

AN OVERVIEW OF LATIN MORPHOLOGICAL CALQUES ON GREEK TECHNICAL  
TERMS: FORMATION AND SUCCESS

by

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(Under the Direction of Jared S. Klein)

ABSTRACT

This thesis investigates the composition and success of Latin morphological calques on Greek technical terminology in the vocabulary of poetry and literature, rhetoric, philosophy, grammar, medicine, and early Christianity by studying the construction of these calques, including their individual morphemes and, where relevant, their Indo-European origins; and it compares the composition of the corresponding Greek terms. Considerable attention is given to trends in composition in each terminology field, such as suffixes and types of compound formations. Additionally, the study discusses those factors which appear to have played the greatest role in the success of morphological calques over competing Greek loan words, semantic calques, and synonyms.

INDEX WORDS: Latin, Ancient Greek, Morphological calque, Loan translation, Morphology, Historical linguistics.

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DEDICATION

To my family and friends. Thank you for your love and support. To Christopher Amato.  
Thank you for your love, support, and patience.

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background and Methodology

This paper discusses the formation of Latin morphological calques on Greek technical terms. When the data is available, either through the *Perseus* corpus or through earlier scholarship, I also discuss where these morphological calques compete with Greek loan words, synonyms, or semantic calques.

A morphological calque is traditionally defined as a morpheme-by-morpheme translation of another culture's lexical item into one's own language. In the literature, references to Latin morphological calques on Greek technical terms are scattered. When references are available, they may offer the Greek word upon which the Latin word is calqued, but they offer little historical and morphological analysis. One exception, Robert Coleman's 1989 article "The Formations of Specialized Vocabularies in Philosophy, Grammar and Rhetoric," which discusses the circumstances under which Greek loanwords, semantic calques, and morphological calques succeed in Latin, is focused on limited vocabulary spheres and words. An overall compilation of these words, which would provide insight into word formation in Latin and the relationship of Latin with Greek, does not yet seem to exist. In this study, I have compiled all Latin morphological calques I have been able to find in recent scholarship, across a number of Roman technical disciplines. I discuss trends that seem to appear in each semantic sphere in regard to morphological calquing, such as frequent suffixes, and circumstances which seem to allow the morphological calque to replace or be replaced by competing terminology. In Appendix A, I

have provided a comprehensive list of calques playing a role in the discussion, the Greek words upon which the terms are calqued, the prefixes, suffixes, and bases which compose the Latin words, the first known appearance of these calques, and, when available from the online Latin text database, *Perseus*, the number of times the words appear in Latin literature following their coinage.

I have decided to focus on morphological calques due to the creative capacity expressed by Roman writers when forming new words. As bilingual speakers, Roman writers had several means to supply a term when they encountered a new concept, such as borrow the Greek word directly (loan word); expand the definition of an extant Latin word to include that of a corresponding Greek word (semantic calque); translate the Greek word, morpheme by morpheme, to create a new Latin word (morphological calque); or utilize more than one word (periphrasis) (Coleman 1989: 77-8, Powell 1995: 288, Anttila 1989: 140). While I focus on the creation and success of morphological calques, some of which ousted a competing word, others of which were ousted, I will also discuss relevant competing loan words and semantic calques in this study.

To gather a large number of Latin morphological calques, I searched online and in the library databases with the terms ‘Latin morphological calque’, ‘Latin loan translation’, ‘Latin calques’, ‘Latin Greek calques’, ‘Latin neologisms’, ‘Latin word creation’, and additional combinations. Many sources I found in this way provide one or two morphological calques, such as Nisula (2012: 18), who provides *con-cupiscent-ia*. However, other sources survey Latin grammatical, rhetorical, and medical terminology as a whole, such as Schad’s *A Lexicon of Latin Grammatical Terminology* and Lausberg’s *Handbook of Literary Rhetoric*. Additional sources, such as Powell’s *Cicero the Philosopher*, discuss the language of certain authors, several of



whom were prolific in word creation. As I reviewed these sources, I collected not only morphological calques confirmed by these scholars, but also words I thought had the potential to be morphological calques, a number of which I later determined to be semantic calques or ‘near-translations’ of Greek terms. Once I had gathered this list, I removed a number of words which were not strict morphological calques through comparing the Latin morphemes with the corresponding Greek morphemes. However, I kept several words in the discussion which were not strict calques, out of interest and the insight they provide into the Latin word-creation process.

Determining whether a word was a strict morphological calque was often challenging. Many scholars employ the term “calque” to refer to both semantic calques and morphological calques. Moreover, several words I had collected that at first appeared to be morpheme-by-morpheme translations of Greek terms were not true morphological calques, as the meaning of a Greek morpheme in a word did not actually share a meaning with the corresponding morpheme in the Latin word. I removed many of these words from the study, but I kept several examples, which I acknowledge below to be not strict morphological calques. In addition, there were instances where the base verb of a morphological calque in the Latin and the Greek differed semantically, but the prefixed verbs in the Latin and the Greek shared semantics, as in the case of *re-flexiō* (*re-flekt-tiō*) ‘a bending back, reflection, returning of the proposition’ for *ἀνά-κλα-σις*. The verbal base of the Latin word, *flectere*, means ‘to bend’, the base of the Greek, *κλᾶν*, means ‘to break off’. However, the prefixed verb *reflectere* means ‘to bend back’, similar to the meaning of *ἀνακλᾶν*. I acknowledge in the discussion that one would not want to count such words as strict morphological calques, but I have kept them in the study since many are important words in their respective fields and they provide insight into how the Romans formed

words based on the Greek. There are a few instances where the Latin contained a prefixed word, while the Greek did not, as in the case of *in-curvi-cerviċ-us* ‘having a curved neck’ for *κνρτ-ἀύχην*. I have also included such cases in this study out of interest and the insight they provide into the formation of morphological calques, but I acknowledge upon their introduction that one would not want to count them as strict calques according to the traditional definition.

There is also a possibility that some of the words which I have determined to be morphological calques on Greek terms are merely the most logical creation to fill a semantic lacuna, and they happen to use morphemes that correspond to a Greek word. For the words I have gathered, the scholars from whom I have collected these items state that they are translations of a Greek word, and most provide the Greek term upon which the Latin was calqued. I have further removed terms which had appeared earlier in the Latin language and were used later to translate a different Greek technical term, as these would be semantic calques. Otherwise, I will operate under the assumption that all the words I have collected are true morphological calques, based on the word of these authorities, through comparison of Latin and Greek morphemes, and through review of the history of the words in the *Oxford Latin Dictionary* (1982) and de Vaan’s *Etymological Dictionary of Latin and the Other Italic Languages* (2008).

In this study, I have focused on the six spheres of technical terminology which offered the largest number of morphological calques in my search: poetic and literary, rhetorical, philosophical, grammatical, medical, and Christian. In Chapter 8, I discuss morphological calques I gathered from additional fields which did not provide enough data to merit their own section. I have organized my discussion in this manner since within each technical field, certain suffixes or word-formation trends gained popularity. Langslow (2000: 24) further confirms that technical spheres seem to favor certain suffixes for forming words. In his survey, Coleman

(1989: 87) suggests that in the spheres of rhetoric, grammar, and philosophy, the success of a semantic or morphological calque depended upon how frequent and familiar the Latin morphemes utilized were, their acceptability together in one word, and how adeptly the word's meaning fit in place of the Greek word. Otherwise, competing terms, such as a Greek loan word or a semantic calque, prevailed. I tend to agree with this statement. However, as I gathered terms, I noticed that additional factors seemed to contribute to the 'success' of a morphological calque, such as the use of common suffixes within a technical field, the prestige of a Greek loan word, the authority of the individual coining the word, or linguistic pride, which I also take into account in this discussion.

In this study, I also compare the semantics of the individual Latin and Greek morphemes, discuss their origins, and investigate how the morphemes are combined in the Latin and the Greek, to shed light upon the composition of these terms and to see how precisely the composition of the Latin words mimics the composition of the Greek words. Even if the morphemes in the Latin and the Greek are not derived from the same PIE root, this does not mean that the words are not true morphological calques. I have included historical information to gain a deeper understanding of the semantics of the individual Latin and Greek morphemes.

In addition their formation, I also discuss the 'success' of many morphological calques. By 'success', I mean that the morphological calque replaced a competing term, remained as the most popular term, or served as the only term for its semantics in the Latin language. As one way to determine how successful a morphological calque was over competing terms, I gathered data on how often the word appeared in the Classical language and later from *Perseus*' online database, and I compared these numbers to how often the competing term appeared in the database. *Perseus* contains 68,925,971 words of Latin, and it contains most extant Latin texts

before 200 CE and a significant number of texts after 200 CE. *Perseus* allows the user to search the number of times a Latin word and all its case forms appear in these texts. In Appendix A, I have divided these results into the number of times the token appears prior to 200 CE, which roughly marks the end of the Classical Latin period, and after 200 CE (Fortson 2010: 287). Generally, the sources I consulted did not provide Latin morphological calques after 600 CE; I have provided only one term after this date in Chapter 8. However, one also notices in Appendix A the lack of results for a number of tokens in the fields of grammar, medicine, and Christianity. Unfortunately, as *Perseus* does not contain many texts after 200 CE and there is no comparable search engine with post-Classical Latin texts that was easily accessible to me, for later calques, I rely on the discussions of Schad (2007), Langslow (2000), and Burton (2000, 2011), among others, to determine if a Latin calque succeeded over a competing term. When I refer to a specific lexical item as ‘frequent’, ‘popular’, or ‘widely used’, unless otherwise noted in the discussion, I determined that the token appears in the works of at least thirty different Latin authors, if not many more, often in various disciplines, and this fact is often supplemented by a token number of at least thirty, if not much higher, in the *Perseus* corpus. If the term does not appear in the texts of this many authors, I refer to the term as ‘fairly frequent’ or ‘fairly popular’. If the term only appears in a handful of authors, often supplemented by a token number of less than ten, I do not generally consider the term ‘popular’ or ‘frequent’.

For Latin definitions in the discussion and in Appendix A, I utilize the *Oxford Latin Dictionary* (1982), which provides primary and secondary definitions of each Latin word prior to 200 CE, the suffixes, roots, and prefixes of each Latin word, and in most cases, the context in which each word first appears; or *A Latin Dictionary* by Lewis and Short (1879), which is the dictionary *Perseus* uses. For Greek definitions, I utilize *Greek-English Lexicon* by Liddell and

Scott (1996). Miller (2006) also provides the PIE origins and semantics of most Latin suffixes that appear in the morphological calques, so I have referenced him in both the discussion and in Appendix A.

Unfortunately, I cannot say that I have collected every Latin morphological calque on Greek terminology. To complete such a task, one would need to closely read most of Latin technical literature, the accompanying commentaries, and corresponding Greek literature. In my conclusion, I provide suggestions for future research for Latin morphological calques on Greek terms. What I have done is gather the majority of morphological calques which modern scholarship has noted into one discussion, discussed their history and formation in detail, and discussed trends in their formation and success.

In each section, I first briefly discuss the historical background of each topic and major authors who wrote in that area. I then discuss the morphological calques themselves, detailing the individual morphemes of both the Greek and the Latin. If data is available, either from *Perseus* or from the literature, I provide information on competing Greek loan words, semantic calques, morphological calques, periphrases, or mere synonyms, in order to provide further insight into how well the morphological calques seemed to fare against these competitors. I group these constructions by trends I notice in their formation within each terminology field.

## 1.2 The Historical Relationship of Greek and Latin

Greek and Italic are sister languages, both being members of the Indo-European language family, whose speakers scholars estimate began migrating from the Pontic-Caspian steppes across Europe 8,000 years ago (Fortson 2010: 46). Their language, Proto-Indo-European, is said to be 6,000 to 8,000 years old, with the earliest proposed breakup around 3,500 to 3,400 BCE,

coinciding with the invention of the wheel (Fortson 2010: 13, 43). The Greek and Italic speakers migrated to their respective areas throughout the second millennium BCE, with Greek speakers arriving in the Balkan peninsula early in the millennium (Horrocks 2010: 9) and Italic speakers arriving in northern Italy around 1000 BCE (Fortson 2010: 276).

Greek is one of the oldest surviving languages, spanning several thousand years (Fortson 2010: 248). The earliest Greek writing dates from the second half of the second millennium BCE, with the Room of the Chariot Tables from Knossos and the Pylos tablets, written in Linear B (Fortson 2010: 248, Horrocks 2009: 10). Linear B was poorly suited to represent the Greek language, since it lacked distinct signs for long or short vowels, diphthongs, and aspiration and voicing in plosives, among other deficiencies (Horrocks 2009: 10-11, Fortson 2010: 248). However, this syllabic writing system evaporated with the end of the Mycenaean civilization around 1200 BCE, at the start of the Greek Dark Ages, during which the Greeks by and large appeared to lack writing (Fortson 2010: 249, Horrocks 2009: 12).

This period came to an end in the eighth century BCE with the appearance of the first alphabetic inscriptions in a range of dialects (Fortson 2010: 251, 349). It is also within this century that the *Iliad* and the *Odyssey* appear. The basic language of both epics is East Ionic which appears to overlay an Aeolic stratum (Fortson 2010: 249, 264, Horrocks 2010: 44, Palmer 1961: 96). The earliest prose, appearing in the fields of history, science, and medicine, was in Ionic (Palmer 1961: 96, Fortson 2010: 250). However, in the fifth century BCE, Attic Greek assumed the position of the predominant literary language, due to the political influence of Athens (Fortson 2010: 250). Athens' new power attracted intellectuals into the city (Horrocks 1997: 24). Dramatists such as Sophocles and Euripides, historians such as Thucydides, orators such as Demosthenes, and philosophers such as Plato, Aristotle, and Epicurus wrote in the Attic

dialect (Fortson 2010: 250). Philosophy grew as a genre in the late fifth century, its most prominent figure being Plato. His philosophical dialogues played a great role in the creation of a definitive Attic style, free from the prior domination of Ionic (Horrocks 1997: 26). Greece, especially Athens, had become a cultural center in the Mediterranean within the period of a few centuries.

Italic speakers, conveying the Indo-European language from further north in Europe, arrived in northern Italy around 1000 BCE and travelled south. Even during this early time, residents of Southern Italy interacted with peoples who preceded the Greeks from the Aegean area around 2,500 to 2,000 BCE (Fortson 2010: 276). By the early eighth century BCE, a number of Greek settlers introduced the Greek alphabet to the Italic peoples, and archaeologists have discovered Greek inscriptions dating as early as 770 BCE in Italy (Fortson 2010: 274). In addition, the Etruscans, who spread throughout the western part of the peninsula from the eighth century BCE through the sixth, utilized the Greek alphabet (Fortson 2010: 274-5); and it was they who served as the intermediaries from whom the alphabet was passed on to the Romans (Fortson 2010: 275).

The larger of the two Italic dialect groups, Sabellic, containing Oscan and Umbrian, was spoken over an extensive area of central and southern Italy, and the Latino-Faliscan branch was confined to a smaller part of west-central Italy (Fortson 2010: 275). However, the Latini, in the Latium region, became the dominant peoples over time (Fortson 2010: 282). The earliest Latin inscriptions are from the seventh to the fifth centuries BCE, although they do not become plentiful until the third century BCE (Fortson 2010: 282). The earliest surviving literary fragments are from Livius Andronicus, who translated Homer's *Odyssey* and even offers new Latin formations based on Greek terms, including semantic calques, morphological calques, and

inspired neologisms (Fortson 2010: 282, Palmer 1961: 97). Ennius, often considered the father of Roman poetry and who also offers unique calques and neologisms, began his work around a century later (Fortson 2010: 282, Skutsch 1985: 226).

Latin speakers owed much to the Greeks in multiple disciplines, including medicine, philosophy, literature, and grammar (Conte 1994: 81, 107, 253-4). Greek infiltrated Latin on a cultural and linguistic level early in the language's history. Even before educated Romans had become enamored of Greek culture, Roman plebs came into contact with Greeks who settled in their city, leading to Greek loan words and slang expressions in the language (Palmer 1961: 83). According to Wharton (1888:172), no fewer than 3,500 Greek loan words exist in Latin, out of less than 27,000 total words, and numerous individual Greek morphemes also found their way into the language. Cultural terms in the areas of political organization, seafaring, luxury, sport, theater, and others influenced Latin terminology in countless ways (Palmer 1961: 81-2).

Greek influence increased once the Roman empire enveloped Greece in the second century BCE (Janson 2004: 21, Palmer 1961: 95). Once they conquered this nation, the Romans brought back Greek rhetoricians, philosophers, and scholars to educate their children (Palmer 1961: 95). The prestige of ancient Greek culture was well-entrenched in the ancient world, as stated by Cicero in the *Pro Archia* 23 (Horrocks 1997: 72). The Roman upper classes were bilingual, some even learning Greek before Latin (Palmer 1961: 176). All educated Roman citizens could speak Greek, and they possessed intimate knowledge of the great works of Greek philosophy, literature, and science (Janson 2004: 20). Writers such as Cicero, Livy, Horace, Vergil, and Ovid expanded the depths of Roman literature and writing, at least in part influenced by the art and literature of Greece (Palmer 1961: 95).



However, with this influence came tension. Roman writers wished to acknowledge the influence of prestigious Greek authors, but they also desired to compete with and even surpass them. Palmer (1961: 96) writes, “It is true that the central fire of essential Roman genius burned steadily beneath this imposed mass of alien material and in the course of time was to burst into a flame which matched in splendor the brightest of the Greeks”. One way to overcome the dominating influence of the Greeks was through vocabulary, and Roman writers could create new Latin words or use existing Latin words instead of borrowing Greek terms, allowing them to express their creativity and show pride in their language (Conte 1994: 107-108, 255). After the initial influx of Greek literature, Latin writers pushed to develop their own style. Eventually, the Romans developed their own genre, satire, with Quintilian saying *satira tota nostra est* “Satire is wholly ours”, and he relates that by his time, Latin literature could compare with that of Greek (Conte 1994: 513-4, Palmer 1961: 96). Several authors were very sparing in their use of Greek terminology, and they encouraged others to follow the same path (Powell 2011a: 397, Palmer 1961: 101). The Romans had a strong connection to the language and innovations of the Greeks, yet many desired to maintain the integrity of the Latin language; therefore, morphological calquing provided a solution for many authors.

### 1.3 Morphological Calques and Their Alternatives

As discussed above, after Rome’s conquest of Greece during the second century BCE, educated Romans achieved advanced knowledge of Greek literature, reading and translating these works and in many cases aiming to surpass their predecessors (Horrocks 1997: 71-2, Palmer 1961: 95-6). When writing about a new subject matter or translating a technical Greek work, the Romans often encountered concepts for which the Latin language did not yet have a

term (Anttila 1989: 155, 169). Celsus and Pliny the Elder, in fact, commented on the lack of technical Roman terminology, so Latin writers in technical fields were forced to adjust the lexicon in a number of ways (Langslow 1987: 189-90). When the speakers of a language are adept, that is, bilingual, in a second language, they have a number of means to fill lacunae in the lexicon (Anttila 1989: 169, Coleman 1989: 77-8).

One such method is wholesale borrowing of the term from the lender language, in this case Greek (Anttila 1989: 155, Coleman 1989: 78-9). The advantage to loan words was that educated readers, that is, those knowing Greek well, would have precise knowledge of the term's meaning, which was sometimes difficult to achieve for morphological and semantic calques that Roman authors produced (Coleman 1989: 78, 87). In some fields, Greek words and texts also held greater prestige than Latin (Langslow 1987: 189). However, this practice did not allow Latin authors to express their creativity or demonstrate the capabilities of their native language. Coleman (1989: 78, 87) notes that Greek words such as *rhētoricē* 'rhetoric', which had been established early in the language, were not easy to replace, although there were exceptions. He (1989: 87) suggests that when a morphological calque did not suit the semantics of the Greek word, due to a combination of Latin morphemes which led to a different meaning from the Greek or a verbal base that was not fitting, the Greek word prevailed, as well.

A second method, which Coleman (1989: 87) notes as very successful in Latin technical terminology, is semantic calquing. In semantic calquing, if a Greek word had several definitions, an existing Latin word, sharing at least one meaning with the Greek, could encompass other meanings of the Greek word (Anttila 1989: 140).<sup>1</sup> One word that translated several Greek words is *conclūsiō* (Coleman 1989: 83). This word first meant 'an enclosing of a space, especially in a siege' (*Oxford Latin Dictionary* 1982: 390). However, in the rhetorical handbook *Rhetorica ad*

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<sup>1</sup> Burton (2011: 490) discusses distinctions between types of semantic calques.

*Herennium*, it translates *ἐπίλογος*, the concluding of a passage in a speech, and *συμπέρασμα*, an ‘inferring or deducting, a proof’ (Coleman 1989: 83, *Oxford Latin Dictionary* 1982: 390).

Quintilian even suggested that the word should translate *περίοδος* ‘the rounded arrangement of a sentence’, but this meaning did not hold (Coleman 1989: 83). The success of this method in Latin technical languages was likely due to the familiarity of the terms, allowing the writer to avoid a Greek term and an unfamiliar Latin term.

However, the most creative means for filling a lexical lacuna was the morphological calque. Morphological calquing utilizes existing morphemes in the borrowing language (Gardiner 1983: 514). Carstensen (1988: 90) states that the process involves “the substitution of the closest etymological or lexical correspondence for each of the elements involved in the recipient language”. Hock and Joseph (2009: 252-3) state that morphological calquing requires familiarity with the donating language, otherwise the calquer would not be able to understand that the word was morphologically complex. In morphological calquing, a Roman writer with sufficient knowledge of the Greek would translate each individual Greek morpheme into its Latin equivalent, and the morpheme order in the Latin word reflected that of the Greek word. One often-noted example in the literature is *prō-nōmen*, leading to English ‘pronoun’, first used by Varro at *de Lingua Latina* 8.45, calqued upon Greek’s *ἀντ-ωνυμία*. Morphological calquing allowed authors to preserve the prestige of their own language and express their linguistic abilities (Gorlach 2007: 718, 727). However, Coleman (1989: 87) notes that the most successful calques in technical vocabularies seemed to utilize well-established suffixes, such as *quāl-itās* and *nōminā-tīvus*, and a competing Greek word that had been established early on still often succeeded over a proposed morphological calque. In this study, we will see that within terminology fields certain suffixes or types of formations, such as compounding, become

popular. While a number of morphological calques became successful, other calques, even those proposed by the famous Cicero, and even those which English inherits, such as *essent-ia*, leading to English *essence*, were unacceptable to the Classical Romans, due to unfamiliar morphemes, unusual combinations of morphemes, or phonological incompatibility of morphemes. While it is also possible to calque entire phrases, such as *operam dāre* ‘to bestow care’, calqued on the Greek phrase *ἐργασίαν διδόναι* (van der Louw 2007: 64), I have chosen to focus my discussion on single words alone.

In my search for morphological calques, I also found a number of ‘near-translations’, in which the Latin term does not precisely recapitulate each Greek morpheme, but the Latin morpheme may possess a meaning that appears related to the corresponding Greek morpheme. I have not made these terms a major focus of my discussion, but several terminology fields offer numerous examples of this sort, and I have included discussion of some terms in several sections. In poetry, one such word is *co-epulō-nus* ‘co-banqueter’ for Greek *παρά-σιτος*. The base of the Latin word is *epulō*, a ‘guest at a feast’, while in Greek, it is *σίτος* ‘grain, food’. Although Plautus was clearly inspired by the Greek word when he created this term, attempting a pun, he does not translate *σίτος* with an equivalent Latin word for ‘food’ (Fontaine 2010: 170). In this classification, I also include examples such as *re-flexiō* for *ἀνά-κλα-σις* and *in-curvi-cervīc-us* for *κυρτ-άχην*, discussed above. These words provide further insight into how the Romans created new terms based on Greek formations, and one may wish to reconsider the strict structuralist definition of the morphological calque as a one-to-one exchange of morphemes in light of such terms.

Yet another method of rendering Greek terms is periphrasis, in which the idea of a single Greek term is expressed by a Latin phrase. If a Roman author did not wish to create a

morphological calque, but he still did not wish to utilize a Greek term, he may turn to this method (Langslow 2000: 252). For example, *ratiō dīcendī* ‘manner of speaking’ was suggested in the *Rhetorica ad Herennium* for *rhētoricē*, the Greek borrowing, but this well-established Greek word won out (Coleman 1989: 78). The medical writer Celsus, attempting to avoid Greek terms, utilizes a number of phrasal terms, such as *dentēs quī secant* ‘the teeth which cut’ for *τομίς*, which came to mean ‘incisor’ in Greek (Langslow 2000: 209).

Langslow (2000: 23) states that the most important lexical items in technical languages are nouns, followed by adjectives. Verbs are rarely specifically technical, and many verbs in these classifications tend to be denominal. This concept is reflected in morphological calques. I was able to gather few verbs which were calqued on the Greek, but a number of nouns and adjectives that were so produced. Nouns and adjectives, with their root, suffixes, and often prefixes, can possess a string of meaning-bearing units the Romans could emulate. However, especially in the sphere of Christian Latin, we do find several verbal morphological calques, frequently with the denominal *-ficāre* formation (Fruyt 2011: 170-1).

Several words could compete to fill a semantic lacuna, and one word would eventually win out. Thus, *permūtātiō* ‘interchange, substitution’, first seen in *Rhetorica ad Herennium*, was eventually replaced by Greek *allēgoria* (from *ἀλληγορία*) (Coleman 1989: 84, *Oxford Latin Dictionary* 1982: 1347). Coleman argues that the Greek term wins out when the Latin term is not morphologically precise enough; a certain combination of morphemes could lead to an unclear meaning that did not reflect the Greek term, the individual morphemes used did not reflect the Greek morphemes well enough, or the bases used in a new creation were unfamiliar (1989: 87). In this study, I investigate these factors and more which are involved in the formation and success of Latin morphological calques.

#### 1.4 A Note on Analysis

For expository purposes, in discussing verb forms appearing in the Greek bases of Latin calques, I often relate the Greek term to the infinitive of its basic present tense form, even if this form is more highly derived.

A number of suffixes discussed below were originally primary suffixes in Latin. One example is *-tiō*, from PIE *\*-ti-*, built to the root of a verb. However, in a number of examples, the suffix came to be applied to the stem of the past passive participle. One sees this in *prae-posit-iō* ‘the act of prefixing’, where it cannot have been built to the root of the verb. In acknowledgement of this ambiguity, I will treat this suffix as *-(t)iō*. I will treat *-(t)īvus*, *-(t)ūra*, and *-(t)ōrius* in a similar manner. Terms containing these suffixes have been parsed differently depending on the verbal root or stem they contain.

## CHAPTER 2

### POETIC AND LITERARY CALQUES

Roman literature not only supplies us with some of the earliest specimens of Latin, but also some of the earliest known morphological calques, several of which became widely used after their coinage. Palmer (1961: 96) explains that after Rome's conquest of Greece, Roman authors raced to translate Greek literature into Latin, and Roman poets owed much of the content, style, and meter in their poetry to their predecessors. From the resulting morphological calques, it appears that as Roman poets began producing texts, they were inspired by the eloquent Greeks to use new morpheme combinations, particularly compound formations. Several morphological calques left the realm of poetry to be used by authors of various disciplines. These words include *omni-potēns* 'almighty', *sapient-ia* 'wisdom', and *magn-animus* 'noble'. However, many words from this realm did not gain this level of success, apparently because outside of poetry, the Romans seemed less inclined to compound words than the Greeks, and many of these poetic calques consisted of compounds, such as *tauri-genus* 'born from a bull' and *septem-fluus* 'seven-flowing, having seven mouths' (Fruyt 2011: 167, Arens 1950: 243). In several of these compounds, morphemes such as *-fer* and *-ger*, meaning 'bearing', while suitable to precisely calque Greek adjectives in *-φορος* (in the case of *-fer* from the same Indo-European root *\*bher* 'to bear'), were not as common in Latin as synonyms of the same meaning in *-eus* and *-ōsus*, which appear more likely to gain usage outside of poetry (Palmer 1961: 102, Miller 2006: 162, 166). The small number of appearances of some of these words in the data is likely also due to their narrow semantics. However, *-fer* and *-ger* still

became popular formations in the language of poetry, due to the need for a more or less metrically equivalent construction to properly recapitulate Greek compounds in *-φορος* (Palmer 1969: 102-3, Arens 1950: 254). Other semantic heads took off as well, such as *-pēs* and *-genus*. While few of these compounds escaped the poetic sphere, they infiltrated this area, adding distinct flavor to Roman poetry.

In Latin poetry, compounds abound. A compound is “a complex lexeme that can be thought of as consisting of two or more base lexemes” (Haspelmath and Sims 2010: 137). Compounds can involve combinations of several word classes, such as noun and noun, adjective and noun, adjective and adjective, and noun and adjective (Haspelmath and Sims 2010: 138). One finds these four combinations in the poetic morphological calque data and the Latin language as a whole from an early period, although the terms the Romans chose to combine appear limited in number (Chase 1900: 62, Fruyt 2002: 259). In Latin morphological calques on Greek poetic terms we find a number of compound words which consist of various word-class combinations, including adjective + noun, as seen in *vēri-verb-ium* ‘the act of speaking the truth’, created by Plautus, combining *vērus* ‘true’ and *verbum* ‘word’<sup>2</sup> (Lindner 1996: 203). Some of these compound types, such as *multi-sonus* ‘of many notes’, became adjectives, despite their semantic head being a noun, as is *sonus* ‘sound’ here. The same phenomenon occurs in the equivalent Greek term *πολύ-φθογγος*. These words are *bahuvrīhi*’s, exocentric compounds, in which the reference is ‘outside’ of the compound (Haspelmath and Sims 2010: 140). There are also noun + noun combinations, such as *tauri-genus* ‘born from a bull’, which combines *taurus* ‘bull’ and *genus* ‘birth’, based on Greek *ταυρο-γεν-ής*, another *bahuvrīhi*-type compound (Lindner 1996: 184). We also find adjective + adjective compounds, such as *suāvi-loquēns* ‘sweet-

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<sup>2</sup> Fruyt (2002: 267) notes that the *-ium* suffix may sometimes be added to compounds to reinforce cohesiveness. Miller (2006: 72-3) also notes that *-ium* often attached to compounds.



speaking’, which combines *suāvis* ‘sweet’ and the present participle of *loquī* ‘to say’, *loquēns*. In the data, a number of noun + adjective combinations are also present, such as *frūgi-ferēns* ‘bearing fruit’, which combines *frūx* ‘fruit’ and the present participle of *ferre* ‘to bear’, *ferēns* ‘bearing’. Calques in *-fer* and *-ger* often fall into this latter category. Based on this variety, there seem to have been few limitations on the word classes Romans could combine. Chase (1900: 61) and Whitehead (2011: 215) suggest that some compounding types, such as those in *-fer* and *-ger*, were inherited from Italic, but early authors, such as Ennius and Plautus, influenced by Greek compounds, were inspired to expand upon these formations (Palmer 1961: 102, Chase 1900: 62, Arens 241). In nearly every compound in the data, the stem vowel of the first member of the compound changes to *-i-*, whether the word was originally an *o*-stem, *eH<sub>2</sub>*-stem, *i*-stem, or otherwise (Chase 1900: 61). Sihler (1995: 60-1) and Chase (1900: 61) state that Proto-Italic *\*e*, *\*o*, and *\*a* merge nearly completely to *\*e* in medial syllables, which then became *-i-* before single consonants. Chase suggests this change analogically influenced other compounds in which the stem vowel stood before two consonants.

