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A morphosyntactic analysis of Latin multi-word anatomical terms and their translation equivalents in English and Armenian*

Análisis morfosintáctico de términos anatómicos de múltiples palabras en latín y sus equivalentes de traducción en inglés y armenio

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Abstract: This article focuses on the morphosyntactic changes that are made, necessarily and/or optionally, when translating Latin binomial and polynomial anatomical terms into English and Armenian. The principal morphosyntactic distinctions relate to several different ways of rendering Latin coordinated and uncoordinated attributes in English and Armenian. Additionally, differences are observed in the placement of dependents with respect to the head and to each other. It is argued that the morphosyntactic differences in question are partly due to the typological characteristics of the languages involved and partly to certain language-specific preferences and usage patterns typical of Modern English and Modern Armenian.
Keywords: Morphosyntactic analysis; anatomical terms; translation equivalents; head; dependents.
Resumen: Este artículo se centra en los cambios morfosintácticos que se hacen, de manera necesaria y/o opcional, al traducir términos anatómicos binomiales y polinomiales del latín al

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inglés y al armenio. Las principales distinciones morfosintácticas se refieren a diferentes maneras de expresar atributos coordinados y no coordinados del latín en inglés y armenio. Además, se observan diferencias en la colocación de los dependientes con respecto al núcleo y entre sí. Se argumenta que estas diferencias morfosintácticas se deben en parte a las características tipológicas de los idiomas involucrados y en parte a ciertas preferencias propias de cada lengua y patrones de uso específicos del inglés y del armenio modernos.
Palabras clave: Análisis morfosintáctico; términos anatómicos; equivalentes de traducción; núcleo; dependientes.

INTRODUCTION

Medical language belongs to the so-called languages for special purposes, and as such is characterized, above all, by a specific terminology. Three main subsystems are usually distinguished within the medical terminology: (a) anatomical (and histological) terminology or nomenclature; (b) clinical terminology or nomenclature; and (c) pharmaceutical terminology (Yeryomkina, Skuratova, Ivashchuk, Kravtsova, 2008, pp. 9-10). Latin anatomical and pharmaceutical binomial and polynomial terms exhibit similar (but not fully identical) morphosyntactic patterns; both represent attributive phrases with Latin constituent parts, as opposed to clinical terms, which are usually compounds consisting of Greek terminological elements (morphological roots and affixes). On the other hand, while strict word order rules are typical for constituents of Latin pharmaceutical word-combination terms, anatomical multi-word terms are characterized by more flexible word order patterns concerning the position of coordinated and uncoordinated attributes in the word combination.

Furthermore, various morphosyntactic changes and modifications are made, either necessarily or optionally, when translating Latin multi-word anatomical terms into English and Armenian. The main distinctions relate to several different ways of rendering Latin coordinated and uncoordinated attributes in English and Armenian, as well as their positioning in relation to the head noun and to each other.

These morphosyntactic distinctions, to my knowledge, have not received due attention so far, though medical terminology has been studied from various aspects, namely, historical, etymological, morphological, semantic, etc. (cf., for example, Džuganová, 2019, pp. 129-145; Litevkienė, Korosteliova, 2023, pp. 54-64, among many others).

Of course, a few morphosyntactic differences between Latin and English, or between Latin and Armenian, are sometimes mentioned in passing or can at least be inferred from the illustrative examples presented in various textbooks of Medical Latin (see, for example, Yeryomkina, Skuratova, Ivashchuk, Kravtsova, 2008, pp. 32-33; Tsisyk, 2010, p. 18; Kulichenko, Titiyevska, Kalashnikova, Martianova, 2019, pp. 22, 24, 33-34; Tirac‘yan, Balabanyan, 2004, pp. 27-28). However, such general and brief remarks are not only far from being exhaustive but also often overlook many crucial points. This article argues that the morphosyntactic differences in question are in part determined by the typological characteristics of the relevant languages and in part by language-specific preferences and usage patterns typical of Modern English and Modern Armenian.

The idea for this research came to me during the teaching process. As a lecturer of Medical Latin in both English and Armenian, I have observed that the morphosyntactic differences between Latin and English, as well as between Latin and Armenian, can be particularly confusing for students. These differences, along with the associated morphosyntactic modifications, are often the most challenging points for learners. Therefore, illustrating and highlighting the morphosyntactic differences may primarily have didactic significance, and the results of this research can be applied in future teaching practices. On the other hand, this mostly empirical investigation may also hold some theoretical value, as it briefly discusses and highlights the relevant theoretical and typological bases of the aforementioned morphosyntactic distinctions.

The primary didactic and practical purpose of this investigation determines the selection of two (and not more) target languages—English and Armenian—for examination. Of course, from a typological viewpoint,

the work would have benefited if a larger-scale investigation involving multiple target languages had been carried out. However, this would inevitably have burdened the linguistic analysis, causing the article to fail in appropriately fulfilling its main task: to be helpful to students studying Medical Latin in both English and Armenian, as well as to their lecturers. Therefore, an exhaustive cross-linguistic study of the morphosyntactic characteristics of multi-word anatomical terms awaits future research.

1. METHODOLOGY

This study is empirical on the whole, though, as mentioned above, it also touches upon the relevant theoretical and typological points. The article offers a comparative synchronic analysis of the morphosyntactic differences and similarities between Latin multi-word anatomical terms and their translation equivalents in English and Armenian. Therefore, the main method widely used throughout the article is a comparative one, necessarily combined with the descriptive method.

In accordance with the current purpose of this article, the anatomical terms presented are representative examples and do not provide an exhaustive list of all instances of the discussed types. In carrying out the investigation, we have utilized the following terminological dictionaries of human anatomy, which are based on the International Nomenclature and serve as sources for the anatomical terms discussed in this article. Latin and English examples are primarily taken from:

> *FIPAT. Terminologia Anatomica. 2nd ed. FIPAT.library.dal.ca. Federative International Programme for Anatomical Terminology* (2019) (hereafter *FIPAT,* 2019);
>
> Feneis, Heinz, Dauber, Wolfgang (2000). *Pocket Atlas of Human Anatomy Based on the International Nomenclature*. *Fourth edition, fully revised 800 illustrations by Gerhard Spitzer.* Thieme.

The choice of the two anatomical terminological dictionaries mentioned above is conventional, given that anatomical terms based on the International Nomenclature are generally represented in a more or less standard way across all terminological dictionaries. Of course, some minor morphosyntactic differences are also observable in the case of individual terms. These distinctions are usually determined by two main factors.

Firstly, multi-word anatomical terms sometimes exhibit variant forms in Latin. For instance, the same dependent can often be expressed with either an adjectival or genitival modifier. As a result, individual anatomical terminological dictionaries may provide either both variants or just one variant. Secondly, Latin genitival modifiers can, in principle, be expressed in several ways in English,[1] which results in variations in translation. Again, individual terminological dictionaries may prefer one translation equivalent over another. The aforementioned can be exemplified by instances such as: Lat. *Foramen apicis radicis* ***dentis*** (*FIPAT*, 2019, p. 38), *Foramen apicis radicis* ***dentalis*** (Feneis, Dauber, 2000, p. 112) : Eng. *Apical foramen of root of tooth*. As can be seen, the last dependent (modifier) in the Latin term may appear in both the genitive singular form *dentis* and the adjectival form *dentalis*, whereas the two above dictionaries each present only one variant. In other cases, one of the dictionaries often provides both Latin variants, whereas the other dictionary provides only one variant, e.g., Lat. *Articulatio genus* / *Articulatio genualis* : Eng. *Knee joint* (Feneis, Dauber, 2000, p. 68), and Lat. *Articulatio genus* : Eng. *Knee joint* (*FIPAT*, 2019, p. 68); Lat. *Cavitas abdominis / Cavitas abdominalis* : Eng. *Abdominal cavity* (*FIPAT*, 2019, p. 157), and Lat. *Cavitas abdominalis* : Eng. *Abdominal cavity* (Feneis, Dauber, 2000, p. 176), etc.

