made aware of this potential problem by a note in an apparatus criticus or by a more lengthy discussion in a commentary. Likewise, the user of an annotated corpus should certainly be informed of the textual situation».

necessarily carries the compiler's editorial choices, that can and should be compared on a par with other critical editions. Often, the treebank creates variation also because of its model of production:

In the "standard" model of production, every sentence is annotated by two independent annotators and the differences are then reconciled by a third in order to filter out the biases (and errors) of any single individual. This reconciliation (or "secondary" annotation as it is encoded in the XML release) is undertaken by a more experienced annotator/editor, typically a PhD with specialization in the particular subject area (such as Homer). [As figure 2 illustrates,] all annotations are publicly released with the usernames of the primary and secondary annotators (which are then also associated with real names and institutional affiliations)⁸⁹.

⁸⁹Bamman & Crane, 2010.

Chapter 5

A DIGITAL REPRESENTATION OF NON CONTINUOUS SOURCES OF READINGS

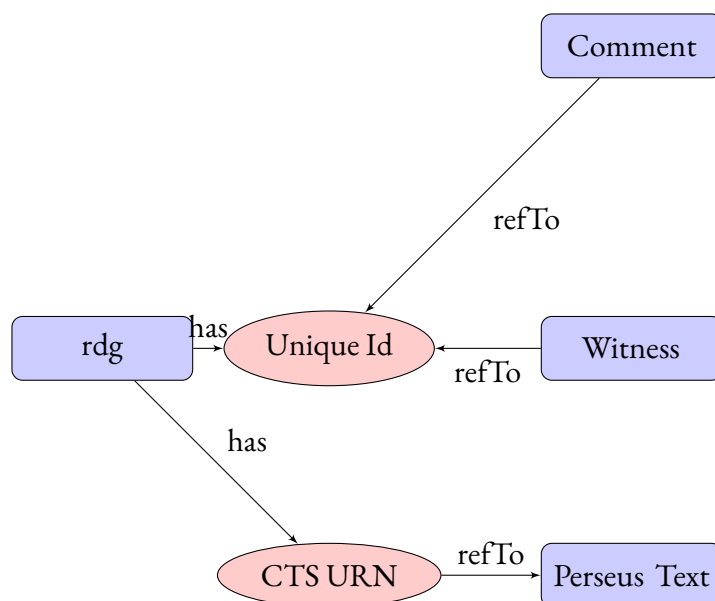
In chapter 4 I gave an account on the history of the SDEs, I analyzed the role that the TNs have in them and the methods and tools they have been represented with. In the current chapter, I will explore a way to model the materials that I have collected and partially displayed in chapter 3, taking into account the landscape of digital tools, methods and practices that I have recalled in the last paragraphs.

In Part I, specifically, I have shown that the archive of commented variant is almost a genre *per se*, with a long tradition that traces back at least to the 16th century and that has illustrious examples also in the 20th century and in the last decades. I also maintained that the collation of a single manuscript has, conceptually, the same structure of the archive of variants, because it is a non continuous account of the text of a source. I will add, here, that the genre of the review of the critical edition is a collection of commented readings too, and as such a digital version of it can be conceptually modelled alongside the above mentioned archive of variants and the collation (see par. 5.4).

In the next paragraph, I will describe the general structure of a digital collection of readings. After that, I will suggest some specific uses of such a structure, beginning with the archive of readings from multiple sources and then addressing the case of the readings taken from a single manuscript, showing

as a use case the same manuscript that has been analyzed in Part I (see par. 3.1). In the second part of this Chapter, I will test the limits of my digital framework and apply it to two different uses: the review of a critical edition and the alignment of editions in the case of a text with a complex textual tradition.

5.1 THE GENERAL STRUCTURE OF THE ARCHIVE



As I have maintained in chapter 3, the potential uses of an archive of readings are manifold, ranging from the comparative analysis of certain types of variants, to a better understanding of a single copyist's habits.

The archive as presented there shares with the traditional TNs and the traditional collations of manuscripts a structural feature, namely the desultoriness of the data. As it is obvious, no printed edition, collation or repertoire of readings could transcribe the complete text of each manuscript anytime it needs to point at a single reading. With the digital turn in these genres, scholars find themselves dealing with a huge amount of material that has been stored in such a way, and no digital solutions to migrate them in special spaces. All this material could offer a great deal of knowledge

if transferred into a digital archive, but – again – it has to be stored and modelled according to its desultory nature.

The goal of an archive of readings is not to create several new SDEs for each text for which readings are collected, although the creation of a complete version of a work would have some advantages. The representation of complete sources is, indeed, a good practice, especially because the digital resources don't have as strict space constraints at the data level as in the printed ones, therefore all the data can be stored and the useful data can be retrieved at need. Nevertheless, it appears clear that reconstructing the entire text of a source from a collation (or worse, from an apparatus criticus) would mean to alter it deeply. In all of these cases, we know what has been recorded but we have no information on what has been left out. Thus, the only way to transfer those data in the digital media is to accept and reproduce their discontinuity and find a way to represent it.

As I wrote earlier, a reading is a variant only when it differs from at least another reading that stands as a conceptual alternative in the same location of the text. So, as discussed in paragraph 4.1.3, a crucial point in the identification of a reading is the referencing to its location in a continuous text.

There is a way to combine the necessity of a location for each reading and the avoidance of the creation of a base text *ad hoc*. The open source paradigm and the Linked Open Data best practices require data to be freely accessible, reusable and interconnected. Thus, the readings should be connected to a library of texts that is as complete as possible, and openly available. For these and other features that will be shown soon, the Perseus Digital Library seems to be the most suited collection of ancient Greek and Latin texts on to be used as a benchmark. All of its texts are currently improved and maintained, and are disseminated not only in the old Perseus website, but also in the new Scaife Viewer, with increasing analysis and visualization aids¹, and their XML source is available on GitHub. Each text in the library could work as an arbitrary base text, provided that this base text explicitly works as a “collection of pinpoints” and not as a canonical version of the work it expresses. As reminded earlier, indeed, many of the texts come from old editions, that are sometimes surpassed in terms of textual criticism.

¹<https://scaife.perseus.org/about/>.

With the XML texts of the Perseus Library as a starting point, I will build the structure of the archive. Although the TEI XML is currently the most complete and expressive way to describe apparatus entries, I will need a structure that is more versatile and less tailored on a specific text, and that can link readings to the text but also interconnect them with the resources that are useful for the analysis of the variants themselves. The structure should be translatable into XML TEI and be derived from it, but it should be more general and fixed and less subject to structure modifications. As I wrote earlier, the Perseus Digital Library is CTS compliant. This means that each point in the text can be referred to with a Uniform Resource Identifier. This feature, purportedly, simplifies and encourages the linking of compliant resources to it.

The archive of reading itself is a collection of XML files. Each file contains a list of readings that pertain to the same work, and each reading has as an attribute a CTS pointer that links it to its position in the text. Each reading can be further referred to with a CITE identifier.

As shown in paragraph 4.1.4, the CITE architecture provides unique identification for the texts and the CTS protocol provides interaction with them, with a granularity that reaches the letter level. This will be the method for linking each reading to its location in the text.

For each XML file, the source from which the readings are collected needs to be stated in the preamble. Any collection of readings arises from an interpretation act, that – often without stating it – resolves doubts on unclear letters, spells out the *compendia*, or introduces involuntary modifications. The recollection of readings is in fact a stage of the textual tradition, and as such is subject to errors and modifications. Stating the source of the readings allows to determine who is responsible for potential critical choices or mistakes. For the same reason, the name of the archive compiler has to be declared in the preamble.

```
1 <teiHeader>
2   <fileDesc>
3     <titleStmt>
4       <title>Readings from some manuscripts of the tradition of Ovid, Amores</title>
```

```
5     <author>Camilla Rossini</author>
6
7     </titleStmt>
8     <publicationStmt>
9         <date cert="" type="release">2020</date>
10    </publicationStmt>
11    <sourceDesc>
12        <biblStruct type="journalArticle" xml:id="Bornecque1927">
13            <analytic>
14                <title level="a">Collation du manuscrit de Saint-Gall des Amours d'Ovide
15                    ↪ </title>
16                <author>
17                    <forename>Jacques-Henry</forename>
18                    <surname>Bornecque</surname>
19                </author>
20            </analytic>
21            <monogr>
22                <title level="j">Revue de Philologie, de Littérature et d'Histoire Anciennes
23                    </title>
24                <idno type="ISSN">0035-1652</idno>
25                <imprint>
26                    <biblScope unit="page">354-361</biblScope>
27                    <date>1927</date>
28                </imprint>
29            </monogr>
30        </biblStruct>
31    </sourceDesc>
32    <sourceDesc>
33        <link>https://www.e-codices.unifr.ch/xml/tei_published/csg-0864.xml</link>
34    </sourceDesc>
35    </fileDesc>
36    <encodingDesc>
```

```

35 <refsDecl n="CTS"></refsDecl>
36 </encodingDesc>
37 <profileDesc>
38 <langUsage>
39 <language ident="lat">Latin</language>
40 <language ident="en">English</language>
41 </langUsage>
42 </profileDesc>
43 <revisionDesc>
44 <change when="" who="" />
45 </revisionDesc>
46 </teiHeader>

```

Since the base text from the Perseus library is explicitly used only as reference grid, for each reading of my archive I will record also, if necessary, the lemma of the Perseus version as an autonomous reading. This choice is justified by several reasons. Firstly, the text in the Perseus Library should work only as a pinpoint. This way, not only each CTS URN in the XML archive of reading is associated at least with two readings, but also the reading in the Perseus library can be commented and further referenced upon.

```

1 <rdg ref="urn:cts:latinLit:phi0959.phi001.perseus-lat2:1.13.19@stultos">consulti
  → </rdg>
2 <rdg ref="urn:cts:latinLit:phi0959.phi001.perseus-lat2:1.13.19@stultos">stultos
  → </rdg>

```

In structuring the list of readings, I didn't use the TEI element `RdgGroup`. In the CTS URN reference, the placing of the reading is already stated, and the readings that have the same positioning are *de facto* a reading group. Other than that, for example for partially overlapping readings, the nature of reading group is an individual judgment that should not be encoded here.

So far, I have the readings transcribed and their editorial source stated. The crucial piece of information that is still missing, is where the readings are originally taken from, in terms of manuscript sources. Here again, the TEI modules for AppCrit and the module for the manuscript description offer an ample set of tags and attributes to codify the manuscript sources with.