However, a number of scholars, including Fruyt (2011: 167-8), Palmer (1961: 102-3), Reiley (1909: 10), and Arens (1950: 243), state that Latin did not create compounds as frequently as Greek and Sanskrit. Fruyt (2011: 167, 2002: 260-1) suggests that this phenomenon is due to the fact that Latin had a larger number of short nominal forms than Greek did, and Latin words in general seem to contain fewer syllables. Chase (1900: 61) simply states that for Italic, “the instinct for forming compounds was lost at a very early period”. Instead, Latin favored prefixation and suffixation (Fruyt 2002: 262). To translate a Greek compound, the Romans in some cases employed a word with a suffix instead, as seen in *mulierōsitās* ‘fondness for women’, which translated *φιλογύνεια* (Fruyt 2002: 259-60, Palmer 1961: 102). On the contrary, Lindner

(1995: 9-210, 2002: 57-160) lists a multitude of Latin compounds. This extensive list suggests that the language was more than capable of compounding. However, Whitehead (2011: 223-4) suggests that compounds appear in higher density in the higher registers of epic poetry than in the lower registers of prose and personal poetry. She suggests that compounding appeared artificial and marked to Romans in everyday speech, and this type of word-formation was reserved for high poetry. Fruyt (2011: 152) further suggests that morphological calques on Greek poetic terms appeared more frequently in the Archaic Latin period. It is true that out of the literary calques I have gathered, two of the most frequent calquers appear to be Plautus (254 BCE - 184 BCE), with 11, and Ennius (239 - 169 BCE), with 7, but later authors such as Vergil and Ovid seemed to follow in the tradition of these earlier writers (Chase 1900: 62). However, from the data, and as stated by Palmer (1961: 102), Vergil and Horace also produce translations with suffixes such as *-ōsus* and *-eus*. Moreover, critics following Ennius often considered the language of this poet harsh, due to his elaborate and elongated neologisms (Skutsch 1985: 226, 350).

Furthermore, Quintilian, at *Institutio Oratoria* 1.5.70, states that *cum κροτάχενα mirati simus, incurvicervicum vix a risu defendimus* “although we would admire *κροτάχενα*, scarcely do we keep from laughing at *incurvicervicum*”, seeming to suggest that some Roman attempts at translating Greek compounds appeared awkward to the Romans. In this example, Pacuvius had created the word *in-curvi-cervīc-um* ‘having an arched neck’ to describe dolphins in his tragedy, now in fragments, based on *κροτ-άχενα*, of the same meaning in Greek (Fruyt 2011: 168). In the Latin word, Pacuvius has combined *in-curvus*, itself with prefix *in-*, indicating direction here; this adjective designates ‘curved’, or more specifically, ‘bent downward, bowed’ (*Oxford Latin Dictionary* 1982: 878). He perhaps chose *in-curvus* over *curvus* to strengthen the directional

notion of the curving or to fill out the meter (*Oxford Latin Dictionary* 1982: 879). The compound also contains *cervīx* ‘neck’ and the frequent Latin adjectival suffix *-us*. This creation corresponds to the combination of *κυρτός* ‘curved’ and *αὐχὴν* ‘neck’ in Greek, a *bahuvrīhi* compound, ‘having a curved neck’ (Whitney 1896: 510, Haspelmath and Sims 2010: 14). This word, a near-calque, is an overly elaborate example of a Latin compound. *In-curvus* for Greek *κυρτός* ‘curved’ itself utilizes a prefix, adding to the length of the word, and the Latin word has an additional suffix in *-us* which the Greek does not utilize. In this case, a more casual Roman writer or speaker would likely prefer periphrasis to avoid the elongated word.

Fontaine (2010: 45) further supports the notion that Romans, outside of poetry, did not prefer elaborate compounds, especially when a simpler word was readily available. He suggests that Plautus coined several ‘facetious’ compounds, including morphological calques on Greek terms, to call attention to these words, create puns, fill out the meter of lines, and make fun of the speakers of these words, all suggesting compounds were not often part of everyday speech. Chase (1900: 62) further notes that Plautus and other early literary authors attempted morphological calques to fill out Latin’s scanty literary language. As an example, Fontaine (2010: 45) states that Plautus created *sub-cingulum* for Greek *ὑπο-ζώνη* ‘under girdle’, which only exists in this one context, when the perfectly good *balteus*<sup>3</sup> ‘belt’ could have sufficed. In this example, Plautus serves to draw attention to the elaborate speech of one of the *Menaechmi* and to call to mind the poetry of the Greeks. It seems that Plautus recognized the limitations of Latin morphological calquing, and he chose to make fun of long morpheme strings. However, as he still provides us with numerous calques, the most plentiful provider of such data, he recognized the artfulness of Greek formations and wished to extend this concept to Latin terms.

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<sup>3</sup> Possibly a word of Etruscan origin (Bonfante and Bonfante 2003: 103).

We now investigate the types of compounds the Romans used in their morphological calques and the origins and meanings of the Latin and Greek morphemes, to see how closely the semantics and concatenations of the Latin morphemes reflect the Greek. Whitney (1896: 489) notes that determinative compounds, in which a noun or adjective is combined with a preceding word, namely a noun, adjective, or adverb, are some of the most frequent compounding types of the Indo-European languages. Fruyt (2011: 168) explains that determinative compounds were created throughout the Latin language. However, she explains that the words which could function as the first term of the compound are limited, with prefixes greatly preferred. We see in the data repetition of certain terms in Latin, such as *multi-* and *alti-*. Lindner (1996: 15-18, 117-20) provides even more examples of words beginning with these terms: 33 in *alti-* and 77 in *multi-*. Fruyt (2002: 267) further explains that adjectival terms that depict quantity, such as *omni-* or *multi-*, are some of the most frequent and successful first terms in compounds, holding less descriptive semantic information than color terms and other qualifiers. While we do see a significant number of compounds in Latin beginning with *omni-*<sup>4</sup>, of which *omni-potēns* may have been the first (Lindner 1996: 131), *multi-*<sup>5</sup>, and *magni-*<sup>6</sup>, there were still a variety of adjectives which the Roman poets could draw upon to serve as the first term of their compounds. According to Whitney (1896: 489), we may narrow these types of compounds further into descriptive compounds, in which the first term is an adjective, qualifying or describing the noun, and dependent compounds, in which the first term stands in a subordinate grammatical relationship to the other member. The other significant classification of compounds comprises possessive compounds, *bahuvrīhi*'s (Whitney 1896: 502). These formations add a sense of ownership or possession to the preceding type, the determinatives (Whitney 1896: 501). One

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<sup>4</sup> Lindner (1996: 129-32) cites 62 compounds with *omni-* as the first term.

<sup>5</sup> Lindner (1996: 117-20) cites 77 compounds.

<sup>6</sup> Lindner (1996: 106-8) cites 10 compounds.

example is *tauri-form-is* ‘having the form of a bull’, based on Greek *ταυρό-μορφ-ος*, of the same meaning. Fruyt (2002: 264) notes that many *bahuvrīhi*’s that appear in Latin are inspired by Greek formations, and there seem to have been some limitations on the semantics in the first and second terms. For example, the second term often denoted a part of the body, while the first was often a number or qualitative adjective (Fruyt 2002: 273-4, Sihler 1995: 403). However, Latin, as an Indo-European language, also inherited the *bahuvrīhi*-type formation, and there are compounds that exist that were not inspired by Greek. The data also shows that Latin poets created *bahuvrīhi*’s that contain terms outside of these limited semantics.

One notes a number of compounds with *-fer* and *-ger* as the final term. Both *-fer* and *-ger* correspond to Greek *-φορος*, meaning ‘bearing’, a verbal adjective in the *o*-grade derived from *φέρειν* (*Greek-English Lexicon* 1996: 870). In Indo-European, nouns and adjectives derived from verbs may be formed with *o*-grade (Fortson 2010: 83). Meanwhile, *-fer* and *-ger* seem to be shortened forms of the participles *ferēns* ‘bearing’ and *gerēns* ‘id’. Palmer (1961: 102) states that the present participles were perhaps shortened to better suit poetic meters; the final *-e-* in *-ens* would be regularly lengthened. While they translate the same Greek formation, *-fer* is from *ferre* ‘to carry’, from PIE *\*bher-* ‘carry’, the same root as is found in *-φορος*. *-Ger*, meanwhile, is from *gerere*, also ‘to bear, carry’. Although not quite as frequent as *ferre*, it is another basic vocabulary word that has a long history in Latin. *Gerere* has the additional meaning of ‘to wear’ (*Oxford Latin Dictionary* 1982: 762). However, there appears to be little semantic distinction between *-fer* and *-ger* when translating Greek *-φορος*. For example, Lindner (1996: 75) cites *flōri-fer* and *flōri-ger*, both meaning ‘flower-bearing’, and Vergil uses both *-fer* and *-ger* in his poetry (Lindner 2002: 286-9). It seems to be up to the discretion of the author in each case. If a previous author had already created a word in *-fer* with the same first term or if

one formation sounded better in a line of poetry, a later author may supply a new term in *-ger*. It is to be noted that *-ger* seemed to be somewhat less popular, with Lindner (2002: 84-88) providing over 200 examples of words in *-fer*, over 120 in *-ger* (2002: 107).

Latin and Greek compounds in *-fer*, *-ger*, and *-φορος* are of the dependent, determinative compounding type (Whitney 1896: 489). Fortson (2010: 137) relates that in Indo-European languages, utilizing a verb as the second term which then governed the first term was common in compounds. As the first term of a compound, however, the word is stripped back to the base plus stem vowel or even the root.

In the *-fer* and *-ger* compounds, for the first term, Roman writers translate a Greek morpheme with a corresponding Latin morpheme. However, even with this limited definition, Roman authors had the ability to create several unique morphological calques on the same Greek word, since *-fer* and *-ger* were interchangeable and one of the Greek terms sometimes encompassed more than one definition. We see *ignis*, the most frequent word for ‘fire’ in Latin, corresponding to *πῦρ*, the most common word for ‘fire’ in Greek, in *igni-fer*, ‘fire-bearing’, based on *πύρ-φορος* ‘fire-bearing’, in Lucretius. The Latin definition expanded further to ‘fiery, flaming’. We similarly see *aes*, meaning ‘copper, bronze, or brass’, for Greek *χαλκός* ‘bronze’ in *aeri-fer* ‘bronze-bearing’ for *χαλκο-φόρος*. Metal words appear once again in *aurum* ‘gold’ for *χρυσός* ‘gold’ in *auri-fer*, ‘gold-bearing’, calqued by Cicero on *χρυσο-φόρος*. This word, too, expanded its semantics to depict trees bearing gold fruit (*Oxford Latin Dictionary* 1982: 217). The Latin calques, while they in the first instance meant ‘bearing’ an item, could expand their definition in a different direction from the Greek term. In this example, the Greek term more specifically meant ‘wearing gold’, but due to the semantic associations of *-φορος*, the poet may choose either *-fer* or *-ger* to translate the Greek term, even though *gerere* possesses a stronger

sense of ‘wearing’ in Latin than *ferre*. We see *κηρύκειον* ‘herald’s wand’ replaced by the Latin equivalent *cādūceus* in *cādūci-fer*, an epithet of Mercury (*Oxford Latin Dictionary* 1982: 249). For Greek *πτερο-φόρος*, utilizing *πτερόν* ‘feathers, wing’, Accius had produced *pinni-ger*, which utilizes *pinna* ‘feather’. For this same Greek word, Vergil, in Book 12 of the *Aeneid*, supplies *āli-ger*, which utilizes *āla* ‘wing’, so when a term in the Greek word offers several meanings, poets may diverge in their creations. They may have desired to show their creativity through words which had not yet been created, or allow for diversity in their own writing, hence the number of unique combinations of a handful of terms we see. As another example, Lindner (1996: 56) supplies *cōni-fer* ‘bearing cones, conical fruit’, of trees, for *κωνο-φόρος*. Latin *cōnus* is actually borrowed from Greek *κῶνος* ‘pine-cone’ (*Oxford Latin Dictionary* 1982: 441), so one would prefer to consider this word a loan blend. In these instances, it was easy for Roman authors to reference a Greek word and swap out common Latin words which shared a meaning with the Greek. However, even this narrow definition allowed creativity among the Roman authors.

There is one instance of *-ferēns*, the full present participle of *ferre* ‘to bear’: *frūgi-ferēns*, ‘bearing fruit’, based on Greek *καρπό-φορος*, which appears in Lucretius’ *de Rerum Natura* 1.3. This change seems to be due to metrics, with this word appearing (in the genitive singular form *frūgiferentis*) at the end of a line of poetry to fill it out. Indeed, Lindner (2002: 90) only provides this one example for a compound that uses *-ferēns*. *-Fer* and *-ger* were much more frequent in poetry.

While these words in *-fer* and *-ger* propagated in high, epic poetry, rarely did they leave the poetic sphere or even often appear in more personal poetry. As Fruyt (2002: 262) states, Latin, in general, appeared to prefer suffixation, as we see synonyms, with the same root but with

more popular suffixes than *-fer* and *-ger*, spread throughout a wider range of writing styles. As one example, both Ennius and Lucretius produce a calque on Greek *πύρ-φορος* ‘fiery’. Ennius offers *flammi-fer*, a combination of *flamma* ‘flame’ and *-fer*. Lucretius, meanwhile, produces *igni-fer*, combining *ignis* ‘fire’ and *-fer*, as discussed above. Both words receive several usages later in the Classical period and even in the 13<sup>th</sup> through 16<sup>th</sup> centuries, according to *Perseus*. However, *ign-eus* and, to a lesser extent, *flamm-eus* ‘fiery’ received wider usage, utilizing a well-attested suffix *-eus*, an old suffix derived from Indo-European *\*-éy-o-*, meaning ‘made of, consisting of’ (Miller 2006: 162). Since *-eus* was a more recognizable suffix, not restricted to a high style, it won out in the general language and even in poetry over the words calqued by Ennius and Lucretius, and it is likely that the Romans saw words in *-fer* and *-ger* as belonging primarily to the poetic sphere. The same theory holds true for *flōri-fer* ‘flowery’, which had competitors in *flōrēns*, the present participle for *flōrēre* ‘to flower’ and, to a much lesser extent, *flōreus* ‘flowery, blooming’, which was still more popular in the Classical language than *flōri-fer*. These words had appeared in the language as early as Plautus and had gained wider semantics. *Flōrēns* had taken on the values ‘illustrious, bright’ and ‘vivid’, *flōreus* ‘blooming (in youth)’ (*Oxford Latin Dictionary* 1982: 714). The *-fer* word, *flōri-fer*, meanwhile, had appeared in Lucretius, as he described a field, and it utilized *flōs* ‘blossom, flower’, while the Greek utilized *ἄνθος* ‘blossom, flower’ in *ἄνθο-φορος* (de Vaan 2008: 227). The same phenomenon occurs for *frondi-fer* ‘leafy’, which found competition in *frondēns*, *frondeus*, and *frondōsus*, all of which meant ‘leafy’. While we see these *-fer/-ger* formations in the high style of Vergil’s *Aeneid*, the early epic of Ennius, and the Greek-heavy Plautus, we see few in authors of elegy and epigram, such as Catullus and Horace, suggesting that these words were of a particular register.



Even as we see *-fer* and *-ger* prosper among the epic poets, we find *-ōsus* formations to be more productive in Latin, both in poetry and in the language at large (Ernout 1949: 81). Miller (2006: 166) states that the origins of Latin *-ōsus* are unknown, but we find it in the earliest language. It was primarily a denominal formation, depicting the sense ‘full of’. Ernout (1949: 81, 82-4) states that the *-ōsus* suffix became widely used in Latin, and it translated a number of Greek suffix complexes, such as *-όεις*, *-ήεις*, *-ώδης*, and *-οείδης*. From this statement, we can further assume that Latin could utilize one suffix to stand for several Greek morpheme-combinations, and Palmer (1961: 102) further confirms that *-ōsus* “provided happy equivalents” for these Greek suffix complexes. For the Greek suffixes, Buck (1933: 342) states that *-ώδης* had the sense ‘having the character of’. He states that this suffix complex is derived from *ὄζειν* ‘to smell’, with an original sense ‘smelling of’ and eventually ‘characteristic of’. *-οείδης* is derived from the noun *εἶδος* ‘form, shape’; Ernout (1949: 81) states that “dans l’usage, [ils] ne se distinguaient souvent pas du type en *-ώδης*”. Buck (1933: 333-4) states that *-όεις* and *-ήεις* meant ‘possessed of, abounding in’. The former attached to *o*-stems, the latter to *ā*-stems. Ernout (1949) has provided the data for the *-ōsus* formations, and he provides several possible Greek forms from which the Latin could have been derived<sup>7</sup>. We see several of these formations becoming popular in Classical and later Latin.

We will now investigate how closely the meaning of the Latin and the Greek components correlate for Latin words in *-ōsus*, as well as how widely the Latin words came to be used in the later Latin language. *Call-ōsus* ‘hard-skinned, thick-skinned, callous’, first appearing in Horace, is derived from *callum* ‘callus’, based on Greek *τυλ-ώδης*. The Greek utilizes *τύλος*, meaning ‘callus’ or ‘knot’. Both the Greek and the Latin words appear to embrace a metaphorical

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<sup>7</sup> For Latin adjectives in *-ōsus*, see Ernout (1949). There are others which do not seem to be inspired by Greek formations or are not morphological calques.

meaning, describing one's personality, but the Latin takes on the medical meaning later, in the work of Celsus (*Oxford Latin Dictionary* 1982: 260). There appear to be few other competing derivatives that use *callum*, allowing it to extend into the medical sphere, but there are other popular words meaning 'tough, harsh' in Latin, notably *dūrus*. *Call-ōsus* embodies more specific semantics than this latter word, so it could not appear in as wide a variety of contexts, but it does appear in the philosophical works of Seneca the Younger. *Fābul-ōsus* 'fabulous, legendary, mythical', also first seen in Horace, is based on the Greek *μυθ-ώδης* 'legendary, fabulous'. The coiner had utilized *fābula* 'story, narrative', while the Greek utilizes *μῦθος* 'word, speech, narrative'. Horace had used this word in the 'legendary' sense, to describe the 'legendary River Hydaspes', at *Carmina* 1.22.7, but from there it came to take on more widespread semantics, such as 'famous, incredible'. In this way, it was distinct from a word such as *clārus* 'famous', while it still possessed broad enough semantics to appear in a variety of contexts. *Form-ōsus* appears early in the language, from Terence (second century BCE), meaning 'having a fine appearance', augmenting the meaning of the Greek word *μορφ-ήεις*, which came to have the same meaning, but which originally meant only 'formed'. We see this word used fairly often, from Cicero to Seneca to Vitruvius, as an alternative to words meaning 'beautiful'. *Fronđ-ōsus* 'leafy', first found in Ennius' *Annales*, competes with *frondi-fer*, which appeared in the earlier Naevius, and it enjoys a few more usages than the word in *-fer*, appearing outside of poetry in authors such as Livy. *Lacrim-ōsus* 'weepy' becomes a fairly popular formation, also appearing in Horace for the first time, based on the Greek *δακρυ-όεις* or *δακρυ-ώδης*. The bases of these words are derived from PIE *\*dakru-*, with the sound change of *\*d > l* in Latin (de Vaan 2008: 322). This Latin word did not seem to have too many competitors, so it was often used in poetry to describe distraught individuals. *Lingu-ōsus*, based on *γλωσσ-ώδης*,

both meaning ‘talkative’, is surprisingly not more popular. There were alternatives, such as *loquāx* ‘talkative’, which appears as early as Plautus (*Oxford Latin Dictionary* 1982: 1043). The meaning of *lingu-ōsus* was perhaps somewhat opaque in Latin, since it could have been interpreted as ‘full of tongues’ and less directly ‘talkative’. ‘Talkative’ appears to have a strong verbal sense, both in English and Latin, which this morphological calque may not convey as well as the alternatives derived from *loquī*. *Perseus* confirms the rarity of the Greek term, as well, with only two occurrences. *Pōm-ōsos* ‘abundant in fruit’, based on Greek *καρπ-ώδης*, from Cornelius Severus, an Augustan poet, does not appear to be very popular, either. *Pōmum* and its calque have the specific semantics of ‘orchard-fruit’, while a much more popular word, *fructu-ōsus* ‘fruitful’<sup>8</sup>, from *fructus*, which had a number of meanings, from literal ‘fruit’ to ‘profit’, had appeared earlier in the language. The Greek word *καρπός* also had the primary meaning ‘fruit’, but similarly ‘profit, return’. A somewhat more popular word is *tenebr-ōsus* ‘shady’ capturing Greek *σκοτ-ώδης*. The bases of these words in both languages, *tenebrae* and *σκότος*, mean ‘darkness, gloom’. Yet, another Latin word in *-ōsus* was much more successful, *umbrōsus* ‘shady’, from *umbra*, which more precisely meant ‘shade’, and it was also more frequent in the language than *tenebrae*. Also rather popular word was *vīn-ōsus*, for *οἴν-όεις* ‘full of wine’, which was useful in describing celebrations and characters in poetry, in particular. It seems that the *-ōsus* suffix served to translate numerous Greek formations, and these forms were used in poetry and prose alike. These words generally became more widely-used than those in *-fer* and *-ger*, especially in the later poets. Horace in particular seemed to prefer to coin words in *-ōsus* to using words in *-ger* and *-fer*. However, terms formed with the *-ōsus* suffix did not always enjoy widespread employment. If there was no competing term, or the *-ōsus* derivative was able to adopt specialized meaning, it survived. If the semantics of the base word was too narrow and

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<sup>8</sup> 79 usages in *Perseus*, as opposed to 5 for *pōmōsos*.

could be eclipsed by that of a competing term, especially one established earlier in the language, a word in *-ōsus* did not gain much usage outside of a few poets.

While compounds in *-fer* and *-ger* were limited to the poetic language and tended to be less widely-used than words with more familiar suffixes, one ought not to consider the compounds or other types of words the poets calqued on Greek words ‘failures’. The compounding type utilizing *-fer* and *-ger* became highly popular in Latin poetry and even extended into Christian literature. In addition to these formations, we find several terms repeated over and over in calqued compounds, in poetry and later on in the Christian language.

In Lindner’s work, one notices a number of combinations involving *multi-* ‘many’, *-pēs* ‘foot’, and *-genus* ‘birth’. Latin poetics popularized adjective + adjective compounds and adjective + noun combinations, including *tauri-pēs* ‘having the feet of a bull’ and *tauri-genus* ‘born from a bull’, originally inspired by Greek compound formations. Latin *multi-* ‘many’ most frequently translates Greek *πολυ-* ‘many’ (de Vaan 2008: 394, Hasley 1889: 83, Beekes 2010: 1221). These forms, both as first terms and adjectives *multus* and *πολύς*, were extremely frequent in their respective languages and essential vocabulary items. We see *multi-* in *bahuvrīhi* formations such as *multi-nōmin-is* for *πολυ-ώνυμο-ος* ‘having many names’; *multi-sonus* for *πολύ-φθογγος* ‘of many notes’; and *multi-vagus* ‘wide-ranging’ for *πολυ-πλάνης*, which meant both ‘roaming far’ and ‘much-erring’. The Greek word *πλάνης* ‘wandering’ is an adjective that may be referred to *πλανᾶν*, which in the mediopassive means ‘to wander’, in the active, ‘to lead astray’ and so has both physical and moral notions. Latin *vagus* means ‘wandering, moving freely, roaming’. The Latin term *multi-vagus* has only the physical notion of wandering. *-nōmin-is* shows the frequent third declension ending *-is*, often used in compound adjectives (Fruyt 2002: 264). The formation *-ώνυμο-ος*, derived from *ὄνομα* ‘name’, also only appears in

adjectival compounds. These are far from the only Latin words which utilize *multi-*, but these are a few examples where the Latin calques the Greek, demonstrating the comfort Roman writers felt with *multi-* and the willingness of poets to calque Greek formations of several compounding types.

*Alti-*, derived from *altus* ‘high’, is another frequent first-term we find in Latin poetry at large and in our morphological calques. We see this in *alti-tonāns* ‘thundering high in the sky’ for *ὕψι-βρεμέτης*, of the same meaning, most frequently describing Jove or Zeus; and *alti-volāns* ‘high-flying’ for *ὕψι-πέτης*. These types appear to be descriptive compounds, with the second term, in both Greek and Latin, verbal, while the first term appears to be used in an adverbial sense. Greek *ὕψι-* is derived from the adverb *ὕψι* ‘on high, aloft’. The Greek term is more often seen as a prefix, rather than an independent word like the Latin adjective *altus*, but the Romans utilized the adjective as the corresponding item (Hasley 1889: 79). As for the second term in these words, *tonāre* ‘to make a loud noise, resound, thunder’ corresponds well to the semantics of *βρέμειν* ‘to roar, make a loud noise’. *Volāre* ‘to fly’ corresponds to *πέτεσθαι*, both the basic vocabulary words for ‘to fly’ in their respective languages.

In addition to *multi-sonus*, we see another word in *-sonus* in Vergil, *armi-sonus*, for *ὀπλό-δουπος*. In Greek, *δοῦπος* has a more specific meaning than the Latin correspondent, indicating a ‘heavy, dull sound’ instead of a generic ‘sound’, but there may not have been an appropriate one-word Latin equivalent for Vergil to use in this compound outside of *sonus*. Yet another word, *suāvi-sonus* ‘sweet-sounding’, corresponds to Greek *ἠδύ-θροος*, the second term of which designates a generic ‘sound’. Therefore, we find Greek words with various semantics, *-θροος*, *-δουπος*, and *-φθόγγος*, meaning ‘clear, distinct sound’, rendered by a single Latin term, *-sonus*, either due to a paucity of related words in Latin or to maintain the established formation *-sonus*,

which we find as early as Naevius (third century BCE) (Lindner 2002: 148). Lindner (2002: 147-8) indeed lists 47 compounds utilizing *-sonus*. Once again, in both Greek and Latin, these words are *bahuvrīhi*'s. It seems these types of compounds were popular for morphological calques, since they were widely used in Greek poetry and Indo-European in general, and the Latin poets wished to emulate Greek morpheme concatenations to form new words.

*-Genus* is another widely used second term in Latin formations, corresponding to Greek *-γεν-ής*, as in *tauri-genus* imitative of *ταυρο-γεν-ής* 'born from a bull'. *-γεν-ής* is an adjectival stem formed for the noun *γένος* 'race, stock' which is cognate with Latin *genus* 'race, stock', as is *ταυρο-* with *tauri-*. *Caeci-genus* 'born blind', a descriptive compound, is calqued on *τυφλο-γεν-ής*. Both terms utilize the most popular words for 'blind' in their respective languages, Latin *caecus* and Greek *τυφλός*. Once again, this *-genus* formation propagates in Latin, with Lindner (2002: 105-6) listing 53 terms.

We see *-pēs* in *aeri-pēs*, calqued on *χαλκό-πους*, and *pinni-pēs*, calqued on *πετρό-πους*, although Lindner (2002: 133-4) lists a number of other *-pēs* forms. Latin *-pēs* and Greek *-πους* are both derived from PIE *\*pōd-s* (de Vaan 2008: 462), and one may wish to refer to the above discussion of *aer* and *pinna*. As we are noticing, there seems to have been a collection of lexical items the Romans felt particularly comfortable employing in calques on Greek, and these preferences continue into the Christian language.

We see several words in *-form-is*, as well, based on Greek *-μορφ-ος*, such as *tauri-form-is* 'having the form of a bull', based on *ταυρό-μορφ-ος*, and *tri-form-is* 'having three forms', which became useful in poetry to describe deities, based on *τρί-μορφ-ος*<sup>9</sup>. The *-is* suffix tends to form compound adjectives. Unlike *bahuvrīhi* formations in *-sonus*, which utilize a noun with no

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<sup>9</sup> Both of the Latin words appear in Horace (Lindner 1996: 184, *Oxford Latin Dictionary* 1982: 970, Nicolini 2012: 34).

adjectival suffix as the second term, here, the Latin creator has added *-is* to the formation, forming a clear adjective (*Oxford Latin Dictionary* 1982: 970). However, Greek *-μορφ-ος*, derived from *μορφή* ‘form’, never appears on its own, so the *-is* in the Latin may reflect the suffixal *-ος* of the Greek. In these examples, *tri-* and *tauri-* are inherited from PIE and match the sister terms in Greek perfectly (de Vaan 2008: 607, 628). We find *-form-is* used again in *ūni-form-is*, based on *μονο-ειδ-ής* ‘having one shape’, in Apuleius (second century CE). Latin *-form-is*, derived from *forma* ‘form, shape’, was a natural substitution for Greek *-ειδ-ης*, and again, we see Latin translate several Greek forms with a single lexical item which had been established in compound formation earlier in the language.

There are a few compounds in our data which do not use the above terms. One is *falsiloquus* ‘speaking deceitfully’, devised by Plautus for Greek *ψευδό-λογος* (Adams 2003: 461). *Λογος* ‘word’, derived from *λέγειν* ‘to say’, corresponds to *loquī* ‘to say’, a common deponent verb in Latin, which appears in several calques in the data over other common Latin words for ‘to speak’, such as *dīcere*. We encounter *falsi-* several more times as the first term of compounds (Lindner 1996: 70). Plautus here used *-loquus*, a verbal adjective form which competed with present participles, while the Greek term is a *bahuvrīhi*. We see no other calques in *-loquus*, but we do find them in *-loquēns*, the present active participle of *loquī*, and *-loquāx* (Lindner 2002: 116-7). Another simple substitute is *quadri-iugus* for *τετρά-ζυγος*, ‘drawn by four horses’, utilizing cognate terms for ‘four’ and ‘yoke’. Once again, these compounds are exocentric, not literally meaning ‘four yokes’ but ‘having four yokes’. Lindner (1996: 203) suggests that Plautus calqued *vēri-verb-ium* ‘the act of speaking the truth’ on *ἔτυμο-λογ-ία*, and indeed, *vērus* ‘true’ corresponds to *ἔτυμος* ‘true’ and *verbum* ‘word’ to *λόγος* ‘word’. Latin utilizes the common *-ium* suffix, which frequently attached to compounds, depicting an ‘event’,

and the Greek utilizes the common abstract suffix *-ia* (Miller 2006: 34, 72). We will later see that Cicero attempts to calque this word, as well, but ultimately, the Greek term wins out. In another example, *sacri-legus* ‘temple-robber’ is what Plautus supplies for *ἱερό-συλος*. In the Greek, *σολᾶν* means ‘to strip’ while Latin *legere* means ‘to take, pick out’. Plautus seems to have selected a more generic word than the Greek here, as we have seen before in morphological calques. The first term in Latin is *sacrum* ‘temple’, in Greek, *ἱερόν* ‘temple’. Lindner (1996: 136) also suggests *parenti-cīda* ‘parent-killer’ as a calque on the Greek *πατρο-κτόνος*. This word appears in Plautus. A word much more familiar to us, *homicīda*, does not appear until later (*Oxford Latin Dictionary* 1982: 800). *Πατρο-* in the Greek refers specifically to ‘father’, while *parenti-* ‘parent’ is more generic, but can mean ‘father’ as well. *-Cīdere* is a reduced form of *caedere* ‘to cut, strike, kill’, while *κτενεῖν* means more specifically ‘to slay’. In several of these calques, we find a Latin word with related but more generic semantics translating a more specific Greek word.

