

3. WORDS AND THEIR FORMS

3.1. THE PARTS OF SPEECH

3.1.1. Words are divided into eight Parts of Speech: Nouns, Adjectives (including Participles), Pronouns, Verbs, Adverbs, Prepositions, Conjunctions, and Interjections.

3.1.2. A Noun is the name of a person, place, thing or idea: as, **Angloléndhom**, *England* (cf. O.E. *Engla land*, “*land of the Angles*”); **wérdhom**⁷², *verb*; **márkiā**⁷³, *mare*, **baktériom**⁷⁴, n.pl. **baktéria**.

Names of particular persons and places are called Proper Nouns; other nouns are called Common.

NOTE. An Abstract Noun is the name of a quality or idea. A Collective Noun is the name of a group or a class.

3.1.3. An Adjective is a word that attributes a quality; as, **patrióm**⁵⁷, *parental*, **bhelá**⁷⁵, *bright*, **Teutiskós**⁷⁶, *German*, **entergnationālis**⁷⁷, *international*.

NOTE 1. A Participle is a word that attributes quality like an adjective, but, being derived from a verb, retains in some degree the power of the verb to assert.

NOTE 2. Etymologically there is no difference between a noun and an adjective, both being formed alike. So, too, all names originally attribute quality, and any common name can still be so used. Thus, **Régia**⁶⁶ (or **Cénis**⁷⁸) **Elisabhet II**, *Queen Elizabeth II* (or **Elizabhet**, as Gk. *Ελισ(σ)αβερ*, from Hebrew *Eli-sheva*, “*God is an oath*”), distinguishes this *Elizabeth* from other *Elizabeths*, by the attribute expressed in the name **Régia/Cénis**, *Queen*.

3.1.4. A Pronoun is a word used to distinguish a person, place, thing or idea without either naming or describing it: as, **egó**¹⁶¹, *I*; **twos**¹⁶³, *your*; **wéi**¹⁶², *we*.

Nouns and pronouns are often called Substantives.

3.1.5. A Verb is a word capable of asserting something: as, **bhérō**, *I carry, bear*; **bhāti**, *it shines*.

NOTE. In English the verb is usually the only word that asserts anything, and a verb is therefore supposed to be necessary to complete an assertion. Strictly, however, any adjective or noun may, by attributing a quality or giving a name, make a complete assertion; as, **wíros**⁷⁹ **dwenós**⁸⁰ (**ésti**), *the man (is) good*, unlike **dwenós wíros**, *the good man*; or **áutom**⁸¹ **ghōdhóm** (**ésti**), *the car is good*, unlike **ghōdhóm áutom**, *the good car*. In the infancy of language there could have been no other means of asserting, as the verb is comparatively of late development.

3.1.6. An Adverb is a word used to express the time, place, or manner of an assertion or attribute: as, **per**⁸², *in front*, **épi**⁸³, *near*, **ánti**⁸⁴, *opposite*.

NOTE. These same functions are often performed in Indo-European by cases of nouns, pronouns and adjectives, and by phrases or sentences.

3.1.7. A Preposition is a word which shows the relation between a noun or pronoun and some other word or words in the same sentence; as, e.g., **ad**⁸⁵, *at, to*, **al**⁸⁶, *beyond*, **de**⁸⁷, *from*, **kom**⁸⁸, *with*, **eghs**⁸⁹, *out*, **upo**⁹⁰, *up*, and so on.

3.1.8. A Conjunction is a word which connects words, or groups of words, without affecting their grammatical relations: as, **-qe**, *and*; **-wě**⁹¹, *or*, **-ma**, *but*, **-r**, *for*.

3.1.9. Interjections are mere exclamations and are not strictly to be classed as parts of speech, and may vary among IE dialects; as, **hej, haj**, (**á**)**hoj** (greeting), **hállo, hóllo**, (on the telephone); **ō** (vocative); **oh** (surprise); **ha ha** (laugh); **áu(tsh)** (pain); etc.

NOTE. Interjections sometimes express an emotion which affects a person or thing mentioned, and so have a grammatical connection like other words.

3.2. INFLECTION

3.2.1. Indo-European is an inflected language. Inflection is a change made in the form of a word to show its grammatical relations.

NOTE. Some modern Indo-European languages, like most Germanic and Romance dialects, have lost partly or completely their earliest attested inflection systems – due to different simplification trends –, in nominal declension as well as in verbal conjugation.

3.2.2. Inflectional changes sometimes take place in the body of a word, or at the beginning, but oftener in its termination:

bhábhā⁹², *the or a bean*; **snichés**⁹³, *of the snow*; (**egō**) **wéghō**⁹⁴, *I ride*; **trātóme**⁹⁵, *we crossed over*; **dáte**⁹⁶, *give!* (pl.)

3.2.3. Terminations of inflection had possibly originally independent meanings which are now obscured. They probably corresponded nearly to the use of prepositions, auxiliaries and personal pronouns in English.