Here, two alternatives compete for the insertion of such information in my archive. I could insert the manuscript sigla as attributes in the reading archive, or choose to have a separate file dedicated to the witnesses. The latter option seems preferable for several reasons. The first reason is conceptual. The reading as a token of text has a degree of abstractness, being an interpretation of a portion of handwriting on one or more manuscripts. The scholars who, over the years (and often over the centuries) have attributed a reading to one or more manuscripts have made a separate interpretation act. A second reason is of a practical nature. Since the manuscripts and the editions often contain more than one work of the same group (e.g. more than one comedy of Aristophanes, more than one poem of the *Anthologia Palatina*), it is convenient to create one file for each group, in which the sources are listed. To each of them its readings are associated by using their cite unique identifier.

A third reason is connected to the amount of encoding that can be added to each identifier. As I wrote earlier, in some cases the structure of the archive will privilege simplicity over a full account of the information contained in the starting source. Nevertheless, some information about the status and the location of each reading (whether it is in the text or in the margin, erased or still in place and so on) are of primary importance for the evaluation of the reading itself. A separate file will allow me to record those information with a greater degree of granularity and clarity.

So far I have a file that lists the readings for a given work, and a file with witnesses for each group of texts (typically, an author). The factual reality of the tradition is described in its main features and at the best of the recollector's knowledge. Although it can be argued that the account of the textual tradition is also an interpretation of the material reality of it, there is another level of information on the textual tradition that has a very different status of interpretation. It is the comments on the texts. The comments have to find a place in the general structure of the archive, since they are

```

1 <wit witName="M">
2   <rdg ref="urn:cts:greekLit:tlg0001.tlg001.perseus-grc2:1.204@πόδα:rdgs:πόδα"
   → type="varia lectio" />
3 </wit>
4 <wit witName="B">
5   <rdg ref="urn:cts:greekLit:tlg0001.tlg001.perseus-grc2:1.204@πόδα:rdgs:πόδε"
   → />
6 </wit>

```

Listing 1 The above toy example shows that of the two readings $\pi\acute{o}\delta\alpha$ and $\pi\acute{o}\delta\epsilon$ for Ap. Rh. *Arg.* 1.204, $\pi\acute{o}\delta\alpha$, which is the lemma in the Perseus Library's edition, can be found as a *varia lectio* in M, while $\pi\acute{o}\delta\epsilon$ is found in the main text of B.

a common feature of all the genres that I am taking into account. The repertoire of readings has comments on their nature or origin, the review has usually judgments on the editor's choices, and the collation may or may not have brief remarks on some noticeable readings.

This kind of information will be stored in an archive of its own, using again the cite identifier of each reading to link it to its corresponding comment or comments. Moreover, in another file I will store – if necessary – the information about the types of readings, that I have talked about from a philological perspective in Part I.

This is the the core architecture of the archive. It is very simple in its structure but it allows for extremely specific references without the need of a great deal of encoding, and it is similar to the structure of a printed collection of readings enough to favour the digitalization of old sources. According to its different uses, the structure can be expanded or adapted. In the next paragraphs, I will explain how the general structure fits each of the use cases, starting with the of variants taken from multiple sources.

5.2 A DIGITAL ARCHIVE OF READINGS

FROM MULTIPLE SOURCES

As I wrote in paragraph 3, an archive of variants that allows the user to explore various types of possible slips should be as wide as possible in terms of authors, works and manuscripts that it takes

into account. Such an ultimate goal is emblematic of what I wrote in the previous paragraph, about the impossibility of accounting for the complete texts of each source. To provide for them would mean to make the effort unfeasible, since for a single reading recorded in a scholarly work one should search for and digitize the complete witness or witnesses that bear it. The battle would be lost beforehand. Not only (as I said earlier) my typical sources (commentaria, TNs, repertoires of readings) only show a short passage, often a single word, of their base text and the readings from one or more manuscripts; but my sources all take into account different works and textual traditions.

A static archive of readings, such as one on paper can be, does not allow for conflicting taxonomies except by using indexes. The main classification or order of the instances has to be decided beforehand. In paragraph 3, I have divided my archive of readings by semantic types. But what if I wanted to find all the instances that refer to Euripides' *Medea*, or to create two conflicting typological taxonomies? More than once, I have quoted many philologists' opinions according to which each reading has multiple causes, for example a mechanical one and a semantic one, that exist together. For these and similar needs, the dynamic and queryable nature of a digital archive would suit the user's needs at best.

With such a multisource archive, it is possible to explore the use of the Perseus Library as a base text at its best. The archive, in this use case, wouldn't have to interact with only one XML TEI encoded edition, but with many, and thus the archive of readings would have to interact with the base texts exclusively through the CTR URNs, testing the capacity and the limits of the archive architecture and its implementation. Whatismore, the archive could constitute an addition to the role of the Perseus Digital Library as a collector of data on the texts, that has been on study with the treebanks (see par. 4.1.4) and that is leading to new visual renditions of the integrated and augmented texts in the Scaife Viewer, that is already experimenting with parallel editions and manuscript transcriptions that could effectively interact to give a better understanding of the text².

The general structure of the archive, that I described above, will be used for this archive of readings. Now, I will show how I have implemented this structure for this specific use case. The main challenge

²<https://explorehomer.scaife-viewer.org/>.

here was the wideness of the data that I could potentially collect, and therefore the need to elaborate a method for retrieving them and turn them in an homogeneous format.

The workflow of the data collection is:

- I transcribed some noteworthy data from an article, a collation, an edition's TNs or a digital rendition of manuscript.
- I transferred them into a spreadsheet (see fig. 5.1).

Insert data here								
id	work	from			to			reading
		position	token	+/-1	position	token	+/-1	
0000	1	clouds	3	ἀπέραντον				ἀπέρατον
0000	2	clouds	3	ἀπέραντον				ἀπέραντον
0000	3	clouds	14	τὸν	14	υἰὸν		θεὸν υἰὸν
0000	4	clouds	131	στραγγεύομαι				στρατεύομαι
000	40	clouds	1310	τι			+1	κακόν
000	42	clouds	1359	ἀράπτεσθαί				ἀράπτεσθαί
000	43	clouds	1359	ἀράπτεσθαί				ἀλλὰ τύπτεσθαι
000	44	clouds	1359	ἀράπτεσθαί				ἀρα τύπτεσθαι

Figure 5.1

- From it, I automatically compiled the instances of the xml archive.
- As recalled earlier, the CTS URNs are referred to the CTS-compatible xml texts of the Perseus Digital Library. The materials that I collected from collations and critical editions, though, always implies a base text of its own. So the base token has to be checked (automatically whenever possible) against the Perseus Digital Library text, and modified if needed.

```

1 <rdg id="?>
2   ref="urn:cts:greekLit:tlg0019.tlg003.perseus-grc2:3@ἀπέραντον">ἀπέρατον
3   ↪ </rdg>
4 <rdg id="?>
5   ref="urn:cts:greekLit:tlg0019.tlg003.perseus-grc2:3@ἀπέραντον">ἀπέραντον
6   ↪ </rdg>

```

```
5 <rdg id="?"  
6   ref="urn:cts:greekLit:tlg0019.tlg003.perseus-grc2:14@τὸν-14@υἰὸν">θεὸν  
   ↪ υἰὸν</rdg>
```

- I automatically compiled a different file for the witnesses

```
1 <wit witName="C">  
2   <rdg ref="urn:cts:greekLit:tlg0001.tlg001.perseus-grc2:4.1697@μέγα-1697@χάος  
3     :rdgs:μελάγχροος" />  
4   <rdg ref="urn:cts:greekLit:tlg0001.tlg001.perseus-grc2:4.1698@βαράθρων  
5     :rdgs:βαράθρων" />  
6   <rdg ref="urn:cts:greekLit:tlg0001.tlg001.perseus-grc2:4.1723@γέλω  
7     :rdgs:γέλω" />  
8 </wit>  
9 <wit witName="N">  
10  <rdg ref="urn:cts:greekLit:tlg0001.tlg001.perseus-grc2:2.730@δερκομένη  
11    :rdgs:κεκλιμένη" type="varia lectio" />  
12  <rdg ref="urn:cts:greekLit:tlg0001.tlg001.perseus-grc2:2.804@διαπερὲς  
13    :rdgs:διαπερὲς" type="varia lectio" />  
14  <rdg ref="urn:cts:greekLit:tlg0001.tlg001.perseus-grc2:2.1030@παραινισσόμενοι  
15    :rdgs:παραμειβόμενοι" type="varia lectio" />  
16 </wit>
```

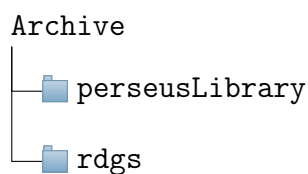
- I commented the noteworthy readings and, where existing, I added the comments of the author of the source.

- 1 `<comment ref="urn:cts:greekLit:tlg0019.tlg003.perseus-grc2:3@ἀπέραντον:rdgs:"`
 ↪ `>`The night is a difficult time for Strepsiades: the old man can't sleep,
 ↪ tormented as he is by his son's debts. On the adjective reported at χρῆμα
 ↪ τῶν νυκτῶν, the manuscripts do not agree: some report an adjective related
 ↪ to περαίνω ('complete, put an end'), while others an adjective related to
 ↪ περάω ('cross, go beyond'). The two adjectives are so similar, and the
 ↪ error is so easily polygenetic, that the stemma does not help us. The
 ↪ metrics in this case are not resolute either. But the meaning allows to
 ↪ surely choose the version with the ν, despite the contrary opinion
 ↪ expressed in the Suda (Sud. α 3035 (I 272 A.): 'Ἀπέρατον: ἄπειρον, μέγα,
 ↪ οὗ πέρας οὐκ ἔστιν. οἱ δὲ τοῦ ν γράφοντες ἀμαρτάνουσιν. 'Ἀριστοφάνης
 ↪ Νεφέλαις- τὸ χρῆμα τῶν ὅσον ἀπέρατον. καὶ αὔθις αὔθις- ὁ δὲ Χοσρόης
 ↪ ἀπέραντον καλουμένην εἰρήνην λαμπρῶς παρέλυσεν}): ἀπέρατος in classical
 ↪ Greek is used for something that should not be crossed (Aesch. Suppl.
 ↪ 1049-50: Διὸς οὐ παρβατός ἐστιν / μεγάλα φρήν ἀπέρατος), while ἀπέρατος
 ↪ applies for example to time (Plat. Polit. 302a: χρόνον ἀπέραντον) and air
 ↪ (Ar. Nub. 393: τὸν δ' ἀέρα τόνδ' ὄντ' ἀπέραντον).`</comment>`
- 2
- 3 `<comment ref="urn:cts:greekLit:tlg0019.tlg003.perseus-grc2:14@υἰόν:rdgs:">`The
 ↪ Rav. 429 (R) (About the manuscript cf.Orsini 2011), the oldest manuscript
 ↪ of Aristophanes, is dated to the second half of the 10th century and
 ↪ contains twice as many singular errors as the β family, a family of 21
 ↪ manuscripts derived, as R, from α. The copyist of R, in this case,
 ↪ inserted a typical syntagma of the liturgy, which was later corrected by
 ↪ the same hand: θεὸν υἰὸν is a frequent expression to indicate the figure
 ↪ of Christ within the trinity (e.g. Basil. Epist. 236, 6.13-16: συνάπτοντας
 ↪ λέγειν- πιστεύω εἰς θεὸν Πατέρα. Καὶ πάλιν ἐν τῇ τοῦ Τιοῦ ὁμολογίᾳ τὸ
 ↪ παραπλήσιον ποιεῖν, τῷ κοινῷ συνάπτειν τὸ ἴδιον καὶ λέγειν- εἰς θεὸν Τίον.
 ↪)`</comment>`