Some calques appear to use archaic bases or suffixes from closed classes, as one sees in *quinq̄uertiōnes* ‘those who compete in a pentathlon’, a morphological calque by Livius Andronicus, to whom we owe some of our earliest poetic calques. Based on *quinq̄uertium*, itself a rare word which the *Oxford Classical Dictionary* (1982: 1557) describes as an ‘an old name for the pentathlon’, the nominative form *quinq̄uert-iō* adds the denominal suffix *-iō* to this old base. Denominals such as *centuriō* ‘centurion’ and *decuriō* ‘decurion’ utilize the same suffix, and these words are well-known in Latin, but they do not form a large group (Miller 2006: 75-6). There is no other known occurrence of *quinq̄uert-iō* outside of Livius. While this Latin word is rare, the Greek loan word *pentathlos* upon which it was calqued is also rare in Latin, appearing only in Pliny the Elder and Livy a few times (*Oxford Classical Dictionary* 1987: 1367). A much



more common word, *āthlēta* ‘athlete’, borrowed from Greek *ἀθλητής*, became established early in the language (*Oxford Classical Dictionary* 1982: 196), occupying a larger semantic swath of space, and it was likely more familiar and understandable to educated Romans, most of whom understood Greek. Livius demonstrates the need for early Roman poets to emulate the Greek language closely while utilizing Latin morphemes. However, as a result, the poet ends up using a rare, archaic base, and a simpler, more familiar word took precedence.

That many of these words were not often needed outside of poetry most likely also contributes to their small number of appearances in the data. For example, one would not often need the specificity of *sēmi-cremātus* ‘half-burnt’, which Ovid calqued on Greek *ἡμί-φλεκτος*. In this word, the Greek and Latin first terms stem from the same source, PIE *\*sēm-i-* ‘in one’, with the initial *\*s* in Greek becoming *h* (de Vaan 2008: 553). *Cremātus* is derived from *cremāre* ‘to burn’, corresponding to Greek *φλέγειν*, which in this case has a wider variety of meanings, including ‘to inflame with passion’. In Latin, *cremāre* is not the most common word for ‘to burn’, either, *ūrere* being more frequent; but *cremāre* may have sounded more appealing to Ovid’s ear, or perhaps he wished to use a term other than the most basic word for ‘to burn’. *Septem-fluus* ‘with seven mouths’ is Ovid’s calque on *ἑπτά-ρροος* to describe the Nile. In the Greek, *ρρόος* ‘stream’ is a nominal derivative of *ρρεῖν* ‘to flow’, while Latin *-fluus* is based on *fluere* ‘to flow’, once again using the alternative verbal *-us* formation over the present participle. Such formations had a distinctly poetic flavor and were associated with high register. Outside of poetry, it is unlikely these words would be used very often, so speakers were not able to become familiar with such formations, contributing to their lack of usage.

However, several popular words, which were originally morphological calques on Greek terms, emerge from the time of the early poets, such as *sapient-ia*, *omni-potēns*, and *magn-*

*animus*, filling semantic lacunae in the language with a Latin term which utilized familiar Latin forms as bases and suffixes. We find our first known use of *sapient-ia*, which combines the adjective *sapiēns* ‘wise’, in itself a frequent word<sup>10</sup>, and the familiar abstract noun suffix *-ia* (Miller 2006: 39), in Ennius’ *Annales* Book VII. Rosen (1999: 19) suggests that *sapient-ia* is a calque on Greek *σοφ-ία* ‘wisdom, intelligence’. Although the Greek loan word exists in Latin<sup>11</sup>, the need for such a basic vocabulary element, its early establishment, the use of a familiar word as its base, and the use of *-ia*, a suffix commonly used to form abstract nouns in Latin, are all factors that allowed *sapient-ia* ‘intelligence, discernment’ to enjoy wide usage. The Latin adjective *sapiēns* was the present participle of *sapere* ‘to have sense’; the Greek has been derived from the adjective *σοφός* ‘skilled, wise, clever’. *Omni-potēns* ‘almighty’, combining the adjectives *omnis* ‘all, every’ and *potēns* ‘powerful’, for the Greek *παγ-κρατής*, also became widely used, appearing as early as Plautus (Jocelyn 1967: 292, deVaán 2008: 428). The Greek form once again shows the common adjectival compound suffix *-ης* forming a verbal adjective from an *s*-stem noun. Meanwhile, the Latin adjective *potēns* is the present participle of *posse* ‘to be able’, but this participle also comes to mean ‘powerful’ (de Vaan 2008: 484). *Omni-* and *παν-* are common adjectives in Latin and Greek, which come to be common first terms, both meaning ‘all, every’ (Hasley 1889: 333). In both Greek and Latin, these appear to be *bahuvrīhi*’s.

Although *omni-potēns* is a compound, the lack of competing words in the early language, as well as the apparent semantic need for such a word, allowed for its success. Also in this category is *magn-animus* ‘noble’, which we find for the first time in Plautus’ *Amphitruo* 212, based on Greek *μεγά-θυμος*. Fruyt (2011: 252) suggests *μεγαλό-ψυχος* as another possible word upon which the Latin was calqued. In Greek, *μεγαλο-* meant ‘large, great, exaggerated’, an extension

<sup>10</sup> The nominative singular masculine/feminine form appears 244 times in the *Perseus* database.

<sup>11</sup> The nominative singular form appears 25 times in the *Perseus* corpus, versus 265 times for *sapientia*.

of μέγας ‘big’. μεγαλο- is more frequent as an actual prefix in Greek, while in Latin, *magni-*, from the common adjective *magnus* ‘great, large’, was the most frequent prefix depicting ‘largeness, greatness’, whether in the physical or abstract sense (Hasley 1889: 87). In Greek, *θυμός* means ‘soul, spirit’, as did the common Latin word, *animus*, originally from PIE \**H<sub>2</sub>enH<sub>1</sub>-mo-* ‘breath’ (de Vaan 2008: 42). *Ψυχή* also means ‘breath, spirit, life’. Both of the suggested Greek terms are reasonable bases for the Latin calque. Once again, we see that Latin may have had fewer forms to choose from than Greek. In both languages, these terms are *bahuvrīhi*’s, exocentric compounds, indicating one ‘possessing great spirit’.

Other popular words, such as *urbānus* ‘connected with the city’ and *quadru-pēs* ‘a domestic animal, a four-legged being’ are also products of need, supplemented by their use of common morphemes. A word in *-fer*, *lūci-fer* ‘light-bearing’, but eventually, ‘morning star’, became quite popular; that it was able to specialize in this way and become the term for this important entity seems to have contributed to its success. Horsfall (2008: 550) suggests that this word is from either Greek *φῶσ-φορος* or *ἑωσ-φόρος*. The former means, more generically, ‘light-bringing’, from *φῶς* ‘light’; the latter, with *ἠώς* ‘dawn’, more specifically means ‘the morning star’. Overall, where there was need for a word, morphological calques moved beyond the poetical sphere, even if they were compounds.

A few other words do not fit into the above categories. As discussed above, Fontaine (2010: 171) notes Plautus’ fondness for puns in his word creation. In *Persa* 100, the author references *παρά-σιτος* ‘one who eats at the table of another’, and the source of our word ‘parasite’, to create *co-epulō-nus*. The word is meant to emulate the Greek in its formation and recall its ‘parasitic’ meaning. It is not a precise calque, as *σῖτος* means ‘food, grain, meat’, while *epulō* means ‘a guest at a feast’, but it demonstrates Plautus’ inclination to produce calques as

well as the source of his inspiration. Another interesting word is Horace's *re-cantāre* 'to retract' and eventually 'echo' for Greek *παλιν-φθεῖν* 'to recant, revoke', with *re-* 'again, back' corresponding well to Greek *παλιν-* 'again, back'. Latin *cantāre* 'to sing' corresponds to Greek *-φθεῖν*, a contracted form of *ἀείδειν* 'to sing' (Mayer 1994: 147). Latin *re-cantāre* seems to have taken on a secondary meaning, 'to echo', as *re-* assumed the meaning 'again' instead of 'back', demonstrating that a morphological calque could grow beyond the original Greek meaning, whenever the Latin form possessed several different meanings.

Overall, many poetic calques were meant to exist in a specific sphere, to translate terms of Greek poetry. The Roman poets wished to use Latin words to emulate their Greek predecessors and express their linguistic abilities. They most likely realized that extensive compounding, as seen in many poetic calques, was not as frequent in everyday Roman speech and writing. It seems to be due mostly to this reason, although other factors were involved, that these calques did not often leave the realm of poetry. However, the poets created a large number of formations in Latin writing, and several words, due to semantic need and familiar terms, grew beyond the bounds of Latin poetry, into the areas of philosophy, religion, and elsewhere. As to formation, we see a large number of *bahuvrīhi* compounds, as well as dependent compounds and descriptive compounds. Save for a few cases, the Roman formation followed that of the Greek, and Roman authors did not hesitate to use these forms in their poetry. We see a certain amount of repetition in Latin lexical items, and we see forms such as *-form-is*, *multi-*, and *-genus* appearing a number of times. In addition, Latin writers would sometimes substitute a more generic Latin term for several Greek terms, whether based on precedents or because there was not a suitable Latin term, thereby capturing several Greek forms with one lexical item, as we see

in *-sonus* translating *-θροος*, *-δουπος*, and *-φθόγγος*. However, the opposite also occurred, as illustrated by the use of both *-fer* and *-ger* to render a single Greek formation, *-φορος*.

### CHAPTER 3

#### RHETORICAL CALQUES

Morphological calques based on Greek rhetorical vocabulary, proposed by famous authors such as Cicero or in the *Rhetorica ad Herennium*, had varying degrees of success and staying power in Roman texts. Powell (2011a: 385) relates that the Romans developed their own ideals of rhetorical language during the last two centuries of the Republic, attempting to systemize the material they had gained from the Greeks. While we have few rhetorical texts before Cicero (Powell 2011a: 388, 395), we also find important calques in the *Rhetorica ad Herennium*, the earliest handbook of Roman oratory, previously ascribed to Cicero, but now determined to be by an unknown author. Powell (2011a: 395) states that the matchup of technical terms that appear in rhetorical works between the *Rhetorica ad Herennium*, from c. 90 BCE, and Cicero, later in the century, suggests that Roman rhetorical terminology had been well-established for some period of time. Roman orators appeared to prefer the use of Roman equivalents for Greek terms to importing the Greek term directly (Powell 2011a: 396). There are a number of semantic calques in this sphere, including *repetitiō*, repetition of a word or word group in one place over the course of several sentences, for ἀναφορά (Lausberg 1998: 281). However, there were a number of important Roman morphological calques, as well, particularly for various parts of a speech or for constructions that appeared in a speech, such as *com-posit-iō* ‘the artistic arrangement of words’ for σύνθεσις. On the other hand, if a Greek word held prestige and had become established in the early history of the Latin language, it seemed to prevail, even when a perfectly acceptable morphological calque was proposed.

Perhaps the most famous and obvious example of a Greek loan word overcoming a morphological calque in rhetoric is, in fact, *rhētoricē* ‘rhetoric’, borrowed from Greek *ῥητορικὴ* ‘skill in speaking’. Russell (2001: 348) notes that *ῥητορικὴ* was in Greek employed elliptically for *ῥητορικὴ τέχνη*. Quintilian, in *Institutio Oratoria* 2.14.1, discusses two morphological calques which had emerged by his time as an alternative to *rhētoricē*, *ōrātōr-ia* and *ōrā-trīx*. However, Quintilian quickly rejects them, explaining that they are *non minus dura* ‘no less harsh’ than the awkward *essentia*, discussed below, and they are inadequate to capture all the semantics of the Greek term, as the Greek term could serve as an adjective and as a substantive. Indeed, *-trīx*, the female agentive suffix, corresponding to the masculine suffix *-tor*, does not seem apt here, especially in translation of *rhētoricē*; the suffix seems better reserved for describing people. As for *ōrātōr-ia*, the fact that the Greek loan word *rhētoricē* and related terms became used early on in the field of rhetoric seemed to inhibit its usage, although its employment of the more common *-ia* abstract noun suffix gained it more use than *ōrātrīx*. Coleman (1989: 78) explains that the use of the Greek loan word was supplemented by *rhētor* ‘teacher of oratory’, which enjoyed wide usage in the language. We find 92 appearances of it in *Perseus*, beginning with Cicero, although it does not seem to appear in *Rhetorica ad Herennium*. This work utilizes other forms of *rhētor-*, however, such as the adjective *rhētoricus* ‘of or related to public speaking’ (*Oxford Classical Dictionary* 1982: 1652). Yet, *ōrātor* is highly popular in the Latin language, as well, with 1,014 uses in *Perseus*. However, *rhētor* and *ōrātor* do not mean exactly the same thing in Latin; according to the *Oxford Latin Dictionary* (1982: 1651), *rhētor* means ‘one who professes to teach public speaking’, then ‘one trained in the techniques of public speaking’, while *ōrātor* means ‘a spokesman’, then ‘a public speaker’. The Greek word perhaps had a stronger meaning of ‘skill, art’ associated with it, so it served to describe the technical

language better. There were a number of other words in Latin which utilized the *rhētor-* base, such as the aforementioned *rhētoricus*, borrowed from Greek *ῥητορικός* ‘relating to public speaking’, so the term was well-established and familiar in the language. Coleman (1989: 78) relates that there was also a competing Latin phrase, *ratiō dīcendī* ‘manner of speaking’, which could have further affected the success of *ōrātōr-ia*. There appears to have been a number of reasons why *ōrātōria* and *ōrātrīx* were rejected by the rhetoricians, but the strongest argument is the fact that the Greek word had become established in the language and was more prestigious than the Latin alternatives.

In the same passage of the *Institutio Oratoria*, Quintilian favors *litterā-tūra* ‘the science of language, writing’ as a replacement for *γραμματική*. Once again, Greek *γραμματική* was employed in ellipsis of *γραμματικὴ τέχνη*, and the elliptic form was continued in Latin. The *Oxford Latin Dictionary* (1982: 771) provides *grammatica* as another Latin form of this word, defining it as ‘the study of literature and language’. Despite Quintilian’s endorsement of *litterā-tūra*, with its more appropriately substantive ending, the Greek substantive forms occur more frequently in Classical Latin, with *grammaticē* appearing as a substantive 18 times in *Perseus* and *grammatica* 25 times, as opposed to *litterātūra*’s 12 occurrences in the Classical language; and related words borrowed from Greek, such as *grammaticus* ‘of or concerned with grammar’ appear at least 348 times in *Perseus*. From the above examples, it seems as though a Greek word established early in the language, especially strengthened by related words, could compete with or overcome a Latin morphological calque. It is also notable that Miller (2006: 122) cites *litterā-tūra* as the only denominal formation that utilizes *-(t)ūra* in Latin; *-(t)ūra* is typically deverbal, as seen in *frāctūra* ‘the process of breaking’ and *ruptūra* ‘breaking, fracture’ (Miller 2006: 118).



As another example of a morphological calque which did not receive his approval, Quintilian offers the first written discussion of *circum-locūt-iō* ‘circumlocution’ in *Institutio Oratoria* 8.6. This word is modeled after *περί-φρα-σις*. The borrowed Greek term *periphrasis* enjoys slightly more usage, especially after 200 BCE, according to *Perseus*. Quintilian comments that the Latin term is *non...aptum* ‘not apt’, giving precedence to the Greek formation here, as well. One frequently finds in the rhetorical field, as well as in other technical areas, that *-(t)iō* replaces the Greek *-σις* suffix and other Greek suffixes. As to the origins of these endings, the *\*-ti-* suffix in PIE created verbal abstracts. It was normally enlarged in Latin by *\*-ōn-* (Miller 2006: 97). While *-(t)iō* was originally a primary ending, attaching to the root of verbs, it came to attach to the stem of the past passive participle in some instances in Latin. Fruyt (2011: 158) relates that this suffix was productive throughout the history of Latin and that it had few semantic restrictions, explaining its popularity. *-σις*, meanwhile, was also a Greek verbal abstract suffix (Weiss 2010: 105, Buck 1933: 337). The verbal source of the Greek word, *φράζειν*, means ‘to point out, show, indicate’, a more specific meaning than *loquī* ‘to say’. Although as discussed above, Latin morphological calques frequently utilize a term with wider, less specific semantics than the corresponding Greek term, Quintilian may have found the discrepancy in the lexical semantics of *φράζειν* and *loquī* too great to gain his approval. While *περι-φράζειν* ‘to speak in a roundabout way’ was an extant Greek verb, there was not yet a *circum-loquī* ‘to speak about’ in Classical Latin. We will see a few instances where Latin joins a prefix and a verbal formation which had not previously been joined, in order to reflect the Greek morpheme combination in its morphological calques. However, in this instance, Quintilian may have simply found the Greek word more prestigious. Powell (2011a: 396) states that later authors, including Quintilian, were more receptive to Greek borrowings. Despite Quintilian’s

protests, both words come into English from Latin as synonyms; *circumlocution* first appears in the 15<sup>th</sup> century, *periphrasis* in the 16<sup>th</sup> (*Merriam-Webster*).

Cicero, in *Topica* 35, rejects *vēri-loqu-ium* ‘argument for the true meaning of a word’, combining the common adjective *vērus* ‘true’, the common verb *loquī* ‘to speak’, and *-ium*, the compound neuter ending, as an equivalent of Greek *ἐτυμο-λογία*. He states that this form is a *verbum ex verbo* ‘word for word’ translation of the Greek term, but he still complains that it is *non satis apti* ‘not apt enough’, echoing Quintilian’s grievances above. In order to explain Cicero’s complaints, Coleman (1989: 85) relates that *vēri-loqu-ium* had precedents in forms such as *blandi-loqu-ium* ‘smooth talking’ and *multi-loqu-ium* ‘loquaciousness’, although neither these words themselves nor the formation type appear frequently in the Classical language. Coleman furthermore suggests that based on these words, the first term appears to be an adjective: ‘smooth talking’, ‘much talking’, and therefore, *vēri-loqu-ium* ought to mean ‘true talking’, not the more specific ‘true definition of a word’. In its place, Cicero offers *notātiō* ‘a noting’, from *notāre* ‘to denote, mark’, an extant word, extending its meaning. Meanwhile, the Greek loan word, *etymologia*, enjoyed a fair number of uses in Latin, as well. Cicero was not quite correct in offering *vēri-loqu-ium* as a ‘word for word’ translation, utilizing verb *loquī* ‘to say’ as the base, while the Greek utilizes *λόγος* ‘word’. The formation type, both infrequent and inappropriate for the meaning, prevented the morphological calque from overcoming the Greek word, already present in the language.

Despite these unsuccessful morphological calques, rhetorical language from the first century BCE does provide us with a number of calques which overcame their Greek rivals. The *Rhetorica ad Herennium*, from the early first century BCE, is the oldest surviving Roman handbook of rhetoric (Coleman 1989: 78). Coleman (1989: 78) notes that few Greek terms

appear in *Rhetorica ad Herennium*; he also states that morphological calques and other Latin coinages in this work tended to get replaced with the original Greek term (1989: 84). Yet, this proposal does not seem entirely true, since several basic rhetorical vocabulary terms, morphologically calqued on the Greek, become the standard Roman rhetorical terms, such as *com-plexiō* (*com-plekt-tiō*) ‘a comprehensive argument’ for *συμπλοκή*, *prō-posit-iō* ‘the act of setting out’ for *πρόθεσις*, and *com-posit-iō* ‘the artistic arrangement of words’ for *σύνθεσις*. These terms, utilizing the best semantic, historical, and phonological fitting equivalents for the Greek components, and perhaps reinforcing each other with the very common *-(t)iō* suffix, became established in the language before the Greek term, so they became the standard terms in Roman rhetoric.

In regard to *com-plexiō* (*com-plekt-tiō*) ‘a comprehensive argument’, calqued on *συμπλοκή*, in Latin, the *com-* prefix, meaning ‘together’ here, is derived from PIE *\*kom-* ‘beside, near, with’, while the Greek *συν-* is derived from *\*som-* ‘the same’, but eventually meaning ‘together, with’, and Latin *com-/con-/co-* was frequently used to translate this Greek prefix (Sihler 1995: 406, *Greek-English Lexicon* 1996: 765-6, Zaliznjak and Shmelev 2007: 223). As for the verbal base of these words, Latin *-plex-* is based on *plectere* ‘to entwine’, and this verb is derived from the same PIE root as the Greek, *\*plek-* (de Vaan 2008: 472). The Greek form is an *o*-grade derivative based on *συνπλέκειν* ‘to twine together’ (Fortson 2010: 83, Buck 1933: 315). As we will see in many morphological calques, the common *-(t)iō* suffix is utilized in the Latin, depicting an ‘event’ or ‘result’, a deverbal formation (Miller 2006: 97). Fruyt (2011: 158) states that technical writers frequently incorporated this suffix into their formations. A similar precise matching of meaning is found in *prō-posit-iō* ‘the act of setting out’ at the beginning of a speech for *πρόθεσις*, with the prefix in both Greek and Latin from PIE *\*pro* ‘in front of, before’ (de

Vaan 2008: 489-90). The base in Greek, *-θε-σις*, is a *ti*-derivative to the root *θή*, PIE *\*dheH<sub>1</sub>*, cf. *τίθημι* ‘I place’, but the Latin *-posit-* is based on the past passive participle of *pōnere*, the most frequent word for ‘to place’. Another calque involving this set is *com-posit-iō*, an ‘artful arrangement of words’, for Greek *σύν-θε-σις* (Lausberg 1998: 317).

From the *Rhetorica ad Herrenium*, we also see *inven-tiō* ‘the devising of arguments’ for *εὑρε-σις*. *In-venīre*, originally created from *venīre* ‘to come’ and *in-* ‘in, into’, was the most frequent word for ‘to find’ in Latin and was used to reflect the semantics of the base of the Greek word *εὕρισκειν* ‘to find’. As another example from this text, *imitā-tiō* stands for *μίμη-σις*. Here, too, *imitāre* ‘to imitate’, a highly popular word in Latin<sup>12</sup>, is the best semantic fit for the Greek *μιμεῖσθαι* ‘to mimic, imitate, represent’. These examples show that Latin formations with the *-(t)iō* suffix were felt to be the equivalent of numerous Greek deverbal formations, including those in *-η*, which is the feminine *\*-eH<sub>2</sub>-* type, which became *-η* from *-ā* in Attic (Sihler 1995: 266) and *-σις*, which formed verbal abstracts (Buck 1933: 337).

Other terms coined by the Romans that proved more lasting than the Greek loan word include *cō-nexiō* (*cō-nekt-tiō*) ‘concluding sequence, conclusion’ for *ἐπι-πλοκ-ή* and *re-flexiō* (*re-flekt-tiō*) ‘a bending back, reflection, returning of the proposition’ for *ἀνά-κλα-σις*. The widespread use of the *-(t)iō* suffix may have helped establish this list of Latin terms. We see another use of *-posit-iō* for *-θε-σις* in *sup-posit-iō*, with *sub-* ‘under’ the most sensible Latin replacement for *ὑπο-* ‘under’. This verbal base appears again in *ap-posit-iō* ‘a comparison’, based on *παρά-θε-σις*, with *ad-* ‘to, towards, at’, which has undergone assimilation to *ap-*, for *παρα-* ‘beside, near’. As for *cō-nexiō* (*cō-nekt-tiō*) for *ἐπι-πλοκ-ή*, the coiner, possibly Cicero, utilized the common prefix, *co-*, ‘together’, in place of Greek *ἐπι-* ‘upon, on’; however, Zaliznjak and Shmelev (2007: 223-5) state that *co-/con-/com-* could stand for several Greek prefixes, and

<sup>12</sup> There are 711 matches for this word in the *Perseus* database.

*co-* makes sense, with the spatial semantics of ‘together, with’ here. In this word, the coiner perhaps did not wish to repeat the *-plex-* of the earlier *complexiō*, discussed above, so he utilized a substitute of similar meaning, *nectere* ‘to bind’, instead. In later Latin, about the first century CE, we find *re-flexiō* (*re-flekt-tiō*) ‘a bending back, reflection, returning of the proposition’ for *ἀνά-κλα-σις*. In Latin, *re-* has numerous meanings, including movement back or in reverse, opposition, or removal (*Oxford Latin Dictionary* 1982: 1578). In Greek, *ἀνα-* more often means ‘up, up to’, but may also mean ‘back’. The Greek prefixed verb *ἀνακλᾶν* means ‘to bend back’, but the original word *κλᾶν* meant ‘to break off’. In Latin, *flectere* ‘to bend’ does not exactly represent ‘to break off’, but the prefixed *reflectere* ‘to bend back’ reflects the prefixed Greek verb. It seems that in some instances, the prefixed Latin verb that appears in the calque often represents the semantics of the prefixed Greek verb better than each individual unit of the Latin – prefix, base verb, suffix – represents each individual Greek unit. While one may not wish to consider several of these terms strict morphological calques according to the traditional definition, they provide insight into how the Romans created new terms based on Greek terminology.

Outside of the common *-(t)iō* suffix, we see *contrā-posit-um* ‘antithesis’ for *ἀντί-θε-σις*, first in Quintilian. It is interesting that the coiner used *-um* here, given the precedents for *-(t)iō* elsewhere in rhetorical terminology. While the Greek term is a derivative of *ἀντι-τιθέναι* ‘to set against’, in the Latin, there is no compound verb *contrā-pōnere*. In this example, the coiner supplied a prefix in the calque to reflect Greek *ἀντι-*, reflecting the strong sense ‘opposite’ in the Greek prefix.

We also see the beginnings of how the Romans translated numerous Greek adjectives in *-ικός* in technical terminology. We will in the following chapters see more ways the various

terminology fields translate this suffix, depending on the part of speech of the base and the specific semantics of the word. Greek *-ικός* denotes ‘in the manner of, pertaining to’. It is cognate with Latin *-icus*, and the suffix is derived from PIE *-(i)ko-* (Miller 2006: 160). The Greek technical terms utilizing this suffix are often formed from deverbal nouns or adjectives, especially in *-τος* (Buck 1933: 344). For Latin, Coleman (1989: 83) explains that the *-(t)īvus* suffix began to appear and grow in popularity in the languages of law and rhetoric. *-(t)īvus* in some instances came to attach to stem II, the perfective stem, which one may find in the past passive participle of a verb, but in many cases, it attaches to the root of the verb. This suffix denotes something possessing a nature implied in the verb (Miller 2006: 203). An example of Latin *-(t)īvus*: Greek *-ικός* is *dē-mōnstrā-tīvus* ‘demonstrative’ for *ἐπι-δεικτ-ικός*, found first in *Rhetorica ad Herennium*. The verbal base, *mōnstrāre* ‘to show’ corresponds to *δεικνόναι* ‘to show, point out’, both frequently-occurring verbs in their respective languages. The verbal lexeme *ἐπι-δείκνυμαι* means ‘to show off, display’, with the prefix *ἐπι-* meaning ‘upon, at, in addition’, while *dēmōnstrāre* means ‘to point out, show, indicate’, with the prefix *dē-* ‘down from, concerning’ or perhaps in this case indicating thoroughness or intensity (*Oxford Latin Dictionary* 1982: 486). We see this verbal base taken up later by Cicero in *dē-mōnstrā-tiō* ‘exhibition’ for Greek *ἐπί-δειξις* (*ἐπί-δεικ-σις*) (Lausberg 2008: 641). This *-(t)īvus* suffix, while beginning to grow in productivity in the field of rhetoric, became widespread in later technical terminology, and of course, we find *dē-mōnstrā-tīvus* appear once more in the field of grammar (Schad 2007: 118).

However, if a suitable Latin word existed already in the language, such as *narrātiō* ‘story’, which came to mean the opening part of a speech, for *διήγησις* ‘narration, statement’, it would be utilized in a semantic calque, which tended to be the most popular and successful

means to translate a Greek concept into Latin (Powell 2011a: 395, Coleman 1989: 87). There were also a number of new creations which were meant to replace Greek words, but the various components do not seem to share semantics with the Greek words, such as *prō-nuntiā-tiō* ‘proclamation’ for *ὑπό-κρι-σις*. *Prō-* is ‘in the place of’ and *ὑπό-* is ‘under’, *nuntiāre* is ‘to announce’ while *κρίνειν* is ‘to distinguish’, *prōnuntiāre* is ‘to make known’, *ὑποκρίνεσθαι* is ‘to reply’ (Lausberg 2008: 842). While it seems that rhetoricians wished to Romanize the terminology of rhetoric, as discussed above, some Greek prestigious terminology infiltrated the rhetorical language, if no suitable Latin word could be supplied.

A Greek word established early in the language of rhetoric may have seemed more prestigious and familiar to the Romans, so they continued to use it over a morphologically calqued alternative. Similarly, if an appropriate Latin word already existed, it came to be used in the rhetorical language. Yet, the *Rhetorica ad Herennium* introduced a number of morphological calques, which used well-known verbal bases that reflected the semantics of Greek and the popular *-(t)iō* suffix, for the Roman rhetoricians to use over competing terminology. As one last note, in several examples above, the prefixed Latin verb utilized in the morphological calque seemed to reflect the semantics of the prefixed Greek verb better than the individual Latin morphemes reflect the meaning of the individual Greek morphemes, as in the case of *re-flexiō* for *ἀνά-κλα-σις*, providing insight into how the Romans constructed terms based on Greek formations. In other instances, such as in the case of *contrā-posit-um* for *ἀντί-θε-σις*, a verb form and a prefix may be combined for the first time in a morphological calque, if a suitable Latin verb with a prefix did not yet exist.

## CHAPTER 4

### PHILOSOPHICAL CALQUES

Long (2003: 184) notes that during Cicero's lifetime, the Romans based their philosophy firmly within the context of what the Greeks had developed, even though we know today that famous philosophers such as Cicero, Seneca the Younger, and other Romans contributed greatly to the field of philosophy in their own right. Reflecting this, Cicero, in *de Finibus* 3.15, suggests shying away from neologisms and utilizing a less marked term, a paraphrase, or the original Greek term (van Bekkum, Houben, Sluiter, and Versteegh 1997: 215). Seneca also suggested not using Latin translations of Greek terms if they were unnecessary (van Bekkum, Houben, Sluiter, and Versteegh 1997: 215). Fogen (2011: 457) further reveals that Seneca, in one of his *Epistulae Morales*, 58.1, stated that he felt there were few acceptable corresponding native words for a number of Greek terms. He expresses the opinion that neologisms tend to be awkward, clumsy, and inadequate, including the word *essent-ia*, supposedly coined by Cicero, discussed below. Furthermore, Fogen (2011: 458) states that Seneca did not wish to lose the literary quality of his letters, which he felt was aided by eloquent Greek terminology. Yet elsewhere, Cicero attempted to combat claims that Latin philosophical language was inadequate (Powell 1995: 283-4), and Stokes (2012: 20) suggests that his philosophical vocabulary allowed Latin to surpass Greek as the primary philosophical language. Overall, the precise replication of useful Greek words in Latin, utilizing common suffixes and bases that reflect the semantics of the Greek well, the need for such words, and the authority of Cicero, who desired to utilize Latin terms, contributed to the success of morphological calques in this sphere. However, there are a



number of words which the Romans describe as harsh. There were several reasons why such terms were not accepted by the Romans, including the use of an unfamiliar base in the calque, as in the case of *essentia*, or the combination of a certain base and suffix led to a violation of Classical Latin phonological laws, as in the case of *beātītās*. There were a few such words which soured certain writers on Latin morphological calques, but a number of calques, which were more smoothly integrated into the language and perhaps less noticeable, did succeed.