Thus, in **bháres-m**⁹⁷, *the barley* (Acc.), the termination is equivalent to “*the*” or “*to the*”; in **bhléti**⁹⁸ [b^h]-‘e-ti], *it blooms* (Indicative), and **bhléti** [b^h]-‘e:-ti] (Subjunctive), the change of vowel grade signifies a change in the mood.

3.2.4. Inflectional changes in the body of a verb usually denote relations of tense or mood, and often correspond to the use of auxiliary verbs in English:

(**tu**) **déresi**⁹⁹, *(thou) tear or are tearing*; **dóre**, *he tore*; (**gi**)**gnōsketi**¹⁰⁰, *he knows*, **gégona**, *I knew* (see Verbal Inflection for Reduplication and its meaning)

3.2.5. The inflection of Nouns, Adjectives, Pronouns and Participles to denote gender, number and case is called Declension, and these parts of speech are said to be *declined*.

The inflection of Verbs to denote voice, mood, tense, number and person is called Conjugation, and the verb is said to be conjugated.

NOTE. Adjectives are often said to have inflections of comparison. These are, however, properly stem-formations made by derivations.

3.2.6. Adverbs, Prepositions, Conjunctions and Interjections are not inflected, and together form the group of the so-called Particles.

3.3. ROOT, STEM AND BASE

3.3.1. The body of a word, to which the terminations are attached, is called the Stem. The Stem contains the idea of the word without relations; but, except in the first part of compounds (cf. **Níteroléndhom**¹⁰¹, the *Low Land or Netherland*, **klaustrobhocíā**¹⁰², *claustrophobia*, etc.), it cannot ordinarily be used without some termination to express them.

Thus the stem **ka(u)put**¹⁰³- denotes *head*, hence also “*main*”; **káput** (without ending) means *a head* or *the head*, as the Subject or Agent of an action or as Vocative, as well as *to a head* or *to the head*, as the Direct Object; with **-os** it becomes **kaputós**, and signifies *of a head* or *of the head*, and so on.

NOTE. In inflected languages like Indo-European, words are built up from Roots, which at a very early time were possibly used alone to express ideas. Roots are then modified into Stems, which, by inflection, become fully formed words. The process by which roots are modified, in the various forms of derivatives and compounds, is called stem-building. The whole of this process is originally one of composition, by which significant endings are added one after another to forms capable of pronunciation and conveying a meaning.

3.3.2. A Root is the simplest form attainable by analysis of a word into its component parts. Such a form contains the main idea of the word in a very general sense, and is common also to other words either in the same language or in kindred languages.

NOTE. The reconstruction of the Proto-Indo-European language looks for a very old language, and this has an obvious consequence on the general assertion that roots don't mean anything. In fact, many reconstructed PIE roots mean something, even without adding a single ending. So, for example, the English word ‘*special*’ has a root **spec* (also root of words like *speculate* or *species*) which expresses vaguely the idea of looking. In Modern Indo-European, however, the (Latin) adjective **spekiālís**, *special*, coexists with its original PIE root, the verb **spek(iō)**, *observe*. Language evolution blurs the original meanings, and many roots had possibly ceased to be recognized as such before IE III - although less so than in modern languages. Consequently, sometimes (not very often) the reconstructed PIE roots which we use as independent words in Modern Indo-European actually lacked a proper meaning already in Late PIE; they are used because sometimes a common IE form is needed and only different words from the same root have been attested.

For example, the root of verb **démō**, *domesticate*, is **dem**-¹⁰⁴ (or strictly **demh*₂), which does not necessarily mean *to domesticate*, or *I domesticate*, or *domesticating*, but merely expresses vaguely the idea of *domesticating*, and possibly cannot be used as a part of speech without terminations – in fact, **dem**- (strictly [dem]) is another PIE root which means *house*, but is unrelated to the verb, at least in this IE III stage. With the ending **-ti** it becomes **démeti**, *he/she/it domesticates*.

3.3.3. The Stem may be the same as the root; as, **sal-s**¹⁰⁵, *salt*, **bhléig-e-ti**¹⁰⁶, *he/she/it shines*; but it is more frequently formed from the root.

1. By changing or lengthening its vowel: from root **bhēl**¹⁰⁷, *blow, swell*, **bhól-os**, *ball*, or **bhól-ā**, *bullet*, and **bhí-os**, *bowl*. Also **dā**¹⁰⁸, *divide*, gives **dái-mōn**, *demon* (from older Gk. *daimon, divider, provider*), and **dí-mōn**, *time, period* (from Gmc. *tīmōn*, which gives O.Eng. *tīma*, O.N. *timi*, Swe. *timme*; unrelated to Lat. *tempus*, MIE loan word **témpōs**).

