

FIRST-LANGUAGE TRANSFER IN THE COPYING OF LATIN MANUSCRIPTS



The case of Ferdinando Calori Cesis' transcription of the Modena inventory of Pico della Mirandola's library¹

By Timo Korhikangas

This article investigates the ways in which copyists' L1 is reflected in transcription errors in the copies of historical Latin manuscripts. Previous studies have shown that the copyist's L1 phonology influences the transcript through so-called internal speech or subvocalization. The present study suggests that other domains of L1 may also be transferred. The research data is an authentic pair of an extant source text and its modern transcript made by a known copyist. The conclusions drawn from such a maximally controlled setting are expected to scale to other instances, both medieval and early modern, in which relevant background information is lacking.

1. Introduction, motivation, and objectives

This article aims to examine how linguistic transfer from the copyist's first language (L1) is reflected in transcription errors that he or she made and whether these errors can shed light on the mechanisms of medieval and early modern Latin manuscript copying, a theme rarely discussed from a linguistic point of view. The article scrutinizes the error typologies of a single transcript, Ferdinando Calori Cesis' transcription of the Modena inventory of Pico della Mirandola's library,² whose context of preparation is known in detail, in order to recognize patterns that can be generalized to contexts only partially known.

Copying errors are central to textual criticism. Their typologies have been classified scrupulously in the canonized works on Latin textual criticism.³ It is widely known that some copying errors show influence of the copyist's

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² Calori Cesis 1897.

³ Such as Havet 1911.

native language, a phenomenon termed as L1 transfer in modern linguistics.⁴ Alphonse Dain was the first to associate such errors with what she called *dictée intérieure*, internal dictation or speech, a process by which copyists, silently dictating in their own mind the text that they are reading and going to write, re-transcribe it with their own linguistic peculiarities.⁵ Known as subvocalization in cognitive psychology, this universal process helps the mind access the meanings of the words that have been read and store them in one's working memory.⁶

The actual mechanisms of copying have received little attention among philologists until recently. Only lately has a psycholinguistic approach to copying errors arisen within Greek philology.⁷ Since copying errors are instrumental in textual criticism, it is no surprise that text-critical research on errors has mostly been classificatory and linguistically uninformed. As far as it can be judged from the given examples, it looks like textual critics consider the influence of the copyist's native language to be limited to phonological features (e.g., *suafis* for *suavis* or ἐπίσης for αἰρήσεις).⁸

First, the present study will shed light on the various phonological motivations of L1 transfer and their relations with the orthographical systems of both the source language and the copyist's L1. Second, it will suggest that features of other domains of L1, e.g., morphology, morphosyntax, and vocabulary, may also be transferred during subvocalization. A better understanding of the role of L1 transfer in Latin manuscript copying processes will help in tracing the motivations that underlie specific transcription errors attested in manuscripts and, consequently, in assessing the text-critical value of different readings.

Technically, the present study compares Calori Cesis' transcript to the photographs of the 1498 Modena inventory, kept in the Archivio di Stato di Modena (*Archivio per Materie, Letterati, busta 55*). This pair of texts was chosen because it provides a particularly controllable setting for the study of L1 transfer on transcription errors. This is because

- the transcript has been made of a single well-known manuscript that survives to date and against which the transcript can be checked. This is to say that no horizontal contamination from other manuscripts is involved, which is a possibility that can rarely be ruled out from historical manuscripts.

⁴ E.g., Robinson & Ellis 2008.

⁵ Dain 1964.

⁶ Rayner & Pollatsek 1989.

⁷ E.g., Stolk 2019 on documentary papyri, Schwendner 2021 on manuscripts. Korkiakangas 2022 is the first discussion concerning Latin documentary texts.

⁸ Dain 1964, 44-45; for a detailed classification, see Havet 1911, ch. XLI.