Of course, in many instances, both dictionaries provide all available variants of Latin anatomical terms, e.g., Lat. *Arcus vertebrae / Arcus vertebralis* : Eng. *Vertebral arch* (*FIPAT*, 2019, p. 41; Feneis, Dauber, 2000, p. 2); Lat. *Corpus vertebrae / Corpus vertebrale* : Eng. *Vertebral body* (*FIPAT*, 2019, p. 41), and also Eng. *Body of vertebra* (Feneis, Dauber, 2000, p. 2), etc. The last example at the same time shows a variation in the English translation. In particular, whereas one of the above dictionaries prefers the English variant with the of-construction, the other dictionary opts for the English translation equivalent with the adjectival modifier. Throughout the article, all available Latin variants and their

[1] Specifically, in the case of Latin anatomical terms, they can be expressed using adjectival modifiers, postmodifying prepositional phrases (primarily the of-construction and, less frequently, prepositional phrases with 'for' or 'to'), as well as noun attributes; for example, the following instances typically illustrate how the Latin genitival modifier *cutis* (meaning 'of skin') is translated into English in three different ways: through an adjectival modifier, the of-construction, and a noun attribute, respectively: Lat. *Cristae cutis* – Eng. *Dermal ridges* (*FIPAT*, 2019, p. 299; Feneis, Dauber, 2000, p. 390); Lat. *Sulci cutis* – Eng. *Sulci of skin* (Feneis, Dauber, 2000, p. 390), and also Eng. *Skin sulci* (*FIPAT*, 2019, p. 299).

translation equivalents are presented side by side without any references. Specific references to the aforementioned dictionaries are made only when it is necessary to emphasize the different ways of translating a particular Latin term into English, or when addressing a somewhat peculiar or curious phenomenon that requires citing the exact source of the quoted examples.

As for the Armenian language, all the anatomical terms discussed in the current article are taken from the following nomenclature (which is a highly reliable source for Armenian translation equivalents of Latin anatomical terms): Bekzadyan, Aramayis Hakobi, Hakobyan, Hakob Minasi (1962). *Anatomiakan mijazgayin nomenklatura (Nomina Anatomica Internationalia).* Haypethrat. (In Armenian), so specific references to it would be superfluous.[2]

2. The main typological features of noun phrases in Latin, English, and Armenian

As mentioned above, the morphosyntactic differences between multi-word anatomical terms in Latin, English, and Armenian are in part determined by the typological characteristics of the relevant languages and in part by language-particular preferences and usage patterns typical of Modern English and Modern Armenian. Therefore, before proceeding to the morphosyntactic analysis of multi-word anatomical terms, it would be appropriate to make some general observations about the relevant typological features of attributive phrases in the languages concerned. This includes an examination of the morphosyntactic behavior of coordinated and uncoordinated attributes, as well as some significant language-specific preferences.

The description of noun phrases in Latin, in particular the question of the placement of modifiers with respect to their governing noun (head noun) is related to serious difficulties. The main problem lies in that both adjectival attributes and genitives can either precede or follow the head noun. Therefore, both *AN* (*adjective* + *noun*) and *NA* (*noun* + *adjective*) as well as *GN* (*genitive* + *noun*) and *NG* (*noun* + *genitive*) constructions

[2] In the current article, Armenian lexical forms are transliterated according to the Hübschmann-Meillet-Benveniste system, which is generally accepted in scholarly literature (cf., for example, Godel, 1975, pp. XI, 4; Dum-Tragut, 2009, p. 10; Martirosyan, 2018, p. 47).

occur equally in Latin. In spite of various attempts to account for the variation between the premodification and postmodification, no consensus on this point has been achieved so far. As noted by some scholars, several factors may be responsible for such a word order variation, including sociolinguistic and pragmatic ones (Spevak, 2014, p. 101 ff.; Viti, 2010, pp. 77-96). However, as far as Latin medical terminology is concerned, both adjectival attributes and genitives usually follow the head noun in a quite regular way. Therefore, the disputable issue concerning the position of noun-phrase constituents in Latin is irrelevant for the purposes of the current article and can consequently be dispensed with. It should also be noted that adjectival modifiers always agree with the head noun in gender, number, and case in Latin.

By contrast, in Modern English and Modern Armenian, both adjectival attributes and genitives are typically preposed to the head noun, not only in medical terminology but also in everyday language. Furthermore, in both English and Armenian, unlike in Latin, the syntactic relationship between the adjectival modifier and the head noun is not expressed through agreement but rather by the simple juxtaposition of the premodifier and the head.

As regards the genitive, two main types are usually distinguished in the literature: the so-called *determiner genitives* (also termed *specifying genitives*) and *descriptive genitives* (also termed *classifying genitives*) (Rosenbach, 2006, p. 77 ff.). Besides, it is generally accepted that the core (prototypical) function of the genitive case is to mark a possessive relation. As Blake puts it, the adnominal genitive case «normally covers the sense of possessor, and the label *possessive case* is a common alternative» (Blake, 2004, p. 149; cf. also Lander, 2008, p. 581).

However, it is also known that the genitive case, cross-linguistically, expresses a wider range of meanings than mere possession (Nikiforidou, 1991, p. 153). Even in Modern English, where the use of the synthetic 's-genitive has been considerably narrowed and restricted, and some of its functions have been taken over by periphrastic constructions, «the synthetic 's-genitive still denotes, e.g., the possessor, the agent, the partitive, the holder of an attribute, kinship relations, and has also the "objective" function» (ibid., p. 155). Of course, given the restrictions on the 's-genitive, the meanings mentioned above are very often expressed through various periphrastic constructions in Modern English. Therefore, the meanings of the genitive case in Latin and Armenian, as stated above, can be expressed in several ways in English: using 's-genitives,

corresponding postmodifying prepositional phrases, adjectival modifiers, and noun attributes.[3] As far as the relationship between noun attributes and postmodifying prepositional phrases is concerned, «in most cases, premodifying nouns correspond to postmodification with prepositional phrases» (Quirk, Greenbaum, Leech, Svartvik, 1985, p. 1330), and both constructions are very often available, e.g., *his life story = the story of his life*; *a dish cloth = a cloth for dishes*; *an iron rod = a rod of iron*; *a Sussex man = a man from Sussex*, etc. (ibid., pp. 1330-1332).

As for the relationship between 's-genitives and *N + N* (*noun + noun*) sequences in Modern English in general, although there is some variation between the two constructions, they are in complementary distribution, especially in the function of descriptive genitives. As pointed out by Taylor and later confirmed by the results of Rosenbach's and others' investigations, two main factors—the animacy and referentiality of the dependent (noun modifier)—determine the choice between the two constructions. Specifically, animate noun modifiers have a strong preference for the 's-genitives (e.g., *woman's magazine, driver's licence*), while the *N + N* sequences are preferred with inanimate noun modifiers (e.g., *car engine, museum shop*) (Taylor, 1996, pp. 308-310, 303-304; Rosenbach, 2006, p. 89 ff.). Furthermore, apart from the singular variants there are also plural variants (e.g., lawyers fees vs. lawyers' fees) (Rosenbach, 2006, p. 90). Note, however, that the singular *N + N* sequences are normally number-neutral in English. Hence, postmodifying plural nouns are replaced by the corresponding singular (number-neutral) form when used in pre-head position, e.g., *decay of teeth : tooth decay*. In this respect, prepositional postmodifiers are relatively more explicit as compared to noun premodifiers (Quirk, Greenbaum, Leech, Svartvik, 1985, p. 1333).

Genitives, especially descriptive genitives, generally exhibit certain semantic affinities to adjectives. Therefore, it is no accident that adjectival suffixes may diachronically develop into genitive markers. For instance, the Old Armenian plural genitive, dative, and ablative marker *-c*^{c} is believed to derive from the Proto-Indo-European adjectival suffix **-sko*. Thus, this suffix initially served as the plural genitive marker and later also took on the functions of the plural dative and ablative in the prehistoric

[3] However, it should be noted that the use of 's-genitives is generally not typical for anatomical terms.

period of the Armenian language (Godel, 1975, p. 106; Klein, 2007, pp. 1054-1055).