2. By the addition of a simple suffix; as, **bhér-ā**¹⁰⁹, *bear*, lit. “*brown animal*”, **lino-m**¹¹⁰, *flax*.

3. By two or more of this methods: **chn-tó-s**, (**chen**¹¹¹ in zero-grade, with participial ending **-to**, and masculine ending), *beaten*, **gón-iā-s**, *angles* (**genus**¹¹², *knee*, in o-grade with ending **-io-**, feminine in **-ā**, plural in **-s**).

4. By derivation and composition, following the laws of development peculiar to the language, which we will see in the corresponding chapters.

3.3.4. The Base is that part of a word which is unchanged in inflection: as, **cherm**-¹¹³ in **chermós**, *warm*, **eus**-¹¹⁴ in **éusō**, *burn*; **noch**-¹¹⁵ in **nochetós**, *naked*, etc.

a. The Base and the Stem are often identical, as in many consonant stems of nouns (as **cer-** in **cers**¹¹⁶, *mount*). If, however, the stem ends in a vowel, the latter does not appear in the base, but is variously combined with the inflectional termination. Thus the stem of **cóus**¹¹⁷, *cow*, is **cou-**; that of **ármos**¹¹⁸, *arm*, is **armo-**.

3.3.5. Inflectional terminations are modified differently by combination with the final vowel or consonant of the Stem, and the various forms of Declension and Conjugation are so developed.

3.4. GENDER

3.4.1. The Genders distinguished in Modern Indo-European are three: Masculine, Feminine (both are referred to as Animate) and Neuter or Inanimate.

3.4.2. The gender of Indo-European nouns is either *natural* or *grammatical*.

The masculine functions as the negative term in the opposition, i.e. when the gender is not defined, the masculine is used. This is a grammatical utility, one that is only relevant for concordance, and which has to do with the evolution of the language and its inflection.

The earliest PIE had probably no distinction of gender; when the inanimate appeared, it was marked by a different inflection, and the animates remained as the negative term in the opposition. After that, probably at the same time as the thematic declension (in *-e/o*) appeared, the feminine was differentiated from the remaining animates, with marks like the different stem vowel (usually *-a*) or vowel length (as *-ī*, *-ū*). Therefore, the feminine is the positive term of the opposition within the animates, because when we use it we reduce the spectrum of the animates to the feminine, while the masculine still serves as the negative (non-differentiated) term for both, the general and the animates, when used in this sense, i.e. when not differentiating the masculine from the other genders.

a. Natural Gender is distinction as to the sex of the object denoted: **bhrátēr**¹¹⁹ (m.), *brother*; **cénā**¹²⁰ (f.), *woman, wife*.

NOTE. Many nouns have both a masculine and a feminine form to distinguish sex: as, **eurōpáios**, **eurōpáiā**, *European* (nominalized adjectives), or **ékwos**, **ékwā**, *horse, mare*.¹²¹

NOTE 2. Names of classes or collections of persons may be of any gender. For example, **ármata** (f.), *army*; from PIE **ar**, *fit together* (as in **ármos**, *arm, upper arm, shoulder*, cf. Gmc. *armaz*, Lat. *armus*, Gk. ἀρμός); also **ghóros** (m.), *choir, chorus, dancing ground*, from PIE **gher**, *grasp, enclose* – loan translated from Gk. χορός, originally “*an special enclosure for dancing*” in its origin, cf. Gmc. *gardaz*, **ghórdhos**, or Lat. *hortus*, **ghórtos**, both meaning *garden, yard, enclosure*.¹²²

b. Grammatical Gender is a formal distinction as to sex where no actual sex exists in the object. It is shown in the form of the adjective joined with the noun: as **swādús**¹²³ **nóqtis**¹²⁴ (f.), *a pleasant night*; **mreghús**¹²⁵ **kántos**¹²⁶ (m.), *brief song* (“*singing*”). The gender of the adjective is simply a gender of concordance: it indicates to which noun of a concrete gender the adjective refers to.

3.4.3. The neuter or inanimate gender differs from the other two in inflection, not in the theme vowel. The gender of the animates, on the contrary, is usually marked by the theme vowel, and sometimes by declension, vocalism and accent.

3.4.4. The neuter does not refer to the lack of sex, but to the lack of liveliness or life. Sometimes, however, animates can be designated as inanimates and *vice versa*.

While the distinction between masculine and feminine is usually straightforward, sometimes the attribution of sex is arbitrary; thus, different words for “*ship*”¹²⁷ or “*war*”¹²⁸ are found as feminine (as **náus** or **wérsā**), masculine (as **bhóids**, or Greek loan **pólemos**), and neuter (**wáskolom** or **crígā**).