- the transcript was made at a specific point in time by a specific individual, the marquess Ferdinando Calori Cesis, whose L1 and educational background is known. His mother tongue was Italian, and he had a solid education in standard Italian and (Classical) Latin, as well as experience as an amateur local historian in historical and archival research concerning Pico.
- although Calori Cesis does not explain his principles, he clearly strove to reproduce the text faithfully, whether it was correct or erroneous Latin, as many examples discussed in section 4 demonstrate. However, typically of 19th-century editions, Calori Cesis' transcript normalizes some features: it fails to describe the *mise en page*; it writes out the abbreviations without marking the extensions; it normalizes the spaces between words, much of the punctuation, and some numbers, most of which are Arabic; and it usually capitalizes the words that open each title.
- even the source text (inventory) contains spelling and other variations, some of which are copying errors made by its compiler, who also seems to have let his native variety (assumedly Venetian, see section 4.2.) affect the transcript. The treatment of the errors of the inventory in Calori Cesis' transcription makes it possible to deduce his transcription principles, which set the baseline for the analysis of his transcription errors.
- Calori Cesis was not the most careful transcriber, and he does not seem to have bothered to revise his transcript, not even by going back to correct errors that became evident on subsequent pages.⁹ He also seems to have lacked expertise in Latin and Greek literature beyond the Classical authors contained in general reference works, a lack that is conspicuous in the context of scholastic philosophy, not to mention the Hebraic and Arabic literature, for which Pico's library was famous. The high number of errors (557) in Calori Cesis transcript makes a detailed error classification possible. Modern reproductions of Latin texts are usually careful transcripts intended as basis of critical editions.

2. The inventory and Calori Cesis' transcript

One of the most eminent scholars of Italian Renaissance humanism, Giovanni Pico della Mirandola (1463-1494) is also famous for his extensive private library, which contained over 1,100 titles. As a compendium of the

⁹ E.g., on p. 18 of the inventory, Calori Cesis takes the abbreviation *anphori* as a complete word, although it becomes obvious on p. 22 that it is an abbreviation for *amphorisma*.

knowledge available in the late 15th-century, it attracts constant interest among researchers.¹⁰ Two inventories of the library were prepared soon after Pico's death, the Modena inventory in 1498 by commission of cardinal Domenico Grimani (1461-1523), who had bought the library. This inventory was compiled under the supervision of Grimani's secretary, protonotary Antonio Pizzamano (1461/1462-1512), a humanist and later bishop of Feltre.

Pages 9-41 of the 50-page inventory contain two columns of one-to-two-line titles for each book, indicating the name of the author, the work, whether it was printed or hand-written on parchment or paper, and an identifier number. The main language is Latin, but some vulgar books are catalogued in Italian. In addition, short Italian notes in Pizzamano's hand describe the process of making the inventory.

Marquess Ferdinando Calori Cesis' (1829-1917) transcription of the inventory is an indication of the growing interest in Pico's life and thought. Calori Cesis, an amateur historian from Modena whose activity ranged from (local) prehistory to the lives of (local) Renaissance and early modern savants, had already published a short biography of Pico in 1866 (2nd ed. 1872). In 1897, he republished it in a third edition, this time accompanied by the transcription of the inventory, titled *Della biblioteca di Giovanni Pico* (pp. 31-76) in the *Memorie storiche della città e dell'antico ducato della Mirandola* series.¹¹

3. Typology of transcription errors

For the present examination, Calori Cesis' transcription errors are divided into two main groups: mechanical errors and errors motivated by linguistic or content-related flaws. Mechanical errors are random and hardly repeatable by chance, while the errors of the latter type are more likely to be committed under certain circumstances and, consequently, can be repeated by various individuals within a manuscript tradition. Mechanical errors are considerably more useful to traditional textual criticism than linguistic or content-based errors because manuscript witnesses with readings traceable to a certain unrepeatable error unequivocally belong to the same branch of tradition. This is also why linguistic and content-related errors have attracted much less attention.

The present study ignores the mechanical errors and provides a classification of linguistic and content-related transcription errors. This is not to say that Calori Cesis' transcription contains no mechanical errors: Calori Cesis has omitted by mistake 36 words or groups of words. Most omissions

¹⁰ For studies on Pico's library, see the references in Merisalo (2019).