The semantic affinity between adjectives and genitives is further evidenced by the fact that the same meaning can often be expressed by both an adjectival modifier and a genitive in a language.[4] In this respect, the medical language is no exception; cf. Lat. *Cavitas abdominis / Cavitas abdominalis* 'Abdominal cavity, Abdomen cavity'; Lat. *Angulus sterni / Angulus sternalis* 'Sternal angle', etc. However, Modern English, as will be seen below, mostly opts for the variant with the adjectival modifier in such cases, especially where both variants are available in Latin. On the other hand, given the growing tendency for *N + N* sequences to gain more ground in Modern English in general (Dubenec, 2003, pp. 13-16), it is no surprise that descriptive genitives, as well as adjectival modifiers, in Latin medical terms are also not infrequently translated into English through noun attributes, e.g., Lat. *Articulatio genus / Articulatio genualis* : Eng. *Knee joint*; Lat. *Capsula articularis* : Eng. *Joint capsule*; Lat. *Articulatio coxae / Articulatio coxofemoralis (iliofemoralis)* : Eng. *Hip joint*; Lat. *Articulatio cubiti / Articulatio cubitalis* : Eng. *Elbow joint*; Lat. *Cavitas pulparis / Cavitas dentis / Cavum dentis* : Eng. *Pulp cavity*; Lat. *Pulpa radicularis* : Eng. *Root pulp*; Lat. *Dens serotinus (molaris tertius)* : Eng. *Wisdom tooth*; Lat. *Canalis radicis dentis* : Eng. *Root canal of tooth*, etc. Furthermore, the genitive case in Latin can often be substituted by the corresponding adjectival modifier in English, especially in medical terminology, e.g., Lat. *Cavitas cranii* : Engl. *Cranial cavity*; Lat. *Cavitas nasi* : Engl. *Nasal cavity*; Lat. *Rima oris* : Engl. *Oral opening / Oral fissure*; Lat. *Foramen mandibulae* : Eng. *Mandibular foramen*, etc. As far as the genitive case in Latin and Armenian is concerned, it expresses a wide range of meanings in both languages, including that of the determiner genitive and the descriptive genitive (Bennett, 2006, p. 134 ff.; Abełyan, 1965, pp. 419-427). That is why not only are Latin genitival modifiers generally rendered through corresponding genitives in a quite regular way, but Latin adjectival attributes are also not infrequently replaced by descriptive genitives in Armenian. Of course, here the same kind of word order difference is observed between the two languages as in the case of

[4] For example, in Modern Armenian, we see (gen. mod.) *cnoł hogatarut'yun* 'parental care' and (adj. mod.) *cnołakan hogatarut'yun* 'id.', as well as (gen. mod.) *gyuł kyank'* 'village life' and (adj. mod.) *gyułakan kyank'* 'id.', etc.

adjectival modifiers. That is to say, again, premodification is characteristic of Modern Armenian, whereas genitives, just as adjectival modifiers, regularly appear in the post-head position in Medical Latin. More information on certain relevant language-specific characteristics and usage patterns will be provided below in the corresponding sections.

3. The main types of multi-word anatomical terms in Latin, English, and Armenian

Latin anatomical terms exhibit diverse structural types. They may be composed of one, two, three or more words — up to 8. Binomial and polynomial terms are generally more numerous than one-word terms (Yeryomkina, Skuratova, Ivashchuk, Kravtsova, 2008, pp. 32-35; Tsisyk, 2010, p. 18). On the other hand, multi-word terms are characterized by various structural and morphosyntactic features, and, accordingly, divided into several different types (Yeryomkina, Skuratova, Ivashchuk, Kravtsova, 2008, pp. 33-35; Tsisyk, 2010, p. 18). However, this article does not aim to explore all the available types of Latin multi-word anatomical terms but rather seeks to illustrate and highlight the morphosyntactic differences and similarities between binomial and polynomial anatomical terms in Latin, English, and Armenian, as well as the important morphosyntactic changes and modifications typically made when translating the Latin terms into English and Armenian. In accordance with the aforementioned, the order of presentation and discussion of the structural types of Latin multi-word anatomical terms below will be as follows:

1. *Noun in nominative case* + *adjective*, e.g., Lat. *Facies nasalis* : Eng. *Nasal surface* : Arm. *k‘t‘ayin makeres*;

2. *Noun in nominative case* + *noun in genitive case*, e.g., Lat. *Radix linguae* : Eng. *Root of tongue* : Arm. *lezvi armat / lezvarmat*;

3. *Noun in nominative case* + *adjective* + *adjective*, e.g., Lat. *Sulcus palatinus major* : Eng. *Greater palatine sulcus* : Arm. *k‘mayin mec akos*;

4. *Noun in nominative case* + *noun in genitive case* + *noun in genitive case*, e.g., Lat. *Apex capitis fibulae* : Eng. *Apex of head of fibula* : Arm. *nrbolok‘i glxi gagat‘*;

5. *Noun in nominative case + noun in genitive case + adjective / noun in nominative case + adjective + noun in genitive case*, e.g., Lat. *Basis cranii interna / Basis interna cranii* : Eng. *Internal base of cranium* : Arm. *gangi nerk'in himk' / nerk'in gangahimk'*;

6. *Noun in nominative case + adjective + noun in genitive case + adjective*, e.g., Lat. *Ligamentum transversum scapulae superius* : Eng. *Superior transverse scapular ligament* : Arm. *t'iaki miǰajig verin kapan*, etc.

Of course, the above six types don't exhaust all the possible and available structural models of Latin multi-word anatomical terms. For instance, there also occur polynomial terms of such structural types as:

Noun in nominative case + adjective + noun in genitive case + noun in genitive case, e.g., Lat. *Facies articularis capitis fibulae* : Eng. *Articular facet of head of fibula* : Arm. *nrbolok'i glxi hoderes*;

Noun in nominative case + noun in genitive case + adjective + adjective, e.g., Lat. *Sulcus sinus petrosi inferioris* : Eng. *Groove for inferior pertrosal sinus*:[5] Arm. *storin vimacoc'i akos*;

Noun in nominative case + noun in genitive case + noun in genitive case + adjective + adjective, e.g., Lat. *Sulcus tendinis musculi peronei longi* : Eng.

[5] One should note that in this case, as well as in many others, the genitival modifier in Latin is rendered in English using a prepositional phrase with the preposition 'for,' rather than the of-construction, which is typically the most common substitute among the prepositional phrases for the Latin genitive in English translations. Similarly, we see, for instance, terms such as Lat. *Fovea dentis* : Eng. *Facet for dens* (*FIPAT*, 2019, p. 42); Lat. *Fissura ligamenti teretis* : Eng. *Fissure for round ligament* (Feneis, Dauber, 2000, p. 130); Lat. *Sulcus arteriae vertebralis* : Eng. *Groove for vertebral artery* (*FIPAT*, 2019, p. 42; Feneis, Dauber, 2000, p. 4), etc. Sometimes there is variation in translation; for example, the Latin term *Fossa vesicae biliaris* / *Fossa vesicae felleae* can be translated as *Fossa for gallbladder* (*FIPAT*, 2019, p. 134) or *Fossa of gallbladder* (Feneis, Dauber, 2000, p. 130). On the other hand, as already mentioned, in certain cases a genitival modifier in Latin can be translated into English through a prepositional phrase with 'to', as illustrated by the following examples: Lat. *Arteria comitans nervi ischiadici* : Eng. *Artery to sciatic nerve / Artery to ischiatic nerve* (*FIPAT*, 2019, p. 194); Lat. *Nervus tensoris veli palatini / Nervus musculi tensoris veli palatini* : Eng. *Nerve to tensor veli palatini / Nerve to tensor veli palatini muscle* (ibid., p. 272; see also Feneis, Dauber, 2000, p. 324), etc.

Groove for the tendon of the peroneus longus muscle : Arm. *nrbolok'ayin erkar mkani ǰli akos*;

Noun in nominative case + adjective + adjective + adjective, e.g., Lat. *Facies articularis talaris anterior* : Eng. *Anterior talar articular surface* : Arm. *vegayin arǰewi hoderes*, etc.

Note, however, that the latter four types, as well as various other types, do not show any fundamental morphosyntactic differences from those indicated above. Therefore, the six former types are, in principle, sufficient to elucidate the morphosyntactic behavior of all possible constituents in Latin multi-word anatomical terms and their translation equivalents in English and Armenian. Consequently, only these six former types will be examined below.

3.1. Noun in nominative case + adjective

The adjectival dependent of such Latin anatomical terms is typically represented by an adjectival modifier in English, with the differences arising from the typological characteristics of the languages involved. Specifically, in English, unlike in Latin, the adjectival modifier usually precedes the head noun and does not agree with it in gender, number, and case, e.g., Lat. *Facies nasalis* : Eng. *Nasal surface*; Lat. *Facies palatina* : Eng. *Palatine surface*; Lat. *Processus frontalis* : Eng. *Frontal process*; Lat. *Processus temporalis* : Eng. *Temporal process*; Lat. *Facies articularis* : Eng. *Articular surface*; Lat. *Pars cervicalis* : Eng. *Cervical part*; Lat. *Pars thoracica* : Eng. *Thoracic part*, etc.

