To appear in *Diachronica* (2017)

# The development and typology of number suppletion in adjectives\*

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This paper looks at the cross-linguistically rare phenomenon of suppletion in number in adjectives. I consider how such suppletion arises by looking at six known examples with a special focus on the Brittonic languages (Breton, Cornish and Welsh) which are discussed as an extended case study. Three generalisations are suggested on the basis of the typological study. First, adjectives denoting size ("small" and "big") are at the centre of this phenomenon. Second, where the etymology of the adjectives is known, the plural member of the suppletive pair for "small" develops from a lexeme denoting something having been divided into or consisting of small parts. These lexemes can also be used with some singular nouns and in such cases their reference is to the component structure of the referent. Finally, adjectives with number suppletion tend to mark plural number consistently in environments in which plural marking is otherwise optional or rare.

**Keywords**: suppletion, adjectives, grammatical number, agreement, inflectional morphology, Brittonic languages

#### 1. Introduction

Suppletion in number in adjectives is extremely rare. As an example, consider the following singular/plural noun phrases from Swedish where the adjective "small" is suppletive (*liten* in the singular, *små* in the plural).

- (1) a. en liten flicka a small girl "a small girl"
  - b. två små flickor two small.PL girl.PL "two small girls"

In this paper I follow Mel'čuk's (1994: 339) definition of suppletion:

Two linguistic signs are in relation of suppletion if the semantic difference between them is maximally regular (i.e., it is grammatical= inflectional or derivational) while their formal difference is maximally irregular (i.e., it is not covered by any alternation).

The kind of suppletion dealt with in this article is inflectional suppletion according to number (singular/plural) and one where the suppletive elements belong in origin to two different

<sup>\*</sup> I would like to thank Anders Jørgensen, Barry Lewis, Lars Nooij, Paul Russell and three anonymous reviewers for *Diachronica*. Any remaining errors are mine alone.

lexemes (for a detailed introduction to different types of suppletion and terminology, see Veselinova 2006: 1–31).

Suppletion in the comparison of adjectives is a well-known and cross-linguistically common phenomenon, e.g. English *bad*, *worse*, *worst*. A search for suppletion in adjectives in the Surrey Suppletion Database (Brown et al. 2003) returns many examples of adjectival comparison, one instance of suppletion in number (discussed below) and one of suppletion between the short and long forms of a Russian adjective. It should be noted, however, that while many languages have suppletion in the comparison of adjectives, this is cross-linguistically limited to very few lexemes. In Bobaljik's (2012: 109) study of just over 300 languages, suppletion is most commonly found with "good" and "bad", followed by "big" and "small". When we look at number suppletion in adjectives, however, only "big" and "small" occur and I discuss possible reasons for this below. The rarity of suppletion in adjectives where it does not involve comparison was noted by Mel'čuk (1976: 68): "Cases when there are suppletive adjectives opposed according to gender, number or case are, by all evidence, extremely rare." In fact, there are no known instances of suppletion according to gender in adjectives according to Mel'čuk (1994: 390) and I am not aware of any examples in more recent literature.<sup>1</sup>

The phenomenon of number suppletion in adjectives was first noted for the Mainland Scandinavian languages (Danish, Norwegian and Swedish; see Ljunggren 1944), and only recently has attention been drawn to other parallels. The Scandinavian example is also discussed by Hippisley et al. (2004), Corbett (2007: 32), and Börjars & Vincent (2011). Corbett (2007: 32) also briefly mentions adjectival suppletion in Mara (Northern Territory, Australia). Jørgensen (2012) was the first to my knowledge to demonstrate number suppletion in adjectives in medieval Breton and Cornish, while Maiden (2014) drew attention to Megleno-Romanian dialects. To this inventory I now propose to add suppletion in Tariana (Arawak, Brazil) and Menominee (Algonquian, US). The Mainland Scandinavian languages are treated as a group due to their close relationship to one another, and likewise Breton and Cornish are taken together as one example. We have, therefore, six known language groups or individual languages which have number suppletion in adjectives between singular and plural. Welsh, a sister language of Breton and Cornish, also has two adjectives for "small" one of which is mostly restricted to use with plurals and non-count singulars. This parallels the situation in the languages with number suppletion, yet I show in section 3 that a suppletive paradigm has not arisen in Welsh.

Number suppletion in adjectives was used by Börjars & Vincent (2011) to shed light on the question of how suppletion first arises in a language, which is a fairly unexplored area. Most work on suppletion (e.g. Hippisley et al. 2004) has been focused on how and why suppletive forms persist diachronically and resist regularization, which is attributed to factors such as frequency. Börjars & Vincent, on the other hand, are interested in the pre-conditions for suppletion and use the Mainland Scandinavian languages as a case study. Their study concludes that the driving force behind suppletion is semantics, namely semantic overlap between two lexemes, one dominant and one recessive, where the paradigm of the recessive lexeme donates into the paradigm of the dominant one. Despite partial semantic overlap, the

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<sup>&</sup>lt;sup>1</sup> In his earlier article Mel'čuk (1976: 68) mentions the Classical Greek numeral εiζ (masc.)/μiα (fem.) "one" with the implication that he regards these as possible examples of gender suppletion in adjectives, but includes no further discussion or an explanation of whether numerals and adjectives should be considered together. These forms reflect the e-grade and zero grade respectively of one of the two Indo-European stems for "one", namely \*sem- (the other stem being \*oy-) (Sihler 1995: 404–406). In other words, the masculine and feminine forms are historically related, although they appear suppletive synchronically.

dominant lexeme is more general in meaning while the recessive lexeme is more specific. Frequency is an indirect factor in the sense that "elements with general meaning are more frequent" (Börjars & Vincent 2011: 245). Their study builds on Maiden (2004) who argues that lexical synonymy is the main cause of suppletion, and this is argued again in Maiden (2014). The main contribution of the present paper is to reconsider and refine the theories in Börjars & Vincent (2011) and Maiden (2004, 2014) and apply them to the six languages or language groups reviewed here. I also suggest that we should consider number suppletion in adjectives and verbs together as there are significant parallels. The diachronic case study on Welsh completes the typological description of the Brittonic language group and also demonstrates that a language can meet the pre-conditions for adjectival number suppletion, yet no suppletive paradigm need arise.

I begin by introducing the morphosyntax of adjectives in the Brittonic languages (section 1.1) and the suppletive paradigms in Breton and Cornish (section 1.2) before turning to a cross-linguistic examination of the known examples of number suppletion in adjectives (section 2). Sections 2.2–2.4 discuss the historical development of this type of suppletion and some theoretical implications. Section 3 is a case study on Welsh and I argue that the morphosemantics of *bychan/bach* "small" on the one hand and *mân* "small" on the other can be said to fulfil pre-conditions for suppletion, although a suppletive paradigm is not actualised. I also consider the antonyms *mawr* "big" and *bras* "thick; large", whose semantic relationship partially parallels that of the pair *bychan/bach* and *mân* "small" and provides further evidence for the typological generalisation that for adjectives denoting size there are often two partially overlapping lexemes.

#### **1.1** The morphosyntax of adjectives in the Brittonic languages

In Breton, Cornish and Welsh, adjectives regularly follow the noun they modify, although a few adjectives can be placed before the noun. In Welsh, adjectival agreement in attributive and predicative positions is optional in all periods apart from one adjective, *arall* "another, other", pl. *eraill*, which virtually always agrees in number with the head noun. In Middle Welsh, there is a small group of adjectives which have a strong preference for number agreement, while others show a less clear pattern. The first group includes *bychan* "small", pl. *bychain*. Middle Welsh translation texts (mostly from Latin, some from French) should be treated separately, since the prevalence of adjectival agreement in noun phrases is much higher in these than in native texts (Nurmio 2015: 161–187). Adjectival agreement declines towards the Modern Welsh period; for examples of agreement in different dialects, see Thomas (2000: 469–470, 472–473). Plural adjectives often survive in phrasal compounds, e.g. *bysedd cochion* "foxgloves", lit. "red.PL fingers", see Awbery (2014). A small group of adjectives have feminine forms formed by vowel alternation, e.g. *gwyn* (masc.), *gwen* (fem.) "white". Gender agreement, like number agreement, declines towards Modern Welsh,

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<sup>&</sup>lt;sup>2</sup> There are a number of ways of forming the plural of nouns in Breton, Cornish and Welsh, and a smaller range is available for adjectives. The following are examples of Welsh nouns but the processes are shared by the three languages: (i) addition of a variety of plural suffixes, of which *-au* is the commonest e.g. *siop* "shop", plural *siopau*; (ii) vowel alternation e.g. *car* "car", plural *ceir*; (iii) as part of a pair of a monomorphemic plural base (also called 'collective'), where the singular adds a singulative suffix e.g. *adar* "birds", singulative *aderyn* (see Nurmio (forthcoming) and below); or (iv) a combination of these processes e.g. *cadair* "chair", plural *cadeiriau* with the addition of the suffix *-iau* and vowel alternation. Adjectives usually form their plural by adding the suffix *-ion*; some also have plurals formed by vowel alternation, especially in Welsh. For further details, see Watkins (1961: 145–154), Awbery (2009: 387–389) and Willis (2009: 133–136).

although it is still fairly common with a small group of adjectives (see Schumacher 2011: 134 and Awbery 2009: 389–390).

Handbooks on Middle Breton and Middle Cornish state that adjectival agreement is lost and that plural adjectives only occur when used substantivally. The only exception given for Middle Breton is quaez/kaezh "poor", pl. queiz/keizh which can agree in attributive position, e.g. an Bretoned queyz "the poor.PL Bretons" (see Lewis & Piette 1966: 14; Hemon 1975: 47, 66; Schrijver 2011a: 392 and Williams 2011: 309). There are also a few uncertain but possible examples of attributive and predicative adjectives agreeing in the plural in the Old Breton glosses and the Middle Cornish plays, and some also survive in petrified form in Cornish place names, see Bauer (2008), Padel (1979–1980), and Nurmio (2015: 168–169) for discussion of these.<sup>3</sup> The basic pattern, however, is for adjectives modifying plural head nouns to remain unchanged, with the notable exception of MB bihan and MC byhan "small" and their suppletive plural forms discussed below. This is an important point for the discussion that follows; attributive agreement in Breton and Cornish is virtually lost by the medieval period and this makes the adjectives for "small" all the more noteworthy, since they retain number agreement consistently. This raises the question whether Middle Breton and Middle Cornish have a singular/plural paradigm for adjectives at all. I would argue that they do, partly due to the admittedly few examples still attested and partly because of the existence of plural adjectives used as nouns, e.g. en cliffyen "the sick (people)" from singular claff "sick" (Hemon 1975: 66). These could also be analysed as containing a zero head noun ("people" in the example given, since pluralised adjectives usually denote humans), although this is debatable and beyond the scope of the present discussion. In Breton and Cornish, adjectives do not have separate gender forms in any period.