First, we may start with one of the best known morphological calques: *quāl-itās* ‘a distinguishing quality or characteristic’, which was created by Cicero at *de Natura Deorum* 2.94<sup>13</sup>, based on Greek *ποιό-της* (Coleman 1989: 80). *Quālis*, the base of this word, is a relative or interrogative adjective meaning ‘of what kind, sort’ and was well-established in Latin, corresponding exactly to Greek *ποιός*, both from the Indo-European interrogative stem *\*k<sup>w</sup>o-*. Such essential vocabulary did not change meaning easily, allowing for this exact correspondence between Greek and Latin. The abstract noun suffix *-itās* was one of the more productive deadjectival noun-forming suffixes in the pre-Classical and Classical period (Fruyt 2011: 162, Miller 2006: 26). A few scholars offer suggestions as to the origin of this suffix, such as a contamination of *\*-aH<sub>2</sub>-* and *\*tuH<sub>1</sub>-t-*. Miller (2006: 26) states that more likely, *-tāt-is*, the oblique formation, arises as a secondary extension of *\*-teH<sub>2</sub>-*, which also makes abstract nouns. In Greek, meanwhile, Miller (2006: 26) states that *\*-tāt-* replaced the inherited *\*tā-* as a secondary suffix, as seen in *βαρύτης* ‘heaviness’, derived from *βαρύς* ‘heavy’. We see this derivation type in *ποιό-της* as well. The *-της* suffix was the most productive suffix for forming abstracts from adjectives or nouns in Greek (Buck 1933: 332). In Latin, there was a semantic

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<sup>13</sup> ...*ex corpusculis non calore non qualitate aliqua (quam ποιότητα Graeci vocant) non sensu praeditis sed concurrentibus temere atque casu mundum esse perfectum ...* “...out of atoms, not endowed with heat, not with any quality, which the Greeks call ποιότητα, not with sense, but running together randomly and by chance, the world was perfected.”

need for such a term in philosophy, ‘a visible quality’; its well-known base and suffix most likely also contributed to its success (Coleman 1989: 80). *Quāl-itās* grew to encompass several definitions, suited well to philosophical terminology and other contexts, even rhetoric and grammar (*Oxford Latin Dictionary* 1982: 1536). That Cicero was a well-regarded authority on the Latin language in the Classical and post-Classical periods perhaps also contributed to the success of some of his linguistic creations, although not all his words were as successful. Powell (1995: 288) states that due to his frequent discussion of the Latin language and its coinage, we may think Cicero coined more terms than he actually did. Nonetheless, we have several words in our language today for which to thank him.

Cicero created numerous other terms which were clear enough and useful enough in Latin that they prevented the corresponding Greek word from entering the language, although not all of them enjoyed the same success as *quāl-itās*, perhaps due to their more specific semantics. These new terms include *com-prehensiō* (*com-prehend-tiō*), *in-dif-ferēns*, *in-dolent-ia*, *magn-anim-itās*, *medie-tās*, and *mōr-ālis*, among others. In *com-prehensiō* (*com-prehend-tiō*) for *κατά-ληψις* (*κατά-ληπ-σις*), we once again see the common *-(t)iō* ‘event’ suffix, at its core *-ti-* (cf. Greek *-σις*) extended by *\*-ōn-* (Miller 2006: 97). This word was taken up in the Classical language, perhaps due to few competing words and its wide range of semantics, from ‘a seizing’ to ‘comprehension’. The verbal bases are represented by *comprehendere* ‘to lay hold of, seize’ and *καταλαμβάνειν* ‘to seize, lay hold of’. Here, we see *com-* corresponding to yet another Greek prefix, *κατα-*, perhaps meaning ‘on, upon’ here. In Latin, *prehendere* is a compound formation of *\*prae-* ‘before’ and *\*hendere*, which only exists in this combination. While there are other Latin words denoting ‘seize’, such as *rapere* and *corripere*, *prehendere* and *comprehendere* are

able to take on the abstract meaning ‘to apprehend mentally’ (*Oxford Latin Dictionary* 1982: 1452), as is the case with Greek *καταλαμβάνειν*.

As we will see below in grammatical and medical terminology, Cicero utilizes the denominal adjective ending *-ālis* to translate the common Greek suffix *-ικός*, as in *mōr-ālis* ‘concerned with ethics’ for *ἠθ-ικός*. The base of this word is the very common Latin *mōs* ‘custom’, which reflects the meaning of the equally common Greek words *ἔθος/ἦθος* ‘custom, habit’. Once again, there was a need for this word in Latin and its components were common and understandable, including a suffix that Fruyt (2011: 163) calls “probably the most productive suffix building adjectives from noun stems”, with hardly any semantic and morphological limitations. *Mōr-ālis* became useful in a range of contexts, philosophical and otherwise.

As for *in-dolent-ia* ‘insensitivity to pain’, this word utilizes the abstract *-ia* ending, which Miller (2006: 34) describes as a well-established marker of abstract nouns associated with the feminine gender in PIE languages, outside of Anatolian; *-ia* corresponds exactly to the identical suffix in Greek’s *ἀ-πάθε-ια* here. These tend to be deadjectival formations (Miller 2006: 34), and Fruyt (2011: 162) states that this suffix and *-itās* were the two most productive Classical formations for creating nouns from adjectives. *In-* here does not mean ‘on, in’, but rather it is the privative prefix corresponding to Greek *a-*. These negative prefixes both result from PIE *\*n-*. In Latin, the verbal root for this word is reflected in *dolēre* ‘to feel pain’. The Greek may be referred to *πάσκειν* ‘to suffer’ (< *\*παθ-σκειν*). While the Latin word does not gain a huge number of usages in the Classical language, *apathia*, the Greek borrowing, has just one use in the Classical language, in Gellius (*Oxford Latin Dictionary* 1982: 145). While *Perseus* does not show usage beyond the Classical period for *in-dolent-ia*, Powell (1995: 291) states that it became

useful to the church fathers, and we gain it in English as *indolence* in the 1600s. English inherits the Greek word through the Latin borrowing, as well (*Merriam-Webster*).

*In-dif-ferēns*, provided by Cicero in *de Finibus*, is based on the Greek formation ἀ-διά-φορος, taking on its same meanings of ‘not differing’, but also ‘indifferent, unimportant’; Cicero first uses it with the former meaning (Powell 1995: 291, *Oxford Latin Dictionary* 1982: 883). In Latin, the present participle *differēns* means ‘scattering, dispersing’, while in Greek, the deverbial adjective διάφορος means simply ‘different’. But when one breaks down these forms, *dis-* ‘apart’ corresponds to the sense ‘in different directions’ of διά, and *ferēns*, from *ferre* ‘to bear’ corresponds to -φορος ‘bearing’, from the same PIE root \**bher*.

The prefix *sub-* in Latin most frequently meant ‘under’, but as early as Plautus in a few instances, it came to signal reduced intensity, a value also found in Greek ὑπο-. Langslow (2000: 336) does not indicate whether Latin developed this meaning on its own or through semantic extension to reflect the Greek. Since Latin *sub-* was able to encompass this sense, Cicero provides a translation for the Greek word ὑπό-πικρος ‘somewhat bitter’ with *sub-amārus*, describing a taste. While this specific word did not gain much usage, due to its specific semantics, we see this use of *sub-* elsewhere in Latin, and we will see it in the medical technical language.

*Multi-form-is*, based on Greek πολυ-ειδ-ής, the terms and collocation of which are discussed above in the poetry section, in both languages meant ‘having many different forms, shapes, aspects; of many sorts’, a meaning which became useful in Christian language, as well (*Oxford Latin Dictionary* 1982: 1142, Powell 1995: 296). This word, which garners more usage than the other words in *-form-is* discussed above, seems to have encompassed less specific semantics than these words, appearing in legal, poetical, and philosophical contexts, as well as

Biblical contexts later in the language. We see here used again the quantity descriptor *multi-*, which Fruyt (2002: 267) suggests aided the success of compound words. Either way, *multus* was a highly common adjective, and *multi-form-is* was taken up out of need. We saw above in the poetry section that there were precedents in the Latin language for translating Greek *-ειδ-ης* with *-form-is*.

We now come to another famous word, related to the poetic morphological calque *magnanimus* ‘great-souled’. Comte-Sponville (2002: 93) suggests that Cicero created *magn-anim-itās* ‘high-mindedness’ for *μεγαλο-ψυχ-ία* in *de Officiis* 1.43.52. This word was formed from the adjective *magnanimus*. As discussed above, *magnus*, the common Latin adjective meaning ‘great’, is a natural substitute for *μεγαλο-*, extended from *μεγας*, although Fruyt (2011: 152) had suggested two words upon which *magnanimus* could have been calqued. In Latin, *animus* has the original sense of ‘breath’ which developed into ‘spirit, mind’, from PIE *\*H<sub>2</sub>enH<sub>1</sub>-mo-* ‘breath’ (cognate with Greek *ἄνεμος* ‘wind’) (de Vaan 2008: 43). Here, Cicero utilized the well-known *-itās* suffix again.

Another recognizable word is *in-nocent-ia* ‘harmlessness, innocence’ for *ἀ-βλάβε-ια*. The adjective *in-nocēns* ‘harmless’ had been in use in Latin since Naevius (*Oxford Latin Dictionary* 1982: 915). This form combines *in-*, again meaning ‘not’ here, and the present participle of *nocēre* ‘to harm’. The verb one may reference for the Greek equivalent is *βλάπτειν* ‘to disable, hinder, harm’. In this term, which came to be highly useful in Christian Latin, Cicero once again employed the *-ia* suffix to reflect the Greek (Reiley 1909: 13, Miller 2006: 34).

*Medi-etās* may appear to be a semantic calque, but in fact, this word was a conscious translation on Cicero’s part of Greek *μεσό-της*, which meant ‘a middle or central position, a mean between two extremes’ (Powell 1995: 291). In Latin, as in Greek, the word could designate ‘a

central point, an intermediate state’, and it appeared in philosophical works (*Oxford Latin Dictionary* 1982: 1089). *Medius* ‘middle’, from \**medh-yo*, corresponds to the Greek μέσος, from the same Indo-European source (de Vaan 2008: 369, Beekes 2010: 935, Sihler 1995: 190), and it utilizes the Latin abstract suffix *-tās*, reflecting Greek *-της* (Miller 2006: 26), as discussed above. The semantics were perhaps too specific for this word to gain much usage; one could just as easily use the popular adjective *medius* ‘middle’ with a noun.

However, Cicero did not coin the only philosophical morphological calques based on Greek words. In his *Epistulae Morales* 1.17.6, Seneca proposes *prae-sumpt-iō* ‘preconception’ for πρό-ληψις (*πρό-ληπ-σις*) of the same meaning, created from *prae-sūmere* ‘to take before’ (Miller 2006: 97, Setaioli 2013: 380-1). Seneca appeared comfortable with a Latin calque on a Greek term when the verbal base and suffix were familiar, semantically and phonologically acceptable together, and reflected the Greek term properly (Von Albrecht 2013: 706). *Prae-sūmere* in Latin has similar semantics to the Greek προ-λαμβάνειν, which means ‘to take before’, but also ‘to anticipate’; in Latin, it means ‘to take before’, but also ‘to presume’, ‘to undertake’, and ‘to trust’ (*Oxford Latin Dictionary* 1982: 1444). *Sūmere* and λαμβάνειν both mean ‘to take up’.

*Sub-stant-ia*, created from *sub-stāre* and the *-ia* suffix, based on Greek ὑπό-στα-σις, reflects the Greek and utilizes a familiar verbal base and suffix, as well. We also find this word in Seneca’s *Dialogi* 7.7.4 (Adams 2003: 461). In Latin, *sub-stāre* first meant ‘to stand firm, stand down’, but eventually ‘to exist’. We see this former meaning in the Greek verb ὑπο-στῆναι. Greek ὑπό-στα-σις first meant ‘that which settles at the bottom, sediment’, and eventually ‘substance, the real nature of a thing’. The Latin came to reflect the latter meaning. This highly useful word, offering the additional meanings ‘corporeal existence, the quality of

being real, the material of which a thing is made’, was used throughout the Classical and later language.

However, there were a number of morphological calques which the Romans debated. Such terms used an unfamiliar form as the base or combined a base and suffix which violated Classical Latin phonological rules, as seen in the unacceptable repetition of *t*’s in the oblique forms of *beātītās*. A coinage of Cicero’s that generated debate was *essent-ia* ‘essence, substance’, created from the rarely used form of the present participle of *esse* ‘to be’, *essēns*; Leonard (1882: 55) in fact calls this an “imaginary participle”. Cicero based this word on Greek *ὀψ-ία*, built on the feminine stem of the Greek present participle of *εἶναι* ‘to be’, *οψ-*, and *-ία*, for abstract nouns (Miller 2006: 39). Quintilian, at *Institutio Oratoria* 2.14, claims that *essentia* sounds awkward, as does Seneca at *Epistulae Morales* 58.6, but the latter concedes that Cicero has great authority and that there does not seem to be a better option to translate the Greek term. As a result of the unfamiliar base, few Classical authors utilized the term. Fogen (2011: 458) notes that even Augustine, in *de Civitate Dei* 12.2, comments on how unusual the formation is. However, Stead (1983: 186) states that Augustine came to utilize this word to describe God’s being. Coleman (1989: 81) relates that while Seneca rejected the new participle Julius Caesar attempted to coin from *esse*, *ēns*, this form was employed by post-Classical philosophers and appears often in medieval scholarly writing. In *Perseus*, we also see *essentia* taken up and accepted by later writers, so the collocation became less offensive over time.

Two other words which Cicero created but was not happy about were *beāt-itās* ‘blessedness, happiness’, combining *beātus* ‘happy’ and the common *-itās* deadjectival suffix (Miller 1006: 228), and *beāti-tūdō*, of the same meaning, utilizing *-tūdō*, which denoted an observable state in some sense quantifiable from outward appearance (Miller 2006: 41). Cicero

offers both as alternatives to *μακαρ-ία* ‘happiness, bliss’ in *de Natura Deorum* 1.95. Cicero states that these sounded harsh to his ears, perhaps due to the succession of *t*’s, especially in the oblique cases of *beātītās* (Powell 1995: 296). As for *beātītūdō*, it is less certain what fault he found with this word (Powell 1995: 296), although Miller (2006: 41) does relate that while *-tūdō* became a popular suffix in the early Latin period, it lost productivity until the Late Latin period. In place of these words, Cicero suggested a neater substantive *beātum* or the phrase *beāta vīta* (Coleman 1989: 81). *Beātītūdō*, the more acceptable of the two, appears in a few Roman authors, such as Petronius’ *Satyricon* at 38.5 and Apuleius’ *Metamorphoses* at 10.33. Yet, not only did the word appear in these contexts, but also in later Christian literature, including the Vulgate, other works of Jerome, Augustine, and beyond in the specific meaning ‘blessedness’, based on the authority of Cicero and beside a large number of occurrences of the adjective *beātus* in Christian contexts.<sup>14</sup> At the same time, we also find the Greek borrowing *macaria*, meaning ‘happiness’, in Tertullian (Roberts and Donaldson 1903: 507).

Reiley (1909: 11 - 14) provides other Latin terms Cicero renders from Greek, including a fair number of semantic calques, such as *furor* ‘madness’ for *μελαγχολία*; periphrases, such as *animus terrore liber* ‘a mind free from fear’ for *ἀθαμβία* ‘fearlessness’; and coined words which do not reflect the semantics of the Greek components, such as *convenientia* for *ὁμολογία* ‘agreement’. Other authors shied away from neologisms, preferring semantic calques or Greek terms. Overall, the precise replication of useful Greek words in Latin, their use of recognizable bases and suffixes, and the desire to translate Greek philosophical terms into Latin for Roman readers contributed to the success of morphological calques in this sphere. A few words Cicero proposed were rejected by the Romans, due to the use of an unfamiliar base, as demonstrated by

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<sup>14</sup> According to *Perseus*, *beātus* appears 85 times in the Vulgate, 21 times in the letters of Jerome, and 19 times in the letters of Augustine.



*essēns* in *essentia*, a suffix which had lost productivity by the Classical period, as seen in *beātitudō*, or the combination of a certain suffix and a base which was phonologically unacceptable, as seen in *beātītās*. However, due to his authority, these terms made their way into post-Classical Latin and even English.

## CHAPTER 5

## GRAMMATICAL CALQUES

In *de Lingua Latina* (first century BCE), Varro introduced some of Latin's best-known morphological calques, the Latin case names *nōminātīvus* and *accūsātīvus*. Other grammatical terms utilizing the *-(t)īvus* suffix soon followed, including *vocātīvus* and *datīvus*. The *-(t)īvus* suffix continued to expand in grammatical terminology into the Late Latin period, and English inherits numerous grammatical terms in *-tive* from Latin (Miller 2006: 203). It is important to note that Greek terms which had been introduced into the language early on and were familiar to the Romans, such as *grammaticus* 'grammarian' or *syllaba* 'syllable', remained (Schad 2007: 190, 392). In addition, there were numerous semantic calques, the most famous of which may be *cāsus* 'case' for *πτῶσις*, which originally meant 'fall'. But if the Greek word was composed of several morphemes, morphological calquing was possible, especially if there was potential to use a familiar suffix such as *-(t)īvus* or *-ālis*. The growth of the *-(t)īvus* suffix in other technical areas, the use of familiar Latin morphemes to translate Greek morphemes, linguistic pride, and the increasing prestige of Latin as an educated language in the Late Latin period likely contributed to the success of these calques.

The origins of the *-(t)īvus* suffix are unclear (Miller 2006: 203). However, we do know that it was primarily deverbal and denoted 'having the nature or property of'. In some cases, it attached to the past passive participle stem of the verb; in other cases, it attached to the root of the verb. Grammarians such as Varro employed this suffix to translate Greek words in *-ικος*. Between the time of Varro (first century BCE), and the grammarian Aulus Gellius (second

century CE), Latin grammatical case names became homogenized, with grammarians forming morphological calques on Greek terminology, ousting the older Latin terms which had utilized a gerund, such as *cāsus nōminandī* ‘the case of naming’ and *cāsus accūsandī* ‘the case of accusing’ (Coleman 1989: 83-4). In *de Lingua Latina* 8.23.4, Varro utilizes *nōminā-tīvus* ‘nominative’, combining the root of the verb *nōmināre*, based on the Greek *ὀνομαστ-ικός*. The Greek form is referable to *ὀνομάζειν* ‘to name’, while *nōmināre* ‘to name’ is derived from *nōmen* ‘name, noun’. *ὀνομαστικός* originally meant ‘skillful in naming’, but it came to mean ‘nominative’ (*Greek-English Lexicon* 1996: 560). In *de Lingua Latina* 8.67.4, we also find *accūsā-tīvus* ‘accusative’, based on Greek *αἰτιατ-ικός*. In Latin, the base for this word is derived from *accūsāre* ‘to accuse’, corresponding to the Greek *αἰτιᾶσθαι* ‘to cause, accuse, censure’. The Greek is in fact called the ‘causative or causal case’, designating an object effected or brought about by a verb, as in ‘He made a chain’. Several scholars refer to Varro’s word as a mistranslation, based on a misjudgment of the causative value of the Greek verbal base which could mean both ‘cause’ and ‘accuse’. Coleman (1989: 83) states that the proper translation would have been *causātīvus* or *effectīvus*, either of which would reflect the true meaning of the Greek accusative case. Coleman (1989: 83) further notes that these terms appear side-by-side with the gerund forms in the text, with Varro saying *nominandī vel nominativum*, and the former term appears more often in the text. It appears that grammarians were just beginning to use the *-(t)īvus* suffix, but this suffix quickly spread throughout the discipline.

The other case names followed, although not all with a *-(t)īvus* suffix are morphological calques. In Quintilian, we find *da-tīvus* ‘dative’, based on Greek *δοτ-ικός*, formed from *datus* ‘given’, as is the Greek, from the verbal adjective *δοτός* ‘given’. The Greek and Latin are derived from the same PIE root, *\*deH<sub>3</sub>-* ‘give’ (de Vaan 2008: 174). In Quintilian, we also find

*genetivus* and *ablativus*, but these words are not morphological calques. *Genetivus* is derived from the root of *gignere* ‘to produce, give birth’ (*Oxford Latin Dictionary* 1982: 758). This adjective already existed in Latin, meaning ‘pertaining to reproduction’, and it took on the meaning of Greek γενετικός ‘genitive’. The older Latin term for ‘genitive’, *patricus*, had been a direct borrowing from Greek (Coleman 1989: 83). *Ablativus*, derived from the past passive participle of *auferre* ‘to carry off’, appears first in Quintilian, as well. This term could not be calqued from Greek, which did not have an ablative case. Earlier, Varro had referred to this case as the *Latīnus* ‘Latin’ or *sextus* ‘sixth’ case (Coleman 1989: 83, Schad 2007: 3). Gellius, at last, provides us with *vocā-tivus* ‘vocative’, formed from *vocāre* ‘to call’, morphologically calqued on the Greek κλητ-ικός. The Greek is derived from the verbal adjective κλητός ‘invited’, which may be referred to the common verb καλεῖν ‘to call, summon’. The growing popularity of the *-(t)ivus* suffix in the other technical areas and the ability to extend this formation to all case names and form uniform, Latin-based words allowed these calques to be successful.

The case names were not the only instances of the Latin grammarians utilizing the *-(t)ivus* suffix to form morphological calques on Greek grammatical words in *-ικός*. This formation grew throughout the Classical period and came to be highly successful in the post-Classical period, and we have adopted many of these words in English for our own grammatical terminology (Miller 2006: 204). In his *Institutio Oratoria*, Quintilian provides a number of other grammatical terms with the *-(t)ivus* suffix. As one example, at 9.3.19, we find *com-parā-tivus* ‘comparative’, referring to adjectives, corresponding to Greek συγκριτικός, with the *com-* prefix ‘together, with’ once again corresponding to *συν-* ‘with’. The Latin is derived from the verb *comparāre* ‘to compare’; the Greek is from the verbal adjective σύγκριτος ‘comparable’, which may be referred to συγκρίνειν ‘to compare’. At 6.10.4, Quintilian also provides us with *pas-*

*sīvus*, to describe passive verbs, based on Greek *παθητ-ικός*. This word is derived from the root of the verb *patī* ‘to undergo, endure’, as compared to the Greek *παθεῖν* ‘to suffer’. Both verbs are basic vocabulary items for ‘suffer’ in their respective languages. Not only did this Latin word become useful in grammar, but Apuleius used it to describe one ‘capable of feeling’. Later on, based on this formation, we find in the work of Maurus Servius Honoratus (fourth century CE) *neutro-pas-sīvus* ‘semi-deponent’ for *οὐδέτερο-παθετ-ικός*, with *-pass-* once again corresponding to Greek *παθεῖν*. As for the prefix, *οὐδέτερος* and *neuter* both mean ‘neither’. While this is not the word we inherit in English to describe verbs which are passive in some form but active in meaning, Latin grammarians following Servius utilize it (Schad 2007: 266).

However, it is not until the post-Classical period that the flowering of the Latin grammatical tradition comes about, with grammarians such as Terentius Scaurus (second century CE), Diomedes (fourth century CE), Donatus (fourth century CE), and Priscian (5th and 6th century CE), whom Robins (2003: 1247) calls “the most prolific and important member of the late Latin grammarians”. In this period, we find many more specific grammatical terms discussed and created, including a number of morphological calques. There are also a large number of semantic calques, several taken from the sphere of rhetoric or philosophy, and some entirely new creations or near-translations, inspired by Greek terms.

We may begin with a famous word. Proposed by Servius, *ad-iec-tīvus* ‘adjectival’ corresponded to *ἐπι-θετ-ικός* (Schad 2007: 17). The base in the Latin is derived from *iacere* ‘to throw’, or more likely in this case ‘to lay’. The Greek term is from *τιθέναι* ‘to place’. Latin *adiicere* meant ‘to lay next to, set in addition, add to’, corresponding to Greek *ἐπιτιθέναι*. Latin, prior to this time, did not seem to have its own word for ‘adjective’, but instead used Greek *epitheton* ‘epithet, adjective’. Servius, perhaps wanting to use the *-(t)īvus* suffix, wished to

create a new Latin word instead of borrowing the Greek adjective directly. Therefore, Greek *epitheton* became replaced with the neuter form *adiectivum*, leading to English ‘adjective’ today. The Greek itself became specialized to mean only ‘epithet’ (Schad 2007: 17). There was a competing adjective, *adiecticius*, but this word did not catch on, perhaps due to the productivity of *-(t)ivus* in grammatical terminology (Schad 2007: 16).

*Com-plē-tivus*, suggested by Priscian at 3.102.12, corresponds to *παρα-πληρωματ-ικός*, referring to conjunctions such as ‘*vero, autem, quidem, equidem, quoque, enim, nam, namque*’. Here, we see Latin *com-* corresponding to Greek *παρα-*, which can mean ‘beside, alongside’. The Latin and Greek verbal bases, *plēre* and *πληροῦν*, are both derived from *\*pleH<sub>1</sub>-* ‘fill, be full’ (de Vaan 2008: 472-3). The prefixed verbs correspond, Greek *παραπληροῦν* meaning ‘to fill up’ and Latin *complēre* ‘to fill, complete’.

We also find *con-iunct-ivus* ‘conjunctive’, formed from *coniungere* ‘to join together’, based on Greek *συν-ζευκτ-ικός* (Miller 2006: 212, Schad 2007: 87), with prefix *com-* ‘together, with’, *con-* before *j*, replacing Greek *συν-* once again (de Vaan 2008: 128). Another example which utilizes the *-iung-* verbal base is *dis-iunct-ivus* ‘disjunctive’, formed from *disiungere* ‘to separate’, based on Greek *δια-ζευκτ-ικός* (Miller 2006: 212, Schad 2007: 135). While we know *δια-* best as meaning ‘through’ in Greek, it could also mean ‘in different directions’, as here (*Greek-English Lexicon* 1996: 184), while Latin *dis-* means ‘apart, opposite’. The verbal bases in these words come from the same PIE root, *\*jeug-* ‘yoke’. Greek, utilizing a verbal derived from *ζευγύναι* ‘to yoke’, shows the result of the sound change *\*y- > z-*, which is associated with rustic semantics (Sihler 1995: 187).

We have two words for the same Greek term, both found first in Diomedes and later used by Priscian, but in different values. *Af-firmā-tivus*, indicating an affirmative verb or later a

conjunction, corresponds to *δια-βεβαιωτ-ικός*. The Greek verbal base is reflected in *βεβαιοῶν* ‘to confirm, establish’, even ‘to make good’. Latin *firmāre* means ‘to strengthen, fortify’. Schad (2007: 29) suggests that *ad-* ‘towards, next to’ can also serve to render Greek *δια-*, although the basic meaning of this word is ‘through’. However, *affirmāre* means ‘to assert, confirm’ in Latin, whereas Greek *διαβεβαιοῶν* means ‘to maintain strongly’. Schad (2007: 29) also suggests that *con-firmā-tīvus*, describing conjunctions or late adverbs expressing confirmation, is based on this same Greek term; here, the Latin is derived from *confirmāre* ‘to confirm’, where the prefix once again indicates intensity. While Diomedes presents these terms, Priscian also utilizes them, but he applies them to describe different parts of speech, suggesting a certain fluidity in both the Greek and the Latin terminology.

*In-clinā-tīvus*, proposed by Priscian for Greek *ἐγκλιτ-ικός* ‘enclitic’, is based on *inclināre* ‘to make sloping, bend towards’, and it comes from the same PIE root *\*klei-* ‘bend’ as Greek *κλίνειν*. The Latin verb does not occur without a prefix, however (de Vaan 2008: 121). In both words, the prefix is from *\*H<sub>1</sub>(e)n-* ‘in, on’. In *il-lāt-īvus* and *ἐπι-φορ-ικός*, the meaning of both roots is ‘carry’. In Latin, it is the suppletive past passive participle of *ferre* ‘to bear’, *lātus*, while in Greek, it is the verbal adjective *φορός* ‘bearing’. The prefixed verbs exist in Latin and Greek, *ἐπιφέρειν* ‘to bring’, and *inferre* ‘to bring in’.

Priscian utilizes *dubitā-tīvus*, based on *dubitāre* ‘to hesitate’, for either *διστακτ-ικός*, from *διστάζειν* ‘to hesitate’, or *ἀπορηματικός*, from *ἀπορεῖν* ‘to express doubt’. The Greek grammarians use both adjectives for various functions, and Priscian utilizes this term to describe the subjunctive or certain conjunctions like *an* or *ne* (Schad 2007: 142). *Sub-stant-īvus*, indicating substantives, corresponds to *ὑπ-αρκτ-ικός*. *Sub-* naturally replaces *ὑπο-*, as we have seen and will continue to see. In the Greek, *ἄρχεῖν* and *ὑπάρχεῖν* means ‘to arise, spring into

existence'. *Stāre* means 'to stand firm', and *substāre* also means 'to exist, stand firm, hold out'. *Ordinā-tīvus*, from *ordināre* 'to order, number', indicates ordinal numbers and is based on Greek *τακτ-ικός*, a derivative of *τάσσειν* 'to order' (Schad 2007: 279). *τάσσειν* found its primary meaning in the military value, but it could be employed as a term of grammar (Schad 2007: 279). *Per-fect-īvus* 'perfective' corresponds to *ἀπο-τελεστ-ικός*. There is a Greek verb, *ἀποτελεῖν* 'to complete, bring to an end', which is matched by Latin *perficere* 'to complete'. The verbal base of the Latin is derived from *facere* 'to do, make'. *Perficere* is a common word for 'complete' in Latin. In the Greek, the base verb is *τελεῖν* 'to accomplish'. *ἀπο-*, in certain compositions, can mean 'finishing off, completing' (*Greek-English Lexicon* 1996: 95).

There were alternatives to rendering *-ικός* by *-(t)īvus*, one such being *-ālis*, as seen in *ad-verbi-ālis* 'with the force of an adverb' for *ἐπι-ρρηματ-ικός*, derived from the Latin noun *adverbium* 'adverb'. The *-ālis* suffix was more suited to adjectives built from nouns, not verbs, and it had the meaning 'characterized by, pertaining to' (Fruyt 2011: 163, Miller 2006: 127). This suffix originated from the attachment of the PIE relational morpheme *\*li* to *ā*-stems, but this was extended over time to other stem types (Miller 2006: 127). *Ad-verb-ium* itself, Schad (2007: 25) suggests, is a calque on *ἐπί-ρρημα*, first seen at Quintilian 1.4.19. In the *adverbium-ἐπίρρημα* word group, the Greek is created from a deverbal noun, *ῥῆμα*, built to the root of *ἔρεῖν* 'to say', while the Latin noun *verbum* 'word' is derived from the same PIE root, *\*werH<sub>1</sub>* 'speak'. In Greek, *ἐπι-* signaled a number of positional meanings, such as 'on, upon'; *ad-* also had a number of locational meanings in Latin, such as 'at, towards, next to'. Latin utilizes *-ium*, which often attached to compounded deverbals (Miller 2006:72). A related adverb *ad-verbi-aliter* 'adverbial' was based on *ἐπι-ρρηματ-ικῶς* (Schad 2007: 24). Greek *-ως* was the most common adverbial suffix (Buck 1933: 349), while Latin *-ter*, related to the *-tero-* suffix in words of



contrasting relations, came to be used freely in forming adverbs from adjectives (Buck 1933: 351). *Cāsu-ālis* ‘that which has cases’ is based on *πτωτ-ικός*, derived from the noun *cāsus* ‘case’, related to *cadere* ‘to fall’, which had undergone semantic extension to reflect Greek *πτῶσις* ‘case, fall’, related to *πίπτειν* ‘to fall’. The Greek grammarians had envisioned the oblique cases as ‘falling off’ from the nominative case, hence extending the semantics of the verbal noun *πτῶσις* ‘fall’ (Schad 2007: 57). We find the noun *cāsus* in this meaning, as well as the adjective *cāsu-ālis*, for the first time in Varro (*Oxford Latin Dictionary* 1982: 283). We also see *loc-ālis* ‘relating to place’, derived from *locus* ‘place’, for *τοπ-ικός*, from Greek *τόπος* ‘place, region’. *Numer-ālis* comes from *numerus* ‘number’, while its Greek equivalent, *ἀριθμητ-ικός*, comes from *ἀριθμός* ‘number’. In this way, the Latin suffixes were sensitive to the part of speech of the base. When the Latin grammarians needed to utilize a noun to translate the base of the Greek adjective in *-ικός*, they used *-ālis*, when the formation was deverbal, they used *-(t)īvus*.