3.4.5. The animate nouns can have:

a. An oppositive gender, marked:

I. by the lexicon, as in **patér-mātér**, *father-mother*, **bhrátēr¹¹⁹-swésōr¹²⁹**, *brother-sister*, **súnus¹³⁰-dhúg(a)tēr¹³¹**, *son-daughter*, etc.¹³²

II. by the theme vowel, as in **ékwos-ékwā¹²¹**, *horse-mare*, **wíqos-wíqia²³**, *wolf-she-wolf*.

III. by both at the same time, as in **wíros⁷⁹-cénā¹²⁰**, *male-female*.

b. An autonomous gender, that does not oppose itself to others, as in **náus** (f.), *ship*, **pōds** (m.), *foot*, **egnís** (m.), *fire*, **ówis** (f.), *sheep*, **jéwos¹³³** (n.) or **lēghs** (f.), *law*.¹³⁴

c. A common gender, in nouns that are masculine or feminine depending on the context; as, **dhesós**, *god/goddess* (cf. Gk.Hom. θεός), **cóus**, *cow or bull* (cf. Gk. accompanied by **táuros**, as Scient. Eng. *bos taurus*), **nautā**, *sailor*, **djousnalístā**, *journalist*, **stúden¹³⁵**, *student*, etc.

d. An epicene gender, which, although being masculine or feminine, designates both sexes: as the feminine **sūs¹³⁶**, *pig*, or masculine **kákkā¹³⁷**, *shit* (as an insult).

3.4.6. The gender of a noun can thus be marked by the stem vowel (or sometimes by inflection), or has to be learnt: it is a feature of a word like any other. In its context, concordance is a new gender mark; a masculine noun has a masculine adjective, and a feminine noun a feminine adjective. However, not all adjectives differentiate between masculine and feminine, a lot of them (those in **-i-s**, **-u-s**, **-ēs**, **-ōn**, and many thematic in **-os**) are masculine-feminine: only the context, i.e. the noun with which they agree, helps to disambiguate them. This happens also in nouns with a common gender.

3.4.7. Most endings do not indicate gender, as in **patér** and **mātér**. Only by knowing the roots in many cases, or by the context in others, is it possible to determine it. Some of the suffixes determine, though, totally or partially if they are masculine or feminine. These are the following:

1. **-os** marks masculine when it is opposed to a feminine in **-ā** or **-ī/-iǎ**, as in **ékwos-ékwā**, **wíqos-wíqia**, **djéus-djéwī**, etc. This happens also in adjectives in the same situation, as in **néwos-néwā**. In isolated nouns, **-os** is generally masculine, but some traces of the old indistinctness of gender still remained in the third stage of the Proto-Indo-European language, as in the names of trees (among others). In adjectives, when the ending **-os** is not opposed to feminine, concordance decides.

2. **-ā** marks the feminine in oppositions of nouns and adjectives. It is usually also feminine in isolated nouns, in the first declension. But there are also traces of masculines in **-ā**, as, **ōságā** (or as Latin partial loan **ōrígā**), *charioteer, driver* (from **ōs¹¹⁶**, *mouth*, and **ag¹³**, *drive*), Lat. *auriga*; **nautā**, “*sailor*”, as Gk. ναύτης; or **slúgā**, *servant*, as O.Sla. *slúga*, Lith. *slauga* “*service*”, O.Ir. *sluag*, “*army unit*”, etc.

3. **-ī/-iǎ**, is systematically feminine. It is used in nouns, and often in adjectives.

4. Finally, the roots ending in long vowels **-ī** and **-ū** are always feminines.

3.5. GENERAL RULES OF GENDER

3.5.1. Names of Male beings, and of Rivers, Winds, Months, and Mountains are masculine:

patér⁵⁷, *father*, **Kárlos**¹, *Charles*, **Réin**¹³⁸, *the Rhine*, **Áustros**⁶⁹, *south wind*, **Mágios**⁶¹, *May*, **Uráles**, *the Urals*.

NOTE. The Urals' proper name is **Uraliskás Corás**, Lat. **Uráles Móntes**, “*Urals' Mounts*”, *Ural Mountains*, cf. Russ. Уральныйские горы (*Uralskiye gory*).

a. A few names of Rivers ending in **-ā** (as **Wólgā**), and many Greek names ending in **-ē(s)**, which usually corresponds to IE **-ā**, are feminine; others are variable or uncertain, generally retaining their oldest attested IE gender in MIE.

NOTE. The Russian hydronym Вólга is akin to the Slavic words for “*wetness, humidity*” (cf. Russ. влага, волога), maybe from the same root as PIE base **wed**, *wet*, easily borrowed in MIE from Slavic as **Wólgā**.

b. Some names of Mountains are feminines or neuter: as, **Álpes** (f. pl.), *the Alps*

NOTE. **Álpes**, from Latin *Alpes*, may have been related originally to the source of adjectives **albhós**¹³⁹ (*white*, cf. Hitt. *alpas*, v.i.) or **altós** (*high, grown up*, from IE **al**⁷⁹), possibly from a Celtic or Italic dialect.