# 1.2 Suppletive paradigms in Breton and Cornish

The Breton and Cornish adjectives with number suppletion are, along with their Welsh cognates (all translations of Welsh words are from *GPC*):<sup>4</sup>

- (2) a. MB bihan (variant spellings byhan, bian) "small"
  - b. MC byhan (byan, by(h)en) "small"
  - c. W bychan (masc.)/bechan (fem.), pl. bychain "small"<sup>5</sup>
- (3) a. MB *munut* "small"
  - b. MC munys "small" 6
  - c. W munud "courteous, civil, courtly; ?generous; ?polished, smooth; ?shattered, broken". It can also be used as a noun with the meanings "courtesy, gentility, good

<sup>&</sup>lt;sup>3</sup> Middle Breton refers to the language from the end of the eleventh to the middle of the seventeenth century, although there are few texts of any length until the fifteenth century (see Schrijver 2011a). Middle Cornish refers to the language from the twelfth to the end of the sixteenth century, although the bulk of texts is from the fourteenth century and later (see Williams 2011). Middle Welsh refers to the language from the twelfth to the end of the fourteenth century (see Schumacher 2011).

<sup>&</sup>lt;sup>4</sup> I give citation forms in the modern orthography even for Middle Breton, Cornish and Welsh, following the convention of the main dictionaries. For quotations from texts, the orthography of the original is maintained.

<sup>&</sup>lt;sup>5</sup> I will gloss these adjectives simply with "small" from now on, since the semantic difference between the English adjectives "small" and "little" is not relevant to the discussion.

<sup>&</sup>lt;sup>6</sup> The change of a final dental to /s/ is regular in Middle Cornish.

manners, etiquette; ?generosity; demeanour, manner; ceremony; gesture, motion, sign, nod, a beckoning, movement, antic; (facial) expression, grimace"

The adjectives in (3) are borrowings from Latin *minūtus*, the past participle of *minuere* which has a range of meanings centred around "become/make small"; full definitions are given in (4). Whether the Brittonic adjectives all derive from a single borrowing of *minūtus* into Brittonic, or whether it could have been borrowed separately into the sister languages in a later period, is discussed below.

(4)

- a. Lewis & Short (1897), s.v. *minuo*: as transitive (a) (rare and mostly poet.) to chop into small pieces (b) to lessen, diminish, lower, reduce, weaken, abate, restrict; as intr. (a) to diminish, grow less; hence past participle *minūtus* "little, small, minute; petty, paltry, insignificant"
- b. *DMLBS*, s.v. *minuere*: 1 (intr) to become smaller b (trans) to reduce in size or extent, make smaller; 2 to reduce in amount, number or value, make less ... 5 to cut into smaller pieces, mince ... 9 (past participle as adj.) small in size, amount, or value; 10 less important, with little authority or power; 11 minute, executed with attention to detail

Jørgensen (2012) shows convincingly that Middle Breton and Middle Cornish have suppletion in the paradigm of the adjective "small" between singular and plural: MB *bihan* and MC *byhan* are used with singulars and singulatives, while MB *munut* and MC *munys* are used with plural, morphological collective, singular aggregate and group nouns. 'Morphological collective' refers to nouns in the Brittonic languages with an unaffixed base form denoting many (e.g. W *adar* "birds") and a singulative denoting one formed with the suffixes W -yn (masc.)/-en (fem.) and B, C -en(n), e.g. W *ader*-yn "a bird". 'Aggregate' is used instead of the term 'mass' since the Brittonic languages have two kinds of nouns which can be described as mass nouns. These are 'proper' mass nouns which are fully uncountable and mostly denote liquids, and nouns denoting aggregates like sand and grains whose grammatical behaviour is somewhere between 'proper' mass nouns and collectives; for example, they can take the singulative suffix for a unit meaning. See Nurmio (forthcoming) for a more detailed discussion of these noun categories.

The following Breton and Cornish examples are from Jørgensen (2012) apart from the Middle Cornish example in (5d) which is my addition:<sup>7</sup>

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<sup>&</sup>lt;sup>7</sup> The Brittonic languages have a system of initial consonant mutations triggered on certain consonants by items such as the definite article and numerals. The most common of these, and the only one relevant to the present discussion, is known as soft mutation (sometimes 'lenition') whereby in Modern Breton /p t k b d g gw m/ (orthographically the same) become /b d g v z h w v/ (orthographically <b d g v z c'h w v>, there is more spelling variation in Middle Breton), for more details see Ternes (2011: 458–461). Soft mutation is triggered on adjectives following feminine singular nouns (in all three languages) and adjectives following plurals of masculine nouns denoting humans (only in Breton and Cornish), as can be seen in example (5e) where B *munut* becomes *vunut* following *tud* "people". Soft mutation also occurs on the noun if the usual order noun + adjective is reversed, as seen in examples in section 3. The Cornish and Welsh soft mutation patterns are in part identical to Breton with some differences. In Middle and Late Cornish, /p t k b d g m tʃ/ (orthographically ) become /b d g v ð ø/w v dʒ/ (orthographically <b d g v/f th zero/w v g/j>), see Williams (2011: 304–305). In Modern Welsh, /p t k b d g m ł rh/ (orthographically

- (5) a. MB vn leufr bihan "a small book"

  MB vn guezen bian "a small tree"

  MC the flogh byhan "your small child"
  - b. MB *hevnet munut* "small birds" MC *taklow minniz* "small things"
  - c. MB frouez munut "small fruit(s)"
  - d. MB *glau munut* "small rain (= light rain)" MC *mar venys avel skyl brâg* "as small as malt dust" (see Norris 1859: 206)
  - e. Modern literary Breton *an dud vunut* "the small people; the humble people"

The examples in (a) are singular count nouns (*leufr* "book", *flogh* "child") and a singulative formed from the collective *gwez* "trees". (b) shows the use of MB *munut* and MC *munys* with plurals although there are some examples of *bihan/byhan* with plurals as well, as discussed below. MB *munut* is also used with morphological collectives as seen in (c); I am not aware of any Cornish examples of this type. In (d) *munut* and *munys* are used with the singular aggregate nouns *glau* "rain" and *skyl* "dust, waste". (e) is included to demonstrate the use of MB *munut* with singular group nouns, i.e. nouns which are singular in form but which denote a group and can have plural agreement and anaphora (Corbett 2000: 188–191, see also Nurmio (forthcoming) for these nouns in Welsh); no medieval examples of these types of nouns are given by Jørgensen. The following table from Jørgensen (2012) shows the type of nouns modified by Breton *bihan* and *munut* in his sample, which includes medieval Breton (phase 1) and early Modern and Modern Breton (phase 2). This table is a summary of several more detailed ones showing the number of tokens in each part of the sample; see Jørgensen (2012) for these.

**Table 1**. Types of nouns modified by Breton *bihan* and *munut*.

<sup>)</sup> become /b d g v ð ø v l r/ (orthographically <b d g f dd> zero <f l r>, spelling variation occurs in Middle Welsh), see Awbery (2009: 376–381).

<sup>&</sup>lt;sup>8</sup> Further research is needed on the behaviour of *bihan/byhan* and *munut/munys* in numeral phrases although this is beyond the scope of this paper. Jørgensen (2012) quotes the example *diou mer'ch bian* "two small girls" with the singular form of the adjective (from the seventeenth century). In the Brittonic languages, numerals above "one" are regularly followed by the noun in the singular (see Nurmio & Willis 2016 for a discussion of Welsh). In Middle Welsh, those adjectives that have plural forms agree in the plural in numeral phrases, but by Modern Welsh the agreement pattern shifts and the adjective has to be singular (Willis 2014).

Attributive adjectives	1.	2.
text →	Quiquer, Kerampuil, JV,	Euzen Gueguen, Modern Breton
type of noun ↓	BD, Bernard?	and Vannetais dialect
singular, singulative	bihan	bihan
singular aggregate and	munut	munut ~ bihan
group nouns		
plural, collective	munut	bihan (munut still in fixed
		phrases)

Texts: Quiquer of Roscoff, *Nomenclator* [a Latin-French-Breton thesaurus], 1633; Gilles de Kerampuil, 1570s; JV= *Buhez Genovefa a Vrabant*, mid-17<sup>th</sup> c.; BD= *Ar Varn Diwezhañ*, late 17th—early 18<sup>th</sup> c.?; Bernard ar Spered Santel, 1640s; Euzen Gueguen, early 17<sup>th</sup> c.

Middle Breton shows clear suppletion: *bihan* after singular nouns and singulative nouns, *munut* after plural nouns and collectives as well as singular aggregate and group nouns. The system collapses towards Modern Breton where *bihan* can be used with all nouns while *munut* is confined to fixed phrases mostly with aggregates, e.g. *glav munut* "light rain" and *sukr munut* "fine sugar". Cornish shows a similar pattern where *byhan* is used with singulars and *munys* with plurals, although *byhan* is also sometimes found with plurals (two examples from *Bewnans Meriasek* [BM]).

**Table 2.** Types of nouns modified by Cornish byhan and munys (from Jørgensen 2012).

The Cornish corpus, attributive use	byhan	munys
Singular noun	20	1? (BM)
Plural noun	2 (BM)	7

This table includes Middle and Late Cornish texts; the table is simpler than that for Breton due to the smaller number of extant texts. The uncertain singular example with *munys* with a singular noun is *pe dyth munys kewsovghwy* "if it be a little *dyth* that you.PL speak" (*Bewnans Meriasek*). This is the only attestation in Cornish, and indeed any Brittonic language, of *dyth*, usually taken to mean "a saying" (borrowed from Latin *dictum*). Although morphologically singular, *dyth* could perhaps have carried a plural sense ("that which is said", hence "words") which could license the use of *munys*. Words denoting that which is said can be ambiguously singular or plural; consider Latin *verba* "words, expressions" and *dicta* "things said, words" (plurals of *verbum* and *dictum*) which are often used more generally for "language, discourse, conversation" (Lewis & Short 1897: s.vv. *verbum*, *dīco*). Since we lack further examples of *dyth*, we cannot place much weight on this single example with *munys*. Middle Cornish, then, has essentially the same pattern as Middle Breton.