Only rarely is the Latin adjectival modifier rendered in English through the of- construction, e.g., Lat. *Capsula prostatica* : Eng. *Capsule of prostate* (Feneis, Dauber, 2000, p. 162); Lat. *Corpus gastricum (ventriculare)* : Eng. *Body of stomach* (ibid., p. 120); Lat. *Fornix gastricus (ventricularis)* : Eng. *Fornix of stomach* (ibid., p. 120), etc. Note, however, that in such cases there is almost always a variant term with a genitival modifier in Latin, e.g., Lat. *Capsula prostatae / Capsula prostatica* : Eng. *Capsule of prostate* (*FIPAT*, 2019, p. 155); Lat. *Corpus gastris / Corpus gastricus* : Eng. *Body of stomach* (ibid., p. 130); Lat. *Fornix gastris / Fornix gastricus* : Eng. *Fornix of stomach* (ibid., p. 130), etc. Therefore, it would be more appropriate to say that where there are variant terms with both a genitival and an adjectival modifier in Latin, English mostly opts

for the variant with the adjectival modifier, and only rarely is the of-construction preferred in such cases. This can be further exemplified by such instances as:

Lat. *Angulus sterni / Angulus sternalis* : Eng. *Sternal angle* (*FIPAT*, 2019, p. 45; Feneis, Dauber, 2000, p. 6); Lat. *Ossa tarsi / Ossa tarsea / Ossa tarsalia* : Eng. *Tarsal bones* (*FIPAT*, 2019, p. 53), and Lat. *Ossa tarsi / Ossa tarsalia* : Eng. *Tarsal bones* (Feneis, Dauber, 2000, p. 50); Lat. *Fossa acetabuli / Fossa acetabularis* : Eng. *Acetabular fossa* (Feneis, Dauber, 2000, p. 42), and Lat. *Fossa acetabuli* : Eng. *Acetabular fossa* (*FIPAT*, 2019, p. 49); Lat. *Cavitas pelvis / Cavitas pelvica* : Eng. *Pelvic cavity* (Feneis, Dauber, 2000, p. 44), and Lat. *Cavitas pelvis / Cavitas pelvina* : Eng. *Pelvic cavity* (*FIPAT*, 2019, p. 157); Lat. *Incisura acetabuli / Incisura acetabularis* : Eng. *Acetabular notch* (Feneis, Dauber, 2000, p. 42), and Lat. *Incisura acetabuli : Acetabular notch* (*FIPAT*, 2019, p. 49); Lat. *Arcus vertebrae / Arcus vertebralis* : Eng. *Vertebral arch* (*FIPAT*, 2019, p. 41; Feneis, Dauber, 2000, p. 2); Lat. *Canalis gastricus / Canalis gastris* : Eng. *Gastric canal* (*FIPAT*, 2019, p. 130), and Lat. *Canalis gastricus / Canalis ventricularis* : Eng. *Gastric canal* (Feneis, Dauber, 2000, p. 120); Lat. *Cavitas abdominis / Cavitas abdominalis* : Eng. *Abdominal cavity* (*FIPAT*, 2019, p. 157), and Lat. *Cavitas abdominalis* : Eng. *Abdominal cavity* (Feneis, Dauber, 2000, p. 176);[6] Lat. *Fundus gastris / Fundus gastricus* : Eng. *Fundus of stomach* (*FIPAT*, 2019, p. 130), etc.

Sometimes, variant terms occur in English as well, *vis-à-vis* Latin variant terms, such as: Lat. *Margo acetabuli / Limbus acetabuli* : Eng. *Acetabular margin* (*FIPAT*, 2019, p. 49), and Lat. *Limbus acetabuli / Margo acetabularis* : Eng. *Margin of the acetabulum* (Feneis, Dauber, 2000, p. 42); Lat. *Vestibulum nasi / Vestibulum nasale* : Eng. *Vestibule of nose* (Feneis, Dauber, 2000, p. 136), and Lat. *Vestibulum nasi* : Eng. *Nasal vestibule* (*FIPAT*, 2019, p. 139), etc.

As for the Armenian language, although Latin adjectival modifiers can, in principle, be expressed through corresponding adjectives in Armenian, they are also frequently replaced by genitival modifiers. Additionally, there are often parallel compound terms in both cases in Armenian. The following instances can serve as illustrations: Lat.

[6] There is yet another variant term of the type *noun in nominative case + noun in nominative case* in English: *Abdomen cavity* (cf. Tsisyk, 2010, p. 22).

Foramen intervertebrale : Arm (adj. mod.)[7] *miǰołnayin anc‘k‘* (Eng. *Intervertebral foramen*); Lat. *Facies lateralis* : Arm. (adj. mod.) *kołmnayin makeres* (Eng. *Lateral surface*); Lat. *Incisura clavicularis* : Arm. (adj. mod.) *anrakayin ktruč* (Eng. *Clavicular notch*); Lat. *Margo frontalis* : Arm. (adj. mod.) *čakatayin ezr* (Eng. *Frontal border*); Lat. *Fossa pterygoidea* : Arm. (adj. mod.) *t‘ewakerpayin p‘os* (Eng. *Pterygoid fossa*); Lat. *Tuberculum jugulare* : Arm. (adj. mod.) *lcayin t‘mbik* / (comp.) *lcat‘mbik* (Eng. *Jugular tubercle*); Lat. *Incisura nasalis* : Arm. (adj. mod.) *k‘t‘ayin ktruč* / (comp.) *k‘t‘aktruč* (Eng. *Nasal notch*); Lat. *Plica vocalis* : Arm. (adj. mod.) *jaynayin cal* / (comp.) *jaynacal* (Eng. *Vocal fold*); Lat. *Glandulae linguales* : Arm. (adj. mod.) *lezvayin geǰer* / (comp.) *lezvageǰer* (Eng. *Lingual glands*); Lat. *Arcus costalis* : Arm. (adj. mod.) *kołayin ałeł* / (comp.) *kołałeł* (Eng. *Costal arch*); Lat. *Processus mamillaris* : Arm. (adj. mod.) *ptkayin elun* / (comp.) *ptkelun* (Eng. *Mamillary process*); Lat. *Pars basilaris* : Arm. (adj. mod.) *himk‘ayin mas* / (comp.) *himk‘amas* (Eng. basilar part); Lat. *Rami capsulares* : Arm. (adj. mod.) *patčayin čyułer* / (comp.) *patičačyułer* (Eng. *Capsular branches*), etc., and on the other hand, Lat. *Pelvis renalis* : Arm. (gen. mod.) *erikami avazan* (Eng. *Renal pelvis*); Lat. *Sinus renalis* : Arm. (gen. mod.) *erikami coc‘* (Eng. *Renal sinus*); Lat. *Ligamentum pulmonale* : Arm. (gen. mod.) *t‘ok‘i kapan* (Eng. *Pulmonary ligament*); Lat. *Columnae renales* : Arm. (gen. mod.) *erikami syuner* (Eng. *Renal columns*); Lat. *Musculus trachealis* : Arm. (gen. mod.) *šnč‘ap‘oły mkan* (Eng. *Tracheal muscle*); Lat. *Cartilagines tracheales* : Arm. (gen. mod.) *šnč‘ap‘oły ačaṙner* (Lat. *Tracheal cartilages*); Lat. *Canalis vertebralis* : Arm. (gen. mod.) *ołnašari xołovak* (Eng. *Vertebral canal*); Lat. *Nervus sublingualis* : Arm. (gen. mod.) *lezvataki nerv* (Eng. *Sublingual nerve*); Lat. *Papillae renales* : Arm. (gen. mod.) *erikami ptkikner* (Eng. *Renal papillae*); Lat. *Foramen vertebrale* : Arm. (gen. mod.) *oły anc‘k‘* / (comp.) *ołnanc‘k‘* (Eng. *Vertebral foramen*); Lat. *Glandulae laryngeae* : Arm. (gen. mod.) *kokordi geǰer* / (comp.) *kokordageǰer* (Eng. *Laryngeal glands*); Lat. *Tonsilla lingualis* : Arm. (gen. mod.) *lezvi nšik* / (comp.) *lezvanšik* (Eng. *Lingual tonsil*); Lat. *Fossa tonsillaris* : Arm. (gen. mod.) *nšiki p‘os* / (comp.) *nšikap‘os* (Eng. *Tonsillar fossa*); Lat. *Glandulae palatinae* : Arm. (gen. mod.) *k‘imk‘i geǰer* / (comp.) *kmageǰer* (Eng. *Palatine glands*); Lat. *Sinus*

[7] Here and below, the abbreviations (adj. mod.), (gen. mod.), and (comp.) refer to the linguistic terms *adjectival modifier*, *genitival modifier*, and *compound*, respectively.

tonsillaris / Fossa tonsillaris : Arm. (gen. mod.) *nšiki coc‘ /* (comp.) *nšikacoc‘* (Eng. *Tonsillar fossa / Tonsillar sinus*); Lat. *Fossa condylaris* : Arm. (gen. mod.) *koči p‘os /* (comp.) *kočap‘os* (Eng. *Condylar fossa*), etc.