THE STRUCTURE

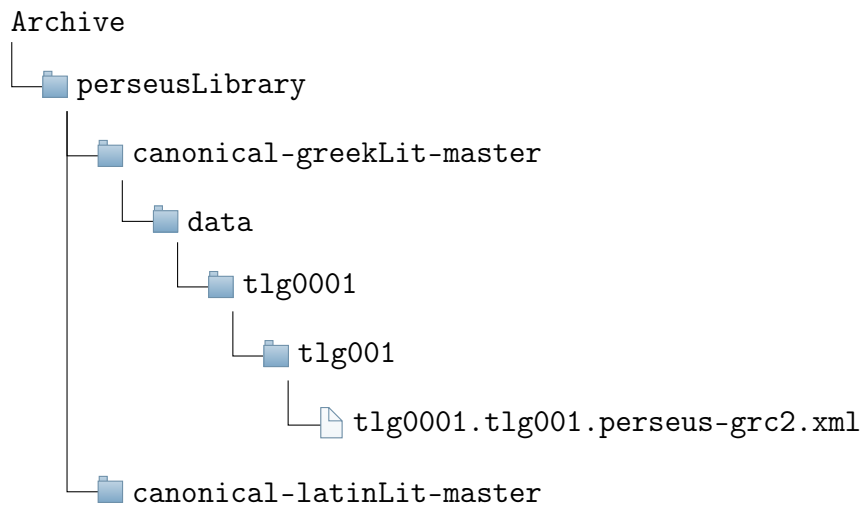
In the introductory paragraph I have described the general structure of the archive on a single text. In this paragraph I will show the structure of the archive of readings that are referred to different base texts.

Firstly, I have two folders: one with the archive of readings and one with the Perseus Library collection downloaded from Github.



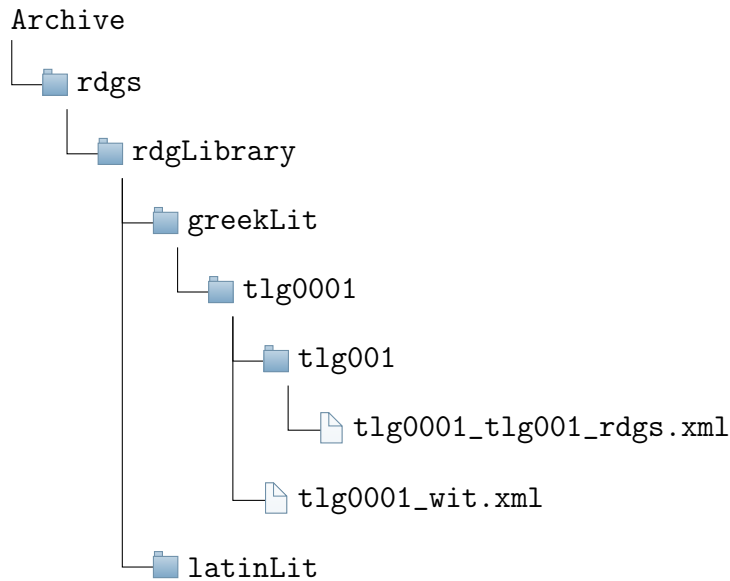
Later on, I will explain in detail the function of each of those. For now, I will describe the structure of the archive of XML sources of the Perseus Digital Library that I will use as a blueprint. The archive is freely available on the corresponding Github page³. Its main division is into Greek literature and Latin literature. Each folder contains a subfolder for each digitalized workgroup, usually an author, and in each of the author folders a folder for each digitalized works is contained. Works and authors are referred to with a conventional set of alphanumeric characters, the same used by the CTS protocol (see par. 4.1.4). Finally, in the *work* folder, there are XML files of one or more digitize editions. The names of the files, too, are conventional and predictable. Thus the archive can be accessed easily, with the aid of the conversion table between alphanumeric strings and authors' names or works. See the next example that shows how to access the XML file for Apollonius Rhodius (tlg0001), *Argonautica* (tlg001).

³<https://github.com/PerseusDL>.



As can be seen in the filename, after the work (tlg0001) and the author (tlg001), the string *perseus-grc2* is inserted, that points at a specific edition that is present in the Perseus library. This way, the abstract concept of *the* text of the *Argonautica* cannot possibly be confused with the specific text that appears in said edition. The latter, and not the former, will be the base text that will work as a reference grid for the readings.

My archive of readings is compliant with the same organization principles. It has a folder for each workgroup. Inside each folder, there is a folder for each work that contains an XML file. The XML file is an archive of readings that are part of the textual tradition of a that particular work.

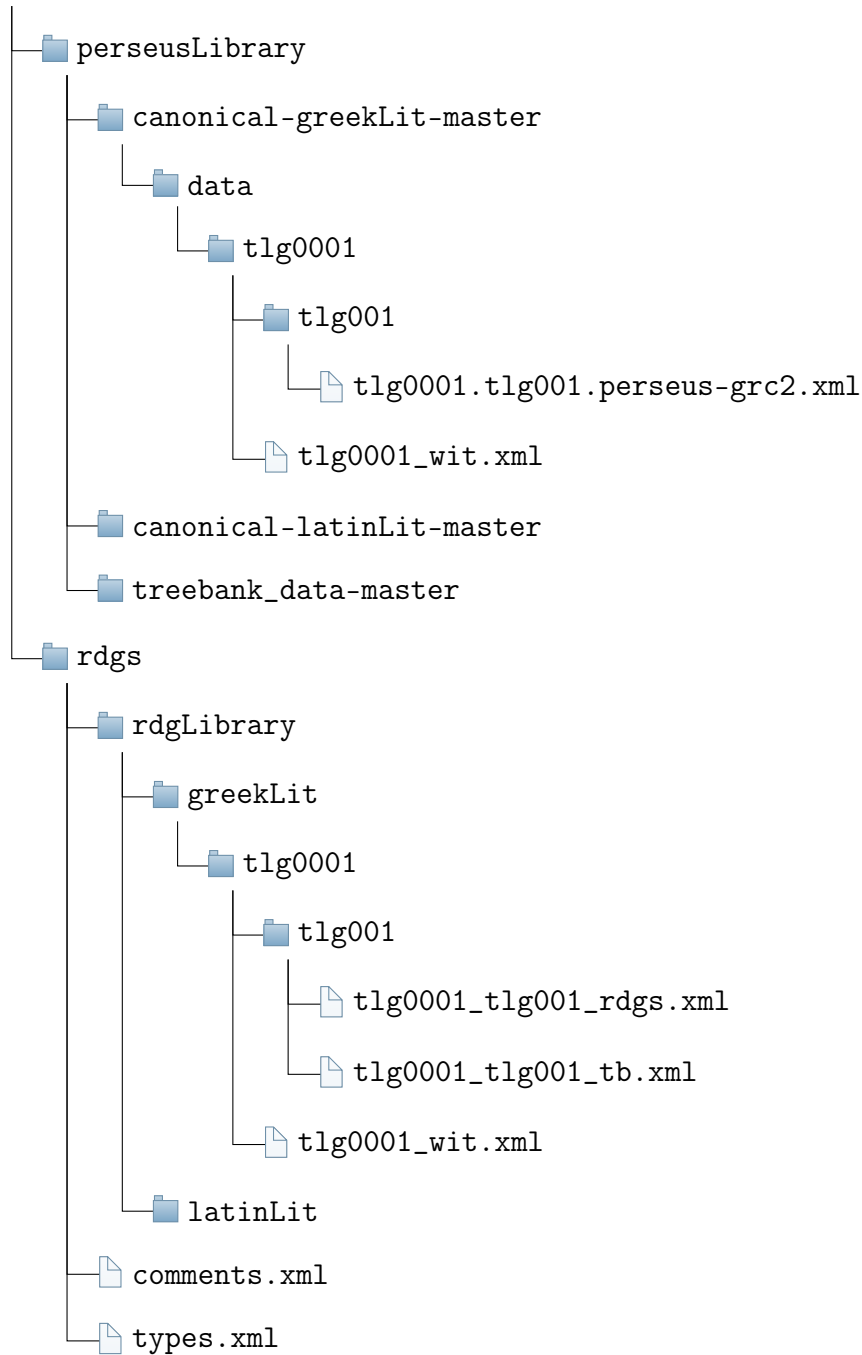


For each work group, a list of witnesses and sources is compiled. In this file, I list the manuscripts, the critical editions, the papers and the works containing scholarly conjectures from which I took the archive's readings. For each work, endeavour or item, the corresponding readings are listed. In the next chapter I will show and justify the citational method I chose.

Another element must be added in order to make my archive complete. It is a file that works as a commentary. The comments can be formalized in two ways. There can be a comment in natural language, where a chunk of explanatory text is associated with cite identifiers for one or more readings (see above), but also a sentence tree is commentary material. There is only one *comments* file for the complete archive because there is no need to create a new one for each work. The cite identifier will be enough to correctly assign the readings to their location in the base text. This commentary file will incorporate the materials from Chapter 3 in this work.