Breton *bihan* and *munut* and Cornish *byhan* and *munys* are suppletive in number synchronically in the medieval period. As seen above, the Breton paradigm falls apart in the

<sup>&</sup>lt;sup>9</sup> I propose to analyse these as lexicalised phrases rather than as evidence of continued productive use of *munut* with aggregates. To posit the latter would amount to saying that *munut* originally denoted "composed of small parts" (as discussed in 2.2), broadened to mean "small" more generally in Middle Breton, and then restricted its meaning to "composed of small parts" again by Modern Breton. It seems more likely that phrases like *glav munut* have simply become lexicalised.

later language, while Cornish became extinct by the end of the eighteenth century, so we do not know what the fate of the suppletive paradigm would have been. The two examples of *byhan* with a plural noun in Table 2 may be indications of the suppletive paradigm beginning to fall apart in Cornish, too.

Welsh is considered in section 3 where I initially look at the synchronic medieval state while also taking a broader diachronic look at the development of the Welsh adjectives for "small". While W bychan "small" matches its Breton and Cornish cognates in meaning in all periods, W munud has a different meaning and distribution from its cognates. There is also a form bach "small" which is likely related to bychan and has no Breton or Cornish equivalents. Furthermore, Welsh has another adjective mân "small" with no Breton or Cornish cognates but whose semantics and usage resemble those of munut and munys as well as other "component-size" adjectives in the languages or language groups discussed in the next section.

(6) W *mân* (a) small, little (in size), (b) fine, thin, finely woven, not rough or coarse (of thread, &c.); fine (of sieve or mesh); fine (of sand, salt, ashes, &c.), ground small (of flour, &c.); refined, elegant, (c) unimportant, trifling, insignificant; of inferior position, rank, &c. (of person, also of court, &c.); minor (of ailment), not very serious (of illness, fault, sin, &c.)

# 2. The typology and historical development of number suppletion in adjectives

#### **2.1** Languages with number suppletion in adjectives

I begin with attested examples of number suppletion in adjectives in addition to the Brittonic examples already mentioned. The sections that follow look at the reasons why this kind of suppletion is rare (2.2) and how adjectives which solely or predominantly select plural heads arise cross-linguistically (2.3 and 2.4). A shared tendency in three of the languages or groups under discussion (Mainland Scandinavian, Megleno-Romanian, Brittonic) is that they can denote component size (a term taken from Maiden 2014: 41). For example, a referent such as a forest can be "small" or "big" in two ways; small/big in its circumference or in the sense that the trees which make up the forest are small/big. In the latter instance "small" and "big" refer to component size. With plural nouns the situation is different since their referents always have component structure, and I return to this point in 2.4.

As discussed in the introduction, number suppletion with "small" in the Mainland Scandinavian languages was noted as early as Ljunggren (1944). Since then, three other languages or language groups have entered the typological picture, to which I now propose to add two other examples (Tariana and Menominee). The languages in question are diverse as regards language family and geography and the adjective "small" appears in four out of these six examples, while "big" is likewise found in four (with two languages having both); there is also one example of "other". I begin with the Modern Mainland Scandinavian languages (Danish, Norwegian, Swedish) from which we already saw an example in (1) above, repeated here as (7a) (see Ljunggren 1944 and Börjars & Vincent 2011: 249–259). The adjectives in question are Swedish and Norwegian sg. *liten* /Danish sg. *lille* "small", pl. *små*. <sup>10</sup>

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<sup>&</sup>lt;sup>10</sup> In Swedish there are additional singular forms *litet* and *lilla* used depending on the declension class of the noun and definiteness of the phrase; for an overview of the Swedish noun system, see Holmes & Hinchliffe (2013: 16 ff.). The Norwegian system is more complicated for some dialects, with a further suppletive form *vesle* used in singular definite noun phrases; see Börjars & Vincent (2011: 255) and below.

# (7) a. Swedish en liten flicka a small girl "a small girl"

två små flickor two small.PL girl.PL "two small girls"

b. Danish

en lille pige
a small girl

"a small girl"

to små piger
two small.PL girl.PL

"two small girls"

These adjectives go back to Old Norse *lítil* "small" and *smár* "small" both of which had full paradigms for number, definiteness and case, as well as comparative and superlative forms. They are in part synonymous in this period. However, when used with singular count nouns, *smár* usually has the sense "composed of small parts", e.g. *smár skógr* [small forest.SG] "forest consisting of small trees"; cf. Modern Swedish, Norwegian *småskog*, Danish *småskov*, although native speakers consulted for each language said the word was relatively unfamiliar to them. *Smár* can also denote "insignificant, of little value" as well as "mean, mean-spirited, particular" (Börjars & Vincent 2011: 250–251; Ljunggren 1944: 50–54).

Derivatives of *smár* become more restricted in their use with time in Danish, Norwegian and Swedish, and are eventually confined to use with plurals, and the modern paradigm illustrated in (7) is mostly in place by the eighteenth century. With singular count nouns, *små* remains productive in the sense "in small pieces" while the distributive or component size sense (e.g. "small gravel") also survives, albeit less productively (Börjars & Vincent 2011: 255–256). Conversely, *liten* is no longer used in plural noun phrases in any of the Mainland Scandinavian languages. <sup>11</sup> Furthermore, the superlative and comparative forms of *smár* (Old Norse *smærre*, *smærrzt*) fall out of use and are replaced by those of *lítil* (Old Norse *minni*, *minztr*; Modern Mainland Scandinavian *mindre*, *minst*). The paradigm of *lítil* and its modern descendants is suppletive, but the Old Norse paradigms show that *mindre* and *minst* belong to the paradigm of *liten/lille* in the earlier period (Börjars & Vincent 2011: 249–250). For *små*, only Swedish retains the comparative form *smärre* but this is not used for actual comparison but rather for the 'absolute comparative', translatable into English as "fairly X", "quite X" or "minor X", see Holmes & Hinchliffe (2013: 131, 137) and Börjars & Vincent (2011: 257).

The Australian Aboriginal language Mara (Northern Territory, Australia, see Heath 1981: 78 and Corbett 2007: 32) has number suppletion in three adjectives. It is notable that plural marking on these adjectives is used on non-human as well as human referents, while in

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<sup>&</sup>lt;sup>11</sup> Some Danish dialects still use the plural of *liten*, which can also be used in expressions of endearment, e.g. *lille venner* [small friend.PL] "dear little friends" (Börjars & Vincent 2011: 257).

other environments plural agreement is usually restricted to human referents. I return to this point below.

- (8) a. sg./dual ηgiyu (usually non-human)/ηgiyu-ña (usually human) "small", pl. niriri
  - b. sg./dual balwayi "big", pl. ganuganu
  - c. sg. gayi (nominative)/-argul (oblique) "other", pl. wayara

Megleno-Romanian (Daco-Romance) similarly has suppletion with "small" and "big". There is some variation between dialects and the forms given here are the most common ones; see Maiden (2014: 35–37) for more details. The bracketed forms given here are approximations of the IPA values as given by Maiden.

- (9) a. sg. [mik] (masc.), ['mikə] (fem.) "small", pl. [mi'nuts] (masc.), [mi'nuti] (fem.)
  - b. sg. ['mari] (masc. and fem.) "big", pl. [mətʃ'kats] (masc.), [mətʃ'kati] (fem.)

The regular plural [mar] of ['mari] "big" does also occur, albeit rarely, and there seems to be variation between dialects (Maiden 2014: 37). In terms of origin, [mik] lacks a known etymology in Latin and it has been suggested to be 'expressive' in origin (Maiden 2014: 38; Ciorănescu 1966: s.v. *mic*). The suppletive plurals [mi'nuts] and [mi'nuti] derive from Latin *minūtus*, hence providing a close parallel to Breton and Cornish. This adjective is also attested in the singular form [mi'nut], and [mik] and [mi'nut] can therefore be said to stand in an asymmetrical relationship: the former lacks a plural while the latter has a full paradigm. We find a similar asymmetry with "big" in Tariana (see below). When used with singular count nouns, [mi'nut] denotes "composed of small pieces" (Maiden 2014: 39).

['mari] is usually taken as a derivative from Latin mas, accusative marem "male", probably through the development from "male" to "grown man" and, therefore, "big". The suppletive plural [mətʃkats] has a singular [mətʃkat]. Note again the asymmetry in the adjectives for "big"; [mətʃkat] has a full paradigm while ['mari] only has a singular form. Just as [mi'nut] can be used with count singulars to refer to component size, [mət['kat] can be used with singulars in the sense "composed of large parts". Maiden (2014: 40–41) gives an example where the speaker describes cutting leaves to feed silkworms, and how these could be chopped into increasingly larger pieces as the worms grew bigger. The origin of [mətʃkat] is somewhat complex. It derives originally from a Romance word meaning "club, mace, heavy stick". Its Romanian cognate *măciucat* has the primary meanings "(of a stick) having a rounded, enlarged end" and "knobbed". An "apparently related noun" măciulie denotes "the enlarged and rounded head of some objects" and also "dehiscent fruit with a dry, hard casing, in which the seeds of some plants develop and are kept; capsule". Romanian *măciucat* has further developed into *măşcat* which has the meanings "(of cereals) having a large seed [...] (of the seeds of cereals, of granules, etc.) that which is bulging, large, full". Maiden (2014: 37–40) suggests that the association with "large seeds, grains, capsules" of plants is what led to this word becoming a general adjective for "big". The development of Megleno-Romanian "big", then, does not directly parallel that of "small" since its original meaning is not something like "chopped into large parts". However, there is an element of component size in its semantics, as pointed out by Maiden (2014: 41, 45), since plants producing seeds and grains usually occur as a mass in a field and each individual plant within that mass can have large or small seeds, grains or capsules. This component size sense has been extended to other contexts as is clear from the example with chopped up leaves.

The fourth example comes from Menominee, an Algonquian language spoken in Wisconsin. Menominee does not have adjectives but it has particles used as prenouns and

preverbs denoting qualities. The prenoun for "big" used to be suppletive between singular and plural (Bloomfield 1975: 109, 119). 12

(10) a. maec- "big, large" b. mamāh- "big, large, old"

In the period when Bloomfield was collecting his data, "big" was still suppletive, with *maec*-modifying singulars and *mamāh*- used with plurals; consider the pair *maec-enaeniw* "big man" and *mamāh-enaeniwak* "big men" (Bloomfield 1962: 41). By now *maec*- has been generalised in all environments and *mamāh*- has fallen out of use (Monica Macaulay, pc.). Furthermore, the use of "big" as well as "small" as derivational elements in verb stems also reflects the suppletive distinction between singular and plural; consider *maeqnekaen* "he/she/it is big"/*mamāhkekaenok* "they (animate) are big" and *nahaenesew* "he/she/it is small"/*papiasewak* "they (animate) are small" (Bloomfield 1962: 41–42). These verb stems contain as their roots *maeqN*- "large (of single things)" and *mamāhk*- "large (of multiple things)", and *nahaen*- "small (of single things)" and *pēw*- "small (of multiple things)" (in *papiasewak* this root is reduplicated with *pa*- and contracted from /pēw-aese/ to /pyāse/ <piase>). While this is not inflectional suppletion which is the focus of my discussion, it is nevertheless significant that these derivational elements show a singular/plural distinction with "big" and "small", and in this they partially parallel prenouns and preverbs.