There are sometimes variant terms in Armenian that include both a genitival and an adjectival modifier, e.g., Lat *Vertebrae coccygeae* : Arm. (adj. mod.) *poč‘ukayin ołer /* (gen. mod.) *poč‘uki ołer* (Eng. *coccygeal vertebrae*); Lat. *Vertebrae thoracicae* : Arm. (adj. mod.) *krck‘ayin ołer /* (gen. mod.) *krck‘i ołer* (Eng. *Thoracic vertebrae*); Lat. *Regio frontalis* : Arm. (adj. mod.) *čakatayin šrǰan /* (gen. mod.) *čakati šrǰan* (Eng. *Frontal region*); Lat. *Regio oralis* : Arm. (adj. mod.) *beranayin šrǰan /* (gen. mod.) *berani šrǰan* (Eng. *Oral region*); Lat. *Regio occipitalis* : Arm. (adj. mod.) *cocrakayin šrǰan /* (gen. mod.) *cocraki šrǰan* (Eng. *Occipital region*); Lat. *Regio nasalis* : Arm. (adj. mod.) *k‘t‘ayin šrǰan /* (gen. mod.) *k‘t‘i šrǰan* (Eng. Nasal region); Lat. *Regio mentalis* : Arm. (adj. mod.) *kzakayin šrǰan /* (gen. mod.) *kzaki šrǰan* (Eng. *Mental region*), etc.

In some other cases, Latin phrases of the type *Noun in Nominative Case + Adjective* are represented exclusively by corresponding compounds in Armenian, e.g., Lat. *Os frontale* : Arm. *čakatoskr* (Eng. *Frontal bone*); Lat. *Os nasale* : Arm. *k‘t‘oskr* (Eng. *Nasal bone*); Lat. *Os palatinum* : Arm. *k‘moskr* (Eng. *Palatine bone*); Lat. *Os sphenoidale* : Arm. *seposkr* (Eng. *Sphenoid bone*); Lat. *Os temporale* : Arm. *k‘unk‘oskr* (Eng. *Temporal bone*); Lat. *Tunica mucosa* : Arm. *lorjapatyan*; Lat. *Substantia corticalis* : Arm. *kełewanyut‘* (Eng. *Cortical substance*); Lat. *Foramen nutricium / Foramen nutriens* : Arm. *snndacak / snndanc‘k‘* (Eng. *Nutrient foramen*); Lat. *Fossa canina* : Arm. *šnap‘os* (Eng. *Canine fossa*); Lat. *Ligamentum vocale* : Arm. *jaynakapan / jaynalar* (Eng. *Vocal ligament*), etc.

The frequent replacement of Latin attributive phrases with compounds, either exclusively or alternatively, can be attributed to the remarkable flexibility of the Armenian language in word-building. As for the replacement of Latin adjectival modifiers with corresponding genitives in Armenian, it should be noted that the genitive case in Armenian is generally characterized by a notably wide use in the meaning of descriptive genitives.

3.2. Noun in nominative case + noun in genitive case

As stated above, a genitival modifier in Latin, in the case of anatomical terms, can be expressed in three ways in English: using

prepositional phrases (primarily the of-construction, and less frequently, phrases with the prepositions 'for' or 'to'), an adjectival modifier, and a noun attribute. Interestingly, Latin genitival modifiers are especially frequently expressed by adjectival modifiers in English, and in cases where both adjectival and genitival forms are available in Latin, the adjectival form is generally favored in English. Similarly, the noun attribute is often preferred over the of-construction in English translation. The following examples can serve as illustrations: Lat. *Caput costae* : Eng. *Head of rib* (Feneis, Dauber, 2000, p. 6; *FIPAT*, 2019, p. 44); Lat. *Corpus sterni* : Eng. *Body of sternum* (Feneis, Dauber, 2000, p. 6; *FIPAT*, 2019, p. 45); Lat. *Apex linguae* : Eng. *Apex of tongue / Tip of tongue* (*FIPAT*, 2019, p. 127; Feneis, Dauber, 2000, p. 112); Lat. *Collum costae* : Eng. *Neck of rib* (Feneis, Dauber, 2000, p. 6; *FIPAT*, 2019, p. 44); Lat. *Cavitas thoracis* : Eng. *Thoracic cavity* (Feneis, Dauber, 2000, p. 6; *FIPAT*, 2019, p. 10); Lat. *Foramen mandibulae* : Eng. *Mandibular foramen* (Feneis, Dauber, 2000, p. 28; *FIPAT*, 2019, p. 37); Lat. *Canalis mandibulae* : Eng. *Mandibular canal* (Feneis, Dauber, 2000, p. 28; *FIPAT*, 2019, p. 37); Lat. *Cavitas cranii* : Eng. *Cranial cavity* (Feneis, Dauber, 2000, p. 28; *FIPAT*, 2019, p. 9); Lat. *Ossa thoracis* : Eng. *Thoracic bones* (Feneis, Dauber, 2000, p. 6), and also Eng. *Bones of thorax* (*FIPAT*, 2019, p. 44); Lat. *Septum linguae* : Eng. *Lingual septum* (Feneis, Dauber, 2000, p. 114; *FIPAT*, 2019, p. 128); Lat. *Angulus sterni / Angulus sternalis* : Eng. *Sternal angle* (*FIPAT*, 2019, p. 45; Feneis, Dauber, 2000, p. 6); Lat. *Arcus vertebrae / Arcus vertebralis* : Eng. *Vertebral arch* (*FIPAT*, 2019, p. 41; Feneis, Dauber, 2000, p. 2); Lat. *Incisura acetabuli / Incisura acetabularis* : Eng. *Acetabular notch* (Feneis, Dauber, 2000, p. 42), and Lat. *Incisura acetabuli : Acetabular notch* (*FIPAT*, 2019, p. 49); Lat. *Fossa acetabuli / Fossa acetabularis* : Eng. *Acetabular fossa* (Feneis, Dauber, 2000, p. 42), and Lat. *Fossa acetabuli* : Eng. *Acetabular fossa* (*FIPAT*, 2019, p. 49); Lat. *Cavitas pelvis / Cavitas pelvica* : Eng. *Pelvic cavity* (Feneis, Dauber, 2000, p. 44), and Lat. *Cavitas pelvis / Cavitas pelvina* : Eng. *Pelvic cavity* (*FIPAT*, 2019, p. 157); Lat. *Articulatio genus* : Eng. *Knee joint* (*FIPAT*, 2019, p. 68; Feneis, Dauber, 2000, p. 68); Lat. *Articulatio coxae / Articulatio coxofemoralis (iliofemoralis)* : Eng. *Hip joint* (*FIPAT*, 2019, p. 68; Feneis, Dauber, 2000, p. 66); Lat. *Articulatio cubiti / Articulatio cubitalis* : Eng. *Elbow joint* (Feneis, Dauber, 2000, p. 62; *FIPAT*, 2019, p. 64); Lat. *Cavitas pulparis / Cavitas dentis / Cavum dentis* : Eng. *Pulp cavity* (*FIPAT*, 2019, p. 38), etc. Sometimes there are also variant forms with both a genitival and an adjectival modifier in English, e.g., Lat. *Pulpa*

dentis : Eng. *Dental pulp* (*FIPAT*, 2019, p. 38), and also Eng. *Pulp of tooth* (Feneis, Dauber, 2000, p. 112); Lat. *Spina scapulae* : Eng. *Spine of scapula* (Feneis, Dauber, 2000, p. 34), and also Eng. *Spine of scapula / Scapular spine* (*FIPAT*, 2019, p. 45); Lat. *Angulus mandibulae* : Eng. *Angle of mandible* (Feneis, Dauber, 2000, p. 28), and also Eng. *Angle of mandible / Mandibular angle* (*FIPAT*, 2019, p. 37), etc.