Another suffix widely used in Latin calques is *-(t)iō*, which was also built to the root or past passive participle stem of verbs to create verbal abstracts denoting acts or results and rendered Greek *-σις*, as we have seen in other terminology fields (Miller 2006: 97). An example is *prae-posit-iō* ‘the act of prefixing’ and eventually ‘preposition’, from *prae-pōnere* ‘to place before’, based on *πρό-θε-σις*. We have discussed the frequent rendition of *-θε-* by *-posit-*, from *pōnere* ‘to place’. The Greek term *πρό-θε-σις* originally meant ‘a placing in public (of a corpse), purpose, end, supposition’, which came to be used as a grammatical term (*Greek-English Lexicon* 1996: 676). The first use of *prae-posit-iō* in Latin is found in Cicero’s *de Inventione* at 1.42, where he describes the separation of prefixes from their stems. However, he later used it to describe a ‘preference, predisposition’, as well. Eventually, it came to be used specifically as a

grammatical term (*Oxford Latin Dictionary* 1982: 1437, Schad 2007: 315). The Latin verb *praepōnere* could also mean ‘to prefix’, as could the Greek verb *προτιθέναι* (Schad 2007: 313).

Another famous word, *prō-nōmen* ‘pronoun’ combined the prefix *prō-* ‘in place of’ and *nōmen* ‘name, noun’, based on the Greek *ἀντ-ωνυμία* (*Oxford Latin Dictionary* 1982: 1462, Sihler 1995: 243). Instead of borrowing the Greek word, the Romans, knowing Greek well enough to recognize the morpheme boundaries between the prefix *ἀντ-* ‘in place of, in the face of’, the noun *ὄνομα*, ‘name’, with the *o* lengthened in derivation, and the abstract noun ending *-ια*, substituted the corresponding Latin components. They utilized *prō-* ‘in place of’, from Indo-European *\*preH<sub>3</sub>-* ‘forth, in front of’, and *nōmen* ‘name, noun’ to form a new noun that mimicked the Greek in both construction and meaning (Sihler 1995: 427). It is important to note that the Greek prefix in this word, *ἀντ-*, had several meanings, including ‘in the place of, in exchange for’ and ‘opposite’ and Latin *prō-* was used only in the first two values in this word. Meanwhile, *ἀντ-ωνυμία* developed into the word *antonym* we know today, with the productive meaning ‘opposite’ of its prefix, yielding the definition ‘a word in opposite meaning’.

Another word Coleman (1989: 84) suggests as a morphological calque is *ac-cen-tus* ‘accent’, calqued on Greek *προσ-φδ-ία*, the *ad-* prefix corresponding to *προσ-*, the reduced *-cen-*, from *canere* ‘to sing’, corresponding to *-φδ-*, contracted from *ᾠοιδή* ‘song’, and the fourth declension suffix *-us* replacing *-ία*. Quintilian provides this word next to the Greek, suggesting it as an alternative. Apparently, Varro had only used the Greek term (*Oxford Latin Dictionary* 1982: 1501, Coleman 1989: 84). Coleman (1989: 84) notes that the morphological calque of this word is ‘semantically misleading’, since Latin did not have tonal accent as did Greek, but it was useful in the language, taking on additional meanings of ‘a blast, signal’ and ‘intensity’, and the loan word *prosōdia*, later on, took on the meaning ‘pattern of stress and intonation’.

There are a number of near-translations that seem to be based on Greek terms, as well. One example is *dē-cept-īvus*, which Priscian uses to describe words of deceiving such as *fallō* and which is based on Greek *δια-κρουστ-ικός*. The Latin word is from *dēcipere* ‘to deceive’, formed from *dē-* ‘from’ and *capere* ‘to seize’. The Greek verbal *κρουστός* derives from *διακρούειν*, which means ‘to knock’ but also in the middle voice ‘evade’, so the Greek word may be formed from this latter term. However, in either case, the base verb of the Greek does not quite correspond to the Latin, so the status of this word as a calque is in doubt.

In addition, we see several words from other technical terminology reused in the grammatical sphere. One example is *dēmōnstrātīvus* ‘demonstrative’, formed from *dēmōnstrāre* ‘to show, to point out’; we saw this word earlier in the sphere of rhetoric. Schad (2007: 118) suggests that in the grammatical sphere, the word is based on Greek *δεικτ-ικός*, without the prefix we saw on the rhetorical term. Indeed, Greek *δεικτ-ικός* means ‘demonstrative’ in the grammatical sense, while *ἐπι-δεικτ-ικός* is a rhetorical term meaning ‘for declamations’ (Lausberg 1998: 641). Since a rhetorical term had already been created utilizing the *-(t)īvus* suffix on a similar Greek word, the later grammarians felt comfortable appropriating it for their purposes. In addition to these importations, there were a number of semantic calques, including *cāsus* ‘case’ for *πτῶσις*, discussed above. We also see semantic extension in *tempus* ‘time’, which came to take on the meaning ‘tense’, as was the case with Greek *χρόνος* ‘time, tense’ (Schad 2007: 395).

Latin morphological calques in the grammatical sphere appear to have enjoyed success, because grammarians appear to prefer terms of their own language to those of Greek, often by adapting terms from other technical spheres to their own needs. While the proposed morphological calques were often successful, and we even inherit many of them in English, this

method of creating new terms was not necessarily the most popular method for the formation of grammatical terms. Many Roman grammarians also created terms that were merely 'inspired' by Greek formations or were entirely new, or when appropriate, they utilized a semantic calque.

## CHAPTER 6

### MEDICAL CALQUES

Langslow (2000: 29) notes that it is difficult to trace the beginnings of Latin medical terminology, and he explains that the field has a strong Greek background. Pliny the Elder, in *Naturalis Historia* 29.17, states that few Romans practiced medicine, abandoning it to the Greeks. Even among Romans who did not know Greek, medical writing that was not in this language seemed to garner little respect (Langslow 2000: 29). Langslow (2000: 29, 33) further suggests that it seems unlikely that there was a distinct group of Latin-speaking medici in the Roman world and also notes (1987: 189-90) that both Celsus and Pliny expressed regret over the lack of Roman medical terminology for their purposes. Langslow (2000: 77) later explains that Greek borrowing accounts for less than half the Latin medical terminology after the time of Celsus. Other methods for supplying terminology, especially semantic extension, became important for Roman medical writers. Some authors, such as Pliny and Cassius Felix, tended to use original Greek terms more freely than other authors, such as Celsus (Langslow 1987: 190). Such dissatisfaction with the medical language and the lack of a cohesive community compelled authors to use diverse terms for similar concepts. Langslow (2000: 30) notes that “variety, individualism, and competition marked the terminology”.

As Langslow (2000: 27-9) mentions, it is difficult to track trends in the medical language, since we are missing a large number of texts. Moreover, since there was no set medical ‘community’, the writers from whom we have the most texts seem to have their own preferences for Greek loan words, semantic extension, or neologisms (Langslow 2000: 113). In *Medical*

*Latin in the Roman Empire* (2000), Langslow focuses on the four most prolific authors of medical works. Celsus (first century CE) was admired for his “Latinity” in *de Medicina*. Langslow (2000: 47) states that Celsus catered to wealthy intellectuals interested in medicine. He appeared unselfconscious about writing in Latin, despite having few antecedents (Langslow 2000: 26). Scribonius (first century CE) was a practicing medical doctor (Langslow 2000: 50). It is possible that he was Greek or that his *Compositiones* was first written in Greek, and he then translated it into Latin (Langslow 2000: 51). Theodorus (fourth century CE) was a professional doctor, and he had written several of his works in Greek before he wrote them in Latin (Langslow 2000: 55). In the fifth century CE, Cassius Felix, a Christian writer, compiled medical wisdom of the Greeks into one volume. Cassius frequently explained Greek terms and provided a Latin equivalent, betraying the fact that by the fifth century Greek was less well-known to everyday Latin speakers (Langslow 2000: 39). Even so, after he offered the Latin equivalent of a Greek term, he often abandoned the Latin term in favor of the Greek. In addition, Caelius Aurelianus (fifth century CE) was one of the last major Latin medical writers, having written *de Morbis Acutis et Chronicis*. During the Republic, Cato, in *de Agricultura*, and Varro, in *Res Rusticae*, had also discussed medicines in a few chapters (Langslow 2000: 62). During the first century CE, Pliny the Elder, in *Naturalis Historia*, examined plants, animals, and minerals used in medicine (Langslow 2000: 62). The varied background of these authors and their divergent purpose led to a diversity of terms in the medical language.

Langslow (2000: 113) states that Latin terms are most prevalent over Greek loan words in the field of pathology. In this field, Greek terms had more prefixes and suffixes, which Latin writers were able to translate with appropriate, corresponding Latin morphemes. As one example, Pliny the Elder had created *suf-fūs-iō* ‘the welling up of an eye’ or, eventually, a

‘cataract’, made from *suf-fundere* ‘to pour on’ and *-(t)iō*, in place of Greek *ὑπό-χρ-σις* (Miller 2006: 75, Langslow 1987: 190). *Sub-* directly correlates with *ὑπό-* and *fundere* with *χεῖν*, both being the basic vocabulary elements in their respective languages for the meaning ‘to pour’. The later medical writers take up this term to designate specifically the swelling of the eye (Langslow 2000: 170-1, *Oxford Latin Dictionary* 1982: 1862). We may also look at *dē-stillā-tiō* ‘rheum’ for *κατα-στάγ-μα*. While the Latin is formed from the root of the verb, utilizing the *-(t)iō* suffix, the Greek is technically a verbal noun in *-μα*, which became one of the most productive deverbal formations in the language (Buck 1933: 320). The Greek verb *στάζειν* ‘to drop’ corresponds to *stillāre* ‘to fall in drops’. *Dēstillāre* in Latin means ‘to drip down, trickle down’, while in Greek, *καταστάζειν* means ‘to let fall in drops, pour upon’. After Pliny’s coinage, we find evidence for this word only later in Celsus (Langslow 2000: 162). In these cases, the widespread deverbal *-(t)iō* suffix was able to take the place of several types of Greek deverbal formations, as we have seen. Although we have evidence for morphological calques in this field, semantic calques are also plentiful, examples being *collectiō*, originally ‘a collection’, coming to take on the meaning ‘a collection of morbid matter’, and *morsus* ‘the act of biting’, which came to mean ‘the wound from the bite of an animal or insect’ (Langslow 2000: 170). Langslow (2000: 113) suggests that in this field both methods were possible, and we find few Greek loan words. Rather, we see many known Latin terms take on new meanings (Langslow 2000: 166-72).

The Greek ending *-ικός* is widespread in Greek medical terminology, as elsewhere in the language (Buck 1933: 344). Langslow (1987: 195-6) relates that, depending on the semantics of the word, medical writers utilized several different suffixes to translate Greek medical terms ending in *-ικός*. In the medical data, we find that *-ικός* formations were often built to verbal adjectives in *-τος*. For example, *ἐκ-τυλωτ-ικός* is built to the stem of *τυλωτός* ‘knobbed’, built to

the root of *τυλοῦν* ‘to make knobby’. To translate *-ικος*, Langslow (2000: 106) suggests that Cassius Felix utilized a word ending in *-icus* or *-ōsus*, meaning ‘characterized by, having the disease of’ when the Greek term denotes a patient suffering from a disease, as seen in his translation of *anhēl-ōsus* and *suspīri-ōsus* for *ἀσθματ-ικός*, all meaning ‘suffering from asthma’. Cassius utilizes both terms for the Greek in the same section of his work (Langslow 2000: 106). *ἀσθματικός* is a derivative of *ἀσθμαίνειν* ‘to breathe hard’. The Latin forms come from *suspīrāre* ‘to breathe’ and *anhēlāre* ‘to pant’, respectively. However, Langslow (2000: 106) states that both of these forms are rejected as equivalents for the Greek term. He (2000: 343-4) suggests that they may have appeared unusual since the *-ōsus* suffix in medical Latin generally attached to a specific disease, such as *rabiōsus* ‘suffering from rabies’, from *rabiēs*, originally meaning ‘madness’, while these examples reference common verbs ‘to breathe’ and ‘to pant’. In this case, the Greek term remained the most popular term in the medical language.

More successfully, Roman medical writers, including Cassius, typically used *-ālis* or *-āris*, meaning ‘characterized by, pertaining to’ for treatments of a particular body part or grievance, such as *ōr-ālis* ‘good for the mouth’, for the corresponding Greek *χ-ικος* (Langslow 2000: 345, 355). The word is based on Latin *ōra* ‘mouth’. The corresponding Greek term *στοματ-ικός*, meanwhile, comes from *στόμα* ‘mouth’. We find a grievance serving at the base of *tussicul-āris* ‘suffering from a cough’ for *βηχ-ικός*. The Latin form is derived from *tussis* ‘cough’, while the Greek is from *βήξ* ‘a cough’ (\**βηχ-ς*).

We find *-(t)ōrius* used in a specific way to translate Greek *-ικος*, as well as other suffixes. Miller (2006: 215-6) explains that this suffix complex is the result of adding the denominal adjective suffix in *-ius* to agent nouns in *-tor*, and meant originally ‘having the property of what a *-tor* actor does’ and eventually ‘connected with the event of x’. Celsus utilized this suffix five



times, Scribonius twice, and Theodorus five times, all within the field of therapeutics (Langslow 2000: 353). Cassius, however, expanded upon this suffix, utilizing it at least twenty-six times, in several instances to translate Greek words in *-ικός* (Langslow 2000: 353). He seems to have used this suffix to denote the effect a particular medicine or medical treatment would have or how it was intended to be applied (Langslow 1987: 199). In *audī-tōrius* for *ἀκουστ-ικός*, depicting treatment for the auditory passages, we see the Latin ending affixed to the stem of *audīre* ‘to hear’, while the Greek form is built to the verbal adjective *ἀκουστός* ‘audible’, related to *ἀκούειν* ‘to hear’. *Calēfact-ōrius* ‘capable of heating’, for therapeutic treatment, is derived from *θερμαντ-ικός*; *calēfacere* ‘to make hot’ is a derivative of *facere* ‘to make’ and *calēre* ‘to be hot’. The Greek is related to *θερμαίνειν* ‘to heat, warm’. Langslow (2000: 510) states that the earlier Theodorus used only the Greek term; however, we find the Latin term again in Marcellus (Langslow 2000:357). *Con-dīgest-ōrius* ‘promoting digestion’ is calqued on *συμ-πεπτ-ικός*. The Latin base is from *dīgerere* ‘to digest’. *-Πεπτ-* in fact is from the verb ‘to cook, to digest’ *πέπτειν*, from PIE root *\*pek<sup>w</sup>-*, which came to take on the meaning ‘to digest’ (Beekes 2010: 1174). Once again, while Greek has a verbal lexeme *συμπέπτειν*, no *condīgerere* exists in Latin. Cassius may have combined this prefix and verb for the first time in this calque. In *suf-fūmigā-tōrius* ‘to be used for fumigation’, the verbal base *suf-fūmigāre* means ‘to fumigate from below’, from *fūmigāre* ‘to smoke’, based on Greek *ὑπο-καπν-ιστός*. The Greek verbal base is derived from *καπνοῦν* ‘to turn to smoke’, but I was not able to find in Greek a true prefixed verb. *Relaxā-tōrius* ‘fit for slackening’, calqued on *χαλαστ-ικός*, is based on *relaxāre* ‘to slacken’, while the Greek is based on the verbal *χαλαστός* ‘relaxed’, based on *χαλᾶν* ‘to slacken’. *Ses-sōrius* ‘for treating the anus’ is derived from *sedēre* ‘to sit’, from PIE *\*sed-* (de Vaan 2008: 552). According to the double dental law, the *-d-* of *sed-* and the *-t-* of *-(t)ōrius* become *-ss-* in Latin.

The corresponding Greek term *ἔδρ-ικός* and the verb from which it is derived, *ἕζειν* ‘to sit’, come from the same PIE root *\*sed* (de Vaan 2008: 552). The verbal base of *re-spīrā-tōrius* ‘for respiration’, *respirāre* ‘to breathe out’, corresponds to the Greek *ἀνα-πνευστ-ικός*, based on *ἀναπνεῖν* ‘to breathe again’. The simplex verbs *πνεῖν* and *spīrāre* both mean ‘to blow’, the Greek having the additional meaning ‘to breathe’. Both *re-* and *ἀνα-* have the sense ‘again, back’ (*Greek-English Lexicon* 1996: 52). We see that Cassius made use of this suffix to specify treatments.

Yet, Cassius also seems to extend the suffix to other applications, such as *sternūtā-tōrius* for *πταρμ-ικός* ‘causing to sneeze’. *πταρμ-ικός* appears to be based on another verbal noun *πταρμός* ‘a sneezing’, related to *πταιρειν* ‘to sneeze’, the same meaning associated with Latin *sternūtāre*, the base of Latin *sternūtātōrius*. We also see *glūtinā-tōrius* ‘glutinous’ derived from *glūtināre* ‘to stick together’, corresponding to Greek *κολλητ-ικός*, derived from Greek *κολλᾶν* ‘to glue, cement’. We find these words several times in later medical writers, including the veterinary work of Pelagonius (Langslow 2000: 357). Moreover, Cassius extended the ending to translate words which still depicted treatments outside of *-ικός*. An example is *super-inunct-ōrius* ‘for smearing on top’ for Greek *ὑπερ-ἐγγρ-ιστος*. In this word, *inungere* ‘to smear’ has the same meaning as *ungere*. Greek *ἐγγρῖειν* similarly means ‘to rub, anoint’. We also see *supposit-ōrius* ‘that which is placed underneath’, indicating a suppository, for *ὑπό-θετ-ος*. In these terms, we find the past passive participles of Latin *pōnere* ‘to place’ and Greek *τιθέναι* ‘to place’. Langslow (2000: 357) relates that following Cassius, Marcellus employs this ending a few times to depict treatments; and we also find several instances in Oribasius. However, despite these translations, in most instances, Cassius introduces the Greek term alongside the morphological calque and ends up abandoning the calque in favor of the Greek equivalent. In the above cases,

only *audī-tōrius* is presented without a Greek equivalent (Langslow 2000: 356). Perhaps in writing for a Latin audience, Cassius felt the need to introduce a Latin term. Furthermore, Langslow (2000: 361-2) states that there were extensive borrowings into Latin of Greek terms with *-ικος*, so earlier authors may have chosen to go in this direction with such adjectives.

However, other authors seem to favor other suffixes, such as *-ōsus*, to translate Greek formations. Langslow (2000: 371) notes that Caelius Aurelianus (fifth century CE) in particular seemed fond of this suffix, and the words in which he used it often fell into the field of pathology, as well. For example, Caelius provides *tussicul-ōsus* for ‘coughing’, which Ernout (1949: 30) suggests is based on *βηχ-ώδης*. *Somn-ōsus* ‘sleepy’ may replace *ύπν-ώδης* or *ύπν-ωτικός*. *Sanguin-ōsus* ‘bloody’ Caelius made from *αιμ-ώδης*. The Greek adjective also designates the color ‘blood-red’. In *pituit-ōsus*, *pituita* ‘phlegm’ corresponds to *φλέγμα*, which first and foremost means ‘heat’, but also ‘inflammation’ and ‘phlegm’. *Carnōsus* ‘abounding in flesh’, from *carō* ‘flesh’, is based on *σάρκ-ωσις*, from *σάρξ* ‘flesh’. Pliny the Elder had employed this term, which Celsus later uses (Langslow 2000: 341). *Saliv-ōsus*, which Pliny had also provided, based on *salīva*, may have been inspired by *σιαλ-ώδης* ‘slavering’, from *σίαλον* ‘saliva’, or *πτυαλ-ώδης* ‘freely secreting saliva’ (Ernout 1949: 27). Celsus, meanwhile, provides us with *bīliōsus*, ‘full of bile’, on Greek *χόλ-ικος*. Scribonius takes up this term later on (Langslow 2000: 341). Langslow (2000: 340) relates that the *-ōsus* suffix was productive in all periods of Latin, so it was natural for authors to employ it, whether translating a Greek term or creating a new term.

A word deserving closer consideration is *felli-dūcus* ‘that which carries off bile’, from *χολ-αγωγός*, used by Caelius Aurelianus (Langslow 2000: 371). The second term of each is derived from one of the basic ‘lead’ verbs in its respective language: *dūcere* in Latin and *ἄγειν* in

Greek. However, one notices a different translation for Greek *χόλος* in *bīliōsus*, above (de Vaan 2008: 72). Langslow (2000: 153) states that some medical authors distinguish semantically between *bīlis* and *fel*; Celsus utilizes *fel* for animal secretion, while *bīlis* is reserved for humans. However, Caelius Aurelianus utilizes *fel* for the human secretion, as well (Langslow 2000: 153).

Meanwhile, in medical terminology, compounds may once again utilize the *-ium* suffix, particularly for tools, as seen in *auri-scalp-ium* ‘ear-pick’ for *ὄτο-γλοφ-ίς* and *denti-fric-ium* ‘tooth-powder’ for *ὀδοντό-τριμμα* (Langslow 2000: 276). In the former case, Celsus refers to the same instrument as a *specillum oriculārium*, the ‘instrument of an aurist’. It is possible that the calqued term was more popular, as it appears elsewhere in literature (Bilquez 2015: 134-5). Both *scalpere* and *γλόφειν* mean ‘to carve, cut’, but the Greek compound utilizes the derived noun *γλοφίς*. In the case of *ὀδοντό-τριμμα*, the first term is the oblique stem of *ὀδούς* ‘tooth’, and the second member is the noun *τριμμα* ‘that which is rubbed’, derived from *τριβεῖν* ‘to rub’. In the case of *denti-fric-ium*, *fricium* itself occurs in Latin meaning ‘a powder for rubbing’, from *fricāre* ‘to rub’. Another *-ium* word is *filī-fic-ium* ‘the bearing of children’ for *παιδο-ποίη-σις*, with the second terms for both compounds from *facere* ‘to make’ and *ποιεῖν* ‘to make’, respectively. This word is a hapax in Caelius Aurelianus. Typically, with sexual or potentially sexually-related terminology, we find euphemisms and semantic extensions, such as *membrum* ‘limb, genital member’ (Langslow 2000: 163).

The prefix *sub-* is used in medical terminology to indicate the sense ‘slightly’ and lessen the effect of an adjective or adverb, a value seen already in Plautus (Langslow 2000: 336). Celsus, in particular, utilized this prefix (Langslow 2000: 337). One finds, for example, *sub-pallidus* ‘somewhat pale’ for *ὑπό-χλωρος* and *sub-ruber* ‘reddish’ for *ὑπ-έρυθρος*. *Ruber* and *έρυθρος* are derived from the same PIE adjective *\*H<sub>1</sub>rudh-ro-*, with the ruB1 rule taking effect in

Latin. In the case of *sub-pallidus* ‘somewhat pale’ calqued on *ὑπό-χλωρος*, in Greek, *χλωρός* means ‘pale green, yellow’, while in Latin, *pallidus* means ‘pale’; so the employment of the Latin term to translate the Greek was straightforward.

Body parts rarely seemed to call for morphological calques. These tended to be basic vocabulary elements in Greek, Latin, and other IE languages (André 1991: 27-30). However, when a Greek body part is combined with a prefix, we see some instances of Latin calquing the Greek. These called for a simple exchange of prefixes depicting size, number, or place. *Parvi-collis* ‘having a small neck’ is based on Greek *μικρο-τράχηλος*, with Greek *μικρο-* ‘small, petty, trivial’ matched by Latin *parvi-* ‘id’, and Greek *τράχηλος* ‘neck, throat’ by Latin *collum* ‘neck’. Similarly, Latin *retro-caput* ‘back of the head’ goes with Greek *ὀπισθο-κέφαλον*, both words utilizing the basic terms for ‘head’ in their respective languages, and Latin *retro-* ‘back’ recapitulating Greek *ὀπισθο-* ‘back’. *Bi-capita* ‘two-headed’ goes with Greek *δι-κέφαλος*, with the prefix derived in each case from PIE *\*dwi* (de Vaan 2008: 71, Forston 2010: 147). *Sub-venter* also fits into this category; André (1991: 229) suggests that this word could translate Greek *ὑπο-κοίλιον* or *ὑπο-γάστριον*, both of which mean ‘the lower belly’. In Greek, however, *κοῖλος* means ‘hollow’ while *γάστριον* more precisely means ‘little belly’, a diminutive of *γαστήρ* ‘belly’. Latin *venter* can also mean ‘womb’ (de Vaan 2008: 662). While morphological calques were in most instances not necessary, even impossible, since most body part words were basic vocabulary items in IE languages, Latin authors were inspired to form calques when the body part term had a prefix in Greek.

However, there were also a large number of semantic calques which took the place of Greek words when it appeared difficult to parse the Greek morphemes into suitable Latin (Langslow 2000: 113). One sees this phenomenon in *impetus* ‘the onset of a disease’ but also

‘attack’; *plaga* ‘an incision’ but also ‘strike’; or *sūtūra*, which came to take on the meaning ‘cranial suture’, based on the Greek model, *ῥαφή* (Langslow 2000: 141). These are only a few examples<sup>15</sup>. Celsus and Cassius discuss the preferred process of utilizing a word with focal meaning *x* to indicate a medical meaning *y* (Langslow 2000: 142). These semantic calques encompass names for bones, body parts, various diseases, and more; semantic calquing and euphemisms were also favored for sexual terminology. A number of terms also called for periphrastic translations, such as *timor aquae* for *ὕδρο-φόβας* (Langslow 1987: 194). Otherwise, the Greek loan word would have to suffice, especially for an audience which appeared to prefer the medical writing of the Greeks. Much depended on authorial preference, as well (Langslow 2000: 112-3, 206). While several morphological calques appear in medical writing outside of their original coinage, others were abandoned for the Greek term, or later medical authors did not take them up.

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<sup>15</sup> See Langslow (2000), Chapter 3, for a full discussion.

## CHAPTER 7

### EARLY CHRISTIAN CALQUES

While Latin became replaced by its daughter Romance languages throughout the first millennium, it remained the main language for learned communication in Europe into the second half of the second millennium (Burton 2011: 486). During this time, Christian writers were to become the major Latin writers, particularly beginning in the fourth and fifth centuries CE. However, while they used Latin for informed writings, Christian scholars had distinct knowledge of the Greek New Testament, and early on, doctrines were written and councils were conducted in Greek (Burton 2011: 488, Dihle 1994: 351). Close reading of Greek texts and bilingualism in the Greek language allowed for Greek to affect Latin in several ways and for Greek words to continue to infiltrate the language (Blaise 1994: 7, Burton 2012: 488). Christian Latin writers employed rare words, Greek terms, neologisms, and morphological calques which may not have been as acceptable in Classical Latin (Burton 2011: 487). Lapidge (2005: 324) states that “Christianity was hugely productive in generating a new vocabulary of compounds”. Using this language to reach scholars and new believers alike, the Christian writers proposed several morphological calques. Many of these words were used in place of the Greek, while others coexisted with the Greek term in Christian texts.

Tertullian (160 - 220 CE) was the first author to present an extensive corpus of Christian Latin literature (Dihle 1994: 351). He embraced both law and philosophy, so he was well acquainted with the literature of Cicero, Seneca, and others (Von Albrecht 1997: 1528). Dihle (1994: 352) states that despite Christian doctrine being conducted in Greek almost exclusively at

the time, Tertullian simplified Biblical messages into common Latin expressions; but he enjoyed creating new words, as well. Miller (2012: 194) further confirms that he shaped the language of Christian literature to come. As related by Palmer (1961: 190), Jerome and Augustine maintain certain vulgarisms in their renditions of the Scriptures, and Augustine states “A man who is asking God to forgive his sins does not much care whether the third syllable of *ignōscere* is pronounced long or short”. With this attitude by certain Christian writers, we find in our texts a mixture of morphological calques, semantic extensions, and Greek borrowings. Linguistic pride in the Latin language, paired with the desire to pay homage to older Greek words and the development of new lexical items, led to new formations. Burton (2011: 489) and Palmer (1961: 184) note that borrowing from Greek is particularly successful for nouns, as seen in *angelus* (ἄγγελος) and *baptismus* (βαπτισμός). Palmer (1961: 186) states that concepts such as ‘baptism’ or ‘angels’ were foreign to the pagan Romans and therefore were borrowed before the period of Vulgar Latin.

Meanwhile, in morphological calques, one sees a continuation of several compound formations popularized by the Roman poets and other early writers. For example, we see *-fer* in *spīriti-fer* ‘spirit-bearing’ or ‘inspired’, and *-pēs* in *ūni-pēs* ‘having one foot’. In the former word, once again *-fer* translates *-φορος* in *πνευματο-φόρος*. In the first member, Latin *spīriti-* renders the oblique stem of Greek *πνεῦμα* ‘wind, air, spirit’. This word appears first in the writings of Ignatius of Antioch (second century CE). *Spīritus* became a significant word in Christian Latin texts, belonging in the top 200 most frequently used words (Burton 2000: 173). The same cannot be said for Greek *πνεῦμα* in Latin writing, and derivations from *spīritus* were successful in Christian Latin. Meanwhile, we can see a direct correlation in *ūni-pēs* for *μονό-πους* ‘one-footed’. This Latin word appeared in various Biblical contexts, including the



classification of animals to discussions of the gods to metrics (Paroli 2009: 299, 301). Perhaps since nouns in *-pēs* had antecedents in Latin, writers felt comfortable utilizing this calque. By contrast, we see *μονόφθαλμος* ‘one-eyed’ translated a few ways in Christian Latin, such as *ūnō oculō* or *luscus* (Paroli 2009: 287-8), even though there are several examples of *-oculus* as the second term of a compound (Lindner 2002: 126). There were several words with the first term *mono-* in Latin (Lindner 1996: 115), but not nearly as many with *ūni-* (Lindner 1996: 196-9).

One also sees among the creations of the religious language a number of *omni-* formations, such as *omni-pavus* ‘all-fearing’ and *omni-form-is* ‘of all shapes’ and even ‘the universe’. The former word stands for *παντο-φόβος*, with the oblique stem of *παν-* before a consonant. In the Latin, *pavus* is derived from *pavēre* ‘to be struck with fear’. The coiner perhaps chose this word over words like *timēre* ‘to be afraid’ due to its stronger semantics. *Pavēre* is also a popular word in Classical Latin, and it grows in usage in the Christian and later language, according to *Perseus*. One also sees several calques on *-γεν-ής* once more, with *ossi-gen-ius*, utilizing the *-ius* adjective suffix, which forms primary adjectives and adjectives derived from substantives (*Oxford Latin Dictionary* 1982: 986). This is a change from *-genus*, which we saw in Roman poetry earlier, perhaps used in order to make the word more clearly adjectival (Fruyt 2011: 164). Once again there are *multi-* formations, including *multi-loqu-ium* for *πολυ-λογ-ία*, where we see *-loqu-* ‘to speak’ standing for *-λογ-* once more. The compound has been extended in *-ium*, which often attached to compounded deverbals, as seen above (Miller 2006: 73). *-Cīda* reappears in *domini-cīda* ‘lord-killer’ based on *κυριο-κτόνος*, referencing *dominus* ‘lord, master’. One finds other compounds such as *alti-thronus* ‘enthroned on high’ for *ὕψι-θρονος*, but the second term appears to have been an original Greek borrowing, so one will want to regard this as a loan blend (*Oxford Latin Dictionary* 1982: 1939). Being well acquainted with

the prestigious Latin poets and with religious Greek writings that utilized such compounds, Christian authors likely felt comfortable creating and utilizing familiar compound terms and formations in this way.