The fifth example of number suppletion is the adjective for "big, wide, long" in Tariana, an Arawak language spoken in Brazil (see Aikhenvald 2003: 173 and Brown et al. 2003).

(11) a. sg. *hanu* "big, wide, long", pl. *male* b. compare sg. *male* "thick, heavy", pl. *male* 

The singular form *hanu* "big, wide, long" lacks a plural and this is supplied by another adjective, *male* "thick, heavy", which can be used with both singular and plural nouns. Aikhenvald (2003: 173) notes that "one could say that the meanings 'big' and 'thick, heavy' are distinguished only in singular but not in plural. The form *hanu-pe* (big-PL) exists, but only in the meaning 'many'". Brown et al. (2003) describe this as 'overlapping suppletion'; note that this is similar to "small" in Megleno-Romanian where [mi'nut] "small" has a singular and plural form, while also supplying the plural cell of [mik] "small".

As we have seen, in the Scandinavian, Brittonic and Megleno-Romanian examples the plural member of the suppletive pair can be used to modify singular count nouns which yields a component structure reading. In Tariana, the examples given by Aikhenvald suggest that there is no such limitation with *male* "thick, heavy"; it can be used to modify singular count nouns, e.g. "abiu fruit", with no obvious component structure. The suppletive pair for "big" in Tariana therefore stands out as different among the examples of adjectival number suppletion reviewed so far. In addition to size, both *hanu* "big, wide, long" and *male* "thick, heavy" can denote shape and dimension. One reviewer suggests tentatively that this could be key to explaining why suppletion arises; width and length are two-dimensional properties while thickness is three-dimensional. Perhaps plural entities are more commonly viewed as three-dimensional ('bundles') compared to singulars, and this allows for *male* "thick, heavy" to take over the plural cell. The exact semantics of suppletion in Tariana remain a topic for

<sup>&</sup>lt;sup>12</sup> I am grateful to Monica Macaulay for drawing my attention to the Menominee data and for help with the examples.

further research. Tariana does, however, provide a parallel to the other languages or groups discussed here in that "big" marks plural consistently in all environments. In Tariana, adjectival number agreement is not compulsory with inanimates, yet the singular *hanu* "big, wide, long" never occurs with plurals (Aikhenvald 2003: 73, 173–174).

Table 3 is a summary of the languages or language groups discussed in this section, showing the forms used to modify singulars and plurals. The final column indicates whether the plural pair of the lexeme can occur with count singulars in the meaning "composed of small parts", e.g. Swedish, Norwegian *småskog/*Danish *småskov* "forest consisting of small trees". For Mara, no information was available for usage with singular count nouns.

**Table 3**. Summary of languages or language groups with number suppletion in adjectives.

Language/group	Lexeme	Modifies	(Usually) modifies	Pl. form used
		singular	plural	with sg. count
				$noun \rightarrow$
				component size
Middle Breton and	small	bihan/byhan	munut/munys	+
Middle Cornish				
Mainland	small	liten/lille	små	+
Scandinavian				
Mara	small	ngiyu/ngiyu-	ņiriri	?
		ña		
	big	balwayi	ganuganu	?
	other	gayi/-argul	wayara	?
Megleno-Romanian	small	[mik]/['mikə]	[mi'nuts]/[mi'nuti]	+
	big	[ˈmari]	[mətʃkats]/[mətʃkati]	+
Menominee (until	big	maec-	mamāh-	-
mid- to late 20 <sup>th</sup> c.)				
Tariana	big	hanu	male	_

# **2.2** The development of number suppletion with "small" and "big"

It is striking that the typological picture in 2.1 is made up of the adjectives "small" and "big", with one example of "other". A generalisation can be made that, when number suppletion in adjectives occurs, this involves adjectives denoting size. The phenomenon itself is rare, but if new examples are uncovered, one would expect them to involve the lexemes for "big" or "small". As mentioned in the introduction, the most common adjectives with suppletion (usually in comparison) are "good" and "bad", followed by "big" and "small". Why, then, do we not find number suppletion with "good" and "bad"? The Scandinavian, Megleno-Romanian and Brittonic examples, where the history of the suppletive lexemes is known, suggest a pathway whereby adjectives denoting "chopped up small" or "composed of small parts" (= component size) can come to supply the plural cell of the paradigm of another adjective with a more general meaning "small". These adjectives are restricted in meaning and can only modify nouns with component structure (apart from some evaluative uses, on which see below). This usually involves nouns that are not singular and count, although some such nouns can also have component structure sensitive to size semantics (like the Welsh

noun for "sieve" discussed in section 3). <sup>13</sup> There is no such restriction to component structure within the different senses of "good" and "bad" which may explain why number suppletion never seems to occur with them.

That component structure can control the choice between two suppletive elements gains support from quantifiers. A well-known example is the distinction in English between many and much and few and little. Many and few are restricted to count plurals while much and *little* are used with non-count singulars. Such a distinction is not restricted to English but also found, for instance, in Mainland Scandinavian, e.g. Swedish många "many"/mycket "much" and *lite* "little"/få "few" which largely parallel the English words given here as translations (see Holmes & Hinchliffe 2013: 208–216). Finnish has a partially similar distinction; there are two words for "many, much", namely paljon and monta. The former can be used with both count and mass nouns, but *monta* is restricted to count nouns, e.g. *monta* naista [many woman.PARTITIVE.SG] "many women" (Karlsson 2015: 110; Karlsson's glossing of *paljon* only as "much" is somewhat misleading, since it can also be used for "many"). The distinction seen in quantifiers is not identical to that discussed above for suppletive adjectives, since "many, much" etc. are sensitive to mass and count, while we saw that suppletive paradigms for "big" and "small" often follow ±component structure. This distinction does split mass and count, but it also splits mass further into aggregates and nonaggregates, with only the former modifiable by adjectives that can denote component structure. The lexeme "many, much" also commonly has suppletion in adjectival comparison, and there are some instances of suppletion for "few", see Bobaljik (2012: 124-126). Note that English *much*, like *little*, is in origin a size adjective, going back to an Indo-European lexeme for "big" (see Pokorny 1959: 708–709). It is notable that quantity and size adjectives are both prone to suppletion, especially in degree comparison but also in number.

As already noted, there is a close parallel between Breton and Cornish and Megleno-Romanian: the Megleno-Romanian plural forms [mi'nuts] and [mi'nuti] "small" derive from Latin *minūtus*, the past participle of *minuo* (Maiden 2014: 39), like the Breton and Cornish suppletive plural forms *munut* and *munys*. Megleno-Romanian, then, is a very close parallel to Breton and Cornish in having a derivative of Latin *minūtus* filling the plural cell of "small" while also having the sense "composed of small parts" when used with singular nouns. Looking at the meanings of Latin *minuo* in (4) above, the meanings "to become smaller" and "to make smaller" seem more prominent than "to cut/chop into small pieces", which Lewis and Short (1897) give as a "rare and mostly poetic" meaning, while *DMLBS* quotes only one example for this particular sense. The component size sense, which is primary in Megleno-Romanian and in Breton and Cornish, seems to have developed independently in these languages.

Why does the Welsh borrowing from *minūtus* not pattern together with Breton and Cornish? The split from Brittonic into Old Welsh and South-West-British (later to develop into Breton and Cornish) is traditionally assumed to have commenced in the sixth century, although a more recent view puts it in the eight century, with mutual intelligibility lasting for possibly centuries after this (Schrijver 2011b: 4–7). Was *minūtus* borrowed separately into Old Welsh and South-West-British, or could it be an early borrowing into Common Brittonic,

<sup>&</sup>lt;sup>13</sup> 'Component structure' is used throughout instead of the term 'internal structure', which is often used to explain the similarity between plurals ("books") and aggregate nouns ("sand") whose referents can be further divided yielding more of the same, see further Corbett (2000: 78–80) and Jackendoff (1991). This does not, however, work with the referent of e.g. "sieve"; dividing a sieve does not yield more sieves, yet the referent is perceived as having component structure (mesh with holes). 'Component structure' is used as a term that includes nouns of this type as well as plurals and aggregates.

despite the later differences? Here it is useful to look at Welsh mynud, whose different meanings, as both a noun and an adjective, are listed in (3c) above. There is one uncertain Middle Welsh example where adjectival mynud could be interpreted as "shattered, broken" (and therefore perhaps "in small pieces") which would provide a parallel to its Breton and Cornish counterparts: y iscuid oet mynud / erbin cath paluc "his shield was mynud against Cath Palug" (Black Book of Carmarthen, see Jarman 1982: 68, ll. 83–84, my translation). Mynud could here mean "smooth" in the sense that the shield had been worn smooth from fierce fighting with the supernatural creature Cath Palug, although "shattered" would also work in the context. However, since there are no other examples where "shattered" or "in pieces" is possible, we cannot put much weight on this example and the fact remains that W mynud does not match the semantics of the Breton and Cornish adjectives. One option is to assume that the meaning "composed of small parts" developed in South-West-British only. The lexeme could have existed in early Welsh with a different meaning which is later reflected in those in (3c), or it could have been borrowed into Welsh later. The latter is indirectly suggested by GPC stating that W mynud could be a borrowing from Latin via Old French, hence putting the borrowing much later than the Brittonic period. Another possibility is to consider W mynud as having developed like E minute (see 2.2 below) which originally denotes small size and possibly "chopped small" and develops an evaluative meaning ("very precise", etc.) with time. W mynud could have undergone a similar development from "small" to a meaning "courteous" and "courtesy", perhaps via a sense like "delicate" or "attentive to small detail", while losing the reference to size early.