So the complete structure of my archive (again, with only *Argonautica* folders visible) is:

Archive



As written before (see par. 4.1.4), a comparison between sentence trees is a powerful tool to analyze how two alternative readings affect the surrounding text. These small portions of treebanked text can be then linked to their corresponding sentence in the complete treebank, if it exists.

```
1 <new_tb_sentence ref=  
  ↳ "urn:cts:greekLit:tlg0011.tlg003.perseus-grc2:28@νέμει:rdgs:τρέπει">  
2 <sentence document_id="urn:cts:greekLit:tlg0011.tlg003.perseus-grc1" id=  
  ↳ "2383110" subdoc="28">  
3   <annotator>Camilla Rossini</annotator>  
4   <word cite="urn:cts:greekLit:tlg0011.tlg003:28" form="τήνδ" head="6" id="1"  
  ↳ lemma="ὄδε" postag="p-s---fa-" relation="ATR" />  
5   <word cite="urn:cts:greekLit:tlg0011.tlg003:28" form="οὔν" head="7" id="2"  
  ↳ lemma="οὔν" postag="g-----" relation="AuxY" />  
6   <word cite="urn:cts:greekLit:tlg0011.tlg003:28" form="ἐκείνω" head="7" id="3"  
  ↳ lemma="ἐκεῖνος" postag="a-s---md-" relation="OBJ" />  
7   <word cite="urn:cts:greekLit:tlg0011.tlg003:28" form="πᾶς" head="5" id="4"  
  ↳ lemma="πᾶς" postag="a-s---mn-" relation="ATR" />  
8   <word cite="urn:cts:greekLit:tlg0011.tlg003:28" form="τις" head="7" id="5"  
  ↳ lemma="τις" postag="p-s---mn-" relation="SBJ" />  
9   <word cite="urn:cts:greekLit:tlg0011.tlg003:28" form="αἰτίαν" head="7" id="6"  
  ↳ lemma="αἰτία" postag="n-s---fa-" relation="OBJ" />  
10  <word cite="urn:cts:greekLit:tlg0011.tlg003:28" form="τρέπει" head="0" id="7"  
  ↳ lemma="τρέπω" postag="v3spia---" relation="PRED" />  
11  <word cite="" form="." head="0" id="8" lemma="." postag="u-----" relation=  
  ↳ "AuxK" />  
12 </sentence>  
13 </new_tb_sentence>
```

The variant readings this treebank comments upon is indicated in the *ref* attribute (l. 1). The data of the document from which this sentence is taken are recorded as attributes of the element

sentence (l. 2). This example (a lexical exchange between νέμει and τρέπει) doesn't alter the syntax of the sentence. Other variant readings, though, alter the whole sentence structure.

Is it possible, then, to determine for which readings it is more important to compile the syntactic tree, or for which of them it shows more significant data? In other words, can we assess *a priori* which readings will more likely modify the surrounding text in a significant way? The starting point is to assess the typological categories under which a reading pair falls, and to determine whether that specific categories are more or less likely to alter the syntax, the meaning and/or the translation. In the next paragraph, I will go back over the typological analysis of copyists' slips that I presented in chapter 3, in order to assess how much of the division and classification can be performed automatically.

THE VARIATION TYPES: AUTOMATED DETECTION AND ONTOLOGICAL DESCRIPTION

In Chapter 3, I have divided the readings into types. This classification allowed me to study them according to an adapted version of the groupings found by the linguistic studies for the slips of the pen, eye, tongue and ear. There are many problems to the extendability and usability of that model on larger archives. Firstly, the list of features was not a taxonomy, so much as a description table for each slip, that could have more than one characteristic at a time. So the examples that I provided for one group could and probably did fit also into others. The printed form of the archive, though, didn't allow me to show it properly. Secondly, the business of dividing and classifying each reading in a completely non automated way is time consuming and not completely effective. Thus, it is worth wondering which typological features can be inferred automatically⁴.

In the next list, I will review the table presented in paragraph 2.5 and discuss each of its elements from this perspective.

1. **Tendencies:** the lexical bias, namely the actual existence of a word, can be inferred by using a lemmatizer, such as the one provided by the Classical Language ToolKit⁵. The similarity effect,

⁴I aware that this paragraph is merely a suggestion for further research: nevertheless, I think it is worth mentioning this possible development of my work, in order to give a complete account of this solution.

⁵<http://cltk.org/>.

that makes the ‘production’ often similar to the ‘target’, can be computed with a script. This aspect is important when we look for polygenetic errors, but also when we select potential gloss intrusions and voluntary modifications, that have no reason to sound or look like the original. Especially for the ancient languages, the similarity with the accents and diacritics and without them have to be distinguished, since it could be an important factor to date the readings.

RdgA	RdgB	diacritics	no diacritics
ἡγερέθοντο	ἡερέθοντο	0.97	0.97
λέγω δὲ	λέγων δὲ	0.96	0.96
πρὸς βάλλομεν	πρὸς ὀ βάλλομεν	0.96	0.89
μοῦνον	λυγρὸς	0.0	0.39
ἔχοντα	περιέχοντα	0.0	0.42
πρῶτος	οἴσιν	0.0	0.0

Table 5.1

In these examples, the similarity has been computed with the Levenshtein Python library. The similarity goes from a minimum of 0.0 to a maximum of 1.0. The two values of the similarity with and without the diacritics have been separated, because they can provide different data, for example on the prevalent auditive or visual nature of the variation. Notice in row 5 that the added preposition distorts the result. Prepositions should be considered as a special case.

2. **Visual and Acoustic Features:** The most common visual interferences can be computed using a conversion table that associates the graphemes that are confused in one or another writing. Since these features pertain to the mechanical description of the slips and I have focused on their semantic features, I won’t further explore them. Same goes for the acoustic features, in which the metric factor should be considered as well. For my purposes, I only took into account the rhythm and the accent position, which are important for the lemma selection. The rhythm can be compared by syllabifying the two readings and compare each syllable, particularly regarding the accent position⁶.
3. **Positional Processing:** as the other graphical-phonetic features, I didn’t focus on this for the structure of my archive. Nevertheless, a difference detection algorithm would allow to

⁶I used James Taubner’s greek-accentuation package (<https://github.com/jtauber/greek-accentuation>).

find most of the Positional Processing modifications (anticipations, perseverations, exchanges, additions).

4. **Spacial Structure:** the conservativeness or less so of the spacial structure is easy to infer with the same methods used for the rhythm, namely using a syllabifier and comparing the two results.

5. **The Function Assignment, the Lemma Selection and the influence:** This category is fundamental to analyze the readings pairs from a semantic point of view. Firstly, a lemmatizer and a Part of Speech (PoS) Tagger need to be run on each element of a pair⁷. The comparison between the lemmas will be useful to understand if the two readings are different forms of the same lemma, or if they come from a different lemma completely. If the two readings come from different lemmas but their PoS analysis is the same, it is very likely that the substitution won't alter the structure of the sentence tree. It is harder to determine without manual intervention if the lemma modification has significant repercussions on the meaning. This is useful if, for example, I am looking for readings that alter the translation. If the substitution is a synonymic, hyponymic, hypernymic or co-hyponymic oscillation, it is likely that the meaning of the sentence won't alter the translation. To determine this automatically, a wordnet would be useful⁸. The opposite can be said for the antonymic substitutions, or for the lemma selection modifications in which the two readings belong to separate semantic fields. For the co-textual modifications, it is harder to determine automatically, also because this category is less objective and more subject to personal interpretations. As far as the PoS tagging is concerned, the comparison between the morpho-syntactic analyses of the two readings can help infer the type of modification. If the part of speech is different, the modification would probably be a

⁷a PoS Tagging is available for the texts in the Perseus Library. The tools and discussion on the PoS Taggers for ancient Greek and Latin are available at the corresponding page of the Digitalclassicist Wiki (https://wiki.digitalclassicist.org/Morphological_parsing_or_lemmatizing_Greek_and_Latin)

⁸Cf. Bizzoni et al., 2014.

significant one, both for a treebank and for a translation. The modification of case, too, may have consequence on the understanding of a sentence.

I used a first automated subdivision of the instances of my archive into types to develop an XML archive that translates the archive of Chapter 3 into machine-readable terms.

So far, the digital archive of readings is an improvement from the traditional archive, in terms of searchability and text linking. Nevertheless, the traditional archive provided much more information in terms of variant analysis and typological categorization. The traditional archive can only be understood if the taxonomy of the types and their influence on the text are explained in natural language. What is hard to model in an XML archive is here the semantic relationship among instances and types. Thus, the best way to represent this complexity in a digital way is to use a semantic description of my material. Therefore, I have devised a provisional ontology to organize the types of readings I have analyzed in Part one. The ontology is called RdgT, short for Reading Type. In fig. 5.2 the entity -relationship diagram is shown.

All textual criticism is based on are chunks of text, i.e. tokens. A reading is a token of text. A token becomes a reading when it has an alternative token to it, that is transmitted by direct or indirect sources, or is conjectured by an interpreter of the text. Therefore, the most important class in the ontology is the Token.

If two tokens are variants to one another, they belong to the subclass Reading. Each triple “Token is variant of Token” is commented on with an annotation on their Variant Nature. This class is the super-class of each other variant type. Types are taxonomically organized too. The fact that two readings are reciprocal variants can be automatically inferred through their CTS URNs. Each reading pair can, then, be commented about the Variant Nature. The main division of the variant types is between mechanical and semantic. All the types that I have analyzed in Chapter 3 fall under the “semantic variant” group.