However, there are a number of new compound adjective and noun formations, as well. The Christian authors perhaps became more reliant on compounding due to close reading and translating of the Greek New Testament and other religious writings. For example, one finds *sēmini-verb-ium* for *σπερμο-λόγ-ος*. The Greek word originally meant ‘the picking up of seeds’, describing the actions of birds. However, over time, it came to mean ‘the babbling of words’. Latin copies the first term, exchanging *sēmen* ‘seed’ for *σπέρμα* ‘seed’. In the second term of the compound, Greek *-λογ-*, from *λέγειν*, originally meant ‘collecting’. However, the Latin coiner associated *-λογ-* with *λόγος* ‘word’ and chose *verbum* ‘word’ instead. Therefore, the calque only took on the meaning of ‘babbling’. One also finds *dei-vir-īlis* ‘of a man of God’, with the *-īlis* suffix, indicating ‘relating to, like’, used to reflect *-ικός* in Greek *θε-ανδρ-ικός* (Miller 2006: 138). While I could find no evidence for an original compound in Latin or Greek, as in *\*deivir* ‘a man of God’ or *\*θεανηρ*, this does not mean Greek and Latin speakers did not have the ability to form such new compound adjectives. *Deō-decēns* ‘suitable for a god’ is the sum of its parts, based on *θεο-πρεπής*, with *decēns* the present active participle of *decēre* ‘to be suitable’ corresponding to Greek *πρέπειν*, which means ‘to be conspicuous’ but also ‘to fit, beseem, suit’. Both the Latin and Greek are dependent compounds. *Mundi-ficā-tiō* ‘creation of the world’ is another unique formation based on *κοσμο-ποι-ία*. *Mundus* ‘universe, world’ is used to translate Greek *κόσμος*, which first meant ‘orderly arrangement’, but after Pythagoras came to mean ‘universe, earth, mankind’ (de Vaan 2008: 395, Beekes 2010: 888). The Greek compound term utilizes the root of the verb *ποιεῖν* ‘to make’, while the Latin uses a formation based on *-ficāre*, a

secondary derivative of *facere* ‘to do, make’ (*Oxford Latin Dictionary* 1982: 696). Another unusual formation is *secundo-prīmus* ‘?’ for *δεύτερο-πρωτος*. Harden (1921: viii) states that several authors separate this compound into two words. Indeed, it seems unusual for Latin to place two numerical words into the same compound. In this word, *secundus* ‘second, following, next’ replaces *δεύτερος* ‘second’, while *prīmus* translates *πρωτος* ‘first’. Despite these new, useful compounds, Blaise (1994: 5) relates that adjectives based on compound Greek terms could be translated into one or two words, as is the case with *deō amābilis* ‘dear to God’ for *θεο-φιλής*. If the formation, such as those ending in *-form-is*, *-pēs*, etc. already existed, it seemed easy to translate the Greek word into a compound Latin formation, but in other instances translation into two Latin words was preferred.

A famous morphological calque that emerges from the period of Ecclesiastical Latin is *com-pas-siō* ‘sympathy’ for *συμ-πάθε-ια*. The verbal base is related to *παθεῖν* ‘to suffer’ in Greek and *pati* ‘to undergo, endure, suffer’ in Latin, an exchange we have seen before. The loan word *sympathīa* had long existed in the Latin language, although it did not garner a huge number of Classical uses<sup>16</sup>; one finds it in Varro’s *Menippea* at 409 and Cicero’s *de Divinatione* at 2.143 (*Oxford Latin Dictionary* 1982: 1895). Of course, we inherit both words in English.

A few words may seem to be original Latin formations, but scholars still cite them as calques. One is *discent-ia* ‘a learning’ for *μάθη-σις*, provided by Von Albrecht (1997: 1539). The base of the Latin word is derived from *discere* ‘to learn’, corresponding to Greek *μανθάνειν*, both the most frequent words in their respective languages for ‘to learn’. It is true that this abstract noun did not exist in the language before Tertullian, so, perhaps inspired by the Greek, he devised the Latin word, even though Latin already had nouns meaning ‘learning’, such as *ērudītiō*. Moreover, the verb *discere* would have been well-known to speakers, being both

<sup>16</sup> *Sympathīa* appears 8 times in the *Perseus* database.

essential and very common in the language, and Von Albrecht (1997: 1539) relates that Latin authors “no longer had to blush” at new Latin terms. Another example is *re-minīscēt-ia* ‘reminiscence’ for ἀνά-μνη-σις, which Von Albrecht (1997: 1539) also suggests Tertullian calqued. The Greek base of this word may be referred to ἀναμνήσκειν ‘to remind’ or in the mediopassive ‘to remember’. As for the Latin, the base is a deponent verb, *reminīscī* ‘to recall’, derived from the root of *meminī* ‘to remember’, of similar meaning. This may be another case where the Latin coiner chose a prefixed verb in order to better reflect the Greek formation, as the Greek verb has the prefix ἀνα-, which can mean ‘back, again’, as does Latin *re-*. Another word coined by Tertullian is *con-cupiscent-ia* ‘longing, desire’ for ἐπι-θυμ-ία. We in fact see this word a number of times in *Perseus*, with Tertullian using it 5 times in his *Apologeticum*. Here, too, Latin already had words for ‘desire’, such as *cupiditās*. However, Tertullian referenced the verb *concupiscere* ‘to desire ardently’ to form this word, with the intensifying prefix *con-* (*Oxford Latin Dictionary* 1982: 383). It is a *-scō* derivative of the verb *concupere*, indicating inchoative force (*Oxford Latin Dictionary* 1982: 392, 1707). The Greek, however, is derived from ἐπι-θυμῆν ‘to set one’s heart upon’. Here, the prefix ἐπι-, in addition to possessing the spatial value ‘upon’, is a transitivizer. Burton (2011: 491) also cites *super-inten-tor* for ἐπί-σκοπ-ος, ‘overseer’ in secular Greek, ‘bishop’ in Christian use, but he relates that this word, which Augustine used a few times, did not take off until Protestant literature. Instead, very early on, Christian authors borrowed the word as *episcopus*, and Tertullian utilizes it a number of times. It took on Latin derivational morphology, as well, as seen in *episcopātus* ‘episcopacy’. Christian writers also developed various epithets for the term, such as *dispensātor* ‘steward’ or *praeses* ‘one in charge’. In the calqued word, *super-intendere* meant ‘to have care over’, corresponding to Greek ἐπι-σκοπεῖν ‘to look upon’, but it could also mean ‘to watch over’. Since the Greek was

well-established fairly early in the Christian language, and it even acquired Latin derivational morphology, the Latin calque did not succeed until much later.

Burton (2011: 489-90) states that verbal calques were particularly successful and replaced several Greek terms, as seen in *glōri-ficāre* ‘to glorify’ for *δοξά-ζειν* and *dei-ficāre* ‘to deify’ for *θεο-ποιεῖν*. *-fic/-fac-* indicated a causative change of state, and *-ficāre* verbs became popular in later Latin, English, and Romance languages (Miller 2006: 243). This growth may have contributed to the success of these particular words, which seem to be primarily denominal and deadjectival formations (Miller 2006: 243). The basic word *deus* ‘god’ replaces Greek *θεός* in *dei-ficāre* ‘deify’ for *θεο-ποιεῖν*, with the Greek utilizing *ποιεῖν* ‘to make’. Another word in this vein is *vīvi-ficāre* ‘to bring back to life’, based on Greek *ζωο-ποιεῖν*. The first term of these, Greek *ζωός* ‘alive’ and Latin *vīvus* ‘alive’, are derived from the same PIE root *\*g<sup>w</sup>iH<sub>3</sub>*. (de Vaan 2008: 685-6). However, *-ficāre* formations could also translate Greek verbs with a factitive sense that did not utilize *ποιεῖν*. One example is *sancti-ficāre* ‘to sanctify’ for *ἀγιά-ζειν*. In Latin, the first term is derived from the adjective *sanctus* ‘holy’, replacing Greek *ἅγιος* ‘holy’. Fruyt (2011: 171) further relates that *beāti-ficāre* ‘to make blessed’ replaced *μακαρ-ίζειν*, with *beātus* ‘blessed, happy’ replacing *μακάριος* ‘happy, blessed’, as we have seen previously.

However, Burton (2011: 489) notes that a number of Greek verbs with *-ιζειν* are borrowed, as seen in *βαπτίζειν* ‘to baptize’ or *δαιμονίζειν* ‘to be possessed by demons’; these forms were acceptable, he states, because this verbal suffix, borrowed from the Greek, had been present in the Latin language since the time of Plautus. In these examples, there was no acceptable religious term or equivalent, several of these concepts being foreign to the Roman world at the time, and noun bases from which these Greek words were derived had been borrowed into the language, as well (Palmer 1961: 186). Burton (2011: 489) provides an

example where a calque was overtaken by the original Greek term: *εὐ-αγγελ-ίζειν* ‘to tell good news’ becomes *eu-angel-izāre*, winning out over *bene-nuntiāre*. However, Burton (2000: 133) also provides *bene-placēre* ‘to please well’, which succeeded over *εὐ-δοκεῖν*. Here *placēre* ‘to please’ corresponds to *δοκεῖν*, meaning ‘to expect’ but also ‘to seem good’. In this case, the concatenation of *bene* ‘well’ and *placēre* ‘to please’ may have seemed more natural in Latin than *bene* and *nuntiāre*, which one may interpret as ‘to announce well’.

In order to reach other followers who spoke Latin every day, Christian writers often created new Latin terms, either by morphological calquing or semantic extensions, since Latin was increasingly becoming the language of education. We see that Tertullian created a number of new words, even when Latin already had several words of similar semantics, in order to better recapitulate the Greek or create a specifically Christian term. Moreover, Christian writers, perhaps inspired by the formations of the poets and other Classical Roman writers, appeared willing to reflect Greek compound words exactly, due to their close reading of Greek religious texts. We also see the growth of particular suffixes, such as the *-ficāre* suffix to translate Greek verbs in *-ίζειν* and *-ποιεῖν*. A number of borrowed Greek terms appear in Christian Latin, but these had infiltrated the Latin language early on, especially when the pagan Romans did not yet have terms for such concepts.

## CHAPTER 8

## ADDITIONAL TERMINOLOGY FIELDS

There are a number of terminology fields for which I did not find as many morphological calques as I expected. It is possible that for some of these fields, there are in general fewer Latin texts, and therefore fewer morphological calques, or some fields are lacking in morphological calques on Greek terms generally. The Greeks may have not made as many discoveries in these fields as the Romans did, so the Romans could not borrow terminology, or the Romans did not make many advancements in the field, so they continued to use Greek terms. If I did not find a sufficient number of morphological calques in a particular field, I have decided to leave these fields for future investigation, but I provide the words I have found here, the corresponding Greek word, and historical and morphological notes.

The Romans developed an advanced legal system (Mattila 2006: 125). Watson (1991: 3) calls Rome's system of private law one of its greatest legacies, and Powell (2011b: 464) states that Roman law was "from the start largely a homegrown product". Perhaps due to the superiority of the Romans to the Greeks in this area, there seem to be fewer examples of legal terminology calqued from Greek. Nevertheless, some scholars suggest a few possibilities. The word *sub-vadēs*, plural for *sub-vas* 'one willing to stand on bail' appears on the Latin Twelve Tables. The base of this word, *vas*, means 'bail'. Bader (1962: 76) suggests that this is a calque on *ὑπ-έγγυος* 'under surety', but, as Crawford (1996: 597) explains, the structure of the proposed word is different, with the second term being an adjective *έγγυος* 'secured'; but perhaps the Latin was an inspired translation. Similarly uncertain is *im-pūne*, possibly calqued on Greek *νη-ποινεί*,

‘with impunity, without punishment’. Sihler (1995: 64) explains that the Latin word could have easily developed on its own. He states that a Proto-Italic *\*ŋ-poyni*, with *\*oy* becoming *ū* and *\*ŋ* assimilating to the following labial and developing an *i*, could have led to such a form.

Otherwise, I have not observed a large number of legal calques, despite Coleman (1989: 83), who says that the *-(t)īvus* suffix we have seen above in other technical languages came to appear here, too.

Vitruvius’ *de Architectura* provided several Latin equivalents to Greek terminology, although few appear to be true morphological calques. For Greek words in *-ώδης*, he does provide words in *-ōsus*, such as *bitūmin-ōsus* ‘rich in bitumen’, calqued on *ἀσφαλτ-ώδης*, and *terr-ōsus* ‘rich in earth’, calqued on *γε-ώδης*. In his text, Vitruvius also provides words inspired by the Greek, not quite strict morphological calques, such as *scansōrius* ‘fit for climbing’ for *ἀκροβατικός* ‘fit for mounting’ at 10.1.1. There are a number of Greek loan words, as well. There were perhaps few words which involved precise morphological calquing in the sphere of architecture, but few architectural texts have survived.

In nautical terminology, Palmer (1961: 81) states that there appears to have been an “inexhaustible flow” of Greek words. However, calques are not completely absent, including *gubernā-tor*, a helmsman/pilot, for *κυβερνή-της*, composed of *gubernāre* ‘to steer, control’ and the agent suffix *-tor* (Miller 2006: 91). The *-tor* agentive suffix became one of the most productive suffixes in Latin (Miller 2006: 91). This suffix was inherited from Indo-European *\*tor*, and Greek also inherited it as *-τωρ*, as seen in *δότηωρ* ‘giver’ (Miller 2006: 91). However, in the original Greek word here, we see a different agentive ending, *-της*, which denotes a person or instrument which carries out the action of the verb (Holton, Mackridge, and Philippaki-



Warburton 2012: 328). But *-tor*, being so popular in Latin, was the natural translation choice. The Latin verbal base is a very old borrowing from Greek *κυβερνᾶν* ‘to steer’.

Geometry is another area in which we are able to find morphological calques. For example, *circum-caes-ūra* in Latin means ‘surface outline, contour’, and it appears in Lucretius at 3.219. This word is calqued on *περι-κοπ-ή*, originally a ‘cutting all around’, but eventually, ‘an outline’. In Latin, the suffix *-(t)ūra* implies a resultative noun, here of *caedere* ‘to cut’ (Miller 2006:118). The *Oxford Latin Dictionary* (1982: 319) states that *circum caedere* was construed as two words, but it was eventually replaced by *circumcīdere*. Meanwhile, *περι-κόπτειν* ‘to cut around’ was a true prefixed verb in Greek. The Greek prefix *περι-* ‘around, about, beyond’ is built to PIE *\*per-* ‘forward, through’ and is cognate with Latin *per-* (de Vaan 2008: 459, Beekes 2010: 1176). The Latin prefix *circum-* ‘around’, meanwhile, is probably the old accusative singular of *circus* ‘circle’. *Circum-caes-ūra* is rare, however, appearing only twice, both times in Lucretius, according to *Perseus*. Another geometrical term is *rēcti-angulum* ‘rectangle’ based on Greek *ὀρθο-γώνιον*. The first term of these compounds, *rēctus* and *ὀρθός*, both mean ‘straight’, but also ‘correct’, while the second terms both mean ‘angle’. According to Lindner (1996: 154), this word is late, first found in the work of Isidore of Seville, who lived in the fifth and sixth centuries CE.

Langslow (1987: 190) states that the Greeks were more advanced than the Romans in the field of biology. Scholarship seems to be quiet on Pliny the Elder’s language and use of Greek, Latin, and other terminology. However, I have found several morphological calques from him. A famous one is *īn-sectum* ‘insect’ for the Greek *ἔν-τομον* of the same meaning. The Greek may be referred to *ἐν-τέμνειν* ‘to cut in, engrave’, while the Latin is based on *īn-secāre* ‘to make an incision, cut’. The Latin appears to be derived from the past passive participle of the verb; the

Greek is from a verbal adjective meaning ‘cut into pieces’. Interestingly, I found three words which involved *-folium*, all of which are coined by Pliny. One is *aqui-folium* ‘having prickly leaves, hollywood’ for *ὄξύ-φυλλον*; the first term of the Latin is derived from *acus* ‘sharp’, a cognate of Greek *ὄξύς* ‘sharp’. In *lāti-folium* for *πλατύ-φυλλον* ‘a plant having broad leaves’, the first term in the Latin is *lātus* ‘broad’, in the Greek, *πλατύς*. One also finds *tri-folium* ‘three-leafed clover’ for *τρί-φυλλον*. We see several more words in *-ōsus* from Pliny, as well, describing plants or landscapes, such as *cavern-ōsus* ‘full of hollows’ for *ἀντρ-ώδης*, *harēn-ōsus* ‘sandy’ for *ἡμαθ-όεις*, *silv-ōsus* ‘woody’ for *ύλ-ήεις*, and *petr-ōsus* ‘rocky’ for *πετρ-ώδης*. Once again, we see the wide usage of *-ōsus*, and we see basic Latin vocabulary like *silva* ‘forest’ and *petra* ‘rock’ translating basic Greek vocabulary, *ύλη* ‘forest’ and *πέτρος* ‘stone’.

Pelagonius (fourth century CE) wrote the *Ars Veterinaria*, which especially concerned horses. Veterinary vocabulary may have also used medical calques, but Adams (1995), the premiere work in this field, seems to cite few of these. One appears to be *hord-iārī*, a denominative deponent verb meaning ‘to suffer indigestion from barley’. This verb is derived from Latin *hordeum* ‘barley’, just as the Greek *κριθ-ιᾶν* ‘to suffer from indigestion’ is derived from *κριθή* ‘barley’. Another word Adams (1995: 240-1) mentions is *aquātilia* ‘aquatic animals, plants’ for *ύδατίδες*, but the adjective *aquā-tilis* ‘of water’ had appeared in Latin as early as Varro (*Oxford Latin Dictionary* 1982: 157), so this may rather be a semantic extension.

There are a number of interesting words I came across which did not seem to fall into a particular semantic sphere. One is *vulpīnārī* ‘to play the fox’, possibly based on Greek *άλωπεκί-ζειν*, cf. Greek *άλώπηξ* ‘fox’, while the Latin seems to be deadjectival, from *vulpīnus* ‘belonging to a fox’ (Kajava 1999: 20). Mullen (2013: 80) suggests that *aqui-ferās*, found on the Amelieles-Bains tablet in the Pyrénées-Orientales, may be a calque on *ύδρό-φορος*. We see color

compounding in *nigri-color*, which may literally mean ‘black-color’, but just as the Greek term *μελάγ-χρους*, it came to mean ‘swarthy’ in Solinus (third century CE). This formation of compounding colors has precedents in Latin, as seen in *multicolor* ‘of many colors’ in Pliny the Elder (Lindner 2002: 75). It seems likely that all or several of these color terms were calqued on Greek formations, although I did not find sources stating the Greek origins of these words. Klingebiel (1989: 27) suggests two words, *genu-flectere* based on Greek *γονυ-κλίνειν* and *genu-flexiō* (*genu-flekt-tiō*) based on Greek *γονυ-κλισία*, as morphological calques. These terms utilize *genu-* ‘knee’, corresponding to Greek *γονυ-*, from PIE *\*gʷon-u-*, and *flectere* ‘to bend’, corresponding to Greek *κλίνειν*. One last very late word is *flōri-leg-ium* ‘an anthology’ or, quite literally, ‘a collection of flowers’, which was formed in the seventeenth century, although we of course today use *anthology* (*Merriam Webster*). It was based on the familiar word *ἀνθο-λογ-ία*. The bases, *-leg-* in Latin, *-λογ-* in Greek, are from the same PIE root *\*legʷ-* ‘collect’ (de Vaan 2008: 332).

## CHAPTER 9

### CONCLUSIONS

From the data I have gathered, I would like to elaborate on Coleman's 1989 conclusions on morphological calques in "The Formation of Specialized Vocabularies in Philosophy, Grammar, and Rhetoric." Morphological calques seemed able to transcend the boundaries of their fields of coinage if there was a semantic need that had not yet been filled in Latin, as in the case of *sapient-ia*, *magn-animus*, and *quāl-itās*. Particularly interesting in this regard are compound words, such as *omni-potēns*. Even though compounding in everyday language and in prose writing did not appear as commonly as in high poetry, this by no means prevented compounded words from being widely used, especially when there was a semantic need. Latin was more than capable of compounding, but several compound formations were restricted to the realms of high poetry or specialized terminology.

If a Greek term had acquired prestige early on in a technical field, as in the case of *rhētoricē*, it was difficult for Latin substitutes to replace it. If the Greek form existed elsewhere in the language and had derivatives, this seemed to aid its success over a new competing Latin term. We see this phenomenon in *rhētoricē*, *grammatica*, and *episcopus*. However, if a Greek term was not as well-entrenched in the Latin language as these terms were, a morphological calque could overcome a Greek loan word that had existed previously in the language, as seen in *accentus* winning out over *προσφδία*.

Coleman (1989: 87) notes that semantic extension was the most successful method for filling a semantic lacuna in the language. If semantic calques were 'safer' and so successful,

why, then, would a Roman choose to create a morphological calque at all? The Romans perhaps used morphological calques to more precisely reflect the semantics of the Greek term, both the individual morphemes in the word, as well as the morphological calque as a whole. Often, morphological calques had specific semantics, such as *nōminā-tīvus* ‘nominative’ or *neutro-pass-īvus* ‘semi-deponent’, and though they were not used a large number of times, they were still useful in their technical languages. Morphological calquing also allowed the Romans to coin new words, express their creativity and linguistic abilities, and pay homage to the original Greek term.

Furthermore, as the prestige of the Latin language grew and it came to be the primary language of educated communication in Europe, certain formations such as *beātitudō* and *essentia*, which had not been accepted by the Classical Romans, came to be accepted. Later Latin writers, who admired great Latin authors such as Cicero, who found use for these words in their Christian and philosophical writing, and who had accepted new forms such as *essēns*, took up these terms in their educated writings, and as a consequence English inherits many of these terms today.

In several cases, especially with prefixes and suffixes, a single Latin term could encompass the meaning of several Greek items. We note that *com-/con-/co-*, encompassing several meanings in Latin, from ‘with’ to ‘intensity’, could replace a number of Greek prefixes, such as *συν-* ‘with’, *ἐπι-* ‘upon’, *κατα-* ‘at’, and more. A popular Latin suffix such as *-(t)iō* replaced a number of Greek suffixes such as *-σις*, *-ος*, or *-η*. In creating new words, Latin writers were apt to reach for a more productive morpheme.

Langslow (2000: 24) suggests that technical spheres seem to favor certain suffixes for forming words. Several technical spheres latch on to suffixes and apply them to new words of

the same part of speech. Most notable is *-(t)īvus* in the grammatical sphere, but we also see this phenomenon in *-fer* and *-ger* in poetry, *-ōsus*, *-(t)ōrius* in medical Latin, and *-ficāre* in Christian Latin. For the convenience of the writers, it is beneficial to have homogenization within a technical field; words that served similar functions shared similar suffixes, and the suffix would be recognized when authors coined a new term.

Elsewhere, Latin shows sensitivity to the part of speech or the semantics of the base of a calque. We see this best in medical Latin. Latin authors offer a number of different suffixes for Greek *-ικός*; one might use *-(t)ōrius* to denote the particular effect a medication would have or how it was intended to be applied; *-ōsus* to denote a patient suffering from a disease; or *-ālis*, for treatments of a particular body part or grievance. Such diversity allowed the coiner to convey more specific semantics of a Latin term to his readers, although such great diversity may have prevented the widespread use of certain terms.

Interestingly, in only a few cases, deverbal formations did not utilize a true prefixed verb in Latin, but the coiner concatenates a basic Latin verb and a prefix for the first time to reflect the Greek term, as we see in *contrā-posit-um* ‘antithesis’ for *ἀντί-θε-σις*, where no verb *contrā-pōnere* yet existed. In most cases, instead of combining two morphemes which had never been combined to recapitulate a Greek term, Roman writers seemed to focus on the meaning of the prefixed Greek verb that appeared in the construction. They then selected the prefixed Latin verb that most precisely emulated the semantics of the prefixed Greek verb. In many cases, the semantics of the individual Latin morphemes reflected the semantics of the individual Greek morphemes. A number of near-translations also develop in this way, words that were clearly inspired by a Greek term and that utilize terms with similar semantics, but they are not precise, morpheme-by-morpheme calques in the traditional definition. Nevertheless, these words provide

insight into how the Romans chose to translate Greek terms into new words, even if one would not consider them strict morphological calques. Based on such findings, one may even wish to further expand the traditional definition of a morphological calque outside of the strict structuralist interpretation, or allow for a subtype of morphological calque that includes prefixed verbal forms. Recent morphological theory suggests that speakers store frequently-used complex words, including prefixed verbs, in the lexicon, in addition to individual morphemes (Haspelmath and Sims 2010: 66-7), further supporting the notion that Latin speakers would likely employ an existing prefixed verb to translate a prefixed Greek verb when creating morphological calques, instead of individually translating the prefix, verbal base, and suffix.

For future study of Latin morphological calques on Greek technical terms, I recommend investigating the commentaries of Roman writers in these fields, to further determine other calques on Greek words Roman authors use. I would then suggest searching through the works of authors who seem to have coined new words, such as Cicero, for more new creations. It would also be useful to gather a list of prefixed or compounded Latin words, like that of Lindner (1996, 2002), and to search for the corresponding Greek term. Where Lindner and others provided the Greek terms in their discussion of the corresponding Latin word, I included them. However, for other compounds, they did not confirm that there was an original Greek word upon which the Latin word was calqued. One may wish to take Lindner's work and determine the predicted Greek words on which the Latin formed a calque, referencing the morphemes the Latin usually substitutes for the Greek; if Greek supplies a term which matches the Latin morphemes, the Latin word may be calqued on this term. It would also be useful to search for more terminology that competes with morphological calques in a dictionary that provides synonyms for Latin terms. Such an investigation would further define why certain words overcame Latin

morphological calques, while others did not. In this study, my intention has been mainly to gather in one place the morphological calques scholars have confirmed and offer a more detailed history and comparison to the Greek formations than have previously been presented, as well as to discuss how successful these morphological calques were relative to other methods of neologism.



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APPENDIX A  
LIST OF MORPHOLOGICAL CALQUES

For adjectives, I provide the masculine, feminine, and neuter nominative endings. For nouns, I provide the singular nominative and genitive endings and the gender. For verbs, I provide the infinitive form. Definitions are taken from the <i>Oxford Latin Dictionary</i> (1982) or <i>A Latin Dictionary</i> (1879). Morphemes and meanings are taken from the <i>Oxford Latin Dictionary</i> (1982) and <i>Latin Suffixal Derivatives in English</i> (Miller 2006). See Appendix B for Latin authors and their works.								
Latin Calque	Definition	Greek Word	Latin Components	First Known Usage	Number of Usages According to <i>Perseus</i> before 200 BCE (all cases)	Number of Usages According to <i>Perseus</i> after 200 BCE (all cases)	Source	Notes
<b>POETIC AND LITERARY</b>								
<i>aeri-fer, -era, -erum, adj.</i>	'bronze-bearing'	χαλκο-φόρος	<i>aes</i> 'bronze' + <i>ferre</i> 'to bear' + <i>-us</i> , adj. suffix	Ov. <i>Fast.</i> 3.740	1	0	Lindner (1996) 11	
<i>aeri-pēs, -pedis, adj.</i>	'having feet of bronze'	χαλκό-πους	<i>aes</i> 'iron' + <i>pēs</i> 'foot'	Verg. <i>Aen.</i> 6.802	4	15	Lindner (1996) 11	
<i>āli-ger, -era, -erum, adj.</i>	'having wings, winged'	πτερο-φόρος	<i>āla</i> 'wing' + <i>gerere</i> 'to wear, bear' + <i>-us</i> , adj. suffix	Verg. <i>Aen.</i> 12.249	26	32	Lindner (1996) 14	
<i>alti-tonāns, -antis, adj.</i>	'that thunders high in the sky'	ὕψι-βρεμέτης	<i>altus</i> 'high, lofty' + <i>tonāre</i> 'to thunder'	Enn. <i>Ann.</i> 541	7	7	Adams (2003) 460	
<i>alti-volāns, -antis, adj.</i>	'high-flying'	ὕψι-πέτης	<i>altus</i> 'high' + <i>volāre</i> 'to fly'	Enn. <i>Ann.</i> 81	5	5	Skutsch (1985) 226	
<i>armi-sonus, -a, -um, adj.</i>	'resounding with arms'	ὄπλο-δουπος	<i>arma</i> 'arms' + <i>sonus</i> 'sound'	Verg. <i>Aen.</i> 3.543	2	18	Lindner (1996) 27	
<i>auri-fer, -era, -erum, adj.</i>	'gold-bearing'	χρυσο-φόρος	<i>aurus</i> 'gold' + <i>ferre</i> 'to bear' + <i>-us</i> , adj. suffix	Cic. <i>Carm.</i> 34.42	12	57	Lindner (1996) 30	



<i>bi-form-is, -is, -e, adj.</i>	'two-formed'	δί-μορφος	<i>bi-</i> 'two' + <i>forma</i> 'form' + <i>-is</i> , compound adj. suffix	Hor. <i>Carm.</i> 2.20.2	21	26	Lindner (1996) 39
<i>cādūci-fer, -era, -erum, adj.</i>	'staff-bearing'	κηρυκιο-φόρος	<i>cādūceum</i> 'staff' + <i>ferre</i> 'to bear' + <i>-us</i> , adj. suffix	Ov. <i>Met.</i> 2.708	4	7	Lindner (1996) 46
<i>caeci-genus, -a, -um, adj.</i>	'born blind'	τυφλο-γεν-ής	<i>caecus</i> 'blind' + <i>genus</i> 'birth'	Lucr. 2.741	1	0	Lindner (1996) 46
<i>call-ōsus, -a, -um, adj.</i>	'callous'	τυλ-ώδης	<i>callum</i> 'callus' + <i>-ōsus</i> 'full of'	Hor. <i>S.</i> 2.4.14	18	13	Ernout (1949) 35
<i>co-epulō-nus, -ī, m.</i>	'co-banqueter'	παρά-σιτος	<i>co-</i> 'together' + <i>epulō</i> 'diner' + <i>-nus</i> , original adjectival suffix	Pl. <i>Persa</i> 100	1	1	Fontaine (2010) 170
<i>cōni-fer, -era, -erum, adj.</i>	'bearing cones, conical fruit'	κωνο-φόρος	<i>cōnus</i> 'cone' + <i>ferre</i> 'to bear' + <i>-us</i> , adj. suffix	Verg. <i>Aen.</i> 368	1	12	Lindner (1996) 56
<i>fābul-ōsus, -a, -um, adj.</i>	'legendary'	μυθ-ώδης	<i>fābula</i> 'story' + <i>-ōsus</i> 'full of'	Hor. <i>Carm.</i> 1.22.7	41	29	Ernout (1949) 17
<i>falsi-loquus, -a, -um, adj.</i>	'speaking deceitfully'	ψευδό-λογος	<i>falsus</i> 'false' + <i>loquī</i> 'to speak' + <i>-us</i> , adj. suffix	Pl. <i>Capt.</i> 264	1	1	Adams (2003) 461
<i>flammi-fer, a, -um, adj.</i>	'fiery'	πύρ-φορος	<i>flamma</i> 'flame' + <i>ferre</i> 'to bear' + <i>-us</i> , adj. suffix	Enn. <i>scen.</i> 29	25	23	Moore-Blunt (1977) 38
<i>flōri-fer, -a, -um, adj.</i>	'flowery'	άνθο-φόρος	<i>flōs</i> 'flower' + <i>ferre</i> 'to bear' + <i>-us</i> , adj. suffix	Lucr. 3.11	2	3	Reed (2009) 112
<i>form-ōsus, -a, -um, adj.</i>	'having a fine appearance'	μορφ-ήεις	<i>forma</i> 'form, appearance' + <i>-ōsus</i> 'full of'	Ter. <i>Eu.</i> 730	68	102	Ernout (1949) 5
<i>frondi-fer, -era, -erum, adj.</i>	'leafy'	φυλλο-φόρος	<i>frōns</i> 'foliage' + <i>ferre</i> 'to bear' + <i>-us</i> , adj. suffix	Naev. <i>trag.</i> 28	4	16	Lindner (1996) 77
<i>frond-ōsus, -a, um, adj.</i>	'leafy'	φυλλ-ώδης	<i>frōns</i> 'foliage' + <i>-ōsus</i> 'full of'	Enn. <i>Ann.</i> 191	12	63	Ernout (1949) 60