There are many parallels to adjectives denoting small component size acquiring evaluative semantics, and vice versa, which demonstrate a possible semantic link between physical size and appreciation or contempt. English *little*, for instance, can denote either depending on context. Diachronically, it seems that an adjective can develop a size sense from an evaluative one, and vice versa. Consider, for instance, the history of E *fine* (all meanings and examples that follow are from *OED* online). A borrowing from French *fin* "thin, fine", its original meaning was A 1. "of superior quality, choice of its kind" (first attestation 1300). From this develops the sense A II "delicate, subtle" (with the sub-meaning A 6 a. "exquisitely fashioned; delicately beautiful", first attestation c. 1400). We then find the first hints of a developing size meaning under A 7 a. "delicate in structure or texture, delicately wrought; consisting of minute particles or slender threads or filaments." As noted in *OED*, this sense often overlaps with A 1. The first attestation of a component size meaning ("fine" as opposed to "coarse") is in 1535 (*fyne floure*). The meaning of *fine* fluctuates, therefore, between an evaluative sense ("of superior quality") and component-size ("consisting of minute particles").

The adjective *minute* shows a semantic broadening proceeding in the opposite direction. Its earliest attestation in 1440 (exact date uncertain) has the sense "chopped small"; this meaning becomes obsolete after this period. Meaning (3) is more productive: "very small in size, extent, amount, or degree. Also: (of distinction, etc.) fine, subtle". We find an evaluative meaning (4) "of very little consequence or importance; insignificant, petty, trivial" in 1668 but it becomes obsolete in the nineteenth century. While (4) shows a negative evaluative meaning, sense (5), which is still productive, is more positive: "of a person: exacting; discriminating. Of an observation, investigation, record, etc.: very precise or particular; characterized by attention to very small matters or details; painstaking". The semantic development of *minute* therefore broadens from denoting size to also marking evaluative distinctions.

As a final example, consider the development of *nice*; to list all the meanings given in *OED* would take too much space and I only give a short sketch of the main changes. A borrowing through the Anglo-Norman derivative from Latin *nescius* "unknowing, ignorant",

the earliest meanings of E *nice* are evaluative and include "(of a person) foolish, silly, simple; ignorant", first attested c. 1300. Other negative evaluative meanings include "faint-hearted, timorous" and "slothful, sluggish"; these are attested in the fourteenth century. The sense "foolish" broadens to denote ostentatious dress, which in turn leads to "(of a person) finely dressed, elegant". Meanings given under (3) include some which are similar to *minute* above, such as "particular, strict, or careful with regard to a specific point or thing" and similar meanings are given under (7), including "minute, subtle; (of differences) slight, small". A good example of this is the phrase "a nice distinction", synonymous with "a fine distinction". The most common meaning in Modern English, "kind or considerate in behaviour; friendly (towards others)", is first attested in 1830. Such positive meanings can also be used ironically whereby the positive sense can be inverted. The history of *nice*, then, is one of fluctuation between negative and positive evaluative connotations, and notably it could also be used to denote "small" and "fine" in its earlier history.

It is clear from these examples that there is often a link between adjectives denoting "small" and evaluative semantics, including contempt (small= insignificant, trivial) and high regard or admiration (small= of fine quality, (of a person) exacting, precise). 14 It should be noted that such diachronic semantic changes are unpredictable and cannot be used to formulate strong predictions (see Fortson 2003). Nevertheless, a consideration of the examples above provides a possible explanation for the difference between W mynud and its Breton and Cornish cognates. Mynud is attested as both a noun "courtesy, gentility, etc." and adjective "courteous, civil, etc." from the Middle Welsh period onwards. It is employed in descriptions of courteous and courtly behaviour, used of knights and noblemen, in medieval Welsh prose and poetry (see Phillips 2000: 357). Since it is a borrowing from L minūtus, W mynud could represent a stage where the reference to something having been made smaller has broadened to an evaluative sense, while the reference to size has disappeared. This development would be partially similar to that of E minute, itself a derivative of minūtus, which also develops an evaluative sense, while simultaneously keeping its size reference unlike W mynud. I wonder, therefore, whether we could consider W mynud as originally being an adjective of size like its Breton and Cornish cognates, while this meaning was completely superseded by the new evaluative sense? This could have been aided by the existence of mân "small" which already fulfils the functions of an adjective used mostly with plurals. The exact chronology of these changes remains an open question and should be taken into consideration in discussing innovations in Breton and Cornish, or South-West-British, which differ from what we find in Welsh.

#### **2.3** Number suppletion in adjectives and inherent vs. contextual inflection

The previous section looked at some semantic factors with the type of adjectives which can acquire number suppletion, namely adjectives denoting size. From the point of view of morphological theory, number suppletion in the category of adjectives is somewhat unexpected. The study of suppletion in a sample of thirty languages by Hippisley et al. (2004) demonstrates why suppletion is rarer with some grammatical categories than others. They propose three "conserving properties", at least one of which is displayed by each of the lexical items in the sample showing suppletion. These are (a) high frequency; (b) inherent inflection; and (c) suppletion being morphologically systematic (Hippisley et al. 2004: 392–

<sup>&</sup>lt;sup>14</sup> That smallness and evaluation are semantically linked is also borne out by studies on the category of diminutives cross-linguistically, see Jurafsky (1996: esp. 547–551). He posits the meaning "child", and morphemes semantically and/or pragmatically associated with children, as the origin of the diminutive as a semantic category (pp. 562–564).

407). Property (a), that suppleting lexemes tend to be high-frequency items, has been observed in many previous studies. Property (c) refers to "the distribution of phonologically distinct stems over the morphosyntactic cells within a paradigm" (p. 398). For instance, Latin regular verbs are traditionally taken as having three stems (present active indicative, perfect active and perfect past participle). When a verb has suppletive stems, they follow this threeway system. Property (b) is of most interest to the present discussion. Following Booij (1996), Hippisley et al. (2004: 395) distinguish contextual and inherent inflection. Adjectival agreement in number, gender and case falls under contextual inflection, in which "the presence and value of the category is dictated by the syntax, for example agreement markers on targets." Inherent inflection, on the other hand, refers to inflection which is not controlled by any other constituent, for example number marking on nouns or degree marking on adjectives. Hippisley et al. (2004: 396–398, 409–411) note that there are exceptions to property (b) including the Danish adjective for "small" discussed above, and that this is possible as long as the lexeme in question has at least one of the other two properties. "Small" in Danish has properties (a) and (c); the lexeme has high frequency and suppletion follows the regular pattern of number and definiteness marking. High frequency is likely to be true of all the languages discussed in 2.1 above since the lexical items involved, "big", "small" and "other", are salient.

A further typological observation arises from comparing the languages in 2.1, namely that many of the adjectives which have number suppletion also mark singular/plural oppositions more often than is common for the languages in question. Medieval Breton and Cornish have virtually lost number agreement with adjectives, yet with "small" we find consistent use of the plural form with plural nouns. Similarly, in Mara the singular form of the adjective is normally used with non-human referents (especially inanimates), but plural forms are used rigorously even with non-humans with the three adjectives which have suppletive plurals. This is also the case with "big" in Tariana, where agreement is otherwise only found with animates.

In Norwegian, number and definiteness combine to create an 'overdifferentiated' paradigm for "small" (Corbett 2007: 31–33). In addition to the *liten/små* distinction seen in 2.1, some Norwegian dialects have a further suppletive element *vesle* used in singular definite noun phrases while *liten* is restricted to indefinite phrases. As a further complication, the Bergen dialect uses *små* in singular definite phrases as well as in the plural (see Börjars & Vincent 2011: 252–253). Normally adjectives in Norwegian have only three forms: singular indefinite masculine and feminine, singular indefinite neuter and one form for singular definite and plural (all genders). *Liten* has, depending on dialect, four to five forms and therefore it is said to be overdifferentiated. No other Norwegian adjectives have a different stem according to definiteness and hence Property (c) is not met, as noted by Börjars & Vincent (2011: 261). In contrast, Breton and Cornish, Mara and Tariana already have singular and plural cells in the paradigm of adjectives, but using a plural form is optional. There appears to be a link between number suppletion and overdifferentiation or marking plural consistently in environments where it is otherwise optional or rare.

We have just seen two generalisations about number suppletion in adjectives. First, it appears to be a type of contextual inflection where suppletion is less commonly attested compared with inherent inflection. Secondly, when a language has number suppletion in adjectives, those adjectives mark plural number consistently. Here it is worth considering two parallels to both generalisations which come from suppletion in verbs. Hippisley et al. (2004: 412–414) note that the verb "to be" often breaks all three of their "conserving properties" and state that this is unsurprising given the extreme irregularity of this lexeme crosslinguistically. For example, "to be" often breaks property (b) by being suppletive in person; consider, for instance, English *am/are/is*. Cross-linguistically this also occurs with some other

high frequency verbs such as "to go", see Veselinova (2006: 78–86). The other, more complex parallel comes from languages which have suppletion in verbs according to number, as opposed to the more usual types of suppletion in tense, aspect, mood or polarity (see Hippisley et al. 2004: 395). Consider examples (12) and (13) from Hiaki (Uto-Aztekan, see Bobaljik & Harley (forthcoming)) with the suppletive verbs <code>weye/kaate</code> "go, walk" (intransitive) and <code>me'a/sua</code> "kill" (transitive):

- (12) a. Aapo weye b. Vempo kate
  3SG walk.SG 3PL walk.PL
  "S/he is walking" "They are walking"
- (13) a. Aapo/Vempo uka koowi-ta me'a-k
  3SG/3PL the.SG pig-ACC.SG kill.SG-PRF
  "He/They killed the pig"
  - b. Aapo/Vempo ume kowi-m sua-k
    3SG/3PL the.PL pig-PL kill.PL-PRF
    "He/They killed the pigs"

Bobaljik & Harley (forthcoming) show that number-conditioned suppletion in Hiaki is governed by the internal argument of the verb according to an ergative-absolutive system. With intransitives verbal number reflects the number of the subject while with transitives it reflects that of the object, as seen in (13) where verbal number reflects the number of the direct object ("pig/pigs") rather than the subject. This suppletion pattern is attested in a number of other languages and treated as a type of verbal number, see especially Comrie (1982), Durie (1986) and Hale, Jeanne & Pranka (1991). Corbett (2000: 243–264) and Veselinova (2006: 149–173) should be consulted for a detailed discussion of verbal number and various terminological and theoretical issues which are too numerous to outline here. Corbett distinguishes two types of verbal number: event number (how many times an action is performed, sometimes referred to as 'pluractionality') and participant number (number of participants most directly affected by the action). (12) and (13) are examples of suppletion according to participant number.