3.5.2. Names of Female beings, of Cities, Countries, Plants, Trees and Gems, of many Animals (especially Birds), and of most abstract Qualities, are feminine:

mātér¹⁴, *mother*, **Djówiliā**⁶³, *Julia*, **Fránkiā**¹⁴⁰, *France*, **Rómā**, *Rome*, **pínus**¹⁴¹, *pine*, **sanipríjos**, *sapphire* (Gk. *sáppheiros*, ult. from Skr. *sani-priyah*, lit. “*sacred to Saturn*”), **wērós**¹²⁸, *true*.

a. Some names of Towns and Countries are masculine: as, **Oinitós** (from **óinos**, *one*, or ‘purer’ IE **Jugtós**, “*joined*”) **Gningodhómos**¹⁴², *United Kingdom*, **Montinécros**¹⁴³, *Montenegro*; or neuter, as, **Sweorégiom**¹⁴⁴, *Sweden*, **Finnléndhom**¹⁴⁵, *Finland*.

b. A few names of Plants and Gems follow the gender of their termination; as, **kmtáuriom** (n.), *centaury*, **ákantos** (m., Gk. *ἄκανθος*), *bearsfoot*, **úpolos** (m.), *opal*, from PIE **upo**, *up from under*.

NOTE. The gender of most of the above may also be recognized by the terminations, according to the rules given under the different declensions.

3.5.3. Indeclinable nouns, infinitives, terms or phrases used as nouns, and words quoted merely for their form, are neuter:

preso¹⁴⁶, *traffic in, sell*, **Európáio**, *european* (n.n.), **néhīlom**, *nothing*, **kóm̄mi/gúmmi**, *gum*.

NOTE 1. Latin *nehilum*, “*nihil, nil*”, comes from *hīlum* “*small thing, trifle*” hence “*not even a small thing, nothing*”, of unknown origin, therefore MIE *hīlom*.

NOTE 2. Eng. *gum* comes from O.Fr. *gomme*, from L.Lat. *gumma*, from Lat. *gummi*, from Gk. *kommi*, from Coptic *kemai*, hence MIE loans Lat. *gúmmis*, or Gk. *kómmis*.

3.5.4. Many nouns may be either masculine or feminine, according to the sex of the object. These are said to be of Common Gender: as, **eksáliom**¹⁴⁷, *exile*; **cóus**¹¹⁷, *ox* or *cow*; **párents**¹⁴⁸, *parent*.

NOTE. Several names of animals have a grammatical gender, independent of sex. These are called epicene. Thus, **sūs**¹³⁶, *swine*, and **wípēs**²³, *fox*, are always feminine.

3.5.5. Nouns, Pronouns, Adjectives and Participles are declined in MIE in two Numbers, singular and plural – PIE had also a possibly dialectal dual – and up to eight cases, Nominative, Vocative, Accusative, Genitive and Oblique - which is found subdivided into combinations of Dative, Locative, Instrumental and Ablative.

NOTE 1. European dialects show around six cases, but most of the oldest attested ones (Ind.-Ira., P.-Gk., Ita.) and Balto-Slavic show remains of up to eight original cases, although the situation has evolved differently due to migrations and linguistic contacts. Traditional theories maintain that the original common PIE situation is a complex system of eight noun cases. On the contrary, a five-case system is for other scholars the oldest situation (of Middle PIE, as Anatolian dialects seem to show), later changed by some dialects by way of merging or splitting the five original cases. It would have been, then, an innovation of individual dialects, just as the phonetic satemization. It is thus a general opinion that in IE III both dialectal trends (split and convergence of Obliques) coexisted. In this Grammar we follow the general Northern trend, i.e. a general six-case inflection, presenting also the other two cases as they are usually reconstructed for Late PIE, when common endings exist.

NOTE 2. In the number we use singular and plural, and not dual, not only because of its doubtful existence in IE II and the objections to its reconstruction for Late PIE, but because it is also more practical in terms of modern Indo-European languages.

I. The Nominative is the case of the Subject of a sentence.

II. The Vocative is the case of Direct Address.

III. The Accusative is the case of the Direct Object of a verb. It is used also with many prepositions.

IV. The Genitive may generally be translated by the English Possessive, or by the Objective with the preposition *of*.

V. The Obliques might be found as:

a. The Dative, the case of the Indirect Object. It may usually be translated into English by the Objective with the preposition *to* or *for*.

b. The Locative, the place *where*.

c. The Instrumental, the thing *with*.

d. The Ablative, usually the Objective with *from*, *by*, *with*, *in* or *at*. It is often found with prepositions.

NOTE. The oblique cases appear in the English pronoun set; these pronouns are often called *objective pronouns*; as in *she loves me* (accusative), *give it to me* (dative) or *that dirt wasn't wiped with me* (instrumental), where *me* is not inflected differently in any of these uses; it is used for all grammatical relationships except the genitive case of possession and a non-disjunctive nominative case as the subject.