A reading can have a trigger, namely an element that can have led a scribe to put it in the text. If a reading is assigned with a trigger, it means that the reading is considered spurious, or at least

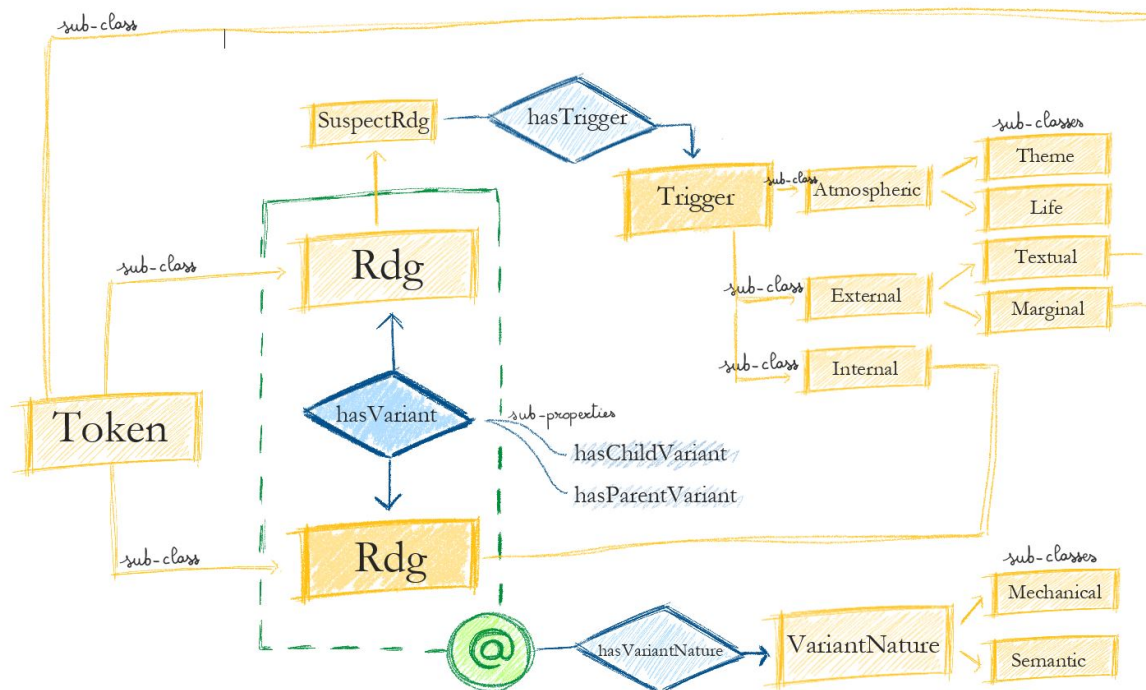


Figure 5.2 The Entity-Relationship diagram

suspected to be. A trigger can be: an alternative reading (internal trigger), when e.g. a scribe read the word A and wrote the synonymous B, meaning that A is both a reading and the trigger; another element in the text (external trigger), when e.g. the scribe read A, but wrote C, that was a word they encountered six lines above. C is the trigger; an element outside the text (atmospheric trigger), when a copyist is probably influenced by some thoughts or events that affect their current existence, such as liturgy, food or salary.

In the next pages I will present a detailed overview of the classes and object properties of the ontology.

CLASSES

- **class: Token**

A portion from a text expressed through a CTS URN. The tokens can be the domain of the

OP hasTrigger (see later) and/or they can belong to the subclass Reading.

has sub-classes: Reading

– **class: Rdg**

A reading is a token that is variant of another token. There can be more than two alternative variants but the comparison can only be between two. **has sub-classes:** SuspectReading

* **class: SuspectRdg**

A suspect reading is a reading that has a trigger. It means that it has a reason to be spurious.

• **class: Trigger**

A trigger is a factor or an element that, associated to a reading, gives a reason to believe that the reading is spurious.

has sub-classes: AtmosphericTrigger, ExternalTrigger, InternalTrigger

– **class: AtmosphericTrigger**

It is a trigger that is not found in the text. It can be an intruding thought deriving from the scribe's life or from the theme of the text being transcribed.

– **class: ExternalTrigger**

It is a trigger that can be found in the text but not one of two alternative readings

– **class: InternalTrigger**

A reading has an internal trigger when its direct competitor can have caused it. The direct competitor is itself the trigger.

- **class: VariantNature**

It is a descriptor for a relationship between two alternative readings.

has sub-classes: Mechanical, Semantic

- **class: MechanicalNature**

It describes the mechanical (i.e. graphical-phonetic) aspect of the variation.

has sub-classes: VisualNature, AuditiveNature, SpacialStructure (...)

- * **class: VisualNature**

Describes the mechanical (i.e. graphical-phonetical) aspect of the variation.

has sub-classes: SimilarLettersExchange, Compendium, SautDuMemeAuMeme (...)

- **class: SimilarLettersExchange**

One or more letters are visually similar and this may lead scribes to misinterpret the text.

has super-class: VisualNature

has sub-classes: -

- **class: Compendium**

A canonical or commonly used abbreviation has misled a scribe (e.g. per vs pro).

has super-class: VisualNature

has sub-classes: -

- **class: SautDuMemeAuMeme**

The appearance of two identical or similar strings in the text leads to the omission of the first and of the text between the two

has super-class: VisualNature

has sub-classes: -

* **class: AuditiveNature**

The exchange has been caused by the acoustic similiarity between the readings.

has super-class: VisualNature

has sub-classes: itacism, (...)

· **class: Itacism**

The relationships between the vocalic sounds of the two readings may justify the hypothesis of an itacism.

has super-class: AuditiveNature

has sub-classes: -

* **class: ChangedSpacialStructure**

The word division changes

has super-class: MechanicalNature

has sub-classes: -

— **class: SemanticNature**

It describes a variation from the perspective of its semantic nature, where visible.

has super-class: VariantNature

has sub-classes: FunctionalProcessing, LexicalSelection

* **class: FunctionalProcessing**

The variation concerns the function of a word/phrase in the sentence

has super-class: SemanticNature

has sub-classes: (...)

* **class: LexicalSelection**

The variation concerns the lemma selection

has super-class: SemanticNature

has sub-classes: Hyponymy, Co-Hyponymy, Synonymy, Antinomy (...)

- **class: Hyponymy**

The variation involves a broadening or a narrowing of meaning

has super-class: LexicalSelection

- **class: Co-Hyponymy**

The variation involves a selection in the group of the co-hyponyms.

has super-class: LexicalSelection

- **class: Synonymy**

The variation involves a selection between synonyms.

has super-class: LexicalSelection

- **class: Antinomy**

The variation involves a selection between antonyms

has super-class: LexicalSelection

OBJECT PROPERTIES

The two main object properties are `hasVariant` and `hasTrigger`. All the other properties are subproperties of these two.

- **object property: `hasVariant`**

It connects two readings that are alternatives for the same place in a text. The property is transitive (if A `hasVariant` B and B `hasVariant` C, C `hasVariant` A)

Attribute: `VariantNature`

has super-property: -

has sub-properties: `hasChildVariant`, `hasParentVariant`

- **object property: `isParentOf`**

Useful for the readings that have an *utrum in alterum*.

- **object property: isChildOf**

Useful for the readings that have an *utrum in alterum*.

- **object property: hasTrigger**

It connects a reading with its possible trigger, namely the element that may have ingenerated a slip. It equals to a suspect of slip on the reading that has one.

DISSEMINATION

A mockup of the digital archive is published at <https://github.com/Camilla-Rossini/ReadingsArchive/>. it contains nine Greek texts and two Latin texts, and the Owl file that represents the ontology.

5.3 A DIGITAL COLLATION: THE SANGALLENSIS 864

As I said earlier, the archive of variants is a collection of readings taken from numerous sources. Sometimes, we may be able to find sources about a single manuscript that are more exhaustive. This is the case of a manuscript that contains, among other works, Ovid's *Amores*, and that I have already examined from a philological perspective in par. 3.1. As I said then, for the so called Sangallensis (Sang. 864) I have a fortunate convergence of material: an old collation from 1927 and the manuscript digitalized and available in IIF⁹.

In this case, the digitized manuscript would allow me to transcribe the whole text of the Sangallensis. But the existence of the collation makes it much easier to just check on the readings that are recorded there, taking into consideration that my purpose is not to digitize as much material as I can, but to obtain a vast archive of readings. Whatismore, as I showed in Part I, the readings in this manuscript are interesting for the study of the copyists' slips.

I decided not to transcribe the complete manuscript. This doesn't mean that the IIF image is not worth including in my archive in any form. As comments, I inserted some URLs that link to

⁹https://www.e-codices.unifr.ch/it/mirador/csg/o864/csg-o864_008.

the portions of a page where a reading is. Thus, a hypothetical augmented text would ingest also the images from the manuscripts (see fig. 5.1)

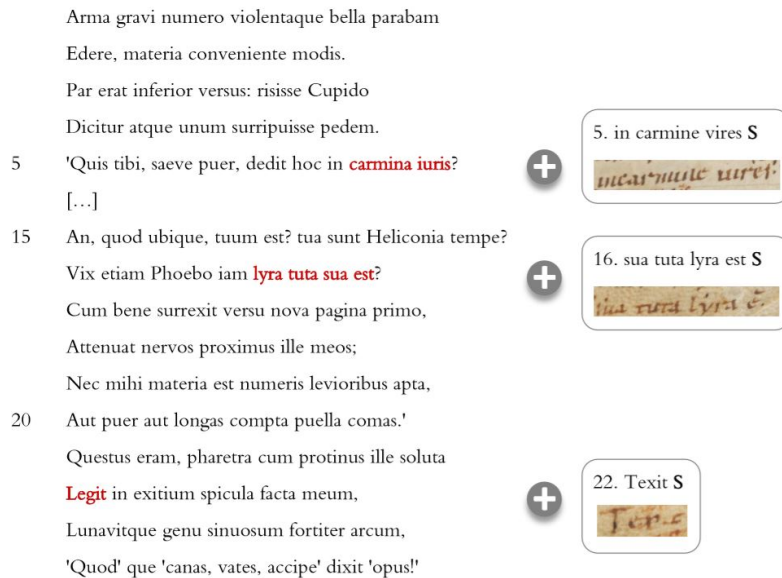


Figure 5.3

From the website where the digitalized manuscript is stored, I extract the URNs of each portion of the text with this structure:

```
1 https://www.e-codices.unifr.ch/loris/csg/csg-0864/csg-0864_350.jp2/1600,1550,
2 900,150/full/0/default/jpg\%22/
```

Where the numbers “1600, 1550, 900, 150” are the coordinates of the page section containing the reading.

This way, on one hand a digitized but never transcribed manuscript would be connected with a complete XML version of the text it contains (in this case, Ovid’s *Amores*). On the other hand, the collation could be first-hand checked by whomever is interested in seeing its source. With the printed collation, though, today’s user had no choice but to trust its author, or to manually check it against

the digitized manuscript, which is a time consuming job that, this way, can be performed once and for all.

5.4 USEFUL VARIANTS. A COMPARISON OF CRITICAL EDITIONS

As I wrote in the introduction to this chapter, the same conceptual model that has been applied for the archive of variant and for the collation can be useful in developing a model for a digital review of a critical edition.

For a first experimental mock-up, the chosen case study is Sophocles, *Ajax*, 1-332. The sequential steps that make it comparable to the last two examples are: 1) an archive of readings is obtained by selecting from two or more editions some noticeable readings; 2) each of them is linked to the corresponding place in a text chosen as a base reference; 3) in the comment section, the competing readings can be compared with the aid of external tools, in order to explain the editorial choices behind them. In the next paragraphs I will explain in which sense the genre of the review could fit this conceptual framework and how it could benefit from a digital transformation.