¹¹ Calori Cesis 1897.

are single words, either short abbreviations (e.g., *e(st)*, *n(er)o*, *or(dinis)*) or, when written in full, equally short words (e.g., *uari*, *de*), so they easily escaped his eye. Another cause is a partial lacuna: part of the word is missing, and Calori Cesis did not want or dare to restore the missing letters, so he omitted the entire word: e.g., *hiem[ale]*, *[qu]adra(gesima)l(es)*. Calori Cesis' transcription also contains six omissions of book titles that consist of one or two entire lines. These are *sauts du même au même*, the most blatant type of mechanical copy errors, in which the writer's eye leaps from a string of characters to a similar string further in the text, with the intervening words being thus left out.

Several of Calori Cesis' transcription errors are traceable to his inadequate knowledge of the contents of Pico's library. Some letter forms of the inventory closely resemble each other, and in case they are carelessly executed, only knowledge of the authors and works that circulated in the late 15th century can help in choosing the correct interpretation: e.g., *plamide* for *planude* (Maximus Planudes), *angelici* for *anglici* (Thomas of Sutton, a.k.a. Anglicus), and *Ascanius* for *Asconius*, regarding which Calori Cesis seems to have had the Virgilian character in mind rather than the scholiast Asconius Pedianus.

On the other hand, knowledge of the topic can also lead to hypercorrection: in some cases that Calori Cesis knew well, he apparently unconsciously corrected a mistake of the inventory, e.g., *demostenis* for *demostanis*, *Grisostomi* for *Grisostimi* (John Chrysostomus), *phisonomie* for *phinosomie* (physionomy). As stated, Calori Cesis was no professional historian, and in his days, it was notably more difficult to check the works of a given medieval author than it is nowadays. In general, content-related errors and hypercorrections are not linguistic, and they fall outside the scope of the present study. However, it is sometimes difficult to tell whether an error arises exclusively from a lack of knowledge or whether it is also motivated by linguistic transfer.

A special group of errors is constituted by unusual abbreviations. If Calori Cesis did not know how to interpret an abbreviation, he left it unextended, e.g., *Fro.nj* for *Fro(nti)nj*, *Cano*, for *Cano(nicus)*, and *Gua.* for *Gua(rini)*, or he suggested a tentative extension, e.g., *Ore.* (*Oremus?*) for *ore(m)* (Nicholas Oresme). Only once did he extend an abbreviation erroneously: *Celsius* for *Cel(sus)*, with Anders Celsius being perhaps more familiar than Cornelius Celsus. However, more challenging to Calori Cesis were the truncated abbreviations that had no abbreviation mark. If such an abbreviation happens to be or even looks like a self-standing word, Calori Cesis often writes a word that is nonsensical in the context, e.g., *plane* (plainly) for *plane(tarum)* in *de morib(us) plane(tarum)* (of the planets' behaviour), *ponti* (of *Pontus* (?)) for

ponti(ficis) (of the *pontifex*) in *Ep(isto)le pij ponti(ficis)* (epistles of the pope Pius), and *post* (after) for *post(eriora)* (the latter) in *sup(er) post(eriora)* (on Aristotle’s Posterior Analytics). Sometimes, the result is no Latin word at all (e.g., *uora* for *uora(gine)* (Jacobus de Voragine) and *sipi* for *sipi(onis)* (Scipio)).

4. Transcription errors related to L1 transfer

This section discusses linguistic transcription errors that seem to be caused or influenced by L1 transfer. Table 1 presents possible transcription trajectories of single words in respect to the Latin standard spelling and grammar between the inventory and Calori Cesis’ transcription.

