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家家有本难念的经

**Abstract.** The ‘heterogeneous number’ refers to dual or plural forms including two items one of which is not directly denoted by the sum. An example is Spanish *padres* ‘parents’ which includes [FATHER] + [MOTHER], but is expressed by the plural of *padre* ‘father’, leaving implicit the ‘mother’. The aim of this paper is to describe the extension of the heterogeneous number in the Indo-European languages and particularly in Lithuanian, where a distinction between *tėvai* ‘fathers’ (homogeneous plural) and *tėvai* ‘parents’ (heterogeneous plural) has often been associated with a shift of the accentual paradigm. It can be shown that the heterogeneous number is a recent development in Lithuanian and derives from a collective meaning (‘group of fathers’), whose accentual properties can be traced back to the Indo-European collective.

**Keywords:** Lithuanian; grammatical number; plural; dual; accentual paradigm.

**1. Introduction**

In the Indo-European languages, the grammatical category of number is based on the reproducibility of at least one feature shared by a number of items. To take a basic example, the plural *books* implies the addition of several items each of which shares the property of being a *book*: [BOOKS] = [BOOK] + [BOOK], etc. The only condition for their inclusion in the plural *books* is to possess this common quality, not to have a specific shape, color or size; it only reflects the selection of a homogeneous feature possessed by each member of the sum, not necessarily the complete identity of their semantic content. Heterogeneous forms of number seem to be ruled out by this definition, but they do exist in some Indo-European languages, where we observe interesting asymmetries in the grammatical expression of number. A good example is the Spanish plural *padres* ‘fathers’ / ‘parents’: it can refer either to a certain number of persons individually regarded as representatives

of the class [FATHER] (homogeneous plural, cf. *los Padres de la Iglesia* ‘the Fathers of the Church’) or to the ‘parents’ (heterogeneous plural, cf. *los padres cuidan de sus hijos* ‘parents care for their children’). In the former meaning, the components of the plural are homogeneous: [FATHERS] = [FATHER] + [FATHER], etc.; in the latter meaning, the plural is characterized by the heterogeneity of its components: [FATHERS] = [FATHER] + [MOTHER]. The aim of the present paper is to describe the extension of the heterogeneous number in the Baltic languages and to assess the contribution of these languages to clarifying the phenomenon from a historical and typological point of view. The paper will be divided into two sections, first an overview of the different subtypes of heterogeneous number in the Indo-European languages and second a more specific section focusing on the Baltic data.

## 2. The Heterogeneous Number in the Indo-European Languages

The heterogeneous number implies that a non-singular item (dual or plural) semantically includes elements that do not possess the quality conveyed by the designation of the sum. In the sense of ‘parents’, the Spanish plural *padres* includes [FATHER] + [MOTHER], the second element of which is not explicitly denoted by *padres* [FATHERS]. There is in the heterogeneous number a hierarchy of the different items associated in the plural: one of them is seen as dominant and provides the designation of the sum, while the other one is seen as collateral and left implicit. In the following, I will use ‘dominant’ for the member that appears overtly expressed by the plural, ‘collateral’ for the member that is not explicitly conveyed by the plural: in Spanish *padres* ‘parents’, [FATHER] is dominant, [MOTHER] is collateral. As will become clear, no prediction can be made concerning the respective position of dominant and collateral members: it is culturally or contextually determined and can go in either direction.

### 2.1. Heterogeneous Parents

The designation of the ‘parents’ is a prime example where heterogeneous number can be observed in many Indo-European languages. Two types may be basically distinguished, one in which the ‘parents’ are denoted by a plural including homogeneous items, and one in which the ‘parents’ include heterogeneous items.

In the homogeneous type, the plural refers to a quality shared by the father and the mother to the same extent. In German *die Eltern* ‘parents’ (from *älter*

‘older’) or its calques in Slovenian *starši* (from *starejši* ‘older’), Upper Sorbian *staršej* (from *starši* ‘older’), Latvian *vecāki* (from *vecāks* ‘older’) and Old Prussian *uraisins* (ACC.PL, *Enchiridion* 1561, 93<sub>17</sub>, from the comparative of *urs* ‘old’), both the father and the mother can be qualified as ‘old(er)’ in contrast to the children. General designations such as ‘parents, progenitors’ (English *parents*, French *parents*, Italian *genitori*, Old Church Slavic родители *roditeli*, Polish *rodzice*, Welsh *rhieni*, Irish *tuismitheoirí*, etc.) are generally understood as homogeneous in the sense that both the father and the mother can receive the qualification conveyed by the plural. Nonetheless, they sometimes suggest a historical derivation from heterogeneous plurals. Latin *parentēs* ‘parents’ (PL.M) was used in reference to both parents (cf. Cicero, *Laelius* 27) in the same way as its singular *parens*, which could apply both to the father (cf. Cicero, *Pro Sulla* 81: *parens tuus* ‘your father’) and to the mother (cf. Virgil, *Aeneid* 10, 252: *alma parens* ‘nurturing mother’). Synchronically, *parentēs* is homogeneous: it includes two elements that can equally be qualified as *parens* ‘parent’. From a historical point of view, however, it derives from the verb *pariō* ‘to bring forth, to give birth, to bear’, which was limited to the mother (cf. Cicero, *De Oratore* 2, 66). There was thus a shift in Latin *parentēs* from heterogeneous to homogeneous plurality, based on the semantic bleaching of the specific seme [TO BEAR ⇒ MOTHER] to simply [TO BE A PARENT]. For obvious reasons, this extension of meaning generally prevails in the languages that have inherited or borrowed the Latin word *parentēs*, but do not possess the corresponding verb, like French *parents* or English *parents*. Interestingly, Romanian *părinți* ‘parents’ is an exception: it exhibits a reverse heterogeneity compared with its Latin origin, because the singular *părinte* is limited to the ‘father’ (like Albanian *prind* ‘parent, father’, PL *prindër* ‘parents’).<sup>1</sup>

In the heterogeneous type, the plural refers to the quality possessed by one of its components, but not all. The Spanish plural *padres* ‘the parents’ can be paralleled by a number of comparable lexemes in other Indo-European languages, some of which display interesting features.

The Greek plural γονεῖς *goneĩs* ‘parents’ (PL.M) can be qualified as heterogeneous because the singular γονεὺς *goneús* ‘progenitor’ is limited to the father (cf. Herodotus, *Histories* 3, 109: τῷ γονεῖ τῷ *gonēi* ‘to their father’); it is cognate with the verb γεννάω *gennāō* ‘to beget’, which displays the same restriction (cf. Sophocles, *Electra* 1412: ὁ γεννήσας πατὴρ *ho gennēsas patēr*

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<sup>1</sup> Pușcariu (1905; <sup>2</sup>1975, 111).

‘the father who begot him’). In a similar way, the Greek plural *τοκεῖς* *tokeĩs* ‘parents’ (PL.M) includes [FATHER] + [MOTHER] (cf. Homer, *Odyssey* α 170), but its singular *τοκεύς* *tokeús* is limited to the father (cf. Hesiod, *Theogony* 138); it derives from the verb *τίκτω* *tíktō* ‘to beget’ from \**ti-tk-e/o-*, which is used mostly for the father (cf. Homer, *Iliad* B 628), very rarely for the mother (cf. Homer, *Iliad* Π 278). In both cases, the dominant term is ‘father’, which provides the plural designation, including the collateral term, the ‘mother’.

In Gothic (East Germanic), the ‘parents’ can be expressed by two words, *berusjos* and *fadrein*. The first one, *berusjos*, is originally the feminine plural of an archaic perfect participle of the verb *bairan* ‘to carry, to bear’ (PIE \**b<sup>h</sup>er-*), specialized for pregnant women (‘the bearing ones’), but synchronically it functions as a masculine plural (cf. the definite article in *þai berusjos* = οἱ γονεῖς *hoi goneĩs* in Jn 9, 23, see also Lk 2, 27 and the variant *þai birusjos* in Lk 2, 41) including the father and corresponding to Greek οἱ γονεῖς *hoi goneĩs* ‘parents’. Originally, *berusjos* is a heterogeneous plural based on the mother with secondary inclusion of the father. We have the opposite situation with Gothic *fadrein* ‘parents’. Formally, *fadrein* is a neuter singular noun (< PIE \**ph<sub>2</sub>tr-inom*) with a collective meaning (‘family’); this meaning is attested once in Gothic in a passage (Eph 3, 15) where it renders the Greek feminine abstract and collective noun πατριά *patriá* ‘origin, race, family’ (SG.F). More common is the meaning ‘parents’, when *fadrein* renders Greek οἱ γονεῖς *hoi goneĩs* ‘parents’: it is treated as a masculine plural by calque of Greek (cf. the definite article in *þai fadrein* = οἱ γονεῖς *hoi goneĩs* ‘parents’ in Jn 9, 20, cf. also Jn 9, 2, Jn 9, 18); in Lk 8, 56, *fadrein* triggers plural agreement of the verb (*jah usgeisnodedun<sub>pl</sub> fadrein<sub>sg</sub> izos* ‘her parents were astonished’ = Greek καὶ ἐξέστησαν οἱ γονεῖς αὐτῆς καὶ *ekséstēsan hoi goneĩs autēs*). In the Epistles of St Paul, *fadrein* is regularly pluralized (*fadreinam* DAT.PL in 2Cor 12, 14; Col 3, 20; 2Tim 3, 2 = Greek γονεῦσι *goneūsi*). There is no visible difference in Gothic between *berusjos* and *fadrein*.<sup>2</sup> Both render Greek γονεῖς *goneĩs* ‘parents’ in similar contexts (compare Jn 9, 22 and 23), both are originally heterogeneous, but their semantic trajectory is the opposite: from mothers to parents in *berusjos*, from fathers to parents in *fadrein*. The most interesting point in Gothic is the semantic link between the heterogeneous number and the collective meaning in *fadrein*.

<sup>2</sup> On Gothic *berusjos* and *fadrein*, see especially Bam mesberger (1995).