Whenever a new critical edition of an ancient text is published, other scholars carefully read it, compare it to previous editions and finally publish reviews of it on academic journals. Besides overall judgments on the edition's quality, bibliographic suggestions and further comments on specific editor's remarks, a review of a critical edition usually provides an account of the most noticeable editorial choices on the text. Textual renditions of controversial readings, new conjectures or the recovery of old ones, and maybe the comparison with the latest edition(s) on some crucial passages, are what really defines the work of the editor on the text itself, and are thus the ultimate object of the reviewer's judgment.

The reviews of critical editions, finally, play an irreplaceable role for the users as well. Not only are they often, at a practical level, the only way to access a new edition in the absence of it, while waiting,

for example, for University libraries to purchase it; even more importantly, they provide a list of the differences between critical texts in different editions, thus saving the time for the reader to detect them by manually comparing two or more printed books.

Nevertheless, such important tasks in this kind of reviews are, at least, hard to perform on a less-than-abstract level. An example will explain why:

Finglass often succeeds in defending transmitted text: he agrees with OCT against Dawe's Teubner in about 22 cases (for example 446, 771, 782, 790, 988, 1027, 1059, 1282, etc.), the reverse occurring about 15 times (for example 114, 191, 420, 630, 1357, etc.)¹⁰.

This passage, from a review to Finglass' 2011 edition of Sophocles' *Ajax*, is just one of many similar ones. Finglass' work is compared with the two previous major editions (Lloyd-Jones – Wilson's and Dawe's¹¹), but only some specimens of agreement or disagreement are quoted, and for each of them the mere verse number is provided. The job of finding out where and how the three editions are unanimous or less so, is for the reader to do. Of course, the limited space of a review requires conciseness, and an extensive – rather than intensive – approach.

Such shortcomings are intrinsically linked to the printed (or printed-like, for the PDF distributed journals) format that the review articles have had so far. The main contents of a review, though, can be described as links between corresponding passages in different editions. In such a way, they could perfectly support a digital metamorphosis of the genre. Moreover, a fully digital distribution (what we could call a *Smart Review*, SR) could provide more effective comparisons between editions, and links to external resources could give the reader insights on the editors' choices. This way, not only the old, consolidated tasks of the 'traditional' reviews are performed better and in a more feasible way; but what is more, a SR could improve and widen the usefulness of the reviewing and comparison on multiple editions¹².

¹⁰ Catrambone, 2013, p.169 on Finglass, 2011.

¹¹ Dawe, 1996; Lloyd-Jones & Wilson, 1994.

¹² Gabler, 2010.

This shift in perspective is even more desirable if we think about the SDEs. As I wrote before, more and more as we move on, new versions of the same ancient texts become available online. The differences among SDEs (broadly intended) is often underaddressed, and a great number of divergent passages remains unnoticed. This problem becomes even more visible when translations are involved. Not infrequently, the translations are made available online without their corresponding original text, making it difficult to address and explain the textual choices behind them¹³. To sum up, each digitally published text is liable of becoming an arbitrary base text.

An archive of readings applied to a review of critical editions would address this problem specifically. Its goal is to show the diverging readings in traditional or digital editions by juxtaposition, thus not necessarily stating a hierarchy between them, similarly to what happens in traditional reviews. As stated before, the possibility to link each reading to its corresponding position in the Perseus Library text of Sophocles' *Ajax* allows me to avoid using one of the said editions as a base text, thus being able to compare them equally.

The first difference from the use case of the archive of readings is that here I am not looking for the TNs material, with its heterogeneous content that ranges from readings that are certainly mistaken, to possibly good readings and conjectures, all stored at the same level. Differently from the digital collation, here I am not interested in assessing every point in the text where it is different from the Perseus text. Now my goals, similarly to what happens in 'traditional' reviews, is different from both of them. In the first place, I am interested in what West would have provocatively called «useful variants», namely those variants that have been selected by one or the other editor as good enough to appear in the text, so potentially 'original' (with all the doubts that this concept raises, see Part I). Secondly, my role of reviewer is not to compile a list of each and every spot where two or more editions differ. Instead, I want a tool that shows the user the main textual differences,

¹³ A basic example will show it. Accessing Soph., *Aj.* 35 on Perseus, one will find: σῆν κυβερνώμαι χερί ('hand'). The corresponding English translation perfectly matches the text: «it is your hand that steers me». Oppositely, if we take [Romagnoli, 1926](#), whose Italian translation is freely available *e.g.* on Wikisource, we read: «il senno tuo per guida io prenderò», which translates as «I will always take your *wisdom* as a guidance», and not «your hand». Poetic license? No, only a *varia lectio* that is recorded in most editions. The tradition is divided between χερί and φρενί. [Finglass, 2011](#), 80 chooses the former, [Dawe, 1996](#), 3, the latter.

those on which the editors or myself have comments, and that for whatever reason seemed important to point at in order to provide an overall comparison between critical editions. The degree and the extensiveness of the comparison are left to the reviewer's choice.

In order to provide a mockup, my first step was to manually compare the three editions of the *Ajax* by Lloyd-Jones–Wilson, Dawe and Finglass¹⁴. I then divided the material into the three familiar sections: a database containing the most noticeable readings, and their position in reference to the Perseus base text; another database stating the source of each reading¹⁵; finally, in another database, the broadly meaning commentary material, linked to the corresponding readings.

Moreover, a digital review does not limit itself to pointing at the different readings among editions. It can also point to external sources in order to give the reader insights about those same differences. The variants chosen by each editor alter the surrounding text in different ways. Some of them may generate syntactic differences, some other may remain on the lexical level. Finally, other variants are only due to different interpretations, and don't affect the texts themselves, but are only visible in the translations. Through the 'comments' section, the available online tools can be linked to specific passages in the considered editions to show these differences.

For the variants that have an impact on the morphology and the syntax, links to their treebank annotation and graphical visualization on the Arethusa Treebank Editor can be provided in the 'comment' database. In this experimental case, the treebanks for each critical edition have been compiled using as a base the file uploaded by the Ancient Greek and Latin Dependency Treebank project¹⁶. The comparison between treebanks of corresponding passages in different editions makes us able to encode precisely the difference between editorial choices. Finally, not all variations affect the translation. For the ones that do, links to parallel translation alignments can be provided¹⁷ (see fig. 5.4).

¹⁴Dawe, 2006; Finglass, 2011; Lloyd-Jones & Wilson, 1994.

¹⁵As explained in the previous paragraphs, thanks to this organization of the material I reduced the redundancy to much less than if, say, I had to list the noticeable readings for each edition.

¹⁶See <https://alpheios.net/pages/tools/>. For the Guidelines for Greek Treebanking see Celano, 2014. See also Celano & Crane, 2015; Celano, Celano.

¹⁷I used Ugarit (<http://ugarit.ialigner.com/>).

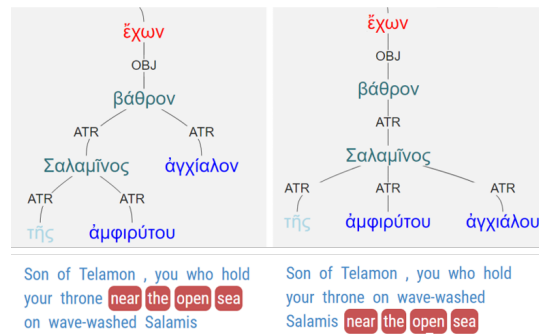


Figure 5.4 Treebank and aligned translation: Finglass *versus* Pearson

A model for a digital review, besides being a useful improvement of the current printed reviews, can prove to be a valid testing ground for the cooperation and co-existence of various instruments to annotate and encode different features of the texts that are edited in critical editions. Moreover, such a model proves once again that ‘linguistic’ instruments such as the treebank annotation can and should be integrated into strictly speaking philological resources, as precious means to gain a better understanding of the text and the critical editors’ choices¹⁸.

Finally, the possibilities offered by a digital review to its users would increase significantly from those of a traditional review, in what we could call a re-purposing of a known instrument through digital means. At the same time, though, its final goal of helping the reader in assessing the degree of innovation or conservativeness of an edition, and in evaluating specific editorial choices, would not be altered; quite the opposite, they might be enhanced.

5.5 A COMPLEX TRADITION: THE ACTS OF THOMAS

The text of the *Ajax* has been transmitted to us in a relatively uniform way. Sure, the TNs are filled with variants, but the editions don’t vary substantially from one another. Moreover, these variations are usually one word long, and the widest variations are one verse long. For this reason, the system of taking a base text and connecting each edition’s peculiarity to it has proved to be valid.

¹⁸See Bamman et al., 2009; Beaulieu et al., 2012; Berti, 2019; Mambrini, 2011, 2016.

Nevertheless, there are textual traditions for which this model would be far from enough. A non implemented experiment can be an example of it.

We know from medieval philology that many medieval texts, for their nature and their history, don't fit with the notion of fixedness of the text nor with the idea of authoriality, since they are subject to what has been called variance. The same is true for some texts that are properly part of a Greek and Latin library of texts.

I will now show an example on the Acts of Thomas, an apocryphal collection of texts about the deeds of Saint Thomas, probably tracing back to the III century. The textual tradition of this work is very complex, to the point where it is difficult to talk about *a* work. The manuscripts bear radically different versions, with dislocated parts as well as added and utterly modified ones. To that it must be added that the text is transmitted in Greek, Latin and Syriac, and the relationships between the branches are not clear. This complexity is reflected in their editions.

For example, the Greek text has been edited by L. Bonnet in 1883 and subsequently in 1903. The two editions are very different. The latter reflects the great variance of the text by often juxtaposing two alternative versions for some paragraphs. To these versions one must add the TNs, that convey an even more complex picture. For example, paragraph 9 looks like this in the 1883 edition:

τοῦ δὲ ἀποστόλου εἰς τὴν γῆν ἀφορῶντος εἰς τις τῶν οἰνοχόων ἐκτείνας τὴν χεῖρα αὐτοῦ ἐράπισεν αὐτόν. ἐπάρας δὲ ὁ ἀπόστολος τοὺς ὀφθαλμοὺς αὐτοῦ καὶ προσχὼν τῷ τύψαντι αὐτόν εἶπεν· ὁ θεός μου ἀφήσει σοι εἰς τὸν μέλλοντα αἰῶνα τὴν ἀδικίαν ταύτην, εἰς δὲ τὸν κόσμον τοῦτον δείξει αὐτοῦ τὰ θαύματα, καὶ θεάσομαι ἤδη τὴν χεῖρα ἐκείνην τὴν τύψασάν με ὑπὸ κυνὸς συρομένην καὶ ἐπὼν ταῦτα ἤρξατο ψάλλειν καὶ λέγειν τὴν ᾠδὴν ταύτην.