Table 1. Schema of possible transcription trajectories of single words in respect to standard Latin

Inventory	Transcription		Calori Cesis’ edition
Correct	faithful		correct
	(unconsciously) unfaithful	error	incorrect
		(unconscious) hypercorrection	
Incorrect	faithful		incorrect
	(unconsciously) unfaithful	error	
		(unconscious) normalization	correct

L1 transfer mainly applies to transcription processes in which Calori Cesis’ transcription renders correct Latin as incorrect, either through a plain error or a hypercorrection, i.e., a nonstandard use of language produced by mistaken analogy with standard usage. Another, infrequent, possibility for L1 influence is when incorrect forms become normalized. As stated, Calori Cesis has clearly sought to be faithful to the original text. Therefore, even the normalizations of incorrect forms can be considered unconscious. With regard to normalizations, the unconscious influence usually derives from Calori Cesis’ knowledge of L2 Latin (e.g., *pulcher* for *pulcer*, *questiones* for *q(ue)stioes*), and such cases are not discussed here. However, if the normalizing stimulus could also derive from L1 Italian (e.g., *conclusionibus* for *co(n)crusionib(us)*), the transfer is discussed in the following subsections. It can be argued that because language transfer is unconscious by definition, any transfer is more likely to derive from the transcriber’s L1 than L2 since the L1 is more primed in a language user’s mind.

4.1. Transfer from L1 phonology through L1/L2-discrepant orthographical conventions

This subsection discusses those phonology-related transcription errors of Calori Cesis' that are related to the discrepancy between the Italian and Latin orthographical systems, i.e., differing spelling norms. This is also the largest error group. The relevant cases are the letters *v*, *j*, *y*, *x*, and *h*, as well as the letter combinations corresponding to the Italian /*k*/ and /*s*/. Spelling norms are conventions that regulate the use of graphemes, which, as separate letters or combinations thereof, represent phonemes. Although the errors discussed here do have a connection with the phonology of both the Latin of the inventory and the Italian of Calori Cesis, their chief motivation seems to be the differing and/or ambiguous conventions of matching a specific grapheme and phoneme in the two languages, including the cases in which one of the languages does not have the phoneme in question. The task is complicated because the orthographical (extra-linguistic, convention-based) and phonological (linguistic) motivations overlap intricately.

V. In medieval and humanist Latin minuscule scripts, *u* and *v* and *i* and *j*, respectively, were used as allographs of each other, regardless of whether the underlying sound was /u/, /w/, or /v/ on the one hand, or /i/ or /j/ on the other.¹² The convention established in several medieval minuscule scripts was to use *v* at the beginning of the word and *u* elsewhere. The inventory largely follows this convention with words that open new titles. Such words are typically capitalized names (*Voragine*, *Vita Esopi*, *Vgo senensis*). However, the great majority of words in the inventory that are not at the beginning of a title and that should be opened by *v* are written with *u* instead (*uari*, *uolumen*; even some names, such as *uinentij*). In word-internal and word-final positions, *u* is the only variant attested (*noua*, *statu*). In cases of the inventory where *v* heads a non-title-opening word, it always precedes a vowel contrary to title-opening *v*'s, which occur before both vowels and consonants. Most non-title-opening words headed by *v* are names, and they are typically not capitalized, e.g., *versorij*, *vir(gilium)*.

The practice followed in the inventory also differs from the writing system of modern Italian, in which *u* and *v* represent different phonemes and do not depend on their position in the word. Transfer from this Italian orthographical convention has made Calori Cesis transcribe 15 *u*'s using *v* (*proverbij*s for *p(ro)uerbij*s), never the contrary. Thus, Calori Cesis has introduced these erroneous *v*'s due to the influence of the Italian system of phoneme/grapheme mapping, i.e., to encode the sound /v/ that the word had in his L1 phonology.

¹² McCullagh 2011, 87-88.

J. The same convention applies to *j* as an allograph of *i*. The inventory does use *j* almost systematically to begin title-opening words, typically names, both in the pre-vowel and pre-consonantal positions (*Jo(anes)*, *Jpsidor(us)*). However, there is only one occurrence of *j* in a non-title-opening pre-consonantal position: *Ep(isto)le jgnatij*, where, however, the initial *j* seems to be corrected from an *e*, which probably made it necessary to extend the shaft of *i* to make the correction distinct enough. In addition to the word-initial position, *j* was used in Latin scripts when following an *i* (*prouerbijs*). Probably for esthetic reasons, *j* was also sometimes used at the end of a word even if no *i* preceded it (*dormj*).