In the other Germanic languages, heterogeneous plurality is also found in the designation of the ‘parents’, but not exclusively. In Old Norse, there are a number of heterogeneous plurals in kinship terminology; they are based on ‘father’ (*faðir*), ‘mother’ (*moðir*) or ‘sister’ (*systir*) and include another member of the family. The data are complex and some of them require a more precise examination:<sup>3</sup>

- *feðgin* (PL.NT) = [FATHER] + [MOTHER], rarely [FATHER] + [DAUGHTER] (from \**fadra-gīna-*)
- *feðgar* (PL.M) = [FATHER] + [SON] (from \**fadr-iga-*)
- *moeðgin* (PL.NT) = [MOTHER] + [SON] (from \**mādra-gīna-*)
- *moeðgur* (PL.F) = [MOTHER] + [DAUGHTER] (from \**mādr-iga-*)
- *systkini* (PL.NT) = [SISTER] + [BROTHER] (and the singulative *systkin* ‘one of the *systkini*’)

Note also *friðgin* [PARENTS] + [CHILDREN] (attested twice: *Clements Saga* 37, *Placidus-drápa* 53), derived from *friðr* ‘wife’ (cf. *friða* ‘to love’). Some of these forms have survived in Modern Scandinavian: Modern Icelandic *feðgin* ‘father and daughter’, *feðgar* ‘father and son’ (the meaning ‘parents’ = ‘father and mother’ is conveyed by *foreldrar*); Swedish *syskon* ‘brother(s) and sister(s), siblings’ (cf. also Danish *søskende* ‘siblings’); sometimes with a semantic evolution: Norwegian (dial.) *fegge* ‘old man’, Swedish (dial.) *fägg* ‘married man’.

In Old Norse, most of these nouns are limited to post-Eddic literature (cf. *feðgin* in *Stjórn* 39 and *Barlaams Saga* 122, *feðgar* in *Egils Saga* 18, *moeðgin* in *Fornsögur* 37, *moeðgur* in *Gísla Saga* 88 and *Laxdæla Saga* 116, etc.). Only *systkin* ‘sister and brother’ (PL.NT) is found once in the *Poetic Edda* (*Atlamál* 98, 1: *þriu...systkin* ‘three sisters and brothers’); it is also attested in Old Norse prose (cf. *Grágás* i 32).

The difficulty is the analysis of the second part of the words. It has been argued that the element *-gin*, *-kin* in *feðgin*, *moeðgin*, *systkini* and *friðgin* represents the second member of a compound, but its nature is not really specified in the literature. At first sight, one could think of Old Norse *kyn* ‘family’ or *kvinna* ‘woman, wife’. The first option, equating *-gin*, *-kin* with

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<sup>3</sup> Cleasby, Vigfusson (1874, 149, 173, 442, 615); de Vries (1962, 114, 400, 574).

*kyn* ‘family’, could reflect a collective meaning: *feðgin* ‘parents’ = \**faðir* ‘father’ + \**kyn* ‘family’, i. e. ‘the father’s family’, which would square well with the heterogeneous meaning, but there are formal problems with this reconstruction. The second option, equating *-gin*, *-kin* with *kvinna* ‘woman, wife’, would imply that these words are not heterogeneous plurals, but rather dvandva compounds:<sup>4</sup> *feðgin* ‘parents’ = \**faðir* ‘father’ + \**kvinna* ‘wife’, i. e. ‘the father and his wife’, with no collateral element. Beside the critical problems that invalidate this option from a formal point of view, it is clear that, semantically, the extension of the element *-gin*, *-kin* to *moedgin*, *systkini* and *fridgin* does not speak in favor of this analysis: *moedgin* ‘parents’, for example, can hardly be traced back to a compound \**moðir* ‘mother’ + \**kvinna* ‘wife’. The reconstruction of underlying compounds is problematic and cannot be adopted unreservedly. It is more likely that *-gin*, *-kin* is a suffix (maybe the combination of two suffixes *-g-* + *-ina-*). In any case, the element *-gin*, *-kin* remains synchronically unmotivated. The prehistory of the suffix *-ga-* in *feðgar* (PL.M) and *moedgur* (PL.F) is more straightforward: *feðgar* goes back to a substantivized adjective in Common Germanic \**fadr-iga-* < PIE \**ph<sub>2</sub>-tr-iko-* (= Greek πατριός *patrikós* ‘belonging to the father’); in a similar way, *moedgur* is from Common Germanic \**mādr-iga-* < Proto-Indo-European \**meh<sub>2</sub>-tr-iko-* ‘belonging to the mother’ (cf. Classical Sanskrit *māṛka-* ‘belonging to the mother’ with a slightly different form of the suffix). The primary meaning of Germanic \**fadr-iga-* resp. \**mādr-iga-* is likely to have been ‘fatherly, father-like’ resp. ‘motherly, mother-like’.

An interesting heterogeneous plural is found in Modern German: *Geschwister* ‘brother(s) and sister(s)’. In the ancient West Germanic languages, the meaning of this collective form was exclusively homogeneous: ‘sisters’. In Old Saxon, *gischwester* referred to two ‘sisters’ (cf. *Heliand* 3969), e. g. Maria and Martha (*Heliand* 4013 and 4108), in the same way as *gibroder*, *gebrodar*, *gebroðar* referred to a group of ‘brothers’ (*Heliand* 1439, 3110), e. g. Andrew and Peter (*Heliand* 1154, 1257, *gibrodrun* DAT.PL in *Heliand* 1164). Similarly, the meaning of Old English *gesweostor* was consistently homogeneous: ‘sisters’, cf. *betwux hire geswustrum* ‘among her sisters’ (Aelfric, *Life of Aethelthryth* 69).<sup>5</sup> In Old High German, the collective *giswester* was likewise

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<sup>4</sup> The reconstruction of a ‘dvandvakompositum’ is suggested by de Vries (1962, 400).

<sup>5</sup> Cf. also *Riddle of the Exeter Book* (44, 3).

exclusively homogeneous: *gisuēster* ‘sisters’ (cf. Otfrid, *Evangelienbuch* III 24, 55, in reference to Maria and Martha), exactly like *gibuoder* ‘group of brothers’. The heterogeneous meaning of German *Geschwister* is recent.

From a historical point of view, the relationships between homogeneous and heterogeneous plurality are diverse and can go in either direction. The evolution [HETEROGENEITY] > [HOMOGENEITY] can be illustrated by Latin *parentēs*, originally heterogeneous [PARENTS] < [MOTHERS] (cf. the meaning of *pariō*), but synchronically perceived as homogeneous (cf. *parens* ‘parent, father or mother’). The reverse evolution [HOMOGENEITY] > [HETEROGENEITY] can be illustrated by Spanish *padres* ‘parents’: its heterogeneous meaning ‘parents’ is not found in its Latin source *patrēs*, which could only refer to a group of homogeneous individuals regarded as fathers (cf. *apud patres nostros* ‘in the time of our fathers, forefathers’ in Cicero, *De Officiis* 3, 47); its application to the ‘parents’ is a more recent development.

These examples suffice to show that heterogeneous plurality is well attested in the designation of the ‘parents’ among the Indo-European languages. It is not necessarily an archaism; on the contrary, we have observed instances of evolution from homogeneity to heterogeneity within the history of the same language. Globally speaking, there seems to be no constraining directionality in the development of heterogeneous plurality. This is not a surprise. The distinction between dominant and collateral members is likewise eminently language-specific and can even depend on the individual lexemes: sometimes the ‘father’ is dominant (as in Gothic *fadrein*), sometimes the ‘mother’ (as in Gothic *berusjos*), and there is no necessary correlation between the dominance of a member and the social position of its referent.

Characteristically, the heterogeneity of the components of the plural does not create ambiguity, because the collateral member is always culturally predictable. The link between ‘father’ and ‘mother’, or between ‘father/mother’ and ‘son/daughter’, is not accidental, but immediately presupposed as included in the core meaning of the dominant element: a ‘father’ is defined by his relation to a ‘mother’, a ‘mother’ by her relation to a ‘father’, and similarly a ‘son’ or a ‘daughter’ are defined by their relation to their ‘father’ and ‘mother’. Kinship nouns are essentially relational in that their meaning derives from their mutual position within a coherent system of family relationships. This element of predictability is a marked feature of heterogeneous plurals. In the typological literature, heterogeneous plurals are

sometimes called ‘associative plurals’, which actually reflects the validity of this feature.<sup>6</sup>

## 2.2. Heterogeneous Duals

As a rule, heterogeneous plurals consist of two members (typically the father and the mother). Their extension to a greater number of members is not completely impossible, but much rarer and always reducible to a binary association: when they do not refer to two elements, they refer to two classes of elements. In German, the heterogeneous collective *Geschwister* means ‘brothers and sisters’, whatever their number might be (two, three, or even more), but it is limited to two classes (‘brothers’ and ‘sisters’), not more. I have found no instance where a plural [Xs] refers to [X] + [Y] + [Z]. Semantically, heterogeneous plurals always imply a binary association: their meaning is fundamentally *dual*. It is therefore not surprising to find heterogeneous number phenomena applied to dual forms in languages that have preserved the dual number.

Here again, we encounter kinship terminology and particularly the designation of the ‘parents’. In Vedic Sanskrit, the dual *pitārā* (literally ‘the two fathers’, from *pitār-* ‘father’) means ‘parents’, including the mother. In *Rigveda* 7, 53<sub>2</sub>, it refers to the complementary couple ‘Sky, Heaven’ (*Dyáus*) and ‘Earth’ (*Pr̥thivī*) in a context of praise and prayer; they are qualified as ‘seats of truth’ (*sádane ṛtásya*, in the dual).<sup>7</sup> The heterogeneity of Vedic Sanskrit *pitārā* ‘parents’ finds a perfect match in Young Avestan with the dual *pitarə* ‘parents’, cf. *Yašt* 10, 117: *satāiiuš antarə pitarə puθrəmča* ‘(Mithra) the hundredfolded between the parents and the son’. Another example of heterogeneous dual in the *Rigveda* is *dāmpatī* (literally ‘the two lords’, from *dāmpati-* ‘lord’) in reference to ‘the lord (*dāmpati-*) and his wife (*dāmpatnī*)’ (cf. *Rigveda* 8, 35<sub>5</sub>, 10, 10<sub>5</sub>, 10, 68<sub>2</sub>, etc.).

Other instances of heterogeneous duals are attested in Indo-Aryan. In Vedic Sanskrit, the dual *áhanī* (literally ‘the two days’, from *áhar* ‘day’) means ‘the two parts of the day’ = ‘day and night’ (cf. *Rigveda* 1, 185<sub>1</sub>, etc.). Similarly, the dual *dyāvā* (literally ‘the two skys’ or ‘the two days’, from *dyáu-* ‘sky,

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<sup>6</sup> Cf. Daniel (2000); Moravcsik (2003). The notion of ‘associative plural’ is based on cases like Hungarian *János-ék* ‘Janos and his group’, Japanese *Tanaka-tachi* ‘Tanaka and his group’ or Telugu *puligili* ‘tigers and similar animals’.