Latin genitival attributes are primarily rendered by genitives in Armenian. However, parallel compound terms often occur in such cases as well. Similarly, genitival attributes (and compounds) are generally preferred in Armenian, unlike in English, in instances where there are variant forms with both a genitival and an adjectival modifier in Latin, e.g., Lat. *Cavitas laryngis / Cavum laryngis* : Arm. (gen. mod.) *kokordi xoŕoč‘* (Eng. *Laryngeal cavity*); Lat. *Ventriculus laryngis* : Arm. (gen. mod.) *kokordi p‘orok‘* (Eng. *Ventricle of larynx / Laryngeal ventricle*); Lat. *Corpus vertebrae / Corpus vertebrale* : Arm. (gen. mod.) *oł marmin* / (comp.) *ołnamarmin* (Eng. *Body of vertebra / Vertebral body*); Lat. *Arcus vertebrae / Arcus vertebralis* : Arm. (gen. mod.) *oł ałeł* / (comp.) *ołnałeł* (Eng. *Vertebral arch*); Lat. *Angulus sterni / Angulus sternalis* : Arm. (gen. mod.) *krcoskri ankyun* (Eng. *Sternal angle*); Lat. *Radix linguae* : Arm. (gen. mod.) *lezvi armat* / (comp.) *lezvarmat* (Eng. *Root of tongue*); Lat. *Septum linguae* : Arm. (gen. mod.) *lezvi xtroc‘* / (comp.) *lezvaxtroc‘* (Eng. *Lingual septum*); Lat. *Frenulum linguae* : Arm. (gen. mod.) *lezvi sanjik* / (comp.) *lezvasanjik* (Eng. *Lingual frenulum / Frenulum of tongue*); Lat. *Caput costae* : Arm. (gen. mod.) *koł glux* / (comp.) *kołaglux* (Eng. *Head of rib*), etc. Only rarely are adjectival modifiers preferred in Armenian in cases where variant forms with both a genitival and an adjectival modifier are available in Latin, e.g., Lat. *Articulatio humeri / Articulatio glenohumeralis* : Arm. (adj. mod.) *bazkayin hod* / (comp.) *bazkahod* (Eng. *Shoulder joint / Glenohumeral joint*); Lat. *Articulatio cubiti / Articulatio cubitalis* : Arm. (adj. mod.) *armnkayin hod* / (comp.) *armnkahod* (Eng. *Elbow joint*), etc.

3.3. Noun in nominative case + adjective + adjective

In this model of anatomical terms, the crucial morphosyntactic phenomena are as follows: when translating anatomical terms from Latin into English and Armenian, or vice versa, the sequential order of the noun-phrase constituents is reversed. Specifically, Latin adjectival postmodifiers are substituted by premodifying adjectives in both English and Armenian.

Additionally, the syntactic relationship between the head and modifiers is expressed not by agreement, as in Latin, but by the simple juxtaposition of the two elements. However, some morphosyntactic differences are also observed between English and Armenian. In English, the reversal of the sequential order of the Latin noun-phrase constituents is achieved in a mirroring way, preserving the proportional distance of each adjectival modifier from the head. In contrast, Armenian involves a further change in word order, whereby adjectival modifiers mostly exchange their positions. The point is that adjectival modifiers indicating the main anatomical location of the object (i.e., those referring to body parts or organs) are placed immediately after the head noun, while adjectives denoting size, position in anatomical space, or form typically occupy the final position within such word combinations in Latin (Tsisyk, 2010, p. 27; Kulichenko, Titiyevska, Kalashnikova, Martianova, 2019, p. 34; Tirac‘yan, Balabanyan, 2004, pp. 27-28; Aŕak‘elyan, 1982, p. 30). When translating Latin terms into Armenian, the adjectival modifier indicating the main anatomical location of the object typically appears in the initial position, while the final adjective in Latin is placed second in the Armenian translation equivalent (Tirac‘yan, Balabanyan, 2004, pp. 27–28). This can be illustrated by examples such as: Lat. *Musculus pterygoideus lateralis* : Eng. *Lateral pterygoid muscle* : Arm. *t‘ewakerp* (*t‘ewakerpayin*) *kołmnayin mkan*; Lat. *Sulcus palatinus major* : Eng. *Greater palatine sulcus* : Arm. *k‘mayin mec akos*; Lat. *Spina nasalis anterior* : Eng. *Anterior nasal spine* : Arm. *k‘t‘ayin aŕǰewi p‘uš*; Lat. *Arteria auricularis profunda* : Eng. *Deep auricular artery* : Arm. *akanǰayin xoranist zarkerak*; Lat. *Arteria alveolaris inferior* : Eng. *Inferior alveolar artery* : Arm. *atamnabnayin storin zarkerak*; Lat. *Canales palatini minores* : Eng. *Lesser palatine canals* : Arm. *k‘mayin p‘ok‘r xołovakner*; Lat. *Membrana intercostalis interna* : Eng. *Internal intercostal membrane* : Arm. *miǰkołayin nerk‘in t‘ałant‘*; Lat. *Tuberculum intercondylare laterale* : Eng. *Lateral intercondylar tubercle* : Arm. *miǰkočayin kołmnayin t‘mbik*, etc. However, the aforementioned is a general tendency rather than a strict rule in Armenian. That is why there are also instances where the sequential order of adjectival modifiers in Armenian exactly corresponds to that in English, e.g., Lat. *Processus articularis inferior* : Eng. *Inferior articular process* : Arm. *storin hodayin elun*; Lat. *Fovea costalis inferior* : Eng. *Inferior costal facet* : Arm. *storin kołayin p‘os*; Lat. *Facies malleolaris lateralis* : Eng. *Lateral malleolar*

surface : Arm. *kołmnayin pčełayin makeres*; Lat. *Arcus dentalis superior* : Eng. *Superior dental arch* : Arm. *verin atamnayin ałeł*, etc.

Partially compounded variants (partial compounds) often occur in parallel with the trinomial translation equivalents in Armenian. Interestingly, in such cases, the stem of the adjectival modifier indicating the main anatomical location of the object is usually compounded with the head noun, e.g., Lat. *Linea temporalis superior* : Arm. *k'unk'ayin verin gic* / (part. comp.)[8] *verin k'unk'agic* (Eng. *Superior temporal line*); Lat. *Linea temporalis inferior* : Arm. *k'unk'ayin storin gic* / (part. comp.) *storin k'unk'agic* (Eng. *Inferior temporal line*); Lat. *Arcus dentalis superior* : Arm. *verin atamnayin ałeł* / (part. comp.) *verin atamnaałeł* (Eng. *Superior dental arch*); Lat. *Facies articularis superior* : Arm. *verin hodayin makeres* / (part. comp.) *verin hoderes* (Eng. *Superior articular facet / Superior articular surface*); Lat. *Foramen sciaticum majus* / *Foramen ischiadicum majus* : Arm. *nstayin mec anc'k'* / (part. comp.) *mec nstanc'k'* (Eng. *Greater sciatic foramen / Greater ischiatic foramen*), etc.

On the other hand, the Latin adjectival modifier, which indicates the main anatomical location of the object, is often rendered as a genitival modifier in Armenian. Additionally, partially compounded variants frequently occur in these cases as well; for example, Lat. *Incisura vertebralis superior* : Arm. (gen. mod.) *oli verin ktruč* / (part. comp.) *verin ołnaktruč* (Eng. *Superior vertebral notch*); Lat. *Concha nasalis superior* : Arm. (gen. mod.) *k't'i verin xec'i* / (part. comp.) *verin k't'axec'i* (Eng. *Superior nasal concha*); Lat. *Arteria cervicalis profunda* : Arm. (gen. mod.) *paranoc'i xoranist zarkerak* (Eng. *Deep cervical artery*); Lat. *Sutura palatina transversa* : Arm. (gen. mod.) *k'imk'i miǰajig karan* (Eng. *Transverse palatine suture*); Lat. *Arcus palmaris superficialis* : Arm. (gen. mod.) *ap'i makeresayin zarkerakałeł* (Eng. *Superficial palmar arch*); Ligamentum plantare longum : Arm. (gen. mod.) *nerbani erkar kapan* (Eng. *Long plantar ligament*), etc.