Whether this kind of suppletion should be considered a type of number agreement is debated. Durie (1986: 362) argues that in his examples "suppletive stems select for rather than agree with the number of their argument." This is shown by examples where regular syntactic agreement and suppletion behave differently. Hale, Jeanne & Pranka (1991: 268) give an example of a suppletive verb in Navajo used in the comitative construction ("I am walking with the boy") where the verb stem used is dual reflecting the number of arguments, while the inflectional markers on the verb reflect the structural subject (first person singular). Such mismatches make it clear that suppletion is not part of regular plural inflection but rather a property of the verb itself. Similarly, Bobaljik & Harley (forthcoming) argue that suppletive pairs in Hiaki do not reflect number agreement since, apart from those verbs that have suppletion, Hiaki does not have number agreement in verbs. Referring to Durie (1986) and Hale, Jeanne & Pranka (1991), they argue that "participant-governed number suppletion is frequently independent of the agreement system of a language, and thus the numbergoverned alternations cannot be reduced straightforwardly to agreement." There are other languages, however, where suppletive verbal number pairs do seem to belong to the agreement system, so the question remains somewhat debatable (see Veselinova 2006: 158-163). A crucial point for the present discussion is that adjectives, too, can be suppletive in number while the agreement system of the language does not otherwise mark agreement in

adjectives or only marks it with animate referents. Of the languages discussed here, suppletion should be treated as separate from adjectival agreement in at least Breton and Cornish, Mara and Tariana since the suppletive adjectives do not follow regular patterns of syntactic agreement.

That suppletion in adjectives is not always simply a case of agreement could be supported by the use of 'plural' suppletive adjectives with singular nouns. In these instances the attributive adjective does not agree in number with the noun but rather reflects the component structure of the referent (e.g. a forest being a set of trees, gravel being a set of small stones, etc.). This is similar to some of the examples of verbal number where the verb selects for its arguments rather than agreeing with the number of the subject. While the similarities between number suppletion in adjectives and number suppletion in verbs require a more detailed treatment than is possible here, the parallel is significant. For both phenomena, we have examples where number suppletion is separate from syntactic agreement which is shown, for instance, by suppletive lexemes marking number differently from other lexemes, or marking number in environments where number is otherwise not marked. In verbs this is treated as a form of verbal number, and I leave open the question whether we could posit 'adjectival number' as a type of inherent inflection.

#### **2.4** Pre-conditions for suppletion

Why do the kind of suppletive patterns seen in 2.1 occur cross-linguistically? This is explored by Börjars & Vincent (2011: 240) who are concerned with pre-conditions for suppletion: how do suppletive patterns arise in a language? As already noted in the introduction, most studies on suppletion concentrate on explaining why it persists and resists levelling due to factors such as frequency, whereas the question of the genesis of suppletion has received less attention. Their analysis builds on Maiden's (2004) study of suppletion in Romance verb paradigms, e.g. French aller "go" the present tense forms of which reflect both Latin vadere "make one's way, rush" (e.g. je vais "I go") and ambulare "walk" (nous allons "we go"). Maiden argues that synonymy is a major force driving suppletion: in language acquisition, synonymy can arise either through language contact (children perceiving a native and an originally foreign lexeme as full synonyms) or through two lexemes having "largely coextensive" meanings the semantic difference of which may not be clear to all speakers (Maiden 2004: 248). A reaction to synonymy arising in one of these two ways is commonly for one of the synonyms to fall out of use. Börjars & Vincent (2011: 242–243) argue that, while two elements do indeed need to be close in meaning for a suppletive paradigm to arise, there crucially needs to be "an asymmetry which is not well captured by the term 'synonymy'". The main argument of Börjars & Vincent (2011: 245) is summarised in the following:

We will argue that this is a generalization about suppletion: it involves a semantically DOMINANT lexeme and a RECESSIVE lexeme and it is the former which becomes the receiving paradigm and the latter the donating one.

Furthermore, the dominant lexeme tends to be one with a more general meaning than the recessive one; we saw in 2.1 that this is the case, for example, with mainland Scandinavian *liten/lille* and *små*. I argue that this is also the case in Megleno-Romanian although this is complicated by the fact that [mi'nut] "small" and [mətʃ'kat] "big" have both singular and plural forms, while also providing suppletive plurals for [mik] and ['mari]. Despite having full paradigms, [mi'nut] and [mətʃ'kat] have less general meanings than [mik] and ['mari], since they derive historically from lexemes specifically denoting component size, and

continue having this meaning when used with singulars. Crucially, only [mik] and ['mari] can be used with count singulars in the general meaning "small" and "big", showing that they are the dominant lexemes.

Maiden (2014: 45–48) defends the view that synonymy, not simply overlap, is at the root of suppletion in both the Megleno-Romanian and Scandinavian examples. He argues that the two lexemes forming a suppletive paradigm, such as [mik] and [mi'nuts] or liten and små, are indeed not fully synonymous when modifying singular nouns, since the distinction "X is small" and "X has small parts" is clear here. In the plural, however, such a distinction can be blurred; for instance, with två små flickor "two small girls" (see example (7) above) it is clear that each individual girl (each part of the plurality) is small and no other interpretation is available. In such cases we find what Maiden terms "paradigmatically local' lexical synonymy" in the plural. 15 In plural environments speakers could have perceived the old plural of, for example, *liten* as fully synonymous with *små*. It appears to me that this view is not incompatible with Börjars & Vincent, since they look at the whole lexeme as opposed to treating singular and plural separately. If we look at the paradigms of *liten* and *små* as a whole, there is indeed partial overlap (mostly in the singular), but full synonymy can occur in the plural cell of the paradigm. This gains support from the Tariana data, discussed above, where the meanings "thick, heavy" and "big" are distinguished only in the singular by the use of different lexemes, while in the plural *male* "thick, heavy; big" is used for both meanings.

A key point of Börjars & Vincent's analysis is that frequency only plays an indirect role in the genesis of a suppletive paradigm, that is, in cases where the dominant lexeme is also a frequent one. However, they argue the main cause to be the kind of semantic overlap described above. This accounts well with the data presented in 2.1; if frequency were the main factor, we would expect other frequent adjectives, especially "good" and "bad", to show number suppletion. For degree comparison, these are indeed the most commonly found lexemes. As for number suppletion, the prominence of "small" and "big" is striking and the analysis of the Scandinavian, Brittonic and Megleno-Romanian instances all support the finding that suppletion arises from two lexemes having partially overlapping meanings or, more specifically, meanings distinguishable in the singular but not necessarily in the plural.

In the following section I suggest that Welsh has a pair of lexemes for "small", one dominant and one recessive, which fulfil pre-conditions for suppletion, yet a fully suppletive paradigm of the Breton and Cornish type has not arisen.

# 3. Welsh bychan, bach and mân "small"

In the previous sections I discussed some features of adjectives that select for arguments with component structure, most commonly plurals, which can give rise to suppletion between singular and plural. It is significant that in all the cases where the history of the plural member of the suppletive pair for "small" is known, it seems to originate as a word expressing component size. These lexemes often lack comparative and superlative inflection, as is the case with Middle Breton, Middle Cornish and Mainland Scandinavian as discussed above. Welsh does not in any period of its history have number suppletion in adjectives as Breton and Cornish do. However, Welsh has two different adjectives for "small":

<sup>&</sup>lt;sup>15</sup> It is possible to find a semantic distinction in the plural as well if a distributive meaning is available for the noun. Take, for example, words like sieve (the Welsh noun for which is discussed in the next section). Since a sieve has component parts (its mesh consists of holes which can be small or large), a phrase like "small sieves" could potentially be interpreted as each sieve having small holes (= being finely meshed), alongside the reading that each sieve that makes up the plurality is of small size (see Maiden 2014: 45). Even with this noun, however, the latter interpretation is more natural.

bychan/bach is used with both singular and plural nouns while  $m\hat{a}n$  is mostly restricted to use with plurals, collectives and singular aggregates. This overlap in meaning resembles that found in Breton and Cornish, with the crucial difference that this partial overlap has not lead to the creation of a suppletive pair with bychan/bach in the singular and  $m\hat{a}n$  in the plural. Bychan and bach both denote "small, little", with no evident difference in meaning, and they are clearly etymologically related to one another.

- (14) bychan (masc.), bechan (fem.) "small", pl. bychain
- (15) bach "little, small", no feminine or plural forms

Both can modify singular as well as plural and collective forms; examples of the latter include Modern Welsh anifeiliaid bychan "small animals" (plural) and plant bach "small children" (morphological collective) (see CEG corpus for both). The comparative and superlative forms are *llai* "smaller" and *lleiaf* "smallest" which are suppletive and related to another adjective *llaw* "small" which is rare and falls out of use after the medieval period (GPC: s.v. llaw<sup>2</sup>, llai, lleiaf). The forms in (14) are usually analysed as bychan < Brittonic \*bikko- + -an; the feminine bechan may go back to \*bikka- + -an. The plural form bychain is likely to be an analogical formation in Welsh. The base forms \*bych (masc.)/\*bech (fem.) are cognate with Old Irish becc "small", compare also becán "a little, small quantity; a few, a small number; adv. a little, slightly; n. a little one" with the diminutive suffix -án (eDIL: s.vv. becc, becán). 16 \*Bych and \*bech occur respectively in the place name Dinbych and the river name Dwyfech but are never found as attributive adjectives on their own. \*Bych also seems to be the base of bychod "small quantity, little thing" and bychydig "little, few" (later ychydig) (GPC: s.v. bychod; bychydig; ychydig; see also Pedersen 1909: 385). In Middle Welsh bychan agrees with the number of the noun it modifies very regularly (Nurmio 2015: 167); for example, in the 13c corpus there are no examples of bychan with a plural noun. It could be argued that, since bychan had a full number paradigm in Middle Welsh, there was no need for suppletion to fill the plural cell. However, as already discussed in section 1.1, plural marking on adjectives is not compulsory in the medieval or modern Brittonic languages. The fact that Breton and Cornish have suppletion shows that lexemes with the kind of overlapping dominant/recessive relationship discussed above in section 2.4 can merge into a suppletive paradigm even when there is no need to fill one of the paradigm cells. Conversely, such an overlap does not have to lead to a merger of lexemes, as shown by the Welsh adjectives for "small".