3.6. VOWEL GRADE

1. The vowel grade or Ablaut is normally the alternation between full, zero or lengthened grade vocalism. Proto-Indo-European had a regular ablaut sequence that contrasted the five usual vowel sounds called *Thematic*, i.e. **e/ē/o/ō/∅**. This means that in different forms of the same word, or in different but related words, the basic vowel, a short /**e**/, could be replaced by a long /**ē**/, a short /**o**/ or a long /**ō**/, or it could be omitted (transcribed as ∅).

NOTE. The term *Ablaut* comes from Ger. *Abstufung der Laute*, “vowel alternation”. In Romance languages, the term *Apophony* is preferred.

2. When a syllable had a short **e**, it is said to be in the “*e-grade*”; when it had no vowel, it is said to be in the “*zero-grade*”, when in **o**, in “*o-grade*”, and they can also be “*lengthened*”. The *e-grade* is sometimes called “*full grade*”.

A classic example of the five grades of *ablaut* in a single root is provided by the following different case forms of IE **patér**, *father*, and **ḡpatór**, *fatherless* (possibly originally PIE Nom. *ph₂ter-s* > *ph₂tēr*):

Ablaut grade	MIE	Greek	Case	
<i>e-grade or full grade</i>	pa-tér-m	πα-τέρ-α	pa-tér-a	Accusative
<i>lengthened e-grade</i>	pa-tér	πα-τήρ	pa-tér	Nominative
<i>zero-grade</i>	pa-tr-ós	πα-τρ-ός	pa-tr-ós	Genitive
<i>o-grade</i>	n-pa-tór-m	ἄ-πά-τορ-α	a-pá-tor-a	Accusative
<i>lengthened o-grade</i>	n-pa-tór	ἄ-πά-τορ	a-pá-tōr	Nominative

3. Late PIE had ablaut differences within the paradigms of verbs and nouns that were probably significant secondary markers. Compare for example for an original PIE **pértus**, *passing*, *passage*, (from IE verb **pérō**, *go through*):

	PIE	root (<i>per-</i>)	suffix (<i>-tu</i>)
Nominative	<i>pér-tu-s</i>	e-grade	zero-grade
Accusative	<i>pér-tu-m</i>	e-grade	zero-grade
Genitive	<i>pr-téu-s</i>	zero-grade	e-grade
Dative	<i>pr-t(eu)-ei</i>	zero-grade	e-grade

4. Some common examples of different vowel grades (including their lengthened form) as found in Proto-Indo-European are the following:

Vowel Grade	Full (F)	Zero (Ø)	Lengthened (L)
<i>e/o - ø - ē/ō</i>	<i>ped, dom</i>	<i>pd, dm</i>	<i>pēd, dōm</i>
<i>ie/io - i - iē/iō</i>	<i>djeus</i>	<i>diwos/djus</i>	<i>djē-</i>
<i>ue/uō - u - uē/uō</i>	<i>kwon</i>	<i>kun-</i>	<i>kwōn</i>
<i>ei/oi - u/i - ēi/ōi</i>	<i>bheid</i>	<i>bhid</i>	<i>bhēid</i>
<i>eu/ou - u/i -</i>	<i>bheud, ous</i>	<i>bhud, us</i>	<i>bhēud, ōus</i>
<i>ā/ē/ō - a - ā/ē/ō</i>	<i>bhle, bha,</i>	<i>bhla, bha, aku</i>	<i>bhlē, bhā,</i>
<i>au/ai - u/i - āu/āi</i>	<i>bhau, aik</i>	<i>bhu</i>	<i>bhāu, āik</i>
<i>ēi/ōi - ū/ī - ēi/ōi</i>	<i>po(i)</i>	<i>pi</i>	<i>pōi</i>

3. There are also some other possible vowel grade changes, as *a-grade*, *i-grade* and *u-grade*, which usually come from old root endings, rather than from systematized phonetic changes.

NOTE. The alternation *e/ø* was apparently in older stages of PIE dependent on the accent. Compare *kléwos/klutós*, *eimi/imés*, *patérm/patrós*, etc., where the unaccented morpheme loses its vowel. This happened only in the oldest formations, though, as IE III had probably already lost this morphological pattern, freezing the older alternations into a more or less stable vocabulary without changes in vowel grade.