<sup>7</sup> Note that, on the contrary, the dual *mātārā* (from *mātar-* ‘mother’) is attested in Vedic Sanskrit only with a homogeneous meaning ‘two mothers’ (*Rigveda* 1, 155<sub>3</sub>).



day’) can refer to ‘Heaven and Earth’ (cf. *Rigveda* 10, 37<sub>2</sub>, including *pṛthivī* ‘earth’) or to ‘Day and Night’ (cf. *Rigveda* 1, 113<sub>2</sub>, including *rātrī* ‘night’). In the same way, the dual *māsá* (literally ‘the two moons’, from *más-* ‘moon, month’) is used in reference to the ‘moon’ and the ‘sun’ in *Rigveda* 6, 34<sub>4</sub> (maybe also *Rigveda* 10, 138<sub>4</sub>). A last instance has often been presented as the typical example of heterogeneous dual in the literature: in Vedic Sanskrit, the dual *Mitrá* (literally ‘the two Mitras’, from *Mitrá-* ‘Mitra, the god of treaties’) refers to the pair of deities Mitra and Varuṇa (cf. *Rigveda* 5, 65<sub>6</sub>); the two form an inseparable unity, as suggested by the expression *cákṣur máhi Mitráyor* ‘the great eye of the two Mitras’ (*Rigveda* 6, 51<sub>1</sub>), in which Mitra and Varuṇa are provided with one single eye, as if they were two aspects of the same deity. The association of Mitra and Varuṇa is traditional and can also take on the form of a dvandva dual *Mitrávaruṇā* (cf. *Rigveda* 1, 122<sub>7</sub> and 8, 25<sub>2</sub>, etc.), where the two members are expressed jointly in the dual. Oliphant (1912) has provided detailed analysis of the complex relationships between the two types in the *Rigveda*:

- Heterogeneous dual: *Mitrá* ‘the two Mitras<sub>DUAL</sub>’ = ‘Mitra and Varuṇa’  
*Dyāvā* ‘the two skys<sub>DUAL</sub>’ or ‘the two days<sub>DUAL</sub>’  
 = ‘Heaven and Earth’ / ‘Day and night’
- Contrastive dual: *Mitrávaruṇā* ‘Mitra<sub>DUAL</sub> + Varuṇa<sub>DUAL</sub>’  
*Dyāvāpṛthivī* ‘Heaven<sub>DUAL</sub> + Earth<sub>DUAL</sub>’

In the literature, the heterogeneous dual is often called ‘elliptical dual’,<sup>8</sup> relying on the assumption that the heterogeneous dual *Mitrá*, for example, derives from the contrastive dual *Mitrávaruṇā* through ellipsis of the collateral member *Váruṇā*. The reconstruction of an ellipsis process is, in fact, not necessary and not really backed up by any positive evidence. On the contrary, it could even be more likely that the contrastive dual is a secondary development of the heterogeneous dual making explicit the collateral member.<sup>9</sup>

The same analysis is applied to the well-known instance of heterogeneous dual in Homeric Greek: the dual *Aἴαντε* *Aíante* (literally ‘the two Ajax’, from *Aἴας* ‘Ajax’), used in Homer, *Iliad* N 46, in reference to ‘Ajax and his brother Teucer’. Ajax and Teucer are usually associated with one another (cf. Homer,

<sup>8</sup> Cf. Delbrück (1893 1, 138).

<sup>9</sup> This scenario is supported, e.g., by Edgerton (1911).

*Iliad* M 349-350). Interestingly enough, the dual Αἴαντε Αἴαντε ‘the two Ajax’ can be replaced by the plural in the same association: Αἴαντες τε δύο Τεῦκρός θ’ Αἴαντες τε δύο Τεῦκρός θ’ ‘the two Ajax<sub>pl</sub> and Teucer<sub>sg</sub>’ (Homer, *Iliad* M 313). The collateral member Teucer is both included in the plural form and repeated afterwards; this is reminiscent of the contrastive dual of the Sanskrit type *Mitrāvāruṇā*, in which *Vāruṇa-* is included in the dual *Mitrā*, but repeated afterwards, the only difference being that it is repeated in the dual, whereas Τεῦκρος *Teūkros* ‘Teucer’ is singular in the Homeric expression.

To sum up, the heterogeneous dual is well attested in Indo-Aryan (particularly in Vedic Sanskrit) and survives sporadically in Homeric Greek as well. It is certainly of PIE date. Owing to the inherent semantics of the dual, the heterogeneous structure always refers to a binary association: there is never more than one collateral member. This collateral member is always culturally predictable, it is never accidental: ‘father’ and ‘mother’, ‘sky’ and ‘earth’, ‘day’ and ‘night’, ‘moon’ and ‘sun’, ‘Mitra’ and ‘Varuṇa’, ‘Ajax’ and ‘Teucer’, all the instances of heterogeneous dual that have been mentioned so far imply that the collateral member is regularly associated with the dominant member and can easily be retrieved in the communication context, based on a shared knowledge of their association. From a similar perspective, Rukeyser (1997) analyzes the semantics of the dual in terms of the addition of binary parameters:

1. Paral vs Arbitrary (= natural or conventional dual vs occasional dual)
2. Equivalence vs Opposition (= additive vs contrastive dual)
3. Common vs Proper (= common nouns vs proper nouns)
4. Symmetry vs Asymmetry (= homogeneous vs heterogeneous dual)

In this typology, the heterogeneous dual is characterized by the asymmetry of the two members associated in the dual, but the striking point is that, in the Indo-European languages, this asymmetry never refers to an arbitrary association, but appears always connected to a paral meaning: there is in the Indo-European family no example of occasional dual with a heterogeneous meaning.<sup>10</sup>

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<sup>10</sup> It is only in non-Indo-European languages that heterogeneous duals or plurals can display occasional meaning. Fritz (2011, 26) gives an example from Ngiyambaa (Pama-

The derivation of heterogeneous duals (cf. Vedic Sanskrit *Mitrā́*) from contrastive duals (cf. Vedic Sanskrit *Mitrá́váruṇā́*), repeatedly taught in the literature about the dual number in Indo-European, remains very uncertain and is not supported by positive arguments. The opposite appears more plausible: the contrastive dual can be seen as a secondary addition making explicit the collateral member which remains unexpressed in the heterogeneous dual.

It could be argued that the heterogeneous number was first used in the dual and was only secondarily extended to the plural. This assumption could explain the preservation of the binary meaning, restricting the heterogeneity to two elements or two classes of elements. This would not mean that every instance of heterogeneous plural is based on, or even derives from, an instance of heterogeneous dual; on the contrary, we have seen a heterogeneous plural like Spanish *padres* ‘parents’ arising well after the Latin prehistory, at a time when there was no dual number any longer for a very long time. There is certainly a diachronic link between heterogeneous duals and plurals and it is likely that some heterogeneous duals were replaced by heterogeneous plurals at some point (cf. Homeric Greek Αἴαντε *Aíante* → Αἴαντες *Aíantes*), but this does not rule out the possibility of secondary creations based on the same model even without dual source.

### 3. The Heterogeneous Number in Baltic

Heterogeneous number phenomena are well attested in the Baltic languages. A few decades ago, they have been thoroughly described and analyzed by Stundžia (1992), who has shown their diffusion in the Lithuanian dialects and drawn attention to their specificities, particularly with regard to their accentual properties.

#### 3.1. *Tévas* and *tėvai*

Not surprisingly, the prime example of heterogeneous number in Baltic is the designation of the ‘parents’. In Modern Lithuanian, *tėvas* ‘father’ (*tėvas*) has two meanings in the plural:

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Nyungan language spoken in New South Wales, Australia): *Mamie-gam-bula* ‘Mamie, together with another person’.

- Homogeneous plural: *tėvai* ‘fathers’ = [FATHER] + [FATHER], etc.
- Heterogeneous plural: *tėvai* ‘parents’ = [FATHER] + [MOTHER]

The following considerations are intended to show, first, whether this duality of meaning is ancient and, second, whether it can be correlated to an accentual distinction regularly suggested in the literature:<sup>11</sup> *tėvai* ‘fathers’ barytone (AP1) / *tėvaĩ* ‘parents’ oxytone (AP4 or AP3). We will see that the evidence is more complex than this presentation suggests and cannot be reduced to a strict correlation between the meaning and the accentual paradigm.

From a semantic point of view, the distinction between the two meanings does not seem to be very old in Lithuanian. Only the homogeneous meaning ‘fathers’ is attested in Old Lithuanian, in reference to several biological fathers, as in (1):

- (1) Old Lithuanian. Martynas Mažvydas, *Catechismus*, 1547, 35<sub>11</sub> (cf. also Vilentas, *Catechismas*, 1579, 42<sub>16</sub>)

*Tiewai*            *ne*        *ingi wadžiakiet*            *rustibien*            *funeliu*            *iuffu*.  
 father.VOC.PL    NEG    in=provoke.IMP.2.PL    wrath.ILL.SG    son.GEN.PL    2.PL.GEN.PL  
 ‘Fathers, do not provoke your sons to wrath!’ (Latin *Patres ne provocetis ad iram liberos vestros* = Eph 6, 4)

to forefathers, as in (2):

- (2) Old Lithuanian. Mikalojus Daukša, *Postilla Catholicka*, 1599, 13<sub>44</sub>

*anamê*            *naiamê*            *fwietę*            *apé*            *kurį*  
 that.LOC.SG    new.LOC.SG    world.LOC.SG    about            which.ACC.SG  
*niék*            *niežinóio*            *tewai*            *múfy*            *pirmieii*.  
 nothing.GEN.SG    NEG=know.PST.3    father.NOM.PL    1.PL.GEN.PL    first.NOM.PL=DET  
 ‘in that New World (= America) which our first forefathers did not know anything about’

or in the religious sense, as in (3):

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<sup>11</sup> Cf. Stundžia (1981, 193; 1992, 153).

- (3) Old Lithuanian. Baltramiejus Vilentas, *Catechismas*, 1579, 3<sub>15-16</sub> (cf. Ford 1969, 272)

<i>Tatai</i>	<i>taipaieg</i>	<i>anie</i>	<i>tiewai</i>	<i>schwentioghi</i>
that.ACC.SG	also	that.NOM.PL	father.NOM.PL	holy.NOM.PL=DET

<i>gerai</i>	<i>regeia</i>	<i>ir</i>	<i>ischmane.</i>
well	see.PST.3	and	understand.PST.3

‘This also those holy fathers well saw and understood.’