<i>frūgi-ferēns, -entis, adj.</i>	'bearing fruit'	καρπό-φορος	<i>frūx</i> 'fruit' + <i>ferre</i> 'to bear'	Lucr. 1.3	1	1	Long (2003) 79	
<i>fūm-ōsus, -a, -um, adj.</i>	'smoky'	καπν-ώδης	<i>fūmus</i> 'smoke' + <i>-ōsus</i> 'full of'	Verg. <i>G.</i> 2.242	18	45	Ernout (1949) 40	
<i>igni-fer, -am, -um, adj.</i>	'fiery'	πύρ-φορος	<i>ignis</i> 'fire' + <i>ferre</i> 'to bear' + <i>-us, -um, -um, adj. suffix</i>	Lucr. 2.25	14	22	Palmer (1961) 103	
<i>in-curvi-cervīc-us, -a, -um</i>	'having an arched neck'	κυρτ-άχην	<i>incurvus</i> 'curved' + <i>cervīx</i> 'neck' + <i>-us, -um, -um, adj. suffix</i>	Pac. <i>trag.</i> 408	1	1	Fruyt (2011) 168	
<i>in-somn-ium, -(i)ī, n.</i>	'wakefulness'	έν-ύπν-ιον	<i>in-</i> 'not' + <i>somnus</i> 'sleep' + <i>-ium</i> 'denominal compound suffix'	Enn. <i>Ann.</i> 25	67	39	Powell (1961) 191	
<i>lacrim-ōsus, -a, -um, adj.</i>	'weepy'	δακρυ-όεις, δακρυ-ώδης	<i>lacrima</i> 'tear' + <i>-ōsus</i> 'full of'	Hor. <i>Carm.</i> 1.8.14	19	49	Ernout (1949) 21	
<i>lingu-ōsus, -a, -um, adj.</i>	'talkative'	γλωσσ-ώδης	<i>lingua</i> 'tongue' + <i>-ōsus</i> 'full of'	Petr. 43.3	2	4	Ernout (1949) 22	
<i>lūci-fer, -a, -um, adj.</i>	'light-bringing'	φώς-φορος, έωσ-φóρος	<i>lūx</i> 'light' + <i>ferre</i> 'to bear' + <i>-us, -um, -um, adj. suffix</i>	Acc. <i>trag.</i> 331	113	96	Moore-Blunt (1977) 30, Horsfall (2008) 550	
<i>magn-animus, -a, -um, adj.</i>	'noble, brave'	μεγά-θυμος, μεγαλό-ψυχος	<i>magnus</i> 'great' + <i>animus</i> 'spirit'	Pl. <i>Am.</i> 212	136	157	Fruyt (2011) 152	
<i>multi-nōmin-is, -is, -e, adj.</i>	'having many names'	πολυ-ώνυμ-ος	<i>multus</i> 'many' + <i>nōmen</i> + <i>-is, -um, -um, compound adj. suffix</i>	Apul. <i>Met.</i> 11.22	1	1	Nicolini (2012) 34	
<i>multi-sonus, -a, -um, adj.</i>	'of many notes'	πολύ-φθογγος	<i>multus</i> 'many' + <i>sonus</i> 'sound'	Mart. <i>Ep.</i> 1.53.9	3	0	Lindner (1996) 120	

<i>multi-vagus, -a, -um, adj.</i>	'wide-ranging'	πολυ-πλάνης	<i>multus</i> 'many' + <i>vagus</i> 'roaming'	Plin. <i>Nat.</i> 2.48.8	6	0	Lindner (1996) 120	
<i>olīvi-fer, -era, -erum, adj.</i>	'olive-bearer'	έλαιο-φόρος	<i>olīvus</i> 'olive' + <i>ferre</i> 'to bear' + <i>-us</i> , adj. suffix	Verg. <i>Aen.</i> 7.711	3	12	Lindner (1996) 129	
<i>omni-potēns, -ntis, adj.</i>	'almighty'	παγ-κρατής	<i>omnis</i> 'all' + <i>potēns</i> 'powerful'	Pl. <i>Poen.</i> 275	108	81	Jocelyn (1967) 292	
<i>parenti-cīda, -ae, m.</i>	'parent-killer'	πατρο-κτόνος	<i>parēns</i> 'parent' + <i>-cīda</i> 'killer'	Pl. <i>Epid.</i> 349	1	0	Lindner (1996) 136	
<i>pinni-ger, -a, -um, adj.</i>	'wing-bearing'	πτερο-φόρος	<i>pinna</i> 'feather' + <i>gerere</i> 'to bear' + <i>-us</i> , adj. suffix	Acc. <i>trag.</i> 547	7	1	Lindner (1996) 141	
<i>pinni-pēs, -pedis, adj.</i>	'wing-footed'	πτερό-πους	<i>pinna</i> 'feather' + <i>pēs</i> 'foot'	Cat. 58.b3	1	0	Lindner (1996) 141	
<i>pisc-ōsus, -a, -um, adj.</i>	'full of fish'	ίχθυ-όεις, ίχθυ-ώδης	<i>piscis</i> 'fish' + <i>-ōsus</i> 'full'	Verg. <i>Aen.</i> 4.255	13	19	Ernout (1949) 67	
<i>plūm-ōsus, -a, -um</i>	'covered in feathers'	περ-όεις, περ-ωτός	<i>plūma</i> 'feather' + <i>-ōsus</i> 'full of'	Prop. 4.2.34	3	8	Ernout (1949) 25	
<i>pōm-ōsus, -a, -um, adj.</i>	'abundant in fruit'	καρπ-ώδης	<i>pōmum</i> 'fruit' + <i>-ōsus</i> 'full of'	Corn. <i>Sev. poet.</i> 9	2	3	Ernout (1949) 47	
<i>quadri-iugus, -a, -um, adj.</i>	'drawn by four horses'	τετρά-ζυγος	<i>quadru-</i> 'consisting of 4' + <i>iungere</i> 'to join'	Enn. <i>scen.</i> 101	20	32	Moore-Blunt (1977) 39	
<i>quadru-pēs, -pedis, adj.</i>	'a domestic animal, a four-legged being'	τετρά-πους	<i>quadru-</i> 'consisting of 4' + <i>pēs</i> 'foot'	Naev. <i>trag.</i> 25	61	81	Lindner (1996) 150	
<i>quinqwert-iō, -ōnis, m.</i>	'one who competes in the pentathlon'	πένταθλ-ος	<i>quinqwertium</i> 'pentathlon' + <i>-iō</i> 'agent noun suffix'	Andr. <i>trag.</i> 41	1	0	Palmer (1961) 102	

<i>re-cantāre</i> , v.	'to retract; echo'	παλιν-φθεῖν	<i>re-</i> 'again' + <i>cantāre</i> 'sing'	Hor. <i>Carm.</i> 1.16.27	2	6	Mayer (1994) 147	
<i>sacri-legus</i> , -a, -um, adj.	'temple-robber'	ιερό-συλος	<i>sacrum</i> 'temple' + <i>legere</i> 'to choose' + -us, adjective suffix	Pl. <i>Pseud.</i> 363	71	32	Lindner (1996) 158	
<i>sapient-ia</i> , -ae, f.	'reason, soundness of mind, judgment'	σοφ-ία	<i>sapiēns</i> 'wise' + -ia 'abstract noun'	Pl. <i>Capt.</i> 431	821	641	Rosen (1999) 19	
<i>sēmi-cremātus</i> , -a, -um, adj.	'half-burnt'	ἡμί-φλεκτος	<i>sēmi-</i> 'half' + <i>cremāre</i> 'to burn'	Ovid. <i>Ib.</i> 632	2	0	Lindner (1996) 165	
<i>septem-fluus</i> , -a, -um, adj.	'seven-flowing, with seven mouths'	ἑπτά-ρροος	<i>septem</i> 'seven' + <i>fluere</i> 'to flow' + -us, adj. suffix	Ovid. <i>Met.</i> 1.422	2	7	Lindner (1996) 171	
<i>spūm-ōsus</i> , -a, -um	'foamy'	ἀφρ-ώδης	<i>spūma</i> 'foam' + -ōsus 'full of'	Cat. 64.121	7	52	Ernout (1949) 28	
<i>suāvi-loquēns</i> , -ntis, adj.	'sweet- speaking'	ἡδύ-φωνος	<i>suāvis</i> 'sweet' + <i>loquī</i> 'to say'	Enn. <i>Ann.</i> 303	5	9	Palmer (1961) 102-3	
<i>suāvi-sonus</i> , -a, -um, adj.	'sweet- sounding'	ἡδύ-θροος	<i>suāvis</i> 'sweet' + <i>sonus</i> 'sound'	Naev. <i>trag.</i> 35	2	0	Lindner (1996) 181	
<i>sub-cingulum</i> , -ī, n.	'under-girdle'	ὑπο-ζώνη	<i>sub</i> 'under' + <i>cingulum</i> 'belt'	Pl. <i>Men.</i> 200	1	1	Fontaine (2010) 45	
<i>tauri-pēs</i> , -pedis, adj.	'having the feet of a bull'	ταυρό-πους	<i>taurus</i> 'bull' + <i>pēs</i> 'foot'	Cat. 36.7	1	5	Lindner (1996) 184	
<i>tauri-form-is</i> , -is, -e, adj.	'having the form of a bull'	ταυρό-μορφ-ος	<i>taurus</i> 'bull' + <i>forma</i> 'form' + -is, compound adj. suffix	Hor. <i>Carm.</i> 4.14.25	1	3	Lindner (1996) 184	
<i>tauri-genus</i> , -a, -um, adj.	'born from a bull'	ταυρο-γεν-ής	<i>taurus</i> 'bull' + <i>genus</i> 'birth'	Acc. <i>trag.</i> 451	1	1	Lindner (1996) 184	

<i>tenebr-ōsus, -a, -um, adj.</i>	'shady'	σκοτ-ώδης	<i>tenebrae</i> 'darkness' + <i>-ōsus</i>	Verg. <i>Aen.</i> 5.827	7	69	Ernout (1949) 29	
<i>tri-form-is, -is, -e, adj.</i>	'having three forms'	τρί-μορφ-ος	<i>tri-</i> 'three' + <i>forma</i> 'form' + <i>-is</i> , compound adj. suffix	Hor. <i>Carm.</i> 3.22.4	12	16	Nicolini (2012) 34	
<i>ūni-form-is, -is, -e, adj.</i>	'having one shape'	μονο-ειδ-ής	<i>ūnus</i> 'one' + 'form' + <i>-is</i> , compound adj. suffix	Ap. <i>Met.</i> 11.5	3	0	Blaise (1994) 5	
<i>urbān-us, -a, -um, adj.</i>	'connected with the city'	ἀστεϊ-ος	<i>urbs</i> 'city' + <i>-ānus</i> 'related to'	Pl. <i>Vid.</i> 35	351	77	Powell (1961) 295	
<i>vēri-verb-ium, -ī, n.</i>	'the act of speaking the truth'	ἐτυμο-λογ-ία	<i>vērus</i> 'true' + <i>verbum</i> 'word' + <i>-ium</i> 'denominal compound suffix'	Pl. <i>Capt.</i> 568	1	1	Lindner (1996) 203	
<i>vīn-ōsus, -a, -um, adj.</i>	'full of wine'	οἴν-όεις	<i>vīnum</i> 'wine' + <i>-ōsus</i> 'full of'	Pl. <i>Cur.</i> 79	17	21	Ernout (1949) 52	
<b>RHETORICAL</b>								
<i>ap-posit-iō, -ōnis, f.</i>	'comparison'	παρά-θε-σις	<i>ad-</i> 'additional, next to' + <i>pōnere</i> 'to place' + <i>-(t)iō</i> , 'act, result'	Quin. 5.11.1	19	5	Schad (2007) 38	
<i>circum-locūt-iō, -ōnis, f.</i>	'the act of speaking around, periphrasis, circumlocution'	περί-φρα-σις	<i>circum-</i> 'around' + <i>loquī</i> 'to say' + <i>-(t)iō</i> 'act, result'	Quin. 8.6.61.4	3	6	Lausberg (1973) 269	
<i>com-plexiō (com-plekt-tiō), -ōnis, f.</i>	'a comprehensive argument'	συν-πλοκ-ή	<i>com-</i> 'together' + <i>plectere</i> 'to entwine' + <i>-(t)iō</i> 'act, result'	<i>Rhet. Her.</i> 2.28	22	3	Lausberg (1973) 284	

<i>com-posit-iō, -ōnis, f.</i>	'artistic arrangement of words'	σύν-θε-σις	<i>com-</i> 'together' + <i>pōnere</i> 'to place' + <i>-(t)iō</i> 'act, result'	<i>Rhet. Her.</i> 4.18	277	33	Lausberg (1973) 411	
<i>cō-nexiō (cō-nekt-tiō), -ōnis, f.</i>	'a concluding sequence'	ἐπι-πλοκ-ή	<i>con-</i> 'together' + <i>nectere</i> 'to bind' + <i>-(t)iō</i> 'act, result'	<i>Cic. Fat. fr.</i> 2	10	15	Lausberg (1973) 279	
<i>contrā-positum, -ī, n.</i>	'an antithesis'	ἀντί-θε-σις	<i>contra-</i> 'against' + <i>pōnere</i> 'to place' + <i>-um</i> , neuter noun suffix	<i>Quin.</i> 9.3.81	5	3	Lausberg (1973) 349	
<i>dē-mōnstrā-tiō, -ōnis, f.</i>	'an exhibition'	ἐπί-δειξις (ἐπί-δεικ-σις)	<i>dē-</i> 'about' + <i>mōnstrāre</i> 'to show' + <i>-(t)iō</i> 'act, result'	<i>Cic. De Or.</i> 2.204	37	12	Lausberg (1973) 641	
<i>dē-mōnstrā-tīvus, -a, -um, adj.</i>	'demonstrative, epideictic'	ἐπι-δεικτ-ικός	<i>dē-</i> 'about' + <i>mōnstrāre</i> 'to show' + <i>-(t)īvus</i> 'having the nature or property of'	<i>Rhet. Her.</i> 1.2	25	1	Lausberg (1973) 7	
<i>imitā-tiō, -ōnis, f.</i>	'the act of imitating, copying'	μίμη-σις	<i>imitāre</i> 'to copy' + <i>-(t)iō</i> 'act, result'	<i>Rhet. Her.</i> 1.3	203	33	Lausberg (1973) 2	
<i>invent-tiō, -ōnis, f.</i>	'the devising of arguments'	εὑρε-σις	<i>invenīre</i> 'to find' + <i>-(t)iō</i> 'act, result'	<i>Rhet. Her.</i> 1.3	128	20	Lausberg (1973) 18	
<i>litterā-tūra, -ae, f.</i>	'the science of language, writing'	γραμματικῆ	<i>littera</i> 'letter' + <i>-(t)ūra</i> 'substantive'	<i>Cic. Part.</i> 26.3	12	6	Del Bello (2007) 39	
<i>ōrātōr-ia, -ae, f.</i>	'the art and practice of oratory, rhetoric'	ῥητορικῆ	<i>ōrāre</i> 'to say' + <i>-tor</i> 'agent' + <i>-ia</i> 'abstract noun'	<i>Cic. Inv.</i> 1.7.5	59	31	Bloomer (2011) 232	
<i>ōrā-trīx, -īcis, f.</i>	'rhetoric'	ῥητορικῆ	<i>ōrāre</i> 'to say' + <i>-trīx</i> 'denotes female agents'	<i>Cic. Rep.</i> 2.14.8	4	4	Bloomer (2011) 232	

<i>prō-posit-iō, -ōnis, f.</i>	'the act of setting out in words'	<i>πρό-θε-σις</i>	<i>prō-</i> 'before' + <i>pōnere</i> 'to place' + <i>-(t)iō</i> 'act, result'	<i>Rhet. Her.</i> 4.26	115	5	Lausberg (1973) 136	
<i>re-flexiō (re-flekt-tiō), -ōnis, f.</i>	'a returning of the proposition, bending back'	<i>ἀνά-κλα-σις</i>	<i>re-</i> 'again' + <i>flectere</i> 'to bend' + <i>-(t)iō</i> 'act, result'	<i>Rut. Lup.</i> 1.5	0	0	Lausberg (1973) 297	
<i>sup-posit-iō, -ōnis, f.</i>	'the action of placing underneath'	<i>ὑπό-θε-σις</i>	<i>sub-</i> 'under' + <i>pōnere</i> 'place' + <i>-tiō</i> 'act, result'	<i>Pl. Capt.</i> 1031	4	2	Lausberg (1973) 498	
<i>vēri-loqu-ium, -iī, n.</i>	'argument for the true meaning of a word'	<i>ἔτυμο-λογ-ία</i>	<i>vērus</i> 'true' + <i>loquī</i> 'to speak' + <i>-ium</i> , denominal suffix	<i>Cic. Top.</i> 35	2	4	Powell (1961) 296	
<b>PHILOSOPHICAL</b>								
<i>beāti-tūdō, -ōnis, f.</i>	'blessedness, happiness'	<i>μακαρ-ία</i>	<i>beātus</i> 'happy' + <i>-tūdō</i> 'observable state'	<i>Cic. N. D.</i> 1.95	3	85	Coleman (1989) 83	
<i>beāt-itās, -ātis, f.</i>	'blessedness, happiness'	<i>μακαρ-ία</i>	<i>beātus</i> 'happy' + <i>-itās</i> 'abstract entity'	<i>Cic. N. D.</i> 1.95	2	3	Coleman (1989) 83	
<i>com-prehensiō (com-prehend-tiō), -ōnis, f.</i>	'a seizing, comprehension'	<i>κατά-ληψις (κατά-ληπ-σις)</i>	<i>com-</i> 'together' + <i>prehendere</i> 'to grasp' + <i>-(t)iō</i> 'act, result'	<i>Cic. Brut.</i> 1.40	39	1	van Bakkum, Houben, Sluiter, and Versteegh (1997) 251	
<i>essent-ia, -ae, f.</i>	'essence, substance'	<i>οὐσί-ᾱ</i>	<i>esse</i> 'to be' + <i>-ia</i> 'abstract noun'	<i>Sen. Ep.</i> 58.6	5	18	Coleman (1989) 80	Ascribed by Sen. to Cic. at <i>Ep.</i> 58.6. Ascribed by Quin. to Pl. at <i>Inst.</i> 2.14.2.
<i>in-dif-ferēns, -entis, adj.</i>	'not differing, indifferent, unimportant'	<i>ἀ-διά-φορος</i>	<i>in-</i> 'not' + <i>differe</i> 'to separate'	<i>Cic. Fin.</i> 3.53	38	14	Powell (1961) 291	

<i>in-dolent-ia</i> , -ae, f.	'insensitivity to pain'	ἀ-πάθει-ια	<i>in-</i> 'not' + <i>dolēre</i> 'to feel pain' + <i>-ia</i> 'abstract noun'	Cic. <i>Fin.</i> 2.11	13	0	Powell (1961) 291	
<i>in-nocent-ia</i> , -ae, f.	'harmlessness'	ἀ-βλάβει-ια	<i>in-</i> 'not' + <i>nocēre</i> 'to harm' + <i>-ia</i> 'abstract noun'	Cic. <i>De Or.</i> 1.202	225	27	Reiley (1909) 13	
<i>magn-anim-itās, ātis</i> , f.	'high-mindedness'	μεγαλο-ψυχ-ία	<i>magnus</i> 'great' + <i>animus</i> 'mind' + <i>-itās</i> 'abstract entity'	Cic. <i>Off.</i> 1.43.52	7	20	Comte-Sponville (2002) 93	
<i>medi-etās, -ātis</i> , f.	'a central point, intermediate state'	μεσό-της	<i>medius</i> 'middle' + <i>-itās</i> 'abstract entity'	Cic. <i>Tim.</i> 23	2	17	Powell (1961) 291	
<i>mōr-ālis, -is, -e</i> , adj.	'concerned with ethics'	ἠθ-ικός	<i>mōs</i> 'custom' + <i>-ālis</i> 'characterized by'	Cic. <i>Fat.</i> 1	30	19	Powell (1961) 291	
<i>multi-form-is, -is, -e</i>	'having many different forms'	πολυ-ειδ-ής	<i>multus</i> 'many' + <i>forma</i> 'form' + <i>-is</i> , compound adj. suffix	Cic. <i>Ac.</i> 1.26	22	17	Powell (1961) 296	
<i>prae-sumpt-iō, -ōnis</i> , f.	'anticipation'	πρό-ληψις (πρό-ληπ-σις)	<i>prae-</i> 'before' + <i>sūmere</i> 'to take' + <i>-(t)iō</i> 'act, result'	Sen. <i>Ep.</i> 1.17.6	12	18	Von Albrecht (1997) 706	
<i>quāl-itās, -ātis</i> , f.	'a distinguishing quality, characteristic'	ποιό-της	<i>quālis</i> 'of what kind/sort' + <i>-itās</i> , 'abstract entity'	Cic. <i>Ac.</i> 1.25	78	232	Coleman (1989) 80	



<i>sub-amārus</i> , -a, -um, adj.	'somewhat bitter'	ὕπό-πικρος	<i>sub-</i> 'reduced intensity' + <i>amārus</i> 'bitter'	Cic. <i>Ac.</i> I.25	3	2	Langslow (2000) 337-8, Sihler (1901) 69	
<i>sub-stant-ia</i> , -ae, f.	'the quality of being real'	ὕπό-στα-σις	<i>sub-</i> 'under' + <i>stāre</i> 'to stand' + <i>-ia</i> 'abstract noun'	Sen. <i>Dial.</i> 7.7.4	118	231	Adams (2003) 461	
<b>GRAMMATICAL</b>								
<i>ac-cen-tus</i> , -ūs, m.	'accent'	προσ-φθ-ία	<i>ad-</i> 'additional, next to' + <i>canere</i> 'to sing' + <i>-us</i> , fourth declension suffix	Quin. 1.5.22	21	67	Coleman (1989) 84	
<i>accūsā-tīvus</i> , -a, -um, adj.	'accusative'	αἰτιατ-ικός 'causing, effecting'	<i>accūsāre</i> 'to accuse' + <i>-(t)īvus</i> 'having the nature or property of'	Var. <i>L.</i> 8.67.4	8	73	Coleman (1989) 83	
<i>ad-iec-tīvus</i> , -a, -um, adj.	'adjectival'	ἐπι-θετ-ικός	<i>ad-</i> 'additional, next to' + <i>iacere</i> 'to lay' + <i>-(t)īvus</i> 'having the nature or property of'	Prisc. 3.122.24	0	16	Schad (2007) 17	
<i>ad-verbi-ālis</i> , -is, -e, adj.	'with the force of an adverb'	ἐπι-ρρηματ-ικός	<i>ad-</i> 'additional, next to' + <i>verbum</i> 'word' + <i>-ālis</i> 'characterized by, pertaining to'	Char. 180.23	0	10	Schad (2007) 24	

<i>ad-verbi-aliter</i> , <i>adv.</i>	'as an adverb'	ἐπι-ρρηματ-ικῶς	<i>ad-</i> 'additional, next to' + <i>verbum</i> 'word' + <i>-ālis</i> 'characterized by, pertaining to' + <i>-iter</i> , adverbial suffix	Diom. 1.407.26	0	5	Schad (2007) 24	
<i>ad-verb-ium</i> , <i>-ī, n.</i>	'adverb'	ἐπί-ρρημα	<i>ad-</i> 'additional, next to' + <i>verbum</i> 'word' + <i>-ium</i> 'denominal compound suffix'	Quin. 1.4.19	37	132	Schad (2007) 25	
<i>af-firmā-tīvus</i> , <i>-a, -um, adj.</i>	'affirming, a type of verb'	δια-βεβαιωτ-ικός	<i>ad-</i> 'additional, next to' + <i>firmāre</i> 'to confirm' + <i>-(t)īvus</i> 'having the nature or property of'	Diom. 1.395.12	0	6	Schad (2007) 29	
<i>cāsu-ālis</i> , <i>-is</i> , <i>-e, adj.</i>	'that has cases'	πτωτ-ικός	<i>cāsus</i> 'case' + <i>-ālis</i> 'characterized by, pertaining to'	Var. L. 8.25	12	21	Schad (2007) 57	
<i>com-parā-tīvus</i> , <i>-a, -um</i> , <i>adj.</i>	'comparative'	συγ-κριτ-ικός	<i>com-</i> 'together' + <i>parāre</i> 'to arrange' + <i>-(t)īvus</i> 'having the nature or property of'	Quin. 9.3.19	2	29	Schad (2007) 73	
<i>com-plē-tīvus</i> , <i>-a, -um, adj.</i>	'completive'	παρα-πληρωματ-ικός	<i>com-</i> 'together' + <i>plēre</i> 'to fill' + <i>-(t)īvus</i> 'having the nature or property of'	Prisc. 3.93.16	0	2	Schad (2007) 75	

<i>con-firmā-tīvus, -a, -um, adj.</i>	'an adverb, conjunction expressing confirmation'	δια-βεβαιωτ-ικός	<i>con-</i> 'intensity' + <i>firmāre</i> 'to strengthen' + <i>-(t)īvus</i> 'having the nature or property of'	Diom. 1.417.18	0	4	Schad (2007) 82	
<i>con-iunct-īvus, -a, -um, adj.</i>	'conjunctive'	συ-ζευκτ-ικός	<i>con-</i> 'together' + <i>iungere</i> 'to join' + <i>-(t)īvus</i> 'having the nature or property of'	Sacerd. 6.432.18	0	19	Schad (2007) 86	
<i>da-tīvus, -a, -um, adj.</i>	'dative'	δοτ-ικός	<i>dāre</i> 'to give' + <i>-(t)īvus</i> 'having the nature or property of'	Quin. 1.4.26	15	61	Coleman (1989) 83	
<i>dubitā-tīvus, -a, -um, adj.</i>	'expressing doubt'	διστακτ-ικός, ἀπορηματ-ικός	<i>dubitāre</i> 'to hesitate' + <i>-(t)īvus</i> 'having the nature or property of'	Prisc.3.241.4	0	3	Schad (2007) 142	
<i>il-lāt-īvus, -a, -um, adj.</i>	'conclusive, concessive'	ἐπι-φορ-ικός	<i>in-</i> 'in' + <i>ferre</i> 'to bear' + <i>-(t)īvus</i> 'having the nature or property of'	Diom. 1.416.22	0	5	Schad (2007) 199	
<i>in-clinā-tīvus, -a, -um, adj.</i>	'enclitic'	ἐγ-κλιτ-ικός	<i>in-</i> 'in' + <i>clināre</i> 'to bend' + <i>-(t)īvus</i> 'having the nature or property of'	Prisc.3.14.9	0	2	Schad (2007) 210	
<i>loc-ālis, -is, -e, adj.</i>	'relating to place'	τοπ-ικός	<i>locus</i> 'place' + <i>-ālis</i> 'characterized by, pertaining to'	Scaur. 7.29	1	10	Schad (2007) 239	

<i>neutro-pas-sivus, -a, -um, adj.</i>	'semi-deponent'	<i>οὐδετερο-παθετ-ικός</i>	<i>neuter</i> 'neither' + <i>patī</i> 'to undergo' + <i>-(t)ivus</i> 'having the nature or property of'	Prisc. 2.420.9	0	6	Schad (2007) 266	
<i>nōminā-tivus, -a, -um, adj.</i>	'nominative'	<i>ὀνομαστ-ικός</i>	<i>nōmināre</i> 'to name' + <i>-(t)ivus</i> 'having the nature or property of'	Var. L. 8.63.4	12	96	Coleman (1989) 83	
<i>numer-ālis, -is, -e, adj.</i>	'numeral'	<i>ἀριθμητ-ικός</i>	<i>numerus</i> 'number' + <i>-ālis</i> 'characterized by, pertaining to'	Prisc. 2.62.4	0	3	Schad (2007) 272	
<i>ordinā-tivus, -a, -um, adj.</i>	'ordinal'	<i>τακτ-ικός</i>	<i>ordināre</i> 'to order' + <i>-(t)ivus</i> 'having the nature or property of'	Prisc. 3.27.86	0	3	Schad (2007) 279	
<i>pas-sivus, -a, -um, adj.</i>	'passive'	<i>παθητ-ικός</i>	<i>patī</i> 'to undergo' + <i>-(t)ivus</i> 'having the nature or property of'	Quin. 1.6.10	18	74	Schad (2007) 292	
<i>per-fect-ivus, -a, -um, adj.</i>	'perfective'	<i>ἀπο-τελεστ-ικός</i>	<i>per-</i> 'through' + <i>facere</i> 'to make' + <i>-(t)ivus</i> 'having the nature or property of'	Prisc. 3.242.16	0	3	Schad (2007) 296	
<i>prae-posit-iō, -ōnis, f.</i>	'the act of prefixing'	<i>πρό-θε-σις</i>	<i>prae-</i> 'before' + <i>pōnere</i> 'to place' + <i>-(t)iō</i> 'act, result'	Cic. Inv. 5.42	56	70	Schad (2007) 315	
<i>prō-nōmen, -inis, n.</i>	'pronoun'	<i>ἀντ-ωνυμία</i>	<i>prō-</i> 'in place of' + <i>nōmen</i> 'name, noun'	Var. L. 8.45	28	49	Schad (2007) 327	

<i>sub-iunct-ivus</i> , -a, -um, adj.	'subjunctive'	ὕπο-ζεικτ-ικός	<i>sub</i> 'under' + <i>iungere</i> 'to join' + -(t) <i>ivus</i> 'having the nature or property of'	Sacerd. 6.432.18	0	33	Schad (2007) 383	
<i>sub-stant-ivus</i> , -a, -um, adj.	'substantive'	ὕπ-αρκτ-ικός	<i>sub</i> - 'under' + <i>stāre</i> 'to stand' + -(t) <i>ivus</i> 'having the nature or property of'	Prisc. 3.137.5	0	14	Schad (2007) 386	
<i>vocā-tivus</i> , -a, -um, adj.	'vocative'	κλητ-ικός	<i>vocāre</i> 'to call' + -(t) <i>ivus</i> 'having the nature or property of'	Gel. 14.5.2	8	27	Coleman (1989) 83	
<b>MEDICAL</b>								
<i>anhēl-ōsus</i> , -a, -um, adj.	'asthmatic'	ἀσθματ-ικός	<i>anhēlāre</i> 'to pant' + - <i>ōsus</i> 'characterized by, having'	Cass. 93.20	0	2	Langslow (1987) 199	
<i>audī-tōrius</i> , -a, -um, adj.	'of hearing'	ἀκουστ-ικός	<i>audīre</i> 'to hear' + -(t) <i>ōrius</i> 'characterized by'	Cic. <i>De Or.</i> 3.210	62	12	Langslow (2000) 356	
<i>auri-scalp-ium</i> , -iī, n.	'ear-pick'	ὄτο-γλυφ-ίς	<i>auris</i> 'ear' + <i>scalpere</i> 'to carve' + - <i>ium</i> 'denominal compound suffix'	Scrib. 29.11	6	0	Langslow (2000) 277-8	
<i>bi-capita</i> , -ōrum, adj.	'two-headed'	δι-κέφαλος	<i>bi</i> - 'two' + <i>caput</i> 'head'	Cass. 35.22	0	1	Langslow (2000) 278	
<i>bīli-ōsus</i> , -a, -um, adj.	'full of bile'	χόλ-ικος	<i>bīlis</i> 'bile' + - <i>ōsus</i> 'full of'	Cels. 2.6.9	16	3	Ernout (1949) 55	