The form bach "small" lacks Breton and Cornish equivalents. It is first attested in late Middle Welsh in the poetry of Dafydd ap Gwilym in the fourteenth century (GPC: s.v. bach). The etymology of bach is uncertain; it could be that \*bych, discussed above, was interpreted as a plural form (on the model of vowel alternation plurals like alarch "swan", pl. elyrch with a high vowel in the plural) and bach arose as a back-formation. One could speculate whether sg. bach (and pl. \*bych?) existed in the spoken language while bychan, pl. bychain were the forms in the literary register. Dafydd ap Gwilym's poetry has early or first attestations of other morphological forms; for example, he has one of the first instances of the singulative

<sup>&</sup>lt;sup>16</sup> The relationship between Old Irish *becán* and the Brittonic forms is not straightforward. While the Irish suffix -*án* can be shown to go back to Celtic \*-agn-, this cannot be the case for Brittonic where \*-agn- would regularly result in /ain/, cf. MW *Maen*, OB *Main*, probably from L *Magnus*, see Sims-Williams 2003: 159–161 and Jackson 1953: 461. I agree with Jackson (1953: 461) and Sims-Williams (2003: 160) that the Welsh suffix -*an* is likely to be a borrowing from Old Irish personal names in -*án* and possibly some common nouns as well.

suffix -yn adding a person denotation in syml-yn "simpleton, fool" from the adjective syml "simple", and this part of the poem is presented as quoted speech, so it may indeed reflect a spoken usage hitherto unrepresented in the literary language (see Nurmio 2015: 83–84; 100). More research is required on this but it could be that forms which had existed in spoken Welsh earlier started to surface in writing in the poetry of this period. Bychan/bechan and bach remain difficult lexemes as regards their exact etymology, but in terms of usage, bychan is the basic form in Middle Welsh with bach appearing in texts in the fourteenth century. Both remain in use in Modern Welsh, although bach has taken over as the more common form; in the CEG corpus bach has 932 tokens against 379 for bychan/bechan/bychain.

We then have the adjective *mân* "small", which lacks cognates in Breton and Cornish and whose etymology is unknown. <sup>17</sup> *Mân* has three main meanings as given in example (6) above which I repeat here as (16). All of these are attested from Middle Welsh onwards (there are no examples of *mân* in Old Welsh):

(16) *mân* (a) small, little (in size), (b) fine, thin, finely woven, not rough or coarse (of thread, &c.); fine (of sieve or mesh); fine (of sand, salt, ashes, &c.), ground small (of flour, &c.); refined, elegant, (c) unimportant, trifling, insignificant; of inferior position, rank, &c. (of person, also of court, &c.); minor (of ailment), not very serious (of illness, fault, sin, &c.)

It is found as an attributive adjective with the following noun types (based on all attestations in *GPC* and the sample given in the Appendix):<sup>18</sup>

- 1. plurals: *mân fryniau* "small hills" (*bryn* "hill")
- 2. morphological collectives: *mân adar* "small birds"
- 3. aggregate nouns: blawd mân "fine flour"
- 4. abstract nouns: *mân wallau* "small errors" (*gwall* "error")
- 5. singular count nouns: *mân llwdn* "minor animal" (in a legal sense, see below)

Table 4 shows the number of occurrences of *mân* modifying nouns classified by the type of noun modified (singular, plural, collective or aggregate) in my sample which includes corpora of prose texts from the thirteenth century to present-day Welsh. This sample is given in the Appendix. In Table 4 each noun is only counted once for each group, i.e. the table shows types and not tokens.

**Table 4.** Types of nouns modified by *mân* "small" in the corpora.

<sup>&</sup>lt;sup>17</sup> A full treatment of the etymological problems is beyond the scope of the present paper. My current working theory involves postulating a Proto-Celtic lexeme \*menu- which could also be reflected in the Old Irish adjective *min* "small" and the Welsh verb *difanw*, *difenwi* "to belittle".

<sup>&</sup>lt;sup>18</sup> As noted in 1.1, adjectives regularly follow the noun they modify in the Brittonic languages, but some adjectives can be placed before the noun. This triggers the soft mutation on the noun following the adjective, hence e.g. *bryniau* "hills"  $\rightarrow$  *mân fryniau* "small hills" (see footnote 7 on the details of this mutation).

corpora → noun modified↓	13c	1300–1425	15c	1500–1850	ModW [CEG]
singular	3	6	0	0	7
plural	1	11	5	13	51
collective/aggregate	2	14	4	4	10

Mân is clearly an adjective mostly used with plural, collective and aggregate nouns and rare with singular count nouns. It is most commonly found with plurals overall (the 13c exception is discussed below), followed by collective and aggregate nouns. There are also instances with singular non-aggregate nouns, which fall into three categories: (i) the referent of the noun modified has component structure (e.g. a sieve) and *mân* modifies component-size rather than size of the object itself (e.g. a fine-meshed sieve); (ii) mân is employed as a compound element, forming specific technical terms, including legal and botanical terms; and (iii) mân is used pejoratively to denote insignificance or contempt. The sense in (iii) correlates with the position of *mân* before the noun, discussed below.

I begin by discussing examples of mân with singular count nouns in my sample. In the 13c corpus these are mân llwdn "minor animal", anifail mân "minor animal" and gogr mân "fine-meshed sieve". With the last example, the sense is of a finely meshed sieve rather than a sieve of small size. The opposite gogr bras "coarse sieve" also exists, attested from the seventeenth century onwards (GPC: s.v. gogr; see below for discussion of bras "thick, coarse"). Mân llwdn and anifail mân both occur in the medieval Welsh law texts (see Appendix for the full references) where they are used in a technical sense of certain domestic animals of little value in terms of the compensation paid for their loss or for injury done to them. Peniarth 29 p. 94 specifies these as ay dauad ay gauar "either a sheep or a goat". In Cotton Titus D. ii, *mân llwdn* is used as the singular corresponding to the plurale tantum *mân* ysgrybl "small/minor livestock". 19 Peniarth 29 p. 9 and BL Add. 14931, which have anifail mân as the singular, are different versions of the same law passage. Here mân ysgrybl are specified to be defaid "sheep", ŵyn "lambs", mynnau "young goats", yrch "roe-deer" and elanedd "young deer". Other passages also mention pigs: hwch, pl. moch (on suppletion with this lexeme see Nurmio (forthcoming)). Mân ysgrybl, then, appears to mean specifically a certain group of domestic animals as well as deer, and mân llwdn and anifail mân are used when a singular is needed. An important generalisation from these examples is that *mân* can be employed in compounds for new, specific concepts such as the legal examples here. This usage remains productive, consider e.g. mân blanedau [small planets] "asteroids" and mân fwrdais [small bourgeois] "petit bourgeois" which are twentieth-century coinings.

Examples with singulars in the 1300–1425 corpus include cyngaf mân which is a specific botanical term for "fruit of agrimony", from cyngaf "burdock". Similarly, gwenynllys fân "Balm, Balm Gentle" is a specific term (from gwenynllys "Balm", cf. gwenynllys fawr "Bastard Balm, Melittis melissophyllum", a compound with mawr "big"). Both terms are found in medical texts (Meddyginiaethau). These botanical terms are best considered phrasal compounds rather than noun phrases with an attributive adjective (see Awbery 2014 and the discussion in 1.1 above). Gogr "sieve" and *llwdn* "animal" appear again in law manuscripts from this period. The remaining two examples are interesting in providing the first examples of the evaluative sense "unimportant". In the prose tale Manawydan we have yny oed ouer a man gueith holl grydyon y dref (White Book of Rhydderch version; the Red Book of Hergest

<sup>&</sup>lt;sup>19</sup> Ysgrubl/ysgrybl is listed in GPC as having a singulative ysgrubl-yn but there are no attested examples in Middle Welsh and hence it is best treated as a plurale tantum in this period.

has *manweith* as a compound) "until the work of all the shoemakers of the town was worthless (*ofer*) and insignificant (man)" (my translation; see Appendix for references). <sup>20</sup> The second example comes from another prose tale *Culhwch ac Olwen*: *peth mor uan a'r rei hynn* "something as insignificant (man) as those ones". The singular nouns modified in these two examples are *gwaith* "work" and *peth* "thing" respectively.

It is clear, then, that if *mân* modifies singular nouns with no component structure, it has the meaning "unimportant; minor" or it is part of technical terms in legal and medical texts, as we saw with the other examples from this period. Crucially, *mân* cannot refer purely to size when used with singular nouns; *bychan* (and later *bach*) are used for that role. Examples from the Modern Welsh CEG corpus include *crib mân* "fine comb" and *rhwyd fân* "fine-meshed net" which are similar to *gogr* "sieve" above in that their referents have component structure. *Print mân* "fine print" and *teip mân* "fine type" may be calques on English *fine print*, or simply a reflection of treating printed text as a kind of aggregate consisting of component parts (letters) which can be small or large (see below for *llythrennau* "letters" which can be treated this way). *Genau mân* "small mouth" is more difficult but I wonder whether the writer thought of mouth being synonymous with lips (plural) which could have licensed the use *mân*. The final example is *mân greadur* "small creature" where it is not very clear why *mân* is used instead of *bychan/bach*; perhaps an evaluative sense "unimportant" is intended, although this is not obvious from the context.

Thomas (2006: 210) lists *mân* as one of a group of adjectives in Modern Welsh which have a different meaning depending on whether they precede or follow the noun they modify. The regular rule in Welsh is for adjectives to come after the noun, but a group of adjectives can vary their position, often with a change in meaning. Thomas gives as examples *mân wendidau* "minor weaknesses" (unimportant) vs. *hadau mân* "small seeds" (small in size). Other adjectives of this type include *gwahanol* which denotes "different" when placed after the noun and "various" when preceding it. The situation with *mân* is in fact not this simple. With non-human nouns, pre-posing *mân* often does not affect the semantics of the noun phrase; compare, for example, *mân gerrig* "small stones, pebbles" alongside *cerrig mân* with no perceptible difference in meaning (see the Appendix for the examples quoted here).

In my sample given in the Appendix, pre-posing is very common:

**Table 5.** Percentages of *mân* used before the noun modified.

corpora →	13c	1300–1425	15c	1500-1850	ModW [CEG]
<i>mân</i> pre-posed↓					
pre-posed tokens/total tokens	11/13	30/70	7/9	9/17	42/98
percentage of pre-posed	85%	43%	78%	53%	43%

*Mân* is clearly very commonly used as an adjective before the noun. Middle Welsh provides many examples of pre-posing with aggregates, e.g. *mân wlith* "fine dew". The context does not suggest *mân* should be taken to mean "unimportant" here as opposed to "small".

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<sup>&</sup>lt;sup>20</sup> Manwaith could also reflect a usage similar to the English term "piecework", i.e. the other shoemakers were left with small jobs around the production of shoes, while the hero Manawydan actually made the shoes; this would still involve a degree of evaluation, since Manawydan clearly takes away the prestigious jobs from the other shoemakers, thus making them angry, as becomes obvious in the story.