3.4. Noun in nominative case + noun in genitive case + noun in genitive case

[8] Here and below, the abbreviation (part. comp.) refers to the term *partial compound*, indicating that in polynomial anatomical terms, only one of the modifiers is compounded with the head, while the other(s) retain(s) its (their) lexical independence within the word combination in Armenian.

This trinomial type has much in common with the corresponding binomial type of *noun in nominative case + noun in genitive case* regarding the morphosyntactic characteristics. Strictly speaking, the former can be treated as an expanded version of the latter. In the case of the trinomial type, the genitival modifier following the head noun takes a dependent of the same kind, resulting in a genitival chain. This structure is consistently observed in Latin, whereas in Armenian, partly compounded forms often appear either alongside the trinomial term or exclusively. As for the English language, one of the genitival modifiers is often substituted by a corresponding adjectival modifier or by an attributive noun in the nominative case, as expected. There are also cases where both genitival modifiers are expressed with adjectival modifiers in English. The following instances can serve as illustrations: Lat. *Canalis radicis dentis* : Eng. *Root canal of tooth* : Arm. *Atami armati xołovak*; Lat. *Apex capitis fibulae* : Eng. *Apex of head of fibula* : Arm. *nrbolok‘i glxi gagat‘*; Lat. *Ligamentum apicis dentis* : Eng. *Apical ligament of dens / Apical dental ligament* : Arm. (part. comp.) *atamnacayri kapan*; Lat. *Ligamentum capitis femoris* : Eng. *Ligament of head of femur* : Arm. *azdri glxi kapan* / (part. comp.) *azdraglxi kapan*; Lat. *Lamĭna arcus vertĕbrae* : Eng. *Lamina of vertebral arch* : Arm. *oli ałeli t‘it‘eł*, etc. It should also be noted that the final genitival modifier in Latin terms is sometimes simply omitted in English translations, e.g., Lat. *Canalis cervicis uteri* : Eng. *Cervical canal* (*FIPAT*, 2019, p. 151; Feneis, Dauber, 2000, p. 168) : Arm. *argandi vziki xołovak*, etc.

3.5. Noun in nominative case + noun in genitive case + adjective / noun in nominative case + adjective + noun in genitive case

As can be seen from the model itself, this type is manifested in two subvarieties in Latin, based on the arrangement of coordinated and uncoordinated attributes within a term. Note also that in the case of the subtype *noun in nominative case + noun in genitive case + adjective,* the adjective occupying the final position can, in principle, modify either the head noun or the genitival modifier. For example, we see terms such as Lat. *Sulcus arteriae vertebralis* (Eng. *Groove for vertebral artery*); Lat. *Tuberositas phalangis distalis* (Eng. *Tuberosity of distal phalanx*). On the other hand, we have Lat. *Fossa cranii posterior* (Eng. *Posterior cranial fossa*); Lat. *Septum nasi osseum* (Eng. *Bony nasal septum*), etc. Naturally, we only mean here those word combinations where the final adjective

modifies the head noun. However, there is neither a unified nor a distributional general pattern regarding the sequential order of coordinated and uncoordinated attributes. Only some general tendencies are observable (Kulichenko, Titiyevska, Kalashnikova, Martianova, 2019, p. 33-34; Tirac‘yan, Balabanyan, 2004, pp. 28-29; Aŕak‘elyan, 1982, pp. 30-31). For instance, adjectival modifiers denoting size, position, or form—especially those in the comparative degree—usually tend to occupy the final position in these Latin anatomical terms. However, this is not a strict rule either; there are also cases where the same adjective or adjectives of a similar kind frequently precede or follow the genitival modifier in similar contexts. This can be exemplified by instances such as: Lat. *Basis cranii interna / Basis interna cranii* (*FIPAT*, 2019, p. 24), and also Lat. *Basis cranii interna* (Feneis, Dauber, 2000, p. 30) : Eng. *Internal base of cranium*; Lat. *Arteria dorsalis nasi* / *Arteria nasi externa* : Eng. *Dorsal nasal artery / External nasal artery* (*FIPAT*, 2019, p. 199; Feneis, Dauber, 2000, p. 202); Lat. *Processus lateralis tali* : Eng. *Lateral process of the talus* (Feneis, Dauber, 2000, p. 50, and also Lat. *Processus lateralis ossis tali / Processus lateralis tali* : Eng. *Lateral process of talus* (*FIPAT*, 2019, p. 54); Lat. *Sulcus medianus linguae* : Eng. *Median sulcus of tongue / Midline groove of tongue* (*FIPAT*, 2019, p. 127; Feneis, Dauber, 2000, p. 114); Lat. *Radiatio posterior thalami / Radiatio thalami posterior* : Eng. *Posterior thalamic radiation* (*FIPAT*, 2019, p. 250); Lat. *Fibrae longae associationis / Fibrae associationis longae* : Eng. *Long association fibres* (*FIPAT*, 2019, p. 250); Lat. *Apertura superior thoracis / Apertura thoracis superior* : Eng. *Superior thoracic aperture* (*FIPAT*, 2019, p. 44); Lat. *Septum nasi osseum* : Eng. *Bony nasal septum* (Feneis, Dauber, 2000, p. 32), and also Lat. *Septum osseum nasi / Septum nasale osseum* : Eng. *Bony nasal septum / Bony septum of nose* (*FIPAT*, 2019, p. 138), etc.

As can be seen from the examples above, Latin genitival attributes are frequently replaced by corresponding adjectives in this English model as well. Moreover, these adjectival modifiers, which indicate the main anatomical location of the object, tend to occupy the second position in English translations, in accordance with a general tendency observed in both Latin and English (cf. the above discussion in Section 3.3). That is why the sequential order of modifiers is changed accordingly when translating the subtype *noun in nominative case + adjective + noun in genitive case* into English, e.g., Lat. *Fissura longitudinalis cerebri* : Eng. *Longitudinal cerebral fissure* (*FIPAT*, 2019, p. 245); Lat. *Arteria dorsalis*

nasi : Eng. *Dorsal nasal artery* (*FIPAT*, 2019, p. 199; Feneis, Dauber, 2000, p. 202), etc.

In Armenian, Latin genitival and adjectival modifiers are, in principle, expressed with corresponding genitival and adjectival forms. Additionally, partially compounded forms often occur in parallel, where either the genitival or adjectival modifier is compounded with the head noun. Furthermore, an important change in word order takes place when translating such Latin anatomical terms into Armenian: the genitival attribute modifying the head noun, irrespective of its position in Latin, always occupies the initial position in Armenian anatomical terms, whereas the adjective immediately precedes the noun it modifies, be it the head noun or the genitival attribute. This peculiarity is determined by a strict syntactic rule in Armenian, according to which an adjectival premodifier, unlike a genitival premodifier, can never be separated from its head by any other word. To put it another way, in complex noun phrases, the adjectival modifier «usually occurs closest to its head noun and immediately preposed» (Dum-Tragut, 2009, p. 597; cf. also Papoyan, Badikyan, 2003, pp. 127, 131). The aforementioned can be illustrated by examples such as: Lat. *Arcus pedis longitudinalis* : Arm. *otkʻi erkaynaki kamar*; Lat. *Arcus pedis transversalis* : Arm. *otkʻi miǰajig kamar*; Lat. *Processus lateralis tali* : Arm. *vegi kołmnayin elun*; Lat. *Apertura pelvis superior* : Arm. *konkʻi verin bacʻvackʻ*; Lat. *Apertura thoracis superior* : Arm. *krckʻaxořočʻi verin bacʻvackʻ*; Lat. *Basis cranii interna / Basis interna cranii* : Arm. *gangi nerkʻin himkʻ* / (part. comp.) *nerkʻin gangahimkʻ* (with the genitival modifier combined with the head); Lat. *Fossa cranii posterior* : Arm. *gangi hetin pʻos* / (part. comp.) *hetin gangapʻos* (with the genitival modifier combined with the head); Lat. *Septum nasi osseum* : Arm. *kʻtʻi oskrayin xtrocʻ* / (part. comp.) *kʻtʻi oskraxtrocʻ* (with the adjectival modifier combined with the head); Lat. *Facies articularis malleoli* : Arm. *pčeł hodayin makeres* / (part. comp.) *pčeł hoderes* (with the adjectival modifier combined with the head), etc. On the other hand, for example, the anatomical term Lat. *Tuberositas phalangis distalis* : Arm. *heřavor matoskri tʻmbotutʻyun* illustrates how the final adjective in the Latin construction modifies the genitival attribute, and thus it immediately precedes the genitival premodifier in Armenian.