<i>calēfac-tōrius, -a, -um, adj.</i>	'capable of heating'	θερμαντ-ικός	<i>calēfacere</i> 'to make warm' + <i>-(t)ōrius</i> 'characterized by'	Cass. 140.19	0	0	Langslow (2000) 355	
<i>carnōs-itās, -ātis, f.</i>	'the growth of flesh'	σάρκω-σις	<i>carnōsus</i> 'fleshy' + <i>-itās</i> 'abstract entity'	Cass. 67.12	0	1	Langslow (2000) 306	
<i>carn-ōsus, -a, -um, adj.</i>	'abounding in flesh'	σαρκ-ώδης	<i>carō</i> 'flesh' + <i>-ōsus</i> 'full of'	Plin. Nat. 11.141	45	0	Ernout (1949) 56	
<i>con-dīgest-ōrius, -a, -um, adj.</i>	'promoting digestion'	συν-πεπ-τικός	<i>con-</i> 'together' + <i>dīgerere</i> 'to distribute food' + <i>-(t)ōrius</i> 'characterized by'	Cass. 97.7	0	2	Langslow (2000) 356	
<i>denti-fric-ium, -iī, n.</i>	'tooth-powder'	όδοντό-τριμ-μα	<i>dēns</i> + <i>fricāre</i> 'to rub' + <i>-ium</i> 'denominal compound suffix'	Plin. Nat. 32.28	15	2	Langslow (2000) 277-8	
<i>dē-stillā-tiō, -ōnis, f.</i>	'a rheum, catarrh'	κατα-στάγ-μα	<i>dē-</i> 'from' + <i>stillāre</i> 'to fall in drops' + <i>-(t)iō</i> 'act, result'	Plin. Nat. 20.122	40	3	Langslow (2000) 113	
<i>ex-callat-ōrius, -a, -um, adj.</i>	'that removes callosities'	ἐκ-τυλωτ-ικός	<i>ex-</i> 'out of' + <i>callum</i> 'callus' + <i>-(t)ōrius</i> 'characterized by'	Cass. 31.7	0	2	Langslow (2000) 355	
<i>felli-dūcus, -a, -um, adj.</i>	'that which carries off bile'	χολ-αγωγός	<i>fel</i> 'bile, gall' + <i>dūcere</i> 'to lead' + <i>-us, adj. ending</i>	Cael. Aur. Acut. 2.4.84	0	0	Langslow (2000) 371	
<i>fell-ōsus, -a, -um, adj.</i>	'full of gall'	χολ-ώδης	<i>fel</i> 'bile, gall' + <i>-ōsus</i> 'full of'	Cael. Aur. Acut. 4.6.92	0	0	Ernout (1949) 60	

<i>fīlī-fic-ium, -ī, n.</i>	'the bearing of children'	παιδο-ποίη-σις	<i>fīlius</i> 'child' + <i>facere</i> 'to make' + <i>-ium</i> 'denominal compound suffix'	Cael. Aur. <i>Gyn.</i> 1.291	0	0	Langslow (2000) 163	
<i>glūtinā-tōrius, -a, -um, adj.</i>	'glutinous'	κολλητ-ικός	<i>glūtināre</i> 'to stick together' + <i>-(t)ōrius</i> 'characterized by'	Cass. 87.18	0	2	Langslow (2000) 356	
<i>ōr-ālis, -is, -e, adj.</i>	'good for the mouth'	στοματ-ικός	<i>ōra</i> 'mouth' + <i>-ālis</i> 'characterized by; treatment'	Scrib. 37.12	0	3	Langslow (1987) 199	
<i>parvi-coll-is, -is, -e, adj.</i>	'with a small neck'	μικρο-τράχηλ-ος	<i>parvus</i> 'small' + <i>collum</i> 'neck' + <i>-is</i> , compound adj. suffix	Cael. Aur. <i>Acut.</i> 13.59	0	0	Langslow (2000) 371	
<i>pituit-ōsus, -a, -um, adj.</i>	'full of phlegm'	φλεγματ-ώδης	<i>pituita</i> 'phlegm' + <i>-ōsus</i> 'full of'	Cic. <i>Fat.</i> 7	2	1	Ernout (1949) 25	
<i>relaxā-tōrius, -a, -um, adj.</i>	'fit for slackening'	χαλαστ-ικός	<i>relaxāre</i> 'to relax' + <i>-(t)ōrius</i> 'characterized by'	Cass. 84.18	0	3	Langslow (2000) 356	
<i>re-spīrā-tōrius, -a, -um, adj.</i>	'for respiration'	ἀνα-πνευστ-ικός	<i>re-</i> 'reverse' + <i>spīrāre</i> 'to breathe' + <i>-(t)ōrius</i> 'characterized by'	Cass. 85.19	0	1	Langslow (2000) 355-6	
<i>retro-caput, -itis, n.</i>	'back of the head'	ὀπισθο-κέφαλον	<i>retro-</i> 'back' + <i>caput</i> 'head'	Isidor.	0	0	Ernout (1949) 33	
<i>salīv-ōsus, -a, -um, adj.</i>	'full of saliva'	πτυαλ-ώδης, σιαλ-ώδης	<i>salīva</i> 'spittle' + <i>-ōsus</i> 'full of'	Plin. <i>Nat.</i> 16.89	2	1	Ernout (1949) 27	
<i>sanguīn-ōsus, -a, um, adj.</i>	'bloody'	αἷμ-ώδης	<i>sanguis</i> 'blood' + <i>-ōsus</i> 'full of'	Cael. Aur. <i>Acut.</i> 45	0	0	Ernout (1949) 68	
<i>ses-sōrius, -a, -um, adj.</i>	'for treating the anus'	έδρ-ικός	<i>sedēre</i> 'to sit' + <i>-(t)ōrius</i> 'characterized by'	Cass. 178.9	0	0	Langslow (2000) 355	

<i>somn-ōsus, -a, -um, adj.</i>	'sleepy'	ύπν-ώδης, ύπν-ωτικός	<i>somnus</i> 'sleep' + <i>-ōsus</i> 'full of'	Cael Aur. <i>Acut.</i> 3.5.51	0	4	Ernout (1949) 49	
<i>sternūtā-tōrius, -a, -um, adj.</i>	'causing to sneeze'	πταρμ-ικός	<i>sternūtāre</i> 'to sneeze' + <i>-(t)ōrius</i> 'characterized by'	Cass. 171.6	0	1	Langslow (2000) 356	
<i>sub-pallidus, -a, -um, adj.</i>	'somewhat pale'	ύπό-κλωρος	<i>sub-</i> 'reduced intensity' + <i>pallidus</i> 'pale'	Cels. 2.4.9	3	0	Langslow (2000) 337-8	
<i>sub-ruber, -ra, -rum, adj.</i>	'reddish, having a hint of red'	ύπ-έρυθρος	<i>sub-</i> 'reduced intensity' + <i>ruber</i> 'red'	Cels. 5.28.8	4	0	Langslow (2000) 337-8	
<i>sub-venter, -is, m.</i>	'the lower belly'	ύπο-κοίλιον, ύπο-γάστριον	<i>sub-</i> 'under' + <i>venter</i> 'belly'	Or. Syn. 9.13	0	0	André (1991) 229	
<i>suf-fūmigā-tōrius, -a, -um, adj.</i>	'to be used for fumigation'	ύπο-καπν-ιστός	<i>sub-</i> 'under' + <i>fūmigāre</i> 'to smoke, fumigate' + <i>-(t)ōrius</i> 'characterized by'	Cass. 36.14	0	4	Langslow (2000) 356	
<i>suf-fūs-iō, -ōnis, f.</i>	'the welling up of the eye within; a cararact'	ύπό-χυ-σις	<i>sub-</i> 'under' + <i>fundere</i> 'to pour, to cause to well up' + <i>-(t)iō</i> 'an act, event'	Plin. <i>Nat.</i> 22.104	40	2	Langslow (2000) 113	
<i>super-inunct-ōrius, -a, -um, adj.</i>	'for smearing on top'	ύπερ-έγχρ-ιστος	<i>super-</i> 'above' + <i>in-</i> 'in, on' + <i>ungere</i> 'to smear' + <i>-(t)ōrius</i> 'characterized by'	Cass. 59.3	0	2	Langslow (2000) 356	



<i>sup-posit- ōrius, -a, -um, adj.</i>	'that which is placed underneath (as a suppository)'	ὑπό-θετ-ος	<i>sub-</i> 'under' + <i>pōnere</i> 'to place' + <i>-(t)ōrius</i> 'characterized by'	Cass. 127.9	0	1	Langslow (2000) 356	
<i>suspīri-ōsus, -a, -um, adj.</i>	'asthmatic'	ἀσθματ-ικός	<i>suspīrāre</i> 'to breath' + <i>-ōsus</i> 'characterized by, having'	Cass. 93.20	0	2	Langslow (1987) 199	
<i>tussicul-āris, -is, -e, adj.</i>	'suffering from a cough'	βηχ-ικός	<i>tussicula</i> 'a cough' + <i>-āris</i> , 'characterized by, pertaining to'	Cels. 3.22.9	2	2	Langslow (2000) 357	
<i>tussicul-ōsus, -a, -um, adj.</i>	'coughing'	βηχ-ώδης	<i>tussicula</i> 'a cough' + <i>-ōsus</i> 'full of'	Cael. Aur. <i>Acut.</i> 2.13.20	0	3	Ernout (1949) 30	
<b>EARLY CHRISTIAN</b>								
<i>alti-thronus, -a, -um, adj.</i>	'enthroned on high'	ὑψί-θρονος	<i>altus</i> 'high' + <i>thronus</i> 'throne'	Juven. 2.62	0	0	Fruyt (2011) 170	
<i>beāti-ficāre, v.</i>	'to make blessed'	μακαρ-ίζειν	<i>beātus</i> 'happy' + <i>-ficāre</i> , forms verbs that indicate making, doing, causing	Eccl.	0	0	Fruyt (2011) 171	
<i>bene-nuntiāre, v.</i>	'to tell good news'	εὐ-αγγελ-ίζειν	<i>bene-</i> 'well' + <i>nuntiāre</i> 'to announce'	Luke 4:43	0	0	Burton (2011) 490	
<i>bene-placēre, v.</i>	'to please well'	εὐ-δοκεῖν	<i>bene-</i> 'well' + <i>placēre</i> 'to please'	Matt. 11:26	0	0	Burton (2000) 133	
<i>com-pas-siō, -ōnis, f.</i>	'sympathy'	συμ-πάθε-ια	<i>com-</i> 'together' + <i>pati</i> 'to undergo' + <i>-(t)iō</i> 'act, result'	Tert. <i>Ad.</i> <i>Jud.</i> 11.5	0	3	Aarsleff (2011) 2006	

<i>con-cupiscent-ia</i> , -ae, f.	'longing, desire'	ἐπι-θυμ-ία	<i>con-</i> 'intensity' + <i>cupiscere</i> 'to desire' + <i>-ia</i> 'abstract noun'	Tert. <i>Ap.</i>	10	88	Nisula (2012) 18	
<i>dei-ficāre</i> , v.	'to deify'	θεο-ποιεῖν	<i>deus</i> 'god' + <i>-ficāre</i> , forms verbs that indicate making, doing, causing	Aug. <i>Ep.</i> 10.2	0	0	Miller (2006) 247	
<i>dei-vir-īlis</i> , -is, -e, adj.	'of a man of god'	θεο-ανδρ-ικός	<i>deus</i> 'god' + <i>vir</i> 'man' + <i>-īlis</i> 'relating to, like'	Eccl.	0	0	Lindner (1996) 63	
<i>discent-ia</i> , -ae, f.	'a learning'	μάθη-σις	<i>discere</i> 'to learn' + <i>-ia</i> 'abstract noun'	Tert. <i>Anim.</i> 23	4	0	Von Albrecht (1997) 1539	
<i>deō-decēns</i> , -entis, adj.	'suitable for a god'	θεο-πρεπής	<i>deus</i> 'god' + <i>decēre</i> 'to be suitable'	Ignat.	0	0	Lindner (1996) 64	
<i>domini-cīda</i> , -ae, m.	'lord-killer'	κυριο-κτόνος	<i>dominus</i> 'lord' + <i>-cīda</i> 'killer'	Eccl.	0	0	Lindner (1996) 66	
<i>glōri-ficāre</i> , v.	'to glorify'	δοξά-ζειν	<i>glōria</i> 'praise' + <i>-ficāre</i> , forms verbs that indicate making, doing, causing	Aug. <i>Ep.</i> 15.4	2	110	Burton (2011) 489, Miller (2006) 248	
<i>multi-loqu-ium</i> , -ī, n.	'a much-speaking'	πολυ-λογ-ία	<i>multus</i> 'many' + <i>loquī</i> 'to say' + <i>-ium</i> 'denominal compound suffix'	Matthew 6:7	0	4	Burton (2000) 131	

<i>mundi-ficā-tiō,</i> <i>-ōnis, f.</i>	'creation of the world'	κοσμο-ποι-ία	<i>mundus</i> 'universe, world' + <i>-ficāre</i> , forms verbs that indicate making, doing, causing + <i>-(t)iō</i> 'event, result'	Eust.	0	0	Lindner (1996) 120	
<i>omni-form-is,</i> <i>-is, -e, adj.</i>	'of all shapes'	παντό-μορφ-ος	<i>omnis</i> 'all' + <i>forma</i> 'form' + <i>-is</i> , compound adj. suffix	Eccl.	0	3	Lindner (1996) 130	
<i>omni-pavus,</i> <i>-a, -um, adj.</i>	'all-fearing'	παντο-φόβος	<i>omnis</i> 'all' + <i>pavēre</i> 'to fear' + <i>-us</i> , adj. suffix	Cael. Aur. <i>Acut.</i> 2.12	0	1	Lindner (1996) 131	
<i>ossi-gen-ius,</i> <i>-a, -um, adj.</i>	'one born from bone'	ὀστέο-γεν-ής	<i>os</i> 'bone' + <i>genus</i> 'birth' + <i>-ius</i> , forms derivations from nouns	Boeth.	0	1	Lindner (1996) 134	
<i>re-minīscē-ia,</i> <i>-ae, f.</i>	'reminiscence'	ἀνά-μνη-σις	<i>reminīscī</i> 'to recollect' + <i>-ia</i> 'abstract noun'	Tert. <i>Anim.</i> 23.6	0	0	Von Albrecht (1997) 1539	
<i>sancti-ficāre, v.</i>	'to hallow'	ἀγιά-ζειν	<i>sanctus</i> 'sacred' + <i>ficāre</i> , forms verbs that indicate making, doing, causing	Tert.	10	276	Burton (2011) 489	
<i>secundo-prīmus,</i> <i>-a, um, adj.</i>	meaning unclear	δευτερό-πρωτος	<i>secundus</i> 'following' + <i>prīmus</i> 'first'	Eccl.	0	0	Lindner (1996) 163	

<i>sēmini-verb-ium, -ī, n.</i>	'the babbling of words'	σπερμο-λόγ-ος	<i>sēmen</i> 'seed' + <i>verbum</i> 'word' + <i>-ium</i> 'denominal compound suffix'	Acts 17:18	0	1	Lindner (1996) 170	
<i>spīriti-fer, -era, -erum, adj.</i>	'spirit-bearing, inspired'	πνευματο-φόρος	<i>spīritus</i> 'spirit' + <i>ferre</i> 'to bear' + <i>-us, adj. suffix</i>	Ignat.	0	1	Lindner (1996) 178	
<i>super-intentor, -ōris, m.</i>	'an overseer'	ἐπί-σκοπ-ος	<i>super</i> 'over' + <i>intentāre</i> 'to fix (one's gaze)' + <i>-tor</i> 'actor, agent'	Aug.	0	0	Burton (2011) 491	
<i>ūni-pēs, -pedis, m.</i>	'one-footed'	μονό-πους	<i>ūnus</i> 'one' + <i>pēs</i> 'foot'	Strid. 1.40	0	0	Paroli (2009) 299	
<i>vīvi-ficāre, v.</i>	'to bring back to life'	ζωο-ποιεῖν	<i>vīvus</i> 'alive' + <i>-ficāre</i> , forms verbs that indicate making, doing, causing	John 5:21	0	86	Burton (2000) 135	
<b>LEGAL</b>								
<i>im-pūne?</i>	'without punishment'	νη-ποιεῖ	<i>in-</i> 'without' + <i>poena</i> 'punishment'	Ter. Eu. 924	241	252	Sihler (1995) 64	
<i>sub-vas?</i>	'one who stands for bail'	ὑπ-έγγυος	<i>sub-</i> 'under' + <i>vas</i> 'one who guarantees court appearance'	Gell. 10.7-8	1	0	Crawford (1996) 596	
<b>ARCHITECTURAL</b>								
<i>bitūmin-ōsus, -a, um, adj.</i>	'rich in bitumen'	ἄσφαλτ-ώδης	<i>bitūmen</i> 'asphalt' + <i>-ōsus</i> 'full of'	Vitr. 8.2.8	3	0	Langslow (2000) 341	
<i>terr-ōsus, -a, um, adj.</i>	'rich in earth, loamy'	γε-ώδης	<i>terra</i> 'earth' + <i>-ōsus</i> 'full of'	Vitr. 2.4.1	3	0	Langslow (2000) 341	

NAUTICAL								
<i>gubernā-tor, -ōris, m.</i>	'helmsman'	<i>κυβερνή-της</i>	<i>gubernāre</i> 'to steer, control' + <i>-tor</i> 'actor, agent'	Pl. <i>Am.</i> 950	186	21	Palmer (1961) 81	
GEOMETRICAL								
<i>circum-caes-ūra, -ae, f.</i>	'surface outline, contour'	<i>περι-κοπ-ή</i>	<i>circum-</i> 'around' + <i>caedere</i> 'to cut' + <i>-(t)ūra</i> , resultative noun of a verb	Lucr. 3.219	2	0	Fruyt (2011) 152	
<i>rēcti-angulum, -ī, m.</i>	'rectangle'	<i>ὀρθο-γώνιον</i>	<i>rēctus</i> 'straight' + <i>angulus</i> 'angle'	Isidor.	0	0	Lindner (1996) 154	
BIOLOGICAL								
<i>aqui-folium, -ī, n.</i>	'hollywood, having prickly leaves'	<i>ὄξύ-φυλλον</i>	<i>acus</i> 'pin' + <i>folium</i> 'leaf'	Plin. <i>Nat.</i> 16.19	4	0	Lindner (1996) 8	
<i>īn-sectum, -ī, n.</i>	'an insect'	<i>ἔν-τομον</i>	<i>in-</i> 'into' + <i>secāre</i> 'to cut' + <i>-um, nt.</i> Suffix	Plin. <i>Nat.</i> 11.1	25	8	<i>Oxford Latin Dictionary</i> (1982) 922	
<i>lāti-folium, -ī, n.</i>	'a plant having broad leaves'	<i>πλατύ-φυλλον</i>	<i>lātus</i> 'broad' + <i>folium</i> 'leaf'	Plin. <i>Nat.</i> 15.26.6	5	0	Lindner (1996) 97	
<i>racēm-ōsus, -a, -um, adj.</i>	'abundant in grapes'	<i>βοτρυ-ώδης</i>	<i>racēmus</i> 'a cluster of grapes' + <i>ōsus</i> 'full of'	Plin. <i>Nat.</i> 13.7	4	1	Ernout (1949) 48	
<i>tri-folium, -ī, n.</i>	'three leaf clover'	<i>τρι-φυλλον</i>	<i>tri-</i> 'three' + <i>folium</i> 'leaf'	Plin. <i>Nat.</i> 18.34	24	4	<i>Oxford Latin Dictionary</i> (1982) 1974	

VETERINARY								
<i>hord-iārī</i> , v.	'to suffer from indigestion from barley'	κριθ-ιᾶν	<i>hordeum</i> 'barley' + <i>-ārī</i> , denominative verb-forming suffix, deponent, first conjugation	Pel. 47	0	0	Adams (1995) 270	In Pel. only, 2 times (Adams 1995: 270).
OTHER								
<i>aqui-ferās</i>	'water-bearing'	ὕδρο-φορος	<i>aqua</i> 'water' + <i>ferre</i> 'to bear'	Amelie-les-Bains tablet, RIG II.2. L-97	0	0	Mullen (2013) 80	
<i>cavern-ōsus</i> , -a, -um, adj.	'full of hollows'	ἀντρ-ώδης	<i>caverna</i> 'cave' + <i>-ōsus</i> 'full of'	Plin. <i>Nat.</i> 26.58	2	9	Ernout (1949) 14	
<i>flōri-leg-ium</i> , -ī, n.	'an anthology, collection of flowers'	ἀνθο-λογία	<i>flōs</i> 'flower' + <i>legere</i> 'to gather' + <i>ium</i> 'denominal'	1647	0	0	<i>Merriam-Webster</i>	
<i>genu-flectere</i> , v.	'to kneel'	γονυ-κλίνειν	<i>genu</i> 'knee' + <i>flectere</i> 'to bend'	Late Latin	0	0	Klingebliel (1989) 27	
<i>genu-flexiō</i> ( <i>genu-flektiō</i> ), -ōnis, f.	'bending of the knee'	γονυ-κλισ-ία	<i>genu</i> 'knee' + <i>flectere</i> 'to bend' + <i>-(t)iō</i> 'event, result'	Late Latin	0	0	Klingebliel (1989) 27	
<i>harēn-ōsus</i> , -a, -um, adj.	'sandy'	ἡμαθ-όεις	<i>harēna</i> 'sand' + <i>-ōsus</i> 'full of'	Plin. <i>Nat.</i> 11.41	41	24	Ernout (1949) 21	
<i>nigri-color</i> , -is, m.	'swarthy'	μελάγ-χρους	<i>niger</i> 'black' + <i>color</i> 'color'	Sol.	0	0	Lindner (1996) 122	
<i>petrōsus</i> , -a, -um, adj.	'containing rocks'	πετρ-ώδης	<i>petra</i> 'rock' + <i>-ōsus</i> 'full of'	Plin. <i>Nat.</i> 4.84	14	7	Langslow (2000) 341	

<i>silv-ōsus, -a, -um, adj.</i>	'woody'	<i>ὄλη-εις</i>	<i>silva</i> 'woods' + <i>-ōsus</i> 'full of'	Liv. 9.2	6	10	Ernout (1949) 28	
<i>vulpīnārī, v.</i>	'to play the fox'	<i>ἄλωπεκί-ζειν</i>	<i>vulpīnus</i> 'belonging to a fox' + <i>-ārī</i> , denominative verb-forming suffix, deponent, first conjugation	Var. <i>Men.</i> 327	2	0	Kajava (1999) 20	

APPENDIX B  
AUTHOR AND TITLE LIST



<b>Abbreviation</b>	<b>Name of Author</b>	<b>Title of Work</b>	<b>Dates</b>
<i>Acc. trag.</i>	Lucius Accius	<i>tragedy fragments</i>	170 - 85 BCE
<i>Apul. Met.</i>	Apuleius	<i>Metamorphoses</i>	125 - 180 CE
<i>Aug. Ep.</i>	Augustine	<i>Epistulae</i>	354 - 430 CE
<i>Andr. trag.</i>	Livius Andronicus	<i>tragedy fragments</i>	284 – 204 BCE
Boeth.	Boethius		480 - 524 CE
<i>C.G.L.</i>		<i>Corpus Grammaticarum Latinarum</i>	
<i>Cael. Aur. Acut.</i>	Caelius Aurelianus	<i>de Morbis Acutis e Chronicis</i>	5th cent. CE
<i>Cael. Aur. Gyn.</i>		<i>Gynaecia</i>	
Cass.	Cassius Felix	<i>de Medicina</i>	5th cent. CE
Cat.	Catullus	<i>Carmina</i>	84 - 54 BCE
Cels.	A. Cornelius Celsus	<i>de Medicina</i>	1st cent. CE
Char.	Charisius	<i>Ars Grammatica</i>	4th cent. CE
<i>Cic. Ac.</i>	M. Tullius Cicero	<i>Academica</i>	106 - 43 BCE
<i>Cic. Att.</i>		<i>Epistulae ad Atticum</i>	
<i>Cic. Brut.</i>		<i>Brutus</i>	
<i>Cic. Carm.</i>		<i>Carmina</i>	
<i>Cic. De Or.</i>		<i>de Oratore</i>	
<i>Cic. Fam.</i>		<i>Epistulae ad Familiares</i>	
<i>Cic. Fat.</i>		<i>de Fato</i>	
<i>Cic. Fin.</i>		<i>de Finibus Bonorum et Malorum</i>	
<i>Cic. Inv.</i>		<i>de Inventione</i>	
<i>Cic. Luc.</i>		<i>Lucullus</i>	
<i>Cic. N. D.</i>		<i>de Natura Deorum</i>	
<i>Cic. Off.</i>		<i>de Officiis</i>	
<i>Cic. Part.</i>		<i>Partitiones Oratoriae</i>	
<i>Cic. Rep.</i>		<i>de Republica</i>	
<i>Cic. S. Rosc.</i>		<i>Pro S. Roscio Amerino</i>	
<i>Cic. Tim.</i>		<i>Timaeus</i>	

Cic. <i>Top.</i>		<i>Topica</i>	
Cled.	Cledonius	<i>Ars Grammatica</i>	
Corn. Sev. <i>poet.</i>	Cornelius Severus	<i>poetry fragments</i>	1st cent. BCE - 1st cent. CE
Diom.	Diomedes	<i>Ars Grammatica</i>	4th cent. CE
Ecc.		Ecclesiastical Latin	
Enn. <i>Ann.</i>	Quintus Ennius	<i>Annales</i>	239 - 169 BCE
Enn. <i>scen.</i>		<i>scenica</i>	
Eust.	Eustathius		4th cent. CE
Gel.	Aulus Gellius	<i>Noctes Atticae</i>	123 - 165 CE
Hor. <i>Ars.</i>	Horace	<i>Ars Poetica</i>	65 - 8 BCE
Hor. <i>Carm.</i>		<i>Carmina</i>	
Hor. <i>S.</i>		<i>Sermones</i>	
Ignat.	Ignatius	<i>Epistulae</i>	35 CE - 75 CE
Isidor.	Isidore of Seville	<i>Etymologiae</i>	560 - 636 BCE
Juven.	Gaius Vettius Aquilinus Juvencus	<i>Libri Euangelorium</i>	4th cent. CE
Liv.	T. Livius	<i>Ab Urbe Condita</i>	59 BCE - 17 CE
Lucr.	T. Lucretius Carus	<i>de Rerum Natura</i>	94 BCE - 55 BCE
Mart. <i>Ep.</i>	M. Valerius Martialis	<i>Epigrammatica</i>	40 - 101 CE
Naev. <i>com.</i>	C. Naevius	<i>comedy fragments</i>	270 - 210 BCE
Naev. <i>trag.</i>		<i>tragedy fragments</i>	
Or. <i>Syn.</i> 9.13	Oribasius	<i>Synogogai</i>	4th cent. CE
Ov. <i>Fast.</i>	P. Ovidius Naso	<i>Fasti</i>	43 BCE - 17 CE
Ov. <i>Ib.</i>		<i>Ibis</i>	
Ov. <i>Met.</i>		<i>Metamorphoses</i>	
Pac. <i>trag.</i>	Marcus Pacuvius	<i>tragedy fragments</i>	220 - 130 BCE
Pel.	Pelagonius	<i>Ars veterinaria</i>	4th cent. CE
Petr.	Petronius Arbiter	<i>Satyricon</i>	1st cent. BCE
Pl. <i>Am.</i>	T. Maccius Plautus	<i>Amphitruo</i>	254 BCE - 184 BCE

Pl. <i>Capt.</i>		<i>Captivi</i>	
Pl. <i>Cur.</i>		<i>Curculio</i>	
Pl. <i>Epid.</i>		<i>Epidicus</i>	
Pl. <i>Men.</i>		<i>Menaechmi</i>	
Pl. <i>Mos.</i>		<i>Mostellaria</i>	
Pl. <i>Persa</i>		<i>Persa</i>	
Pl. <i>Poen.</i>		<i>Poenulus</i>	
Pl. <i>Pseud.</i>		<i>Pseudolus</i>	
Pl. <i>Vid.</i>		<i>Vidularia</i>	
Plin. <i>Nat.</i>	Gaius Plinius Secundus	<i>Naturalis Historia</i>	23 - 79 CE
Prisc.	Priscian	<i>Institutiones grammaticae</i>	5th cent. - 6th cent. CE
Prop.	Sextus Propertius	<i>Elegiae</i>	1st cent. BCE
Quin.	Marcus Fabius Quintilian	<i>Institutio Oratoria</i>	35 CE - 100 CE
<i>Rhet. Her.</i>		<i>Rhetorica ad Herennium</i>	1st cent. BCE
Rut. Lup.	P. Rutillius Lupus	<i>Schemata Lexeos</i>	1st cent. BCE
Sacerd.	Plotius Sacerdos	<i>de Metris</i>	3rd cent. CE
Scaur.	Terentius Scaurus	<i>Ars Grammatica</i>	1st cent. CE - 2nd cent. CE
Scrib.	Scribonius Largus	<i>Compositiones</i>	1st cent. CE
Sen. <i>Dial.</i>	Lucius Annaeus Seneca	<i>Dialogi</i>	5 BCE - 65 CE
Sen. <i>Ep.</i>		<i>Epistulae</i>	
Serv.	Maurus Servius Honoratus	<i>In Vergilii Aeneidem Commentarii</i>	4th cent. - 5th cent. CE
Sol.	Gaius Julianus Solinus	<i>Collectanea rerum Memorabilium</i>	3rd cent. CE
Strid.	Stridonius	<i>Questiones Hebraicae</i>	4th cent. CE
Ter. <i>Eu.</i>	Publius Terentius Afer	<i>Eunuchus</i>	195 BCE - 159 BCE
Tert. <i>Ad. Jud.</i>	Tertullianus	<i>Adversus Judaeos</i>	2nd cent. CE
Tert. <i>Anim.</i>		<i>de Anima</i>	
Tert. <i>Ap.</i>		<i>Apologeticum</i>	
Var. <i>L.</i>	Marcus Terentius Varro	<i>de Lingua Latina</i>	116 - 27 BCE
Var. <i>Men.</i>		<i>Menippeae</i>	

Var. <i>R.</i>		<i>Res Rusticae</i>	
Verg. <i>Aen.</i>	Publius Vergilius Maro	<i>Aeneid</i>	70 - 19 BCE
Verg. <i>G.</i>		<i>Georgica</i>	
Vitr. 8.2.8	Vitruvius Pollio	<i>de Architectura</i>	80 - 15 BCE