The meaning ‘parents’ was expressed in Old Lithuanian by another word, *gimdýtojai* ‘parents, progenitors’ (from the verb *gimdýti* ‘to give birth to, to bring forth’), cf. (4):

- (4) Old Lithuanian. Martynas Mažvydas, *Catechismus*, 1547, 35<sub>20</sub>

<i>Sunus</i>	<i>klaufikiet</i>	<i>gimditaiu</i>	<i>iuffu</i>	<i>Paneie.</i>
son.VOC.PL	obey.IMP.2.PL	parent.GEN.PL	2.PL.GEN.PL	Lord.LOC.SG

‘Children, obey your parents in the Lord!’ (Latin *Filii obedite parentibus vestris in domino* = Eph 6, 1)

In the Lithuanian dictionaries that appeared between the 17th and the 18th centuries, the meaning ‘parents’ is always rendered by *gimdytojai*, never by *tėvai*, e.g. *Rodžice / parentes, gimditoiey* (Sirvydas DTL<sup>1</sup> [ca 1620], 153), *Eltern gimdytojei* (LL 17th century, 30), *Eltern Gimdytojei* (CGL 17th century, 553), *Eltern Gimdytojei* (Haack 1730, 170), *Eltern Gimdytojei* (Brodowski 18th century, 407), cf. still *Rodzice, gimdytojaj* (Daukantas [ca 1850–1856], III 23). It is only since the mid-18th century that the plural *tėvai* began to be recorded with the heterogeneous meaning ‘parents’. As far as I am aware of, the first occurrence of *tėvai* ‘parents’ surfaces in Philipp Ruhig’s dictionary (1747, II 117): *Eltern Gimdytojei / Tėwai*.<sup>12</sup> It becomes more frequent in the 19th century and beyond: *Tėwai die Eltern* (Mielcke 1800, 193), *tieuai Parentes* (Daukantas 1838, 28), *Rodzice, Tièwaj, gimditojej* (Ivinskis [ca 1851], I 695), *Tėwai die Eltern* (Nesselmann 1851, 100), *parents, gimdytojai, tėvai* (Lalis<sup>3</sup> 1915, II 490). Kurschat’s dictionary (1883, 455) mentions *tėwai*, but only with the meaning *die Vorfahren, die Ahnen* ‘forefathers’. The bulk of evidence

<sup>12</sup> Two possible instances of *tėvai* ‘parents’ can be found in Donelaitis’ *Metai* (Do [ca 1780], I 188, III 141), but the context does not exclude a more general meaning ‘fathers’. Nesselmann (1869, 38–39 and 126–127) renders them as *Eltern*.

shows that the heterogeneous plural *tėvai* ‘parents’ is of recent origin and has developed very late.

In view of this, it comes as no surprise that no correlation can be established, in Old Lithuanian, between the accentual variation (barytone / oxytone) and the difference of meaning (‘fathers’ / ‘parents’), precisely because the latter meaning is not attested until the 18th century. Moreover, the accentual data are complex and require more in-depth examination than has been generally done. In the first Old Lithuanian accented texts (DK 1595, DP 1599, AK 1605, Do [ca 1780]), there is evidence of both barytone and oxytone stress for the plural *tėvai* / *tėvaĩ*, but the meaning is always strictly homogeneous (‘fathers’):

- *tėvai* (barytone): NOM.PL *tėway* (DP 1599, 64<sub>45</sub>), *tėwai* (DP 1599, 5<sub>32</sub>, 119<sub>46</sub>, 198<sub>30</sub>, 248<sub>27</sub>, 263<sub>1</sub>, 263<sub>34</sub>, 333<sub>9</sub>, 356<sub>36</sub>, 396<sub>9</sub>, 420<sub>47</sub>, 446<sub>22</sub>, 521<sub>36</sub>, 609<sub>14</sub>; AK 1605, 68<sub>3</sub>); VOC.PL *tėway* (DP 1599, 65<sub>26</sub>); GEN.PL *tėwų* (DP 1599, 2<sub>6</sub>, 62<sub>48</sub>, 67<sub>15</sub>, 77<sub>44</sub>, 177<sub>22</sub>, 193<sub>28</sub>, 224<sub>2</sub>, 248<sub>40</sub>, 304<sub>22</sub>, 379<sub>21</sub>, 397<sub>43</sub>, 410<sub>7</sub>, 420<sub>45</sub>, 420<sub>48</sub>, 424<sub>5</sub>, 468<sub>21</sub>, 540<sub>37</sub>, 540<sub>46</sub>, 541<sub>20</sub>, 545<sub>21</sub>, 549<sub>16</sub>), *tėwu* (AK 1605, 28<sub>8</sub>, 67<sub>16</sub>); DAT.PL *tėwamus* (DP 1599, 27<sub>26</sub>, 199<sub>20</sub>, 475<sub>34</sub>, 505<sub>30</sub>, 561<sub>23</sub>), *tėwams* (DP 1599, 443<sub>53</sub>); ACC.PL *tėwus* (DP 1599, 227<sub>46</sub>); ALL.PL *tėwump* (DP 1599, 471<sub>21</sub>); NOM.-ACC.DUAL *tėwu* (DP 1599, 503<sub>8</sub>)
- *tėvaĩ* (oxytone): NOM.PL *tėwái* (DK 1595, 82<sub>9</sub>), *tėwái* (DP 1599, 187<sub>38</sub>, 468<sub>16</sub>.)

Instances of double accent such as *tėwų́* ‘fathers’ GEN.PL (DP 1599, 229<sub>13</sub>, 229<sub>14</sub>, 410<sub>6</sub>), if they are not merely scribal errors, could point to the same variation, obviously unrelated to any difference of meaning.

The accentual paradigm of *tėvas* ‘father’ is not immediately clear. As we have seen, the plural can be barytone or oxytone in Old Lithuanian, with a clear predominance of barytone stress (AP1);<sup>13</sup> the singular is ambiguous in the majority of cases, either barytone (AP1) or oxytone (AP3). More recently, Kurschat (1849, 54, § 32) classifies *tėvas* ‘father’ (written *tėwas*) as AP3 (i.e. oxytone); this is repeated in exactly the same way in Kurschat’s grammar (1876, 154, § 543) and by later epigones (e.g. Žiugžda 1947, 46). Šlapelis (<sup>2</sup>1940, 531) has *tėvaĩ*, *rodzice* (oxytone, AP4 or AP3). No indication is given in Būtėnas (1931) and Laigonaitė (1978). Vaitkevičiūtė (2004, 31) mentions only AP3 for *tėvas* ‘father’. The DLKŽ (<sup>1</sup>1954, 853) gives *tėvas* (AP3) and *tėvaĩ* = *tėvas ir motina kartu* ‘father and mother together’ (AP4);

<sup>13</sup> Cf. Skardžius (RR 5, 480); Buch (1961, 14); Kabelka (1964, 211 sq.); Zinkevičius (1975, 17–18).

the LKŽ (16, 136 and 140) has the singular *tévas* (AP3) and the plurals *tévaĩ* (AP4 or AP3), rarely *tévai* (AP1). Stundžia (1981, 193; 1992, 153) describes the distinction between *tévai* ‘fathers’ (AP1) and *tévaĩ* ‘father and mother, their house’ (AP4) in some modern Lithuanian dialects. There is no prima facie evidence for the antiquity of this semantics-based accentual distinction, which seems to be limited to a few modern dialects. The accentual distinction is real and ancient, but its connection to a difference of meaning is difficult to establish for the most ancient sources.

In order to assess the philological evidence properly, it is necessary to separate the meaning and the accentual pattern of the word: while the semantic duality (‘fathers’ / ‘parents’) is undoubtedly recent, the accentual duality (barytone / oxytone) seems to be quite old, but highly unstable and volative. The difficulty is how to determine the accentual paradigm of the word, both in the singular and in the plural. All the sources that I have consulted point to an acute stem in the singular *tévas*, which, given the overall recessivity of the nominative, could reflect either barytone (= AP1) or oxytone stress (= AP3). The only diagnostic form in the singular is the locative singular: it is expected to be barytone (*téve*) in AP1, reflecting primary stem accent, and oxytone (*tévè*) in AP3, reflecting primary ending accent (compare the locatives *výre* ‘man’ AP1 and *kalnè* ‘mountain’ AP3). I have found no instance of the locative in the Old Lithuanian accented texts; as a result, we cannot be sure that the singular *tévas* belonged to AP1 or to AP3 in Old Lithuanian. Both are possible. In the modern language, the locative of *tévas* is extremely rare, but *tévè* is the correct form, in line with its qualification as AP3 in the literature.<sup>14</sup> The distinction between AP1 and AP3 is anyway extremely tenuous in the singular, being confined to the locative, which, for obvious reasons, is far from frequent for a word like *tévas*. Otherwise, AP1 and AP3 are identical in the singular of *-a*-stems.<sup>15</sup>

There is a difficulty of the same type in the plural. The Old Lithuanian evidence for the plural seems to point to barytone stress (AP1): *téway* NOM.PL, *téwy* GEN.PL, *téwamus* or *téwams* DAT.PL, *téwus* ACC.PL, *téwump* ALL.PL, *téwu* NOM.–ACC.DUAL, with only a few instances pointing to oxytone stress (AP3 or AP4): *têwái* NOM.PL. Taken at face value, this speaks in favor of AP1 and marginally

<sup>14</sup> The full paradigm of *tévas* is given in Ambrazas (1997, 135) and the locative is clearly indicated as *tévè*.

<sup>15</sup> This proximity explains the frequent variations between AP1 and AP3 in the Lithuanian dialects (cf. Laigonaitė 1958, 40).

AP3 or AP4, with a (dialectal?) distribution we cannot say anything precise about. In any case, the barytone stress (AP1) attested in Old Lithuanian is at variance with what we find in Modern Lithuanian. Most modern sources ascribe the plural *tėvaĩ* to AP4, which implies oxytone stress and non-acute stem vowel (\**tėv-*), i. e. *métatonie douce*. The paradox is that the non-acute stem vowel is never accented, but only implied by the accentual behavior of the individual cases. AP3, implying oxytone stress and acute stem vowel (\**tėv-*), is signaled as a variant. Here again, but for different reasons, the distinction would be extremely tenuous, being marked only in the accusative plural: barytone *tėvus* in AP3, oxytone *tėvùs* in AP4 (compare the accusatives *kálnus* ‘mountains’ AP3 and *namùs* ‘houses’ AP4). In all the other cases of the plural, there is no difference between AP3 and AP4 in the *-a*-stems. Oxytone stress (*tėvùs*) is signaled as regular in Modern Lithuanian by most reference works, regardless of the meaning (‘fathers’ or ‘parents’); it indicates AP4.<sup>16</sup> It is well known that AP3 words tend to join AP4: it could be assumed that the plural *tėvaĩ* was originally AP3 and only secondarily joined AP4. This assumption would save us the trouble of positing a *métatonie douce* in the plural, for which there would be no justification at all. This conclusion, however, should not conceal the fact that the realization of the plural is variable in Old Lithuanian (AP1) and in the modern language (AP4, AP3, rarely AP1), probably depending on the dialects and regions of origin of the speakers.