In the 1903 edition, paragraph 9 is duplicated to follow two branches of the tradition, named Δ and Γ.

The first one is:

τοῦ δὲ ἀποστόλου εἰς τὴν γῆν ἀφορῶντος εἰς τις τῶν οἰνοχόων ἐκτείνας τὴν χεῖρα αὐτοῦ ἐράπισεν αὐτόν. ἐπάρας δὲ ὁ ἀπόστολος τοὺς ὀφθαλμοὺς αὐτοῦ καὶ προσσχὼν τῷ τύψαντι αὐτὸν εἶπεν· ὁ θεὸς μου ἀφήσει σοι εἰς τὸν μέλλοντα αἰῶνα τὴν ἀδικίαν ταύτην, εἰς δὲ τὸν κόσμον τοῦτον δεῖξει αὐτοῦ τὰ θαυμάσια, καὶ θεάσομαι ἤδη τὴν χεῖρα ἐκείνην τὴν τύψασάν με ὑπὸ κυνῶν συρομένην. καὶ εἰπὼν ταῦτα ἤρξατο ψάλλειν καὶ λέγειν τὴν ᾠδὴν ταύτην.

This version is virtually identical to the paragraph 9 in the 1883 edition, with the exception of *θαυμάσια* instead of *θαύματα* and of *κυνῶν* instead of *κυνὸς*. Nevertheless, the second one is:

Αὐτοῦ δὲ εἰς τὴν γῆν ἀφορῶντος εἰς τῶν οἰνοχόων ἐκτείνας τὴν χεῖρα ἐράπισεν αὐτόν. ἐμβλέψας δὲ εἰς αὐτόν λέγει· ὁ κύριός μου ἀφήσει σοι τὴν ἁμαρτίαν εἰς τὸν μέλλοντα αἰῶνα, εἰς τὸν νῦν δὲ κόσμον δεῖξει θαυμάσια εἰς ἐκείνην τὴν χεῖρα τὴν τύψασάν με, καὶ ἴδω αὐτὴν ὑπὸ κυνὸς συρομένην. καὶ ἤρξατο ψάλλειν ἐβαῖιστι ἐπὶ ὥραν μίαν.

This version of paragraph 9 is radically different from its competitor, and it would have been lost in a unique text as most editions (especially digital, as said above) have.

For the Acts of Thomas, a system like the one depicted so far, where to a base text are linked some relatively limited readings, is not enough. There are many interlinked (but separate) textual traditions that must be analyzed both within themselves and between each other. The differences among those separate traditions are much wider than one or some words. Before comparing the text at a word level, we need to use the same interlinking through the CTS architecture to chain the structures among themselves. In this case as well, a single edition could serve as an arbitrary reference grid (see fig. 5.5).

To this general scheme, it must be added that in each editions, as shown above, some paragraphs can be preserved in different versions (see fig. 5.6).

So an alignment between the editions of this work would provide a first structural comparison between the different editions, not only in one specific language, but also across languages (see fig. 5.7. Note that it is only an example, with no real ties to the actual textual alignment.)

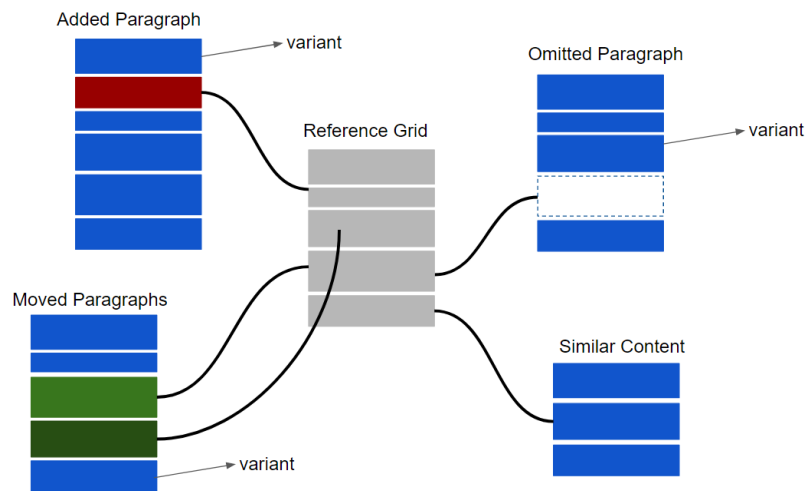


Figure 5.5

It is not objective whether two paragraphs should or should not be aligned, especially if they are in different languages. In many cases, the content can be similar but the phrasing may be totally different. The alignment, thus, should be semantic, for example stating if two paragraphs can be aligned word-to-word (which does not mean that they are identical), or they are only comparable on the general content.

After this inter-edition alignment, from each edition its own CTS URNs should be extracted to link its TNs to. A potential archive of such a nature could look like this:

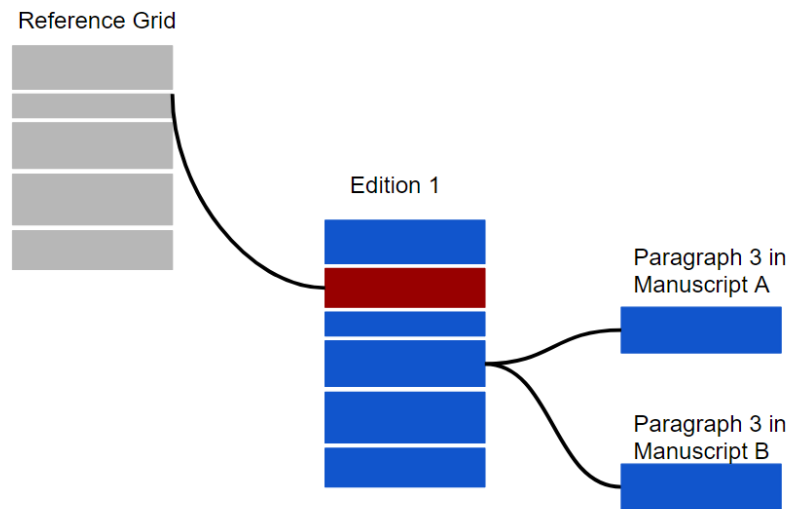
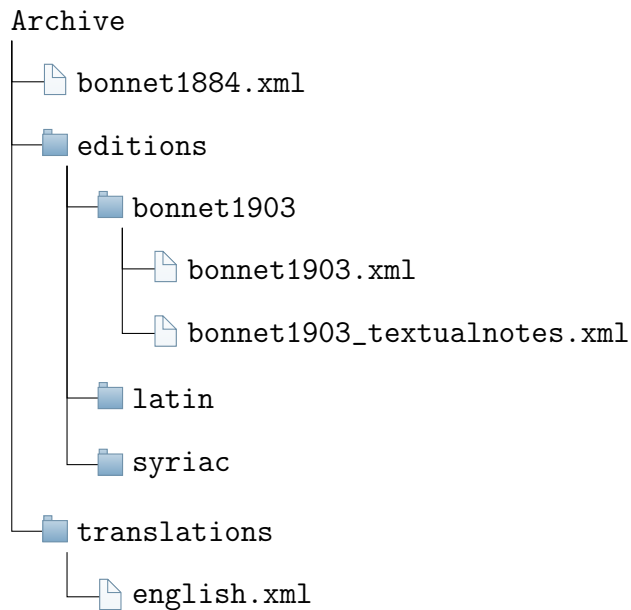


Figure 5.6



The 1984 edition would work as a reference grid, and its TNs could be directly attached to it. All the other editions would be referred to it where it seems necessary (at a paragraph level, or at word to word level). Since the text of each file is CTS compliant, the TNs of each edition could be attached to it.

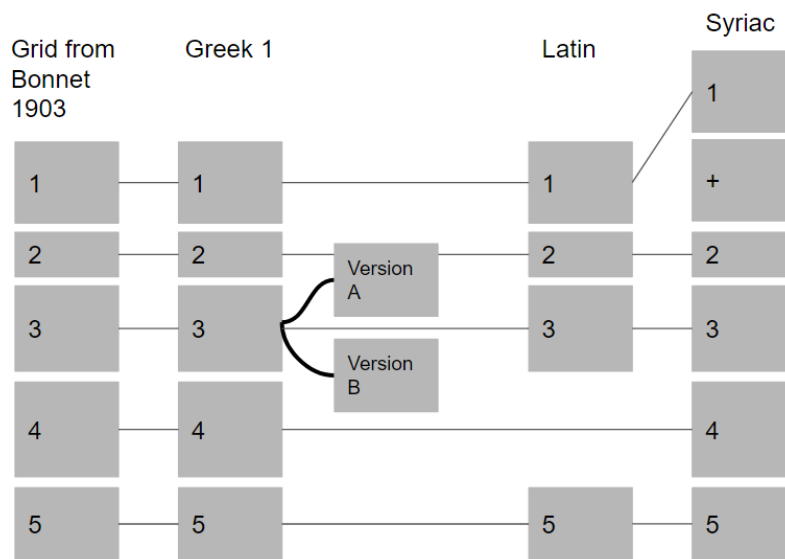


Figure 5.7

This solution combines the need to align non desultory text (the editions) and desultory material (the TNs) into a hyperlinked system of editions.

5.6 CONCLUSIONS

The archive of readings shown in Chapter 3 traced some patterns of variation that the scribes' understanding of the transcribed texts. It was effective in representing a specific group of patterns that had to do with the semantic reasons that could influence textual variations. These patterns are harder to trace and thus often overlooked in the essays that collect scribal errors. The archive, though, in its printed form, had several drawbacks. Firstly, the texts were quoted in small sections that had to be manually traced back to their context by using the textual references to the author, the work and the passage. Other than manually, or by compiling an index, there was no way of knowing how many errors were quoted for each work and their mutual relationship. Secondly, patterns compiled following different criteria were not encompassed. And yet, it could be very useful to compare, for example, the semantic paradigm with the mechanical paradigm of errors.

A digital representation of that same archive, that accounts for semantic links as well, helps us overcoming those difficulties. Each instance is linked to a complete version of the text, thus partially solving the problem of the partial representation of sources. Moreover, the digital archive is queryable in a more efficient fashion and it allows for reuse since it can be rearranged using different taxonomies.

An archive structure that allows for the representation of desultory material can add to the scholarship debate on the SDEs and particularly to the place of the TNs in it.