Modern standard Italian only uses *j* in loan words. Therefore, transfer from Calori Cesis' L1 orthography is likely to underlie the many transcriptions of *i* for *j* (*oratii* for *oracij*). Hypercorrect transcriptions, such as *gregorij* for *g(re)g(ori)i*, show that Calori Cesis was aware of the pitfall of *j*. The replacement of *j* with *i* or vice versa is, indeed, the most frequent type of phonological-orthographical transcription error that Calori Cesis made (24 occurrences).

Y. Ancient Latin had adopted the upsilon to reproduce Greek loan words. The /y/ sound that it represented in Greek was unfamiliar in Latin. Therefore, *y* was originally pronounced as /u/ and later as /i/, hence the pseudo-learned hypercorrect use of *y* in later Latin texts for *i* in certain words and proper names, such as Statius' *Sylvae* (*Sylue* in the inventory, *Silue* in Calori Cesis).¹³ Following the Latin practice, standard Italian only uses *y*, pronounced as /i/, in rare loan words, while the learned, originally Greek terms transmitted through Latin have been adapted to Italian phonology and orthography (e.g., *physica* > *fisica*). This is apparent as L1 transfer in Calori Cesis' transcriptions: while correctly transcribing 43 of the 56 *y*'s in the inventory, he writes *i* for *y* in 12 cases (e.g., *phisorum* for *physicor(um)*, *panphili* for *pa(m)phyli*) and once produces a hypercorrect *y* for *ij* (*pselly* for *psellij*).

X. The letter *x* is native to Latin, but it is mainly restricted to recent loan words in Italian. The error rate for *x* in Calori Cesis is much lower than for the letters discussed above, the only case being *pollus* for *pollux*, which reflects the standard outcome /s/ of the phonological development from Latin /ks/.¹⁴ This retention of *x* is understandable because the letter is conspicuously present in Latin vocabulary and because the rule determining its use is straightforward: it represents the cluster of two definite sounds, /k/ and /s/, both present in Italian as well as in the Italian pronunciation of Latin.

¹³ McCullagh 2011, 89.

¹⁴ McCullagh 2011, 85.

H. The letter *h* was originally used in Latin to mark word-initial aspirated vowels and voiceless plosives (*ph*, *ch*, *th*) in Greek loan words. Although word-initial *h* had ceased from being pronounced early on and the aspirated plosives were probably only pronounced as aspirated in learned contexts, the spelling norm insisted on retaining *h*, thus resulting in extensive confusion.¹⁵ Despite Humanist aspirations to restore *h* in its correct places and despite the undoubtedly high cultural standards of the compiler of the inventory, its Latin displays much variation in marking *h*, particularly with the plosives of Greek-based words. Forms such as *fisicor(um)*, *Apotematha* (*t* instead of *th*), and *Moscopoli* (Manuel Moschopoulos) along with their hypercorrect counterparts, such as *phaustu(m)*, *Apotematha* (*th* instead of *t*), and *schothi* (Duns Scotus), are repeatedly attested. If the compiler recognized a word to be of Greek origin, he hastened to add an *h* after whichever of its plosives.

Italian, like most Romance languages, does not feature phonemes encoded with *h*. Nor does standard Italian have aspirated plosives. Yet, the Italian *h* has auxiliary functions to distinguish some present indicative forms of the verb *avere* (to have) from homograph forms, e.g., *ho* vs. *o* (or), *hanno* vs. *anno* (year), as well as to indicate the velar plosives /k/ and /g/ before the front vowels /i/ and /e/, e.g., *chiave*, *larghe*.

Calori Cesis clearly seeks to be faithful to the spelling of the inventory with *h*. He retains the great majority of *h*-related errors and hypercorrections in their original erroneous or hypercorrect form, reproducing over 500 *h*'s exactly in the places where they appear in the inventory. Nonetheless, he omits an *h* in 34 cases and adds one in 8 cases. With 25 of these transcription errors, the spelling of the word in question becomes correct or more correct (*hebreo* for *ebreo*, *phisica* for *phisicha*), while 16 originally correct *h* spellings become distorted (*omeri* for *homeri*, *teologice* for *theologice*, *aphrodisseus* for *aphrodisseus*). These observations confirm the interpretation that, as a whole, Calori Cesis did not intend to normalize the spelling, so the changes must be unconscious transfer from his L1 orthography and phonology.