The dialectological data show a certain degree of diversity regarding the accentual paradigm of *tėvas* ‘father’. According to the LKŽ (16, 136 and 140), the singular *tėvas* is AP3 or more rarely AP1. The plural *tėvaĩ* is presented in the LKŽ as AP4 (general) or AP3 (dialects of Plikiai, Rusnė, Karšakiškis, Akmenė and Šatės); more rarely do we find *tėvai* AP1 (dialects of Druskininkai, Smalvos and Nemenčinė). *Tėvaĩ* ‘parents’ is classified as AP4 in Kaltanėnai<sup>17</sup> and in the Zanavykai dialects (near Marijampolė),<sup>18</sup> but as AP3 in Kretinga (cf. the accusative plural *tėvus*).<sup>19</sup> The dialect of Druskininkai (DTŽ, 405) has both *tėvaĩ* (AP4, cf. *t'ė.vaĩ* NOM PL) and *tėvai* (AP1, cf. *t'ėvai*

<sup>16</sup> Cf. Ambrazas (1997, 416 and 531): *gyvėnti pàs tėvùs* ‘to live with one’s parents’ (cf. similar instances p. 523, 535 and 597). However, the same source gives *pàs tėvus* in one place (1997, 459), probably from an unspecified dialectal source.

<sup>17</sup> Vilutytė (2008, 345).

<sup>18</sup> ZŠŽ (2006, III 421).

<sup>19</sup> Aleksandravičius (2011, 446).



NOM PL). A cursory investigation, made upon my request by Ina Valintelytė (Paris) among a few native speakers of Lithuanian about the accentuation of the accusative plural *tėvus*, indicates that the majority of them (from Biržai, Kaunas, Šakiai and Marijampolė) tend to stress the ending: *tėvùs* (AP4); only one native speaker (from Kupiškis) pronounced *tėvus* with stem stress (AP3 or AP1). I am unable to give a full picture of the variations affecting the plural of *tėvas* in the different Lithuanian dialects. The data presented above must not be overestimated, but they show at least a certain variety depending on the dialect of the speakers with a clear predominance of AP4.

The description of *tėvas* as AP3 in most Lithuanian reference works is based on the comparison between the singular and the plural: it is chiefly because we have stem accent in the singular *tėvas* and ending accent in the plural *tėvaĩ* that *tėvas* is classified as AP3, because this kind of variation is recognized as the most visible hallmark of AP3 in *-a*-stems (cf. *kálnas* ‘mountain’, PL *kalnaĩ* AP3).<sup>20</sup> AP3 is nowadays regular in the singular, but the consistently barytone accent of Old Lithuanian, both in the singular and the plural, could reflect AP1 as the original paradigm. In the plural, there was a shift from AP3 to AP4, probably quite recently. All in all, two scenarios are possible, both of them independent of the meaning of the word:

- (1°) AP3 is ancient both in the singular and the plural (which implies that AP1 in Old Lithuanian and some modern Lithuanian dialects must be explained as secondary)
- (2°) AP1 is ancient in the singular, AP3 in the plural (which implies paradigm shift between the singular and the plural); if this is correct, Modern Lithuanian AP3 in the singular would be secondary (after the plural?), before AP3 itself was replaced by AP4 in the plural

At first glance, the first scenario sounds more economical, even if the position of AP1 in Old Lithuanian remains unclear. The Old Lithuanian data

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<sup>20</sup> This difference is due to the fact that most cases of the singular of *-a*-stems are ‘recessive’ (i.e., push the accent as far back from the ending as possible), whereas most cases of the plural are ‘free’ (i.e., reflect the primary accent more faithfully). The locative singular and the accusative plural are exceptions: the locative singular is ‘free’, which explains the stem accent in AP1 (*výre* ‘man’), the ending accent in AP3 (*kalnè* ‘mountain’); the accusative plural is ‘recessive’, which explains the stem accent in AP3 (*kálnus* ‘mountains’); in AP4, this recessive accent was secondarily attracted back to the ending by virtue of Saussure’s law (*namùs* ‘houses’).

might of course reflect the situation of individual dialects, not necessarily the original state of affairs, but the spread of AP1 at the expense of AP3 would still have to be explained. The second scenario sounds more puzzling, because it is based on the assumption that the word changed its accentual paradigm between the singular and the plural, which is quite unusual and somewhat counter-intuitive, but, as we will see, additional data provided by Stundžia (1981; 1992) might strengthen this hypothesis.

The above considerations might cast some doubt on the antiquity of the distinction between *tėvai* ‘fathers’ (AP1) and *tėvai* ‘parents’ (AP4 < AP3) in Lithuanian. The philological evidence forces us to admit that this distinction, which is clearly attested in some modern Lithuanian dialects, is recent. The Lithuanian data point to AP3 or AP1 in the singular *tėvas*, AP4 < AP3 in the plural *tėvai*, independently of any semantic difference. The heterogeneous meaning ‘parents’ is anyway a recent creation in Lithuanian.

This conclusion is confirmed by the Latvian cognate *tēvs* ‘father’. To begin with the semantic side, the plural *tēvi* is only attested with the homogeneous meaning ‘fathers’, in reference to several biological fathers, as in (5):

- (5) Old Latvian. *Tas Jauns Testaments*, 1685: Ac 22, 1

<i>Wjhri</i>	<i>Brahļi</i>	<i>un</i>	<i>Tehwi</i>	<i>klaufajt</i>	<i>taggad</i>
man.NOM.PL	brother.NOM.PL	and	father.NOM.PL	hear.IMP.2.PL	now
<i>manu</i>	<i>Aisbildeščanu</i>	<i>pee</i>	<i>jums.</i>		
1.SG.POSS.ACC.SG	defense.ACC.SG	before	2.PL.DAT.PL		

‘Men, brothers and fathers, hear now my defense before you.’

to forefathers:<sup>21</sup>

- (6) Old Latvian. *Tas Jauns Testaments*, 1685: Jn 4, 20

<i>Muhfu</i>	<i>Tehwi</i>	<i>irr</i>	
1.PL.GEN.PL	father.NOM.PL	be.PRS.3	
<i>fchinnî</i>	<i>Kalnâ</i>	<i>peeluhgufchi.</i>	
this.LOC.SG	mountain.LOC.SG	having worshiped.NOM.PL	

‘Our fathers worshiped on this mountain.’

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<sup>21</sup> Cf. also *Tehwo Tehwi, die Vorfahren* (MLG [ca 1690], 694); *Vorfahren, Wezžu Tehwi* (LML 1748, 276); *tehwu-tehwi, die Vorfahren* (Ulmann 1872, 304); *tēvu tēvi, die Vorfahren* (ME 1929-1932, IV 178).

or in the religious sense:

- (7) Old Latvian. Georg Manzel, *Das Haus=, Zucht= und Lehrbuch Jesus Syrachs*, 1631: 69, 10, 2

*Wiņfch*      *irr*      *to*      *augfti*      *gohdajis*  
3.SG.NOM.SG   be.PRS.3   3.SG.ACC.SG   highly   having honored.NOM.SG

*kà*      *tohs*      *fwehtus*      *Tehwus.*  
like      3.PL.ACC.PL   holy.ACC.PL   father.ACC.PL

‘He has honored him highly like the Holy Fathers.’

The meaning ‘parents’ is never expressed by the plural *tēvi*, but by *vecāki* (from *vecāks* ‘older’) by calque of German *die Eltern* (from *älter* ‘older’), cf. *Eltern / Tāhws vnd Mahte / Wātʒaki* (Manzel 1638, 52); *Tee wezzee, die alten, Vater u. mutter, die Eltern* (Fürecker 1650, 297); *Eltern, Weʒʒaki* (LML 1748, 129); *родители, wezakee, Aeltern* (Waldemar 1872, 539); *wezaki, die leiblichen Aeltern* (Ulmann 1872, 338); *Eltern, wezaki* (Drawneek 1910, 335).

From the accentual point of view, the sustained tone of *tēvs*, PL *tēvi* (ME 4, 177) is likely to reflect a barytone *\*tēvas*, PL *\*tēvai* (AP1), which could be identical to Old Lithuanian *tēvas*, PL *tēvai* (Daukša) rather than to Modern Lithuanian *tēvas*, PL *tēvai*.<sup>22</sup> An oxytone *\*tēvās*, PL *\*tēvai* (AP3) would have resulted in Latvian *\*tēvs*, PL *\*tēvi*, with a broken tone. Taken at face value, this invites us to reconstruct the East Baltic word for ‘father’ as AP1 (barytone). This does not rule out the possibility of an original variation between singular and plural (e. g. singular AP1, plural AP3), because one could easily assume that secondary leveling took place in Latvian by generalization of AP1.

The West Baltic evidence is less exploitable, for two reasons. The Old Prussian word for ‘father’ must be reconstructed in a slightly different way as *\*tāvas* (Old Prussian *towis vater* EV 169, *thaus* GrG 56, *tāws* ‘father’ *Enchiridion* 1561, 49<sub>20+</sub>), not as *\*tēvas*. The variation of the stem vowel remains unexplained. Old Prussian also has *thewis vetter* (EV 176), which could correspond to East Baltic *\*tēvas* more directly, but its meaning is different: ‘uncle, father’s brother’. The second difficulty is that no evidence is available to determine the accentual paradigm of the word, even in the *Enchiridion* (1561). From a semantic point of view, the range of meanings of Old Prussian *\*tāvas* is strictly determined by the German source from which it is translated. The plural appears twice, once in the nominative *tawai* (ex. 8):

<sup>22</sup> Cf. Skardžius (RR 5, 480).