The idea that the digital representation of classical sources and scholarship has almost no space or data quantity constraints often leads to seeking for the representation of complete sources, such as an entire critical text or manuscript transcription.

This principle is methodologically sound. Since we don't have the physical page to stop us, we can transcribe all the manuscript and then compare them automatically, thus creating SDEs in real time. In doing so, though, we rule out huge amounts of materials that simply don't have this structure. There are centuries of valid scholarship that is not represented as a complete source. Not only the bits and pieces of manuscripts that are represented in traditional TNs, that should imply a complete collation, transcription and digitization of all the manuscripts and sources in order to combine into a SDE. But also, conjectures and textual reconstruction that can be found in theoretical essays, articles, reviews or TNs of completely different works. On one hand, this kind of materials would greatly benefit from a digital representation, since they are hard to trace down, collect and access in a traditional way. on the other hand, though, they require an *ad hoc* system of representation that goes beyond the usual solutions adopted for representing the TNs.

What is more, this model is reusable in related fields that, for different reasons, compel the scholar to quote only small chunks of texts. This is the case with the reviews of critical editions. The idea behind most reviews is to present new (and thus, under-copyright) material in its main features. It is thus the same conceptual framework as the archive of readings.

This model could also help interpreting single sources. It often happens that there are digitized manuscripts that are not transcribed in a machine-readable fashion. But of the same manuscripts

there are collations or partial transcriptions ready to be OCRed and digitized. Even though the final goal of the Digital Humanities is to have as much digitized manuscripts as possible, nevertheless for now it is useful to transfer the collations' material into an interlinked, machine readable environment.

The possibility of reusing it in related fields testifies for the versatility and the usefulness of the model. Nevertheless, its limits must be pointed at. If it is true that it works effectively with traditions that have a consistent archetypical transmission, it is also true that - as it is - the model is weak in representing more complex traditions, where manuscripts families differ greatly one from another in the text structure, content and possibly language. As Classical Philology deal with other philological traditions and takes from them methodological and theoretical remarks, the need to change the representation of some texts is more and more perceived. This is the case of texts that have a fluid, diverse transmission, such as the apocryphal acts of the Christian tradition. Despite the old editions of these texts being carried on in a lachmannian way, their textual transmission of not linear nor authorial in the most literal sense. Thus the usual conceptual frameworks for textual representation can not be applied in the traditional philological theory as well as in the digital one.

CONCLUSIONS: THE USEFULNESS OF THE STUDY OF ERRORS AND THE POTENTIAL OF DIGITAL PROCESSING

The interpretation and classification of errors according to mechanical categories has been used since ancient times both to describe some types of corruption and to propose emendations to problematic passages. However, next to this interpretative model we can also identify a second path, that cares for the semantic and mental implications of scribal errors: what the copyists understood of the text and their thoughts during the transcription, be they relevant or not to the work being transcribed. The history of this kind of investigation sinks into antiquity: Hieronymus' observations on the copying habits deserve to be remembered; the subject has then received a systematic exploration thanks to the first critical treatises on the *Ars Critica* in the '500 and '600 and has finally been implicitly recognized in modern conjectures and explicitly formulated in the philological handbooks in the '900.

On the other hand, the study of scribal errors (carried out according to one or other of the modes) has rarely been dealt with systematically, as an object in itself. Many philological endeavours have been concerned with collecting corrupted passages accompanied by conjectural proposals, juxtaposing examples taken from one or more traditions, without looking for analogies or a unifying *ratio* between them. The invite to a systematic cataloging in order to determine, within the errors, "the diversity

of frequency and above all [...] which classes of errors do not appear”, have not received adequate response in the studies.

A factor that hinders this field of studies is that, even in contemporary philology, the methodological remarks are often scattered in the comments, in the TNs, in the marginal notes: as a consequence, examples, conjectures, statements that could support the often repeated concept that most of the errors have both a mechanical and psychological causes are not systematized or put together; instead, both illustrative demonstrations and studies on its practical applications would be required.

Another hindering factor is the absence of a self-evident taxonomy to start from. The mechanical paradigm for cataloguing errors starts from the graphical-phonetical outlook of the words involved in it. In other words, it has a more or less objective ground to start from. A semantic taxonomy, oppositely, must be devised from scratch in the philological field. Other research fields, though, have developed a categorization of the performance errors. It is the case with linguistics. The groups and descriptors used by the linguists have here been put to use for the philological remarks on erroneous variants. This has helped to divide and categorized a collection of examples from various manuscript textual traditions according to new criteria.

The study of errors, if rethought and deepened with attention to the semantic and psycholinguistic factors, has in itself great potential for the study of text transmission and for the diagnostic analysis of corrupts. First of all, understanding which terms and syntactical structures were frequently misunderstood is useful to understand the language of the copyists: which terms had become synonymic, which had resemantized due to the influence, for example, of Christian language; and it is, therefore, useful for the evaluation of existing conjectures: which conjectures presuppose very probable phenomena? How many, among the conjectural amendments rejected because ‘not necessary’ or ‘not likely’, are instead mirrored in the errors of the witnesses? In how many cases has the transmitted text been defended even in the presence of a frequent phenomenon of error? Which reading that could be proved wrong via the *stemma codicum*, finally, would be unsuspected in the absence of other witnesses?

Reflections on these and similar topics could have many advantages. First of all, they could clarify the relationship between the mechanical and psychological factors behind the errors. Secondly, they would offer clues to identify potential *corruptelae* that have so far gone unnoticed in classical texts. In addition, they would allow the concepts of *lectio faciliior* and *difficilior* and *utrum in alterum* to be clarified by comparison. Finally, if combined with the stemmatic studies, they would offer a solid ground to isolate new types of polygenetic error and to partially redefine the canons for judging a conjecture 'likely' or 'necessary', on which the judgement might not go - as Facio reproached in Valla - only through the number of letters and the graphic similarity of the signs, but also through the attestation of cases of similar error.

For the psycholinguistic analysis of error, the scrutiny of existing repertoires and TNs have even greater importance than for the isolation of mechanical categories. In the first type of analysis, the main difficulty and the greatest methodological risk lies in the identification of the criteria according to which to isolate a category of error. As can be easily guessed for the borderline case of Freudian slips - but as can be objected for any other category - the possibility of reconstructing arbitrary aetiologies and reasons that prove valid only *a posteriori* for the explanation of errors cannot be completely avoided.

Uncertainty is contributed to by the fact that certainly, for each error, there are several different causes and that, in many cases of lexical substitution, a voluntary intervention or a gloss intrusion cannot be excluded. The only partial remedy to this uncertainty is, without doubt, the extensive cataloguing of examples. The more cases of errors taken from handwritten witnesses will be gathered, the more it will be possible to define exactly which psycholinguistic categories are functional and internally coherent, which phenomena are really recurrent, which characteristics are shared by certain errors. If it is true that philology has an additional problem if compared to the linguistics study on errors, namely the reconstruction of the mental activity of the 'unknown' copyist, it has - with respect to the latter - the undoubted advantage of having a vast pool of examples to compare and categorize through the manuscript witnesses.

Some of this material is already collected to some extent in the variants recorded by the apparatus of the critical editions. It is true, however, that most of the data that would be useful for the study of errors is still confined either in the manuscript witnesses themselves, or, at most, in the collations - partial or complete - which are rarely published or made the subject of systematic investigation; this omission is in itself perfectly explainable: an excessive amount of data is an impediment to the reading of the apparatus; the readings from the *codices descripti* are useless to the *constitutio textus*; it is finally impossible, for a single person, to organize such a large amount of information, which - moreover - is difficult to organize and retrieve in paper format.

The production of critical editions is a fundamental field, as for literary studies, also in the field of Digital Humanities: the needs and objectives of ecdotic science and related disciplines are also reflected in the drafting and publication of Scholarly Digital Editions (SDE), accompanied by new kinds of problems but, above all, new potential: the production of SDE is not at all "old wine in a new bottle"; it is a new field that requires methodological reflections in itself and can provide new answers to the problems of traditional ecdotics. The operations that the philologist can perform thanks to information technology are, in fact, growing both quantitatively and qualitatively: online catalogs, digital reproductions of manuscripts and text repositories have greatly facilitated the retrieval of materials, which codicology and palaeography use for new applications.

SDEs, however, certainly present a gap, both in terms of methodological reflection and practical application, with regard to the criteria for the production and the outlook of the TNs, which nonetheless, being a collaborative space of annotation of the texts - where opinions, choices and readings are compared and in continuous dialogue - seems 'naturally predisposed' to an interaction between philology and the digital world. For some editions that deal with a limited textual tradition, the SDEs' solutions are simple and effective. The problem arises, for classical philology and not only, when it comes to recording a large number of variants. The digital product, with its ability to record large amounts of data, without the spatial constraints imposed by the written page, would seem to solve the problem of the narrowness of the traditional TNs.

However, even in the digital format, a too wide TNs would be useless if not harmful for the reader who wants to obtain information from them, unless their basic structure is to completely modified. It is common opinion that the reproduction of the paper apparatus model is not adequate to the display or to the potential of a digital product, but there is not yet a really valid alternative. “The need is urgent”: the lack of a satisfactory answer to the problem, despite some attempts, is often pushing SDEs and text repository to completely eliminate the TNs, with the triple consequence of subtracting from the user data that could help understanding the text, convey the wrong idea that the texts have a unique and fixed form, obliging the computer user to depend on paper editions.

For the study of errors, therefore, the main existing digital products in the field of philology not only do not provide useful tools but, on the contrary, often subtract data and materials. However, the potential of a digital product in terms of modeling, preservation, dissemination, updating (that can be collaborative), annotation (semantic and non semantic) and data analysis could be usefully exploited for a systematic search on types and causes of errors.

The study of the errors hoped for and proposed in the previous chapters and pages could therefore, if supported by an adequate digital method, be carried out in a more extensive, faster and ultimately more effective. Such a method, if fully developed and practically applied, would make a step in the way that Maas almost presented as an unfeasible Utopia: the systematic study and cataloguing of variants divided by types, ages, palaeographic regions. However, such a resource requires adequate reflection in order to achieve a balance between the versatility needed to adapt to the most diverse types of research and the rigor required for an adequate formalization of data.

Earlier in this conclusion, the reasons for studying the scribal errors have been listed. To those, one can now be added. To prevent the content loss in TNs’ materials that is happening with the digital turn of the philological discipline, it is necessary to probe the ground in as many directions as possible and to investigate and define new research methods that could be put into practice thanks to the potential offered by the Digital Humanities.

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