The most frequent *h*-related copying errors of Calori Cesis' are: *c* for *ch* 12 times (cf. *ch* for *c* 3 times) and *t* for *th* 12 times (cf. *th* for *t* 3 times). The case of *ph* differs from these two in that Calori Cesis transcribes it 5 times with *f* (*Theofilati* for *Theophilathi*) and only twice with *p* (*methapiscam* for *methaphisica(m)*). The sound /f/, adopted first in Latin and then in Italian for Greek-based learned vocabulary, results from the fricativization of the Greek /p^h/. The fact that Calori Cesis never transcribes an *f* hypercorrectly as *ph*, although he falls into hypercorrection with *t* and *c* in Greek-based words, is

¹⁵ McCullagh 2011, 86.

probably caused by *f* being a visually (and audibly, when subvocalized) distinct letter which was not as easily associated with the digraph *ph* as *t* and *c* were with the digraphs *th* and *ch*, respectively. On the other hand, *h* seems to have been kind of a loose letter to Calori Cesis. This becomes manifest in transcriptions like *gramatichus* for *gramathicus*, where the aspiration has slipped from one plosive to another, neither of them aspirated in standard Latin.

Other indications of transfer from L1 orthography and phonology are more sporadic but illustrative. The lateral approximant /*ʎ*/ that underlies *li* in *gulielmj* in the inventory has triggered the standard Italian spelling *gli* in Calori Cesis (*guglielmj*). The same is seen in his *foglio* for *foglo*, which is, however, within an Italian annotation. A parallel case is the Italian spelling *sci* for the postalveolar fricative /*ʃ*/, absent from Latin, which undoubtedly underlay the *s* in forms such as *Disiplina*, *fasiculus*, and *(con)sientie*, which Calori Cesis transcribed as *Disciplina*, *Fasiculus*, *conscientie*. In some of these cases, lexical transfer from L1, where the forms read *Guglielmo*, *foglio*, and so on, cannot be ruled out (see section 4.4.). Note that the lexical explanation may also apply to at least some cases of the aspirated plosives discussed above. Anyway, the transcription errors result here in perfect Latin/Italian spelling.¹⁶

Finally, as section 3 mentions, Calori Cesis erroneously transcribed some truncated abbreviations with no abbreviation mark, e.g., *sipi* for *sipi(onis)* and *uora* for *uora(gine)*. At least some of these may involve the transfer from L1 Italian prosody since Calori Cesis seems to be more prone to take such abbreviations as self-standing words if their syllable structure is possible in Latin or Italian, as is the case with *sipi* and *uora*. As was argued above, transfer from L1 is likely to take priority over transfer from L2. In case such abbreviations do not happen to follow typical Latin or Italian word templates and if Calori Cesis does not understand their meaning, he seems to recognize that they are abbreviations, given that he marks them with a period or comma. Such is the case of *periar*, for *periar(menias)* (Aristotle's *Peri hermeneias*).

4.2. Direct transfer from L1 phonology

This subsection analyses those transcription errors of Calori Cesis' that are likely to be directly influenced by his L1 Italian phonology. Since Calori Cesis knows both the Latin and Italian phonology well, these instances are

¹⁶ Calori Cesis' treatment of the Latin diphthong *ae* (McCullagh 2011, 89), which the inventory mostly writes monophthongized as *e*, 18 times as *ɛ*, and once as *æ*, cannot be discussed on a par with other spellings because the typeface may not have had the characters *ɛ* and *æ*. Calori Cesis always renders *ɛ* as *ae*. Interestingly, he once also produced a hypercorrect *caelo* for *celo*, an apparent influence of the Latin L2 norm.

few. Some of them may also testify to transfer from L1 vocabulary, which is discussed in more detail in subsection 4.4.