(8) Old Prussian. *Enchiridion*, 1561: 93<sub>18</sub>

*Jous*            *Tawai*            *ni*    *tenfeiti*            *ioūfans*            *malnikans*  
2.PL.NOM.PL    father.VOC.PL    NEG    provoke.IMP.2.PL    2.PL.POSS.ACC.PL    son.ACC.PL  
*prei*            *nertien*.  
towards    wrath.ACC.SG

‘Fathers, do not provoke your sons to wrath!’ (German *Jr Väter reizet ewre Kinder nicht zu zorn* = Eph 6, 4)

once in the accusative *tāwans* (ex. 9):

(8) Old Prussian. *Enchiridion*, 1561: 37<sub>14</sub>

*Deiws* /        *kas* [...]        *ftans*        *grīkans*        *fteifei*        *tāwans*  
God.NOM.SG    who.NOM.SG    DEF.ACC.PL    sin.ACC.PL    DEF.GEN.SG    father.ACC.PL  
*kāimaluke* / *ēnstēmans*        *malnijkans*.  
visit.PRS.3    in=DEF.DAT.PL    child.ACC.PL

‘God, who visits the sins of the fathers upon the children’ (German *Gott / der [...] die sünde der Väter heimfucht an den Kindern*)

The meaning is always homogeneous (‘fathers’). The plural *tawai* is never used in Old Prussian with the heterogeneous meaning ‘parents’, for which there is another form *uraisins* (ACC PL, *Enchiridion* 1561, 93<sub>17</sub>), based on the comparative of *urs* ‘old’ by calque of German *die Eltern*.

The etymology of the word for ‘father’ does not help us much to determine its accentual properties. The reconstruction of a form derived from PIE *\*ph<sub>2</sub>tér-* (Sanskrit *pitár-*, Greek πατήρ *patér*, Latin *pater*, etc.) has nothing to recommend it. A prototype like *\*ptē* would suffer from serious phonetic difficulties and the addition of the suffix *\*-vas* (< PIE *\*-uos*) to this prototype would be entirely obscure: it is unlikely to be borrowed from PIE *\*h<sub>2</sub>euos* ‘grandfather’ (Latin *auus*, cf. Old Prussian *awis óme* ‘uncle, mother’s brother’ EV 177, Lithuanian *avýnas* ‘uncle, mother’s brother’), because such an analogy would be completely unparalleled. The alternative explanation that East Baltic *\*tēvas* and West Baltic *\*tāvas* are based on babble words (*Lallwörter*), *\*tē* resp. *\*tā*, could be supported by a parallel formation in Lithuanian *tētis*, Latvian *tētis* ‘father, dad’; Old Prussian has *thetis altoater* (EV 171) with a different meaning ‘grandfather’. This analysis is attractive, but remains very vague and, in any case, does not allow us to say anything precise about the accentual paradigm of the word.

To sum up at this point, the heterogeneous meaning ‘parents’ for the plural of ‘father’ is limited to Lithuanian and even there appears to have developed quite recently. The word for ‘father’ displays interesting accentual properties, but there is historically no visible connection between this variation and the difference between the homogeneous and the heterogeneous meanings. Stundžia (1981; 1992) has observed in the Lithuanian dialects a distinction between *tėvai* ‘fathers’ (homogeneous) and *tėvai* ‘parents’ (heterogeneous), but this distinction seems to be of recent origin. Its historical depth is not really supported by positive evidence. In any case, its chronology needs to be examined critically and taken in consideration in any attempt at explaining its development.

### 3.2. Other Heterogeneous Plurals

Taken at face value, the word for ‘father’ is insufficient evidence to support the assumption of an ancient correlation in Baltic between barytone stress and homogeneous meaning on the one hand and between oxytone stress and heterogeneous meaning on the other hand. However, Stundžia (1981; 1992) has drawn attention to a number of dialectal forms in which this correlation seems to be more robust, which invites us to reconsider its validity, but probably on a different level.

A case in point, very similar to the word for ‘father’, since it also belongs to kinship terminology, is Lithuanian *uošvis* ‘father-in-law’, PL *uošviai* ‘parents-in-law’.<sup>23</sup> In the standard language, *uošvis* is classified as barytone (AP1), but there is a plural *uošviai* ‘parents-in-law’, classified as oxytone (AP4).<sup>24</sup> There is no clear evidence for *uošviai* in Old Lithuanian: Daukša, for example, has only the nominative singular *uoszwis* ‘father-in-law’ (DP 1599, 157<sub>40</sub>). Only the singular is found in the Old Lithuanian dictionaries, e.g. *Swiekier / Socer, Vofzwis* (Sirvydas DTL<sup>3</sup> [ca 1643], 419); *ûβwis Brautvater* (LL [17th century], 19a); *ûβwis Weibsvater* (LL [17th century], 19a); *oβwis Schwiegervater, des Weiber Vater* (LL [17th century], 78a); *Weibsvater Ūfzwis* (CGL [17th century] IV 938); *Ūfzwis, der Schwiegervater des Mannes* (Mielcke 1800, 308); *ûβwis, der Schwiegervater* (Kurschat 1883, 481). The first trace of the plural *uošviai* I have been able to find is in the DLKŽ<sup>1</sup> (1954, 890), cf. also LKŽ<sup>1</sup> (17, 506), where *uošviai* = *žmonos ar vyro tėvai* ‘parents of the wife or the husband’ is ascribed to AP4, with a dialectal variant *uošviai* (AP1). A few

<sup>23</sup> Cf. Stundžia (1981, 193; 1992, 153; 1995, 91).

<sup>24</sup> Cf. LKŽ<sup>1</sup> (17, 506–507); DLKŽ<sup>1</sup> (32000, 871).

modern dialects have *uošvỹs* (AP 3) for the singular. Taken at face value, the distinction between *úošvis* ‘father-in-law’ (AP1) and *uošviaĩ* ‘parents-in-law’ (AP4) is reminiscent of that between *tévas* ‘father’ (AP3) and *tévaĩ* ‘parents’ (AP4). Both have a number of common characteristics, in first line the conspicuously recent nature of the heterogeneous meaning and the fragility of its connection to the accentual variation. Stundžia (1981, 193; 1992, 153) argues for an accentual couple *úošviai* ‘fathers-in-law’ (homogeneous) and *uošviaĩ* ‘parents-in-law’ (heterogeneous), which must be of recent origin. The broken tone of Latvian dial. *uošvis* ‘father-in-law’ (ME 4, 422) seems to point to original oxytone stress, which would correspond to Lith. dial. *uošvỹs* (AP3) rather than to Lith. *úošvis* (AP1), but the dialectal extension of the Latvian word remains unclear to me; it is not necessarily ancient. Last but not least, the etymology of *úošvis* does not help us very much: the word is of uncertain origin.<sup>25</sup>

Another example of heterogeneous plural in kinship terminology could be Lithuanian *šėšuras* ‘father-in-law, particularly father of the husband’ (AP3<sup>b</sup>) → *šėšuraĩ* ‘parents-in-law, parents of the husband’ (AP3<sup>b</sup>), cf. LKŽ 14, 699: *šėšuraĩ* = *vyro tėvai* ‘parents of the husband’. The plural *šėšuraĩ* seems to be very recent and probably limited in its dialectal extension; the LKŽ mentions one example from the dialect of Druskininkai. There is no accentual variation, since the word retains the same paradigm (AP3<sup>b</sup>) both in the singular and in the plural, and no distinction is made between a homogeneous and a heterogeneous plural. The oxytone stress implied by AP3<sup>b</sup> seems to be superficially corroborated by Greek *ἐκυρός* *hekurós* ‘father-in-law, father of the husband’ (Homer, *Iliad* Γ 172, Ω 770), but it is contradicted by Vedic Sanskrit *śváśuras* ‘id.’ and Germanic *\*swéhuraz* > Old English *swēor*, Old High German *swehur*, German *Schwäher*. The PIE word was certainly barytone *\*suekuros* (cf. NIL, 672); the oxytone stress of Greek *ἐκυρός* *hekurós* is likely to be due to the analogy of *πενθερός* *pent<sup>h</sup>erós* ‘father-in-law’, *γαμβρός* *gambrós* ‘son-in-law’, etc.<sup>26</sup>

Another example provided by Stundžia (1992, 153) is *siuvėjas* ‘tailor’ (AP1) with its two plurals in some Lithuanian dialects: homogeneous plural

<sup>25</sup> Fraenkel (LEW 2, 1168); Smoczyński (SEJL, 705); ALEW (2, 1154). The comparison with Latin *uxor* ‘wife’ is unlikely; Klingenschmitt’s (2008) explanation as *\*ó-pkū-ijo-* (cf. Derksen EDBIL, 482-483) is ingenious, but far-fetched.

<sup>26</sup> Cf. Illich-Svitych (1979, 31), who also mentions the analogy of the feminine *ἐκυρά* *hekurá* ‘mother-in-law’.

*siuvėjai* ‘tailors’ (AP1), heterogeneous plural *siuvėjai* ‘the family of tailors’ (AP4). In the standard language, only the homogenous plural *siuvėjai* ‘tailors’ (AP1) is encountered; the heterogeneous plural is limited to a few dialects, particularly to the east of the Aukštaitian area.

Stundžia (1992, 151) also mentions from the same area a number of heterogeneous plurals, based on proper names and organized in a structured system:<sup>27</sup>

- *Jōnas* ‘Jonas’ (AP2) → homogeneous plural *Jōnai* ‘men that go by the name of Jonas’ (AP2); heterogeneous plural *Jonai* ‘a man Jonas with his wife, their family, house’ (AP4)
- *Kiškis* ‘Kiškis’ (AP2), family name (derived from *kiškis* ‘hare’ AP2) → homogeneous plural *Kiškiai* ‘brothers, cousins that go by the family name of Kiškis’ (AP2); heterogeneous plural *Kiškiaĩ* ‘a man Kiškis with his wife...’ (AP4)
- *Dinda* ‘Dinda’ (AP1), family name → homogeneous plural *Dindos* ‘brothers, cousins that go by the family name of Dinda’ (AP1); heterogeneous plural *Dindaĩ* ‘a man Dinda with his wife, their family, house’ (AP4)
- *Gėrvė* ‘Gėrvė’ (AP1), family name (derived from *gėrvė* ‘crane’ AP1) → homogeneous plural *Gėrvės* ‘brothers, cousins that go by the family name of Gėrvė’ (AP1); heterogeneous plural *Gerviaiĩ* ‘a man Gėrvė with his wife, their family, house’ (AP4)

Other examples are given by Stundžia (1981, especially p. 191). Some of them are place names, based on family names, e.g. *Jurgeliaĩ* (AP4) apparently derived from the first name *Jurgėlis* (AP2), or *Šėštokaĩ* (AP4) from the anthroponym *Šėštōkas* (AP2). They seem to suppose a derivation like *Šėštōkas* ‘Šėštōkas’ (AP2) → heterogeneous plural *Šėštokaĩ* ‘Šėštōkas and his family, his house’ > ‘the estate of Šėštōkas’ (AP4).