3.7. WORD FORMATION

3.7.1. Word Formation refers to the creation of new words from older ones. Indo-European scholars show an especial interest in Derivational Affixes (most commonly Suffixes), i.e. morphemes that are attached to a base morpheme, such as a Root or a Stem, to form a new word. The main affixes are:

A. Athematic suffixes,

a. The most simple is the zero-ending, i.e. root nouns like *dem-s* (Gk. *des-*), *house*, in consonant, as *neq-t-s* (Hitt. *nekuz*), *night*, or *men-s* (Av. *maz-*), *mind*, in *-r*, as *ghés-ōr* (Hitt. *kiššar*), *hand*, with apophony, Ac. *ghes-ér-m* (Hitt. *kiššeran*), Loc. *ghés-r-i* (Hitt. *kišri*, Gk. *kheiri*), with ending *-n*, as *or-ōn* (Hitt. *ḫara[š]*, stem *ḫaran-*, from PIE **h₃or-o-*, cf. O.H.G. *aro*, Eng. *erne*, Gk. *or-n-[is]*), *eagle*. Common examples include *rěgs*, as Lat. *rex*, Cel. *ri*, Gmc. *rīh*, Skr. *rāt*, *cóus*, as Lat. *bou*, Cel. *bó*, Gmc. *ko*, Skr. *gáu/go*, *mūs*, Lat. *mūs*, Gk. *μῦς*, Gmc. *mūs*, Sla. *mys*, Skr. *mū*, etc.

b. Also, the stem **r/n**, with **-r-** in ‘strong’ cases (Nom-Acc.) and **-n-** in the Obliques, is well represented in Anatolian; see Variable Nouns in the next chapter for more on these *heteroclitēs*.

c. An old stem in **-u-** appears e.g. in the words **gón-u**, *knee*, **dór-u**, *wood*, and **ój-u**, “lifetime”, cf. Av. *zānū*, *dārū*, *āiiū*, Skr. *jānu*, *dāru*, *āyu*, Gk. *góny*, *dóry*, *ou(kí)*, “no”, etc. Apophonic variants are found as full-grade **génw-**, **dérw-**, **éjw-**, cf. Hitt. *genu-*, Lat. *genu-*, Sla. *dérw-o*, Gk. *ai(w)-eí*, etc., and as zero-grade **gn-éw**, **dr-éw**, **(a)j-éw-**, as in Goth. *kniu*, Av. *yaoš*, Hitt. *ganu-t*, etc. Such zero-grades are found within Declension, in Composition (cf. Skr. *jñu-bādh-*, “kneeled”, Gk. *dru-tómos*, “timber-cutter”), and in Derivation, as e.g. **ju-wén-**, *vigorous*, *young* (cf. Skr. *yuván-*, Lat. *iuuen-is*).

d. A suffix **-it-**, which refers to edible substances, as **mel-it**, *honey* (cf. Gk. *mélit-*, Hitt. *milit*, Luw. *mallit*, Gmc. *mil-*), **sép-it**, *wheat* (cf. Hitt. *šēppit*, Gk. *álphit*), etc.

B. Feminine and Abstract (Collectives),

a. A general suffix ***(e)h₂** is found in Feminine, as in **sénā-**, *old* (**senah₂*, cf. Gk. *hénē*, Skr. *śanā-*, Lith. *senà*), **swēkrūs**, *husband’s mother* (**swēkrúh₂*, cf. O.Sla. *svekrŭ*, Lat. *socrus*, O.H.G. *swigar*), in Abstract Collectives, as in Gk. **tomá**, *cut*, or **neurá**, *rope made from sinew* (IE **néurom**), etc., and in the Nom.-Acc. Neuter singular of the collective that functions as Nom.-Acc. Plural (cf. Skr. *yugá*, Gk. *zygá*, Lat. *iuga*, Goth. *juka*, “jokes”, Hitt. *-a*, Pal. *-a/-ā*, etc.).

b. It is also very well attested a Feminine and Abstract Collective **-ī**, PIE ***-ih₂**, with variant **-iā**, PIE ***-jah₂/-jeh₂**, cf. Skr. *devī* (Gen. *dévyās*), “goddess”, *vṛkīs* (Gen. *vṛkías*), “she-wolf”, etc.

C. Thematic Suffixes, the most abundant affixes found in Nominal and Adjectival derivation,

a. A simple **-o-**, which appears in some primary and secondary old formations, as **wíq-o-s**, *wolf*, **ṛtk-o-s**, *bear*, neuters **jug-ó-m**, *joke*, **wérg-o-m**, *work*, adjectives **sén-o-**, *old*, **néw-o-**, *new*, etc.

NOTE. The Distinction into primary and secondary is not straightforward, unless there is an older root attested; compare e.g. **éku-o-s**, *horse*, which is usually deemed a derivation from *quick*, IE **ōkús**.