The clearest case is perhaps *anphorisma* for *amphorisma*. It reflects Italian phonology, in which nasals, like the etymological *m* here, become labiodental nasals, here /mʃ/, if followed by labiodental fricatives, here /f/. In Italian, the sound /mʃ/ is marked with *n*. The word *amphorisma* is a hypercorrect form of *aphorisma* (aphorism), a medieval Latin variant of *aphorismus* (Greek *aphorismós*) and refers here to the Hippocratic Aphorisms. Note that the resemblance of the Italian word *anfora* (from Latin *amphora*) may have contributed to this transcription error. The same error is found in Calori Cesis' transcription of *pa(m)phyli* as *panphili*, where he has extended an abbreviation.

Another case of obvious interplay between L1 phonology and lexicon is geminate consonants, which the inventory quite often represents with a single consonant, e.g., *comentum* for *commentum*, *suma* for *summa*, *Ariani* for *Arriani* and the partly hypercorrect *paralella* for *parallela*. Indeed, the protonotary Antonio Pizzamano, who oversaw the compilation of the inventory, was Venetian, and his autograph notes within the inventory are written mainly in Venetian. Like other western Romance varieties, Venetian has no etymological geminate consonants, whereas the standard Italian, based on Tuscan, does have them, like other eastern Romance varieties.¹⁷ Therefore, it can be proposed that the scribe who wrote the main text of the inventory, possibly from Pizzamano's dictation, was also Venetian or at least from northern Italy: Pizzamano seemingly brought his own personnel with him to Florence. It looks probable that, while a subordinate did the actual writing, Pizzamano, a well-educated humanist interested in medieval theological and philosophical literature,¹⁸ took over the task of identifying Pico's books personally, hence the accuracy of most of the titles.

In general, Calori Cesis' transcription reproduces degeminated spellings, while a few instances have slipped into their standard-Latin, geminated form, which is also the spelling of standard Italian: *Ioannes* for *Ioanes*, *Innocentij* for *Inocentij*, *Confessionale* for *(Con)fessionale* and *Appianus* for *Apianus* (standard Italian: *Giovanni*, *Innocenzo*, *confessionale*, *Appiano*). Here, again, L2 knowledge leads to the same outcome, but given that Calori Cesis avoided correcting errors, it is more probable that transfer primarily derives from L1 rather than L2. Also, the influence of lexicon cannot be excluded.

¹⁷ Benincà & al. 2016, 188.

¹⁸ A monument to Pizzamano's expertise in identifying manuscripts is his edition of the *Opuscula* of Thomas Aquinas, printed by Hermann Liechtenstein in Venice in 1490 (ISTC it00258000) (Pistoia 2022).

4.3. Transfer from L1 morphology and morphosyntax

Some of Calori Cesis' transcription errors can be classified as erroneous Latin morphology and morphosyntax, and most of them are probably due to L1 transfer. Syntax-related observations are rarely possible because the syntax of the inventory titles is basic and repetitious.

The transcriptions *Suma Azoni* for *Summa Azonis* (*Summa Codicis* of Azzo of Bologna) and *Imago arti* for *Imago artis* (*Ars brevis* of Raymond Lull) are probably morphological confusions between Latin inflectional classes (the second instead of the third declension) rather than between the morphosyntax of the genitive and dative cases. The Italian nominal declension does not have a morpheme in *-is*, whereas it does have forms in *-i*: the plural marker for both the second and third declensions (e.g., sg. *arte*, pl. *arti*). This frequent L1 morpheme may have influenced the transcription. The *-i/-is* interference during subvocalization also seems to be proved indirectly by Calori Cesis' *nicolais* for *nicolai*, *apostolis* for *apostolij*, and *uarijs* for *uarij*, which can be considered unintentional hypercorrections.