3.6. Noun in nominative case + adjective + noun in genitive case + adjective

First of all, it should be noted that the final adjectival attribute in such anatomical word combinations may modify either the head noun or the genitival modifier in Latin, as evidenced by instances like Lat. *Ligamentum transversum scapulae superius* (cf. Eng. *Superior transverse scapular ligament*), and Lat. *Fovea costalis processus transversi* (cf. Eng. *Costal facet of transverse process*), respectively. Furthermore, in the case of the former subtype, the genitival modifier and the final adjectival attribute may exchange with their places in Latin, resulting in two alternative constructions, e.g., Lat. *Ligamentum transversum superius scapulae / Ligamentum transversum scapulae superius* (Eng. *Superior transverse scapular ligament*) (*FIPAT*, 2019, p. 63); Lat. *Arteria circumflexa posterior humeri / Arteria circumflexa humeri posterior* (Eng. *Posterior circumflex humeral artery*) (ibid., p. 204), etc.

As for the English and Armenian translation equivalents of such Latin terms, the following crucial points may be noted. In English, the Latin genitival modifier is often replaced, as expected, by a corresponding adjectival modifier, particularly in cases where both of the adjectival attributes modify the head noun in Latin; cf. the last two examples provided above: Lat. *Ligamentum transversum superius scapulae / Ligamentum transversum scapulae superius* : Eng. *Superior transverse scapular ligament*; Lat. *Arteria circumflexa posterior humeri* / *Arteria circumflexa humeri posterior* : Eng. *Posterior circumflex humeral artery*, etc. However, the Latin genitival modifier is typically translated into English using the of-construction in instances where the final adjectival modifier in Latin modifies the genitival attribute, e.g., Lat. *Fovea costalis processus transversi* : Eng. *Costal facet of transverse process* (Feneis, Dauber, 2000, p. 2); Lat. *Pars lateralis processus transversi* : Eng. *Lateral part of transverse process* (*FIPAT*, 2019, p. 41); Lat. *Facies anterolateralis cartilaginis arytenoideae* : Eng. *Anterolateral surface of arytenoid cartilage* (ibid., p. 40), etc.

In Armenian, the distribution of Latin genitival and adjectival attributes is mainly preserved intact, and only the usual word order changes (as discussed in Section 3.5) take place necessarily. Specifically, in cases where both Latin adjectival attributes modify the head noun, the genitival modifier appears first in the word combination, followed by the two adjectival attributes, with the head noun occupying the final position, e.g., Lat. *Ligamentum transversum scapulae superius* : Arm. *t'iaki miǰajig verin kapan*; Lat. *Arteria circumflexa humeri posterior* : Arm. *bazkoskri hetin šrǰadarj zarkerak*, etc. However, in instances where one of the adjectival

attributes modifies the head and the other modifies the genitival modifier, the word order is typically reversed in a mirroring way in Armenian. As a result, both the head and the genitival modifier are each immediately preceded by their respective adjectival attributes, e.g., Lat. *Lamina lateralis processus pterygoidei* : Arm. *t‘ewakerpayin eluni kołmnayin t‘it‘eł*, etc.

CONCLUSIONS

The principal distinctions between multi-word anatomical terms in the relevant languages relate to different ways of rendering Latin coordinated and uncoordinated attributes in English and Armenian, as well as their arrangement within word-combinations.

First of all, it is noteworthy that a genitival modifier in Latin can be expressed in several ways in English: through an adjectival modifier, postmodifying prepositional phrases (primarily the of-construction and, less frequently, prepositional phrases with ‘for’ or ‘to’), and a noun attribute. This often results in variations in translation. Interestingly, Latin genitival modifiers are especially frequently rendered as adjectival modifiers in English, and in cases where alternative terms with either an adjectival or genitival modifier are available in Latin, the adjectival form is generally preferred in English. Of course, variant forms also occur in English, and sometimes in instances where only the genitival attribute appears in Latin. On the other hand, both descriptive genitives and adjectival modifiers in Latin are often translated into English as noun attributes, reflecting the growing tendency for noun attributes to gain ground in Modern English.

In contrast, Latin genitival attributes are primarily expressed through genitives in Armenian. However, parallel compound terms also often occur in such instances. Moreover, genitival attributes (and compounds) are typically favored in Armenian, unlike in English, in cases where there are variant forms with both a genitival and adjectival modifier in Latin.

Although Latin adjectival attributes can, in principle, be rendered as adjectival modifiers in Armenian, they are also frequently replaced by genitives. Additionally, in the case of binomial anatomical terms, parallel compound terms often occur in both cases in Armenian. In some other cases, the compounds serve as the exclusive substitutes for the Latin attributive phrases in Armenian. On the other hand, in the case of Latin polynomial anatomical terms, partially compounded variants (partial

compounds) often occur in parallel with the multi-word translation equivalents in Armenian. Interestingly, in the case of multi-word anatomical terms containing two adjectival attributes, the stem of the adjectival modifier indicating the main anatomical location of the object is typically compounded with the head noun. However, in those polynomial anatomical terms that involve both adjectival and genitival attributes, either the genitival or the adjectival modifier can be compounded with the head noun to form partial compounds in Armenian. The frequent replacement of Latin attributive phrases with compounds (or partial compounds), either exclusively or alternatively, appears to be due to the remarkable word-building flexibility of the Armenian language. As for the replacement of Latin adjectival modifiers with corresponding genitives in Armenian, it should be noted that the genitive case in Armenian is generally characterized by a notably wide use in the meaning of descriptive genitives.

Certain significant peculiarities are also observed in the arrangement of noun-phrase constituents within word combinations in the languages involved. Latin adjectival postmodifiers are, as a rule, substituted by premodifying adjectives in both English and Armenian. Additionally, the syntactic relationship between the head and its dependents is expressed not by agreement, as in Latin, but by the simple juxtaposition of the two elements. One should note, however, that while English achieves the reversal of the sequential order of Latin noun-phrase constituents in a mirroring way—preserving the proportional distance of each adjectival modifier from the head—in Armenian, a further change in word order occurs, with adjectival modifiers mostly exchanging their positions. Specifically, when translating Latin terms into Armenian, the adjectival modifier indicating the main anatomical location of the object, which immediately follows the head noun in Latin, typically appears in the initial position in Armenian. In contrast, the final adjective in Latin is placed second in the Armenian equivalent. However, the aforementioned is a general tendency rather than a strict rule in Armenian. On the other hand, the Latin adjectival modifier, which indicates the main anatomical location of the object, is often rendered as a genitival modifier in Armenian. Additionally, partially compounded terms frequently occur in these cases as well.

Anatomical trinomial terms involving both a genitival and an adjectival modifier can vary in Latin, based on the arrangement of coordinated and uncoordinated attributes within a term, e.g., Lat. *Basis*

cranii interna / Basis interna cranii, etc. Moreover, as it has been argued in Section 3.5, there is neither a unified nor a distributional general pattern regarding the sequential order of the genitival and adjectival modifier in such cases; only some general tendencies are observable. Furthermore, an important word order change takes place when translating such Latin anatomical terms into Armenian: the genitival attribute modifying the head noun, irrespective of its position in Latin, always occupies the initial position in Armenian anatomical terms, whereas the adjective immediately precedes the noun it modifies, be it the head noun or the genitival attribute. This peculiarity is determined by a strict syntactic rule in Armenian, according to which an adjectival premodifier, unlike a genitival premodifier, can never be separated from its head by any other word.

The morphosyntactic distinctions between multi-word anatomical terms in Latin, English, and Armenian, have so far not received an in-depth analysis. Meanwhile, the illustration and clarification of these issues have not only practical value but also theoretical significance, considering that the linguistic phenomena being examined are partly determined by general typological characteristics of the relevant languages and partly by their language-specific preferences and usage patterns. Future research based on a corpus analysis will provide deeper insights into particular morphosyntactic phenomena and their statistical relationships.

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