Interestingly enough, Stundžia (1981; 1992, 153) observes that the same accentual variation appears in some Lithuanian dialects with a collective meaning:

- *ėžeras* ‘lake’ (AP1) → additive plural *ėžerai* ‘lakes, used about concrete lakes’ (AP1); collective plural *ėžeraiĩ* ‘lakes in general’ (AP3<sup>b</sup>)
- *kálnas* ‘mountain’ (AP1) → additive plural *kálnai* ‘concrete mountains, hills’ (AP1); collective plural *kalnaiĩ* ‘mountains, hills in general’ (AP3)

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<sup>27</sup> Cf. also Stundžia (1995, 92).

- *liepa* ‘linden’ (AP1) → additive plural *liepos* ‘concrete lindens’ (AP1); collective plural *liepāi* ‘ensemble of lindens’ (AP4)

The data provided by Stundžia are fascinating. They raise a number of challenges that we must overcome if we are to fully understand the extension of heterogeneous plurals in Lithuanian.

To begin with the semantic aspect, the heterogeneous meaning appears clearly characterized in these forms by the same element of predictability that we have recognized as a key feature of number heterogeneity:

- *uošviai* and *šešuraĩ* ‘parents-in-law’ = [FATHER-IN-LAW] + [MOTHER-IN-LAW]
- *siuvėjai* ‘the tailor with his family’ = [TAILOR] + [FAMILY]
- *Jonai* ‘Jonas with his family’ = [JONAS] + [FAMILY]

The collateral element is easily predictable in all these examples: the cultural association that they convey is never accidental, but reflects the same kind of cultural regularity that we have seen in the majority of the instances of heterogeneous plurality reviewed so far.

The limitation to a binary association is another salient feature of the dialectal instances mentioned by Stundžia. Either do such forms refer to two persons (e.g. Lith. dial. *uošviai* and *šešuraĩ* ‘parents-in-law’ = [FATHER-IN-LAW] + [MOTHER-IN-LAW]) or to one person and a class of relatives taken as a whole (e.g. *siuvėjai* ‘the tailor with his family’ = [TAILOR] + [FAMILY]). There is never more than two specific items or classes of items; the meaning is always fundamentally dual. It is only when the plural has a collective meaning that the association is not limited to a duality (e.g. *ežeraĩ* ‘ensemble of lakes’, potentially more than two).

An interesting point is that the accentual variation that marks the heterogeneous meaning in some Lithuanian dialects, as in *siuvėjas* ‘tailor’ (AP1) → *siuvėjai* ‘the tailor with his family’ (AP4), is also found in collective plurals like *ėžeras* ‘lake’ (AP1) → *ežeraĩ* ‘ensemble of lakes’ (AP3<sup>b</sup>). The link between number heterogeneity and collective meaning is remarkable in many respects, but not completely isolated. One could compare, for example, the evolution of the prefix *Ge-* in German *Geschwister* from the collective to the heterogeneous meaning (‘group of sisters’ → ‘brother(s) and sister(s)'). It could be argued that the collective meaning, due to its indivisibility in separate individuals, is inherently prone to include heterogeneous elements



in a whole; I will leave it to others to elaborate more fully on the foundation of this semantic link, but it will play a crucial role in my account of the development of the heterogeneous number in Baltic.

The variation between barytone and oxytone stress is clearly linked to the heterogeneous meaning of the plural, but not only, since some of the dialectal examples given by Stundžia have a collective meaning. This invites us to look afresh at the case of Lithuanian *tėvai* ‘fathers’ (homogeneous) / *tėvai* ‘parents’ (heterogeneous). The philological data have suggested that the barytone-oxytone variation in *tėvai* (AP1) / *tėvai* (AP3) is already Old Lithuanian (Daukša), whereas the heterogeneous meaning in *tėvai* ‘parents’ is attested only very recently. The distinction between Lithuanian *tėvai* ‘fathers’ (homogeneous) and *tėvai* ‘parents’ (heterogeneous) appears limited to a few modern dialects and cannot unreservedly be traced back to the ancient language, even if its reality cannot be denied and is confirmed by the parallel instances mentioned by Stundžia. It could be suggested that there was originally a semantic difference between barytone and oxytone stress, but that this semantic difference was not necessarily linked to number heterogeneity (as in *tėvai* ‘fathers’ / *tėvai* ‘parents’); it could equally be based on the distinction between additive and collective plurality (as in *ėžerai* ‘lakes’ / *ežerai* ‘ensemble of lakes’). At this point, there is no principled argument to decide which meaning is likely to be ancient, and to what extent, because Old Lithuanian does not give us access to any semantic distinction, in whatever form.

The dialectal data provided by Stundžia cannot be reduced to a mere accentual variation; they also include morphological variation. The proper name *Dinda* ‘Dinda’ (AP1) belongs to the *ā*-stems (PIE *\*-ā-* < *\*-eh<sub>2</sub>-*), and this is also reflected in its homogeneous plural *Dindos* ‘brothers, cousins that go by the family name of Dinda’ (AP1), but the heterogeneous plural *Dindai* ‘a man Dinda with his wife, their family, house’ (AP4) shows a shift towards the *ǎ*-stems (PIE *\*-ǎ-*). There is a similar variation with the proper name *Gėrvė* ‘Gėrvė’ (AP1): the singular belongs to the *ē*-stems, and so does its homogeneous plural *Gėrvės* ‘brothers, cousins that go by the family name of Gėrvė’ (AP1), but the heterogeneous plural *Gėrviai* ‘a man Gėrvė with his wife, their family, house’ (AP4) belongs to the *ijǎ*-stems (PIE *\*-ijǎ-*). Likewise, with a collective meaning, *liepa* ‘linden’ (AP1) and its additive plural *liepos* ‘concrete lindens’ (AP1) are regularly *ā*-stems (PIE *\*-ā-* < *\*-eh<sub>2</sub>-*), but the collective plural *liepai* ‘ensemble of lindens’ (AP4) belongs to the

$\check{a}$ -stems (PIE  $*-\check{o}-$ ). In other words, the accentual variation is associated with morphological ‘heteroclisism’, taking this term in the broad sense applied since Egli (1954) to the heterogeneity of declension types within the same paradigm,<sup>28</sup> not in the narrow sense more usual in Indo-European linguistics ( $*-r/n-$ ). Unlike suppletion, which combines different stems in a paradigm (as in Italian SG *vado* ‘I go’ / PL *andiamo* ‘we go’), heteroclisism combines different inflectional types in the same paradigm (as in Italian SG *braccio* ‘arm’ / PL *braccia* ‘arms’). Stumpf (2006, 279) defines heteroclisism as ‘the property of a lexeme whose inflectional paradigm contains forms built on stems belonging to two or more distinct inflection classes’ and proposes distinguishing ‘cloven heteroclisism’, when the split is correlated with a morphological category (e.g. between SG and PL), and ‘fractured heteroclisism’, when it is not (e.g. within SG). An example of cloven heteroclisism in Lithuanian is the declension of *skaičius* ‘number’, PL *skaičiai* (*iu*-stem in the singular, *ia*-stem in the plural);<sup>29</sup> an example of fractured heteroclisism is the declension of *piemuõ* ‘shepherd’ (consonant stem in some forms of the singular and plural, *i*-stem in others). The origins of heteroclisism are complex and can be diverse. Heteroclisism may be due to the formal ambiguity of one or several forms (formal heteroclisism) or it may reflect a different semantic parametrizing (semantic heteroclisism). There is formal heteroclisism in the case of *piemuõ* ‘shepherd’: the accusative singular *piemeni*, for example, could be assigned both to consonant stems (Baltic  $*-i-n$  from PIE  $*-m_3$ ) and to *i*-stems (Baltic  $*-i-n$  from PIE  $*-i-m$ ), which may have prompted the variation of the word between the two inflectional classes. On the other hand, there is semantic heteroclisism in the case of Italian SG *braccio* ‘arm’ / PL *braccia* ‘arms’, based on the collective meaning originally proper to the neuter plural.

With this in mind, there is reason to think that the heteroclisism phenomenon that we observe in cases like Lith. dial. *Dinda* ‘Dinda’ (AP1,  $\bar{a}$ -stem) / *Dindaĩ* ‘a man Dinda with his wife, their family, house’ (AP4,  $\check{a}$ -stem) does not derive from formal ambiguity, but reflects a genuinely semantic distinction,

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<sup>28</sup> Cf. Egli’s definition (1954, 11): ‘the phenomenon whereby nominal forms – nouns or adjectives – inflect one, several or all forms after a second declension next to the normal’ [*die Erscheinung, daß Nomina, Substantive wie Adjektive, eine, mehrere oder alle Formen nach einer zweiten Deklination neben der normalen flektieren*].

<sup>29</sup> The case of Lith. SG *žmogùs* ‘man’, PL *žmónës* (*u*-stem in the singular,  $\acute{e}$ -stem in the plural) is more complex, since it also implies suffix heteroclisism ( $-g-u-$  in the singular,  $-n-\acute{e}-$  in the plural).

since it is opposed to a non-heteroclitic plural *Dindos* ‘brothers, cousins that go by the family name of Dinda’ (AP1,  $\bar{a}$ -stem). In other words, both the shift to the  $\bar{a}$ -stems and the accentual variation are intimately bound to the specific meaning of the plural. So far I have left open the question which one of the two attested meanings is ancient, the heterogenous meaning (*tévas / tévai*) or the collective meaning (*ėžeras/ ežeraĩ*). In the absence of any ancient data, we are reduced to arguing on the basis of comparative evidence.

A comparison with Indo-European data is possible, but difficult to exploit. Stundžia (1992, 154) mentions the parallel of Homeric Greek μηρός *mērós* ‘thigh’ (SG.M) with its two plurals: μηῖρα *mēra* ‘ensemble of thighs, envisaged during the burning process as an indistinct whole’ (PL.NT, collective plural, cf. Homer, *Iliad*, A 464 = B 427 = γ 461) and μηροί *mēroĩ* ‘thighs of victims of a sacrifice, cut out piece by piece, separately’ (PL.M, additive plural, cf. Homer, *Iliad*, A 460 = B 423 = μ 364).<sup>30</sup> This parallel is very interesting, because it cumulates some of the most salient features of the Lithuanian data (heterocclisis, collective meaning, accentual variation). There are, however, crucial differences between Greek μηρός *mērós* ‘thigh’ / μηῖρα *mēra* ‘ensemble of thighs’ and, e.g., Lith. dial. *líepa* ‘linden’ / *liepai* ‘ensemble of lindens’. The collective meaning is apparently the same on both sides and the heterocclisis follows the same fault line (between SG and PL), but the inflectional types involved are different (\*- $\bar{o}$ - SG.M / \*- $eh_2$  PL.NT in Greek, \*- $eh_2$ - SG.F / \*- $\bar{o}$ - PL.M in Lithuanian) and, last but not least, the accentual variation takes the opposition direction (oxytone SG.M / barytone PL.NT in Greek, barytone SG.F / oxytone PL.M in Lithuanian). As rightfully noted by Dieu (2016b, 44), the couple μηρός *mērós* / μηῖρα *mēra* is completely isolated in Greek and probably secondary;<sup>31</sup> the oxytone-to-barytone movement has no parallel, apart from Greek ἀστήρ *astér* ‘star’ (SG.M) → ἄστρα *ástra* (PL.NT, hence the new singular ἄστρον *ástron* SG.NT), which is of a different nature.<sup>32</sup>

<sup>30</sup> Cf. Wackernagel (1926, 89). See also Nussbaum (2014, 275), who understands μηῖρα *mēra* as ‘heap of butchered animal thighs (to be sacrificed)’.