Beyond a mere interchange of morphemes, the inflections *natura* for *nature* in *de admirandis nature* (the admirable things of nature) and *nazanzeno* for *nazanzeni* in *Sermones q(ui)da(m) gregorij nazanzeni* (some sermons of Gregory of Nazianzus) may reflect syntactic transfer from L1 Italian, where the syntactic relations expressed by cases in Latin, such as the genitive here, are expressed in other ways, mainly by prepositions. In these two titles, Calori Cesis' L1 is likely to have influenced him into producing the Italian unmarked basic form of the word in question (*natura*, *Naz(i)anzeno*) instead of the genitive.

4.4. Transfer from L1 lexicon

While reading, the human brain recognizes familiar words holistically and maps them directly onto their semantic representations in the semantic memory.¹⁹ Therefore, lexemes that are frequent, or otherwise salient or primed through, say, a previous occurrence in the same text may influence the copying process during subvocalization. This influence can be conceptualized as transfer from the writer's L1 lexicon. As is described above, various domains of language are often intertwined in transfer, and this is especially true with lexical transfer, where the mind recognizes the familiar word together with its phonology, conventional spelling, and morphology. Knowledge of the theme may also essentially affect the vocabulary that is primed in one's memory at any given time. This subsection discusses a few cases in which Calori Cesis seems to have confused a Latin word or part of a

¹⁹ Schwendner 2021, 332-335.

Latin word of the inventory with an Italian word. The L1 Italian word in question invariably seems to be more prototypical, more frequent, or semantically simpler.

Calori Cesis transcribes *zeoma(n)zie* as *zoomanzie* in *Lib(er) fr(atr)is gulielmj i(n) arte zeoma(n)zie*, a treatise on geomancy, not zoomancy, attributed to William of Moerbeke. The element *zoo*, which is relatively frequent in Italian learned compounds, is likely to have influenced Calori Cesis' transcription. Likewise, the transcription *sommijs* (heights) for *so(m)nijs* (dreams) in *Sinesius de prouide(n)tia (et) de so(m)nijs*, two works of Synesius of Cyrene, may have its motivation in Italian lexemes such as *somma* and *sommo*. When writing *Excamero* instead of *Examero* in *Examero S(ancti) basilij*, i.e., *Hexameron* of St. Basil, Calori Cesis may have been influenced by legal-administrative terms related to various court practices, both contemporary and historical, such as the frequent *in camera*, which denotes a hearing that excluded the public, or precisely *ex camera*, which appears in the resolutions of various historical fiscal institutions of Italy. All these cases can also be taken as demonstrations of Calori Cesis' defective expertise in relevant literature: had he known the works in question, he might not have been as prone to this type of transfer.

5. Conclusions

This article examines the linguistic transfer from the copyist's L1 to the transcript in L2 Latin within a setting in which relevant background variables can be maximally controlled: Ferdinando Calori Cesis' 1897 transcription of the 1498 Modena inventory of Pico della Mirandola's library.

The study utilized linguistic analysis to classify transcription errors caused by L1 transfer. It is argued that the linguistic scrutiny of transcription errors may help estimate the relative credibility of differing readings in manuscripts, some of which can be explained in terms of linguistic transfer that took place during the subvocalization stage.

It was noticed that the alleged transfer from the transcriber's L1 involves all the domains of language, from phonology to morphosyntax to lexicon, whereas previous studies only refer to phonology when they ponder the influence of the copyist's native language. Phonological transfer, which is intricately connected to transfer from spelling norms, does constitute the most frequent and incontestable type of L1 transfer in the inventory, while other types are less frequent and more controversial. Various domains of language also tend to be involved simultaneously in single instances of transfer.

Along with hypercorrections, the (unconscious) normalization of the source text made by the transcriber can sometimes be indirect evidence of

transfer, provided that one can exclude the possibility of (conscious) learned normalization and (unconscious) transfer from L2 Latin.

Finally, the transcriber's familiarity with what he or she is transcribing is proven to be of importance. Particularly with specialized texts, the copyist's knowledge of the topic is decisive for the correct interpretation of ambiguous words or letters: in the cases where transcribers do not understand what they are copying, they are likely to be most susceptible to the influence of their L1.

Appendix

The complete list of Calori Cesis' transcription errors: <https://doi.org/10.5281/zenodo.8194943>

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