Accented **-ó-** is deemed a secondary suffix which marks the possession of the base, as well as adjectives in **-ó-** with lengthened grade root, cf. IE **čjā**, *bow’s string*, as Skr. *jyá*, but **čjós**, *bow* (< “that has a bow’s string”), as Gk. *biós*, or **swēkurós** (> **swékuros**), *husband’s father*, from **swēkrūs**, *husband’s mother*, **deiwós**, from **djéus**, etc.

b. About the Root Grade, o-grade roots are found in two thematic types, barytone Action Nouns (cf. Gk. **tómos**, “slice”), and oxytones Agent Nouns and Adjectives (cf. Gk. **tomós**, “who cuts, acute”), both from IE **tem**, *cut*; zero-grade in neuters **jug-óm**, *joke*, from **jeug**, *join*, and in second elements of compounds like **ni-sd-ós**, *nest*, from **sed**, *sit*, or **newo-gn-ós**, “newborn”, as Gk. *neognós*.

c. Adjectival suffixes **-jo-** and **-ijo-** have a relational sense, as in **cow-jós**, “of a cow/ox”, from **cow-**, cow, ox, as in Av. *gaoya-*, Skr. *gavyá* or *gávya*, Gk. *hekatóm-boios*, “that costs a hundred cows”, Arm. *kogi* (<**cow-ijo-**>), “derived from the cow”, O.Ir. *ambuæ* (<**ṅ-cow-ijo-**>, as in Skr. *ágos*, Gk. *abouíteō*), “man without cows”, or e.g. **patriós**, paternal, **pediós**, “of the foot”, etc. As a nominal suffix, cf. Lat. *ingenium*, *officium*, O.Ir. *críde*, *setig*, Skr. *vairya*, *saujanya*, Sla. *stoletie*, *dolia*, etc.

d. Verbal adjectives in **-tó-** (Ind.-Ira. **-nó-**), with zero-grade verbal root, are common in secondary derivation, as in **klu-tós**, heard, famous, from **kleu**, hear, cf. Skr. *śrutá-*, Av. *sruta-*, Gk. *klytós*, Lat. *in-clitus*, M.Ir. *rocloth*, O.H.G. *Hlot-*, Arm. *lu*, etc. They were incorporated to the Verbal inflection as participles and gerunds. For nouns in **-to-**, **-no-**, **-ti(j)-o-**, **-ni(j)-o-**, **-tu(w)-o-**, **-nu(w)-o-**, etc. cf. Skr. *svápn(i)ya*, *prāvīnya*, Lat. *somnium*, *dominium*, O.Ir. *blíad(a)in*, Sla. *sunie*, *cozarenie*, etc.

e. Other common thematic suffixes include **-nó-**, **-ro-**, **-mo-**, and diminutives in **-ko-**, **-lo-**, **-isko-**, etc. which may also be participial, ordinal or adjectival (from nouns) lengthenings. They are usually preceded by a vowel, as in **-e/onó-**, **-e/oro-**, and so on. Compare for example from **cher**, warm, adjective **cher-mós**, warm, cf. Skr. *gharmá*, Av. *garəma-*, Gk. *thermós*, Toc. A. *särme*, Phryg. *Germiai*, Arm. *jerm*, Alb. *zjarm*, or o-grade Gmc. *warmaz*, Lat. *formus* (<**chor-mos**>). **-bhó-** gives names of animales, as e.g. Gk. *éribhos*, “kid”.

f. A secondary suffix **-tero-/-toro-** marks the opposition of two notions, and is found in Anatolian (cf. Hitt. *nun-taras*, Adv. gen. “from now”), **en-terós/al-terós** (or **anterós**), “the other (of two)” (cf. Goth. *anþar*, Skr. *ántaras*, Lat. *alter*, etc.) opposed to a simple “other”, **aliós** (cf. Skr. *anyás*, Lat. *alius*, Gk. *állos*, Goth. *aljis*). This suffix is also found in some syntactic formations, as Gk. *deksiós – aris-terós*, *skaiós – deksi-terós*, both meaning “right-left” (Benveniste 1948).

g. The suffix **-wó-** is particularly found in words for “alive”, as **čī-wó-** (cf. Skr. *jīvás*, Lat. *uīuos*, O.Ir. *béo*, Welsh *buw*, Goth. *qius*) and “death”, as **mr-wó-** (cf. O.Ir. *marb*, Welsh *marw*, and also Lat. *mortuos*, Sla. *mǐrtvŭ*, where the **-t-** was possibly inserted influenced by **mr-tós**, “mortal”).

h. There are some instrumental suffixes, as **-tro-**, **-tlo-**, **-klo-**, **-dhro-**, **-dhlo-**, as Lat. *-trum*, *-c(u)lum*, *-brum*, *-bulum*, etc.; e.g. **ára-trom**, plough, cf. Gk. *árottron*, Lat. *aratrum*, O.Ir. *arathar*, Welsh *aradr*, Arm. *arawr*, Lith. *árklas*, etc.; also, Gk. *báthron*, O.Ind. *bharíttram*, Goth. *fōdr*, etc.

i. Other common suffixes (also participial) are **-mēn-**, **-mon-**, **-mn-**, with secondary **-mn-to-**, **-men-o-**, **-men-t-** (and **-wen-t-**), etc., cf. Lat. *augmentum*, or Goth. *hliumant*, equivalent to O.Ind. *śrómatam*, both meaning “reputation”, from **klew**, hear, and so on.