<sup>31</sup> See also Dieu (2022, 298). According to Dieu, the barytone accent of μηῖρα *mēra* could be due to the analogy of its doublet μηρία *mēria* (barytone), both forms being regulated in Homer by a complementary metrical distribution. A different explanation is proposed by Nussbaum (2018).

<sup>32</sup> To my knowledge, only Rasmussen (2000, 243-244) tried to argue for the antiquity of the pattern [x $\acute{x}$  → collective x $\acute{x}$ ], but without good arguments.

The reverse accent variation is more commonly reconstructed in Indo-European linguistics on the basis of the well-known example PIE  $*k^u\acute{e}k^u\text{-}o\text{-}$  ‘wheel’ (barytone) / collective  $*k^{u\circ}k^u\text{-}\acute{e}h_2\text{-}$  (oxytone). The barytone singular would be indirectly supposed by Germanic  $*h^w\acute{e}h^w\text{-}la\text{-}$  (> Old Norse *hvél*, Old English *hweohl*, *hwēol*, *hwēl* ‘wheel’) as well as by Greek κύκλος *kúklos* ‘wheel, circle’, despite the neuter gender of the former and the zero grade of the latter. The oxytone plural would find a support in Sanskrit *cakrá* (PL.NT, *Rigveda* 1, 34, 9, etc.), with its secondary singular *cakrám* ‘wheel’ (SG.NT, *Rigveda* 1, 30, 19, etc.), despite the full grade of the stem; after the *Rigveda*, there is also a masculine *cakrás* coexisting with the neuter *cakrám*. The heteroclis is well attested in Homeric Greek, where the masculine κύκλος *kúklos* has two plurals: κύκλοι *kúkloi* ‘circles, wheels’ (PL.M, e.g. Homer, *Iliad*  $\Lambda$  33) and κύκλα *kúkla* ‘wheels’ (PL.NT, e.g. Homer, *Iliad* E 722 and  $\Sigma$  375). These conflicting data have been brought back by some scholars (e.g. Eichner 1985, 139–142) to an alternating paradigm in PIE  $*k^u\acute{e}k^u\text{-}o\text{-}$  (barytone) /  $*k^{u\circ}k^u\text{-}\acute{e}h_2\text{-}$  (oxytone). This is not the place here to launch into an exhaustive study of this pattern, nor to determine its internal motivation in PIE. The oxytone stress of the collective formation in  $*\text{-}\acute{e}h_2\text{-}$  is likely to reflect its derivational more than inflectional nature.

The question to which I would like to confine myself is to determine the conditions under which there could be a historical link between the PIE  $*k^u\acute{e}k^u\text{-}o\text{-}$  /  $*k^{u\circ}k^u\text{-}\acute{e}h_2\text{-}$  pattern and the Lithuanian *liėpa* / *liėpaĩ* type. My first impression would naturally be one of disbelief, because one can only feel scared when considering the enormous chronological distance between PIE and a handful of modern Lithuanian dialects. To overcome this feeling, it is first necessary to find extensive evidence of the progressive stress shift in other Indo-European languages which could support the antiquity of the Lithuanian *liėpa* / *liėpaĩ* type. In this respect, it is particularly difficult to decide whether the same pattern is reflected by the Russian type дело ‘matter’ SG.NT / делá PL.NT (barytone  $\rightarrow$  oxytone), not only because there is evidence for the reverse movement (Russian село ‘village’ SG.NT / сéла PL.NT) as well as for accentual stability (Russian гóрло ‘throat’ SG.NT / гóрла PL.NT), but also, more generally, because of the longstanding debate about the accentual properties of thematic neuters in Slavic.<sup>33</sup> Indirect vestiges,

<sup>33</sup> See a clear overview in Dieu (2016a, 555–564). The Russian type дело ‘matter’ (SG.NT) / делá (PL.NT) is explained by Olander (2009, 181–182) as the result of his ‘mobility law’.

such as Greek φῦλον *p<sup>h</sup>ũlon* ‘race, tribe’ (SG.NT) ↔ φυλή *p<sup>h</sup>ũlē* ‘id.’ (SG.F), are even more uncertain, because they would involve an additional step, the shift of the collective plural to a feminine singular, which remains fundamentally speculative.

It is also crucial to account for the difference of the inflectional types. The Lithuanian *lėpa* / *lėpaĩ* type can only be aligned with the PIE *\*k<sup>u</sup>ék<sup>u</sup>l-o-* / *\*k<sup>u</sup>ók<sup>u</sup>l-éh<sub>2</sub>-* type if one explains how the collective plural ending *\*-éh<sub>2</sub>-* evolved towards (or was replaced by) the masculine plural ending *-aĩ*. This ending, routinely traced back to PIE *\*-oj<sub>i</sub>*, was explained by several scholars, from Schmidt (1889, 41) and Hirt (1899, 49) to Kortlandt (1993 [2009]), as deriving from the collective ending *\*-ā* (< PIE *\*-eh<sub>2</sub>*), developed by a secondary ending *-i*.<sup>34</sup> Ambrazas (1992, 36) thus compares Old Prussian *warto thóre* ‘gates’ (EV 210, from a collective *\*uort-ā*) and the masculine plural in Lithuanian *vaĩtai*. It is not possible to take a position on this point here, because this would imply a thorough discussion on much debated issues, such as the evolution of *\*-oj<sub>i</sub>* in Baltic or the eternal debate about the fate of the neuter gender in Baltic.

The point that I would like to make here is that the accentual variation observed in Lith. dial. *lėpa* / *lėpaĩ* (collective with overt heteroclisis), *ėžeras* / *ežeraĩ* (collective without overt heteroclisis) and *tėvas* / *tėvaĩ* (heterogeneous without overt heteroclisis), if ancient, seems to point to the priority of the collective meaning. The heterogeneous meaning is secondary. This sheds a new light on the Old Lithuanian evidence: as we have seen, the heterogeneous meaning of *tėvaĩ* ‘parents’ is recent, but the accentual variation is likely to be ancient. My assumption is that *tėvaĩ* (AP3, secondarily AP4) in contrast to *tėvas* ‘father’ (originally AP1) is ancient and inherited, but must be traced back to a collective (‘group of fathers’), not to a heterogeneous plural (‘parents’). This meaning can be supposed in some of the Old Lithuanian examples mentioned so far. The oxytone stress of *tėvaĩ* continues an accentual property of the PIE collective, whereas the additive plural *tėvai* ‘fathers’ (AP1) is a regularization on the basis of the singular *tėvas* ‘father’ (originally AP1). The variation between *tėvaĩ* and *tėvai*, already attested in Old Lithuanian, was originally that between an archaic collective and a new additive plural.

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<sup>34</sup> The origin of this secondary ending *\*-i* is not clear even to the supporters of the collective origin of Lithuanian *-aĩ*. Assuming a contamination with PIE *\*-oj<sub>i</sub>* is not really convincing. Nothing is to be gained by comparing the ending of Latin *quae* ‘which’ (PL. NT).

#### 4. Conclusion

The extension of number heterogeneity in the Indo-European languages is an issue that still needs to be fully addressed. The aim of the present paper was to provide a brief overview of heterogeneous plurals and duals from a cross-linguistic perspective and particularly to focus on the Baltic data which have been largely neglected in the typological literature about the category of number. What I tried to show is that the couple *tėvai* ‘fathers’ (homogeneous) / *tėvai* ‘parents’ (heterogeneous) in Lithuanian is a late development, based on a former distinction between the additive and the collective meaning *tėvai* ‘fathers’ (additive) / *tėvai* ‘group of fathers’ (collective). The specificity of the collective (\*-ā < PIE \*-eh<sub>2</sub>), both in formal and semantic terms, was preserved in the prehistory of Baltic until quite recently before its recomposition as an alternative plural. What makes the Lithuanian data so fascinating is that they bring to light a semantic link between collective and heterogeneous number. As such, they should be taken into full account not only by Balticists, but also by general linguists.

### HETEROGENINIS SKAIČIUS BALTŲ KALBOSE

#### *Santrauka*

„Heterogeniniu skaičiumi“ vadintinos dviskaitos ar daugiskaitos formos, žyminčios du objektus, kurių vienas nėra tiesiogiai minimas. Pavyzdys yra ispanų kalbos žodis *padres* ‘tėvai’, apimantis sąvokas [TĖVAS] + [MOTINA], tačiau reiškiamas tik žodžio *padre* ‘tėvas’ daugiskaita, paliekant neišreikštą ‘motiną’. Šio straipsnio tikslas – apibūdinti heterogeninio skaičiaus vartoseną indoeuropiečių kalbose, ypač lietuvių kalboje, kur skirtumas tarp *tėvai* (homogeninė daugiskaita) ir *tėvai* (heterogeninė daugiskaita) dažnai siejamas su akcentinės paradigmos pasikeitimu. Galima įrodyti, kad heterogeninis skaičius yra nesenas reiškinytis lietuvių kalboje, kilęs iš kolektyvinės reikšmės (‘tėvų grupė’), kurios akcentinės savybės galima atsekti iki indoeuropiečių prokalbės kolektyvo.

#### ABBREVIATIONS

ACC – accusative

ALL – allative

AP – accentual paradigm  
DAT – dative  
DET – determined  
dial. – dialectal  
F – feminine  
GEN – genitive  
ILL – illative  
IMP – imperative  
LOC – locative  
M – masculine  
NEG – negation  
NOM – nominative  
NT – neuter  
PIE – Proto-Indo-European  
PL – plural  
POSS – possessive  
PRS – present  
PST – past  
SG – singular  
VOC – vocative

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