<sup>&</sup>lt;sup>21</sup> Genau "mouth" is in fact a plural form in origin as reflected in the ending -au (GPC: s.v. genau). Synchronically it is singular, however, with new plurals geneuau and geneuoedd, so this does not fully explain why the now-singular genau should occur with mân in Modern Welsh.

Nevertheless, the sense "unimportant; minor" is already present in Middle Welsh as we saw with the singulars gwaith "work" and peth "thing" above. Jenkins (1986: 186) translates the phrase mân wŷdd/manwydd in the Welsh laws as "minor trees" since the sense here is not "trees of small size" but "trees that do not bear fruit" and therefore "less important trees" or "trees of less value". <sup>22</sup> Mân anifeiliaid "small animals" is likewise a technical term in the laws for a certain group of animals, as discussed above. With abstract nouns, the sense tends to be "unimportant; minor" since these do not refer to physical size, e.g. MW mân bechodau "minor sins". The first examples of mân with a +human noun come from the 1500–1850 corpus, and here pre-posing does correlate with the evaluative meaning: y mân aerod a'r crach foneddigion "the petty (mân) heirs and the contemptible nobles", and mân-ladron "petty thieves". In the Modern Welsh sample, all such evaluative examples with +human nouns have mân pre-posed (e.g. mân droseddwyr "petty criminals"). With non-human nouns, the evaluative meaning is sometimes clear, e.g. mân betheuach "unimportant things" with the plural suffix -ach which usually has a derogatory connotation (GPC: s.v. -ach). Other examples are ambiguous between "small" and "minor", e.g. mân newidiadau can be rendered into English as both "small changes" and "minor changes" and whether these are also "unimportant" depends on the context.

*Mân* can also form compounds with other adjectives, and these are listed separately in the Appendix. The earliest examples include manwyn "small or fine and white" (gwyn "white") and manfrith "finely speckled" (brith "speckled"), reflecting meanings (a) and (b) respectively of those listed in (16). I am aware of one possible example of the third and evaluative sense in an adjectival compound, namely penaetheu bychein anudonauc. / Meiri mangaled am pen keinhauc "petty, perjurous lords / stewards pettily strict (mân-galed) about a single penny" [my translation] (from the Middle Welsh poem 'Oianau Myrddin', Black Book of Carmarthen, see Jarman 1982: 30, 11. 46-47 and GPC: s.v. mân-galed, which is a compound with caled "hard, rough, strict"). Compounding is not common with bach and bychan. In this Welsh parallels the Scandinavian languages where små is often compounded with nouns, e.g. Old Swedish *smabrödh* "small bread" (in Modern Swedish also "biscuits"), while the *liten*-forms cannot form compounds (Börjars & Vincent 2011: 251). The adverbial use of W mân further supports the finding that its basic reference is to component size rather than size of objects that cannot be divided further (adverbial uses are given separately in the Appendix). These examples include breaking, grinding and pounding things into smaller bits while the more basic sense "become small, make small (in size)" needs to be conveyed, for example, with *lleihau* "to become smaller or less" which is a derivative of the comparative *llai* "smaller" of bychan/bach (see above). It is clear from these examples that bychan/bach are the basic adjectives for "small", with *mân* being more restricted to describing component size.

Welsh has two adjectives for "big", again with partial semantic overlap, which share with the adjectives for "small" the potential to become suppletive, although such a shift has not taken place. The basic adjective is *mawr* "big" but we also find *bras* "thick, large" which partially parallels *mân* "small" in its semantics in having a reference to component size (as already noted by Fynes-Clinton 1913: s.v. *ma:n*). The range of meanings for *bras* include (*GPC*: s.v. *bras*):

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<sup>&</sup>lt;sup>22</sup> For the value of trees and trees in the Welsh laws in general, see Linnard (1979: esp. 6–9 for values of different species, and Linnard 2000: 42–49 for details of products derived from forests). For trees in the medieval Irish law, see Kelly (1997: 379–390). The focus in both the Welsh and Irish laws is on the usefulness of each tree, as sources of food for people or livestock, as building material etc., rather than on size.

(17) (a) thick, fat, plump, stout, bulky, fatted, large, strong, also fig.; (b) coarse (of salt, sand, &c.), heavy (of rain); (c) fatty, greasy, oily, viscid, also fig.; (d) fertile, abundant, plentiful; good, luxurious, sumptuous, rich, tasty; also fig.; (e) wealthy, affluent, prosperous; proud, confident, pompous, ostentatious; (f) rough (of material, the sea, &c.); blunt, coarse, uncouth, vulgar, unseemly (of language, &c.); harsh, strident, loud (of sound); (g) general, broad, approximate, rough.

Direct antonym pairs with mân include halen mân ~ halen bras "fine/coarse salt";<sup>23</sup> *llythrennau mân* ~ *llythrennau bras* (also *llythrennau breision* with the plural of *bras*) "small/large letters; lower-/upper-case letters" and the adverbial use in malu'n fân "to grind finely" ~ malu'n fras "to grind roughly"; see Appendix for these examples with mân. Further examples are rhwyd fân "small-meshed net" and rhwyd fras "large meshed-net" and the collocation mân a bras "great and small" (GPC: s.v. mân; Fynes-Clinton 1913: s.v. ma:n). It is significant, however, that W bras does not have the meaning "large (as object size)". Its Breton and Cornish cognates (bras in both), on the other hand, do have this basic meaning. B meur (the cognate of W mawr), on the other hand, is more restricted and often has the evaluative meaning "great" (including "majestic" and "spectacular") and it is also common in place names. In addition to size, B bras can denote "major", "important", "serious". Roughly speaking the main difference between bras and meur is that the former can denote "large" and "stout (of a person)", while meur would imply that the person is great in importance (see Favereau 1992: s.vv. bras, meur and Hemon 1959–1979: s.vv. bras, meur). In Cornish the difference is not that clear and both bras and mür can have the basic size meaning "big" (Nance 1990: s.v. bras, mür).

We saw above that Megleno-Romanian and Mara have suppletion in the number paradigms of both "small" and "big", while Tariana has suppletion for "big" only. A detailed consideration of the semantics involved is beyond the scope of this paper, but it is clear that W bras should be considered alongside mân. These two adjectives can have the sense "composed of small/large parts" and other meanings to do with the component structure of referents, and they can also have evaluative meanings. While they overlap to some extent with the more basic adjectives bychan/bach "small" and mawr "big", their meanings are more specific. Finally, note that Breton and Cornish pattern together with "big" as well as "small" while Welsh differs from them.

A final point about *mân* as a component-size lexeme concerns its use in word-formation. There is a verbal derivative *manu* "to render small, divide, cut up into small pieces, reduce to powder, pound, also fig.; become small, crumble" (*GPC*: s.v. *manaf*:  $manu^2$ ). Its attestations begin in the eighteenth century and it is not very common in use (the CEG corpus yields no hits), but a colloquial use is listed in *GPC* for Monmouthshire and Pembrokeshire where the examples involve crumbling coal and grinding salt. The verbal use of *mân* therefore reflects its use with referents with components that can be large or small, like coal. When *mân* forms close compounds, these also tend to denote aggregates, e.g. *manar* "tilth, fine earth" (*GPC*: s.v. *manar*¹) with *âr* "ploughed or arable land, tilth".

Breton *munut* and Cornish *munys* do not have comparative or superlative forms. In this they are like Mainland Scandinavian *små* which cannot be used in comparison either and this is further evidence of Börjars & Vincent's argument that with suppletive lexemes like *liten* and *små*, the paradigm remains that of the dominant lexeme. W *mân* does have attested equative, comparative and superlative forms, but these are rare and again restricted to the

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<sup>&</sup>lt;sup>23</sup> The two are contrasted in the Middle Welsh text *Rhinweddau Bwydydd*: *Dwy genedlaeth yssyd o'r halen. vn man ac un bras* "there are two types of salt: one fine and one coarse" (Cardiff MS 3.242, p. 11; see the 1300–1425 corpus).

more specialised meanings "fine" and "unimportant; minor": the CEG corpus has one example each of the comparative (*print manach* "finer print") and superlative (*po fanaf yr had, manaf y pridd* "the finer the seed, the finer the soil"). There is one example that seems to refer to size, namely *un manach* "a smaller one (= person)" in a satirical late sixteenth-century poem which can be treated as an exception since the final -*ach* is needed for rhyme.<sup>24</sup> Finally the equative *maned* is listed in *GPC* in the meaning "as minor as".

Crucially, then, the derivatives as well as comparative and superlative forms of W *mân* reflect its more specific meanings "fine" (component size) and "unimportant; minor" (evaluative) and not the broader meaning "small (in size)". This is evidence that the dominant lexeme for "small" in Welsh is *bach/bychan*, with *mân* as a recessive lexeme which is sometimes near-synonymous with *bach/bychan* while also having more specific meanings.

#### 4. Conclusion

This paper brought together previous studies on number suppletion in adjectives and highlighted a strong tendency for adjectives denoting size, "small" and "big", to develop this type of suppletion. Four languages or groups of closely related languages had so far been reported for this phenomenon, and I have added two languages to the discussion. Following Maiden (2014) the historical development of "small" becoming suppletive was argued to involve adjectives denoting component size ("chopped up small", "composed of small parts") taking up the plural cell of an adjective with a more general meaning "small". I reconsidered the views of Börjars & Vincent (2011) and Maiden (2004, 2014) on the semantic factors which give rise to suppletive paradigms in adjectives, arguing that both semantic overlap and synonymy can be said to play a role. In languages where number agreement is optional, it was also observed that adjectives with number suppletion are likely to show plural agreement more rigorously than other adjectives and this was argued to be a parallel to what we find with suppletion and verbal number.

The case study in section 3 added Welsh to the discussion begun by Jørgensen (2012) on the adjectives for "small" in the Brittonic languages. I demonstrated that Welsh has adequate pre-conditions for suppletion: *bychan/bach* "small" have a general meaning "small" and can be used to modify both singular and plural nouns. *Mân* "small", on the other hand, has a more specific sense "composed of small parts" as well as "fine" (with aggregates) and the evaluative sense "unimportant; minor". This is a close parallel to the languages discussed in section 2 in which a suppletive pattern between singular and plural has arisen. However, this does not happen in Welsh, since both *bychan/bach* and *mân* occur regularly with plurals. This lends support to Börjars & Vincent's observation (2011: 264) that knowing how suppletion can arise will not help us predict when it does or does not occur.

#### **Abbreviations**

L

B Breton C Cornish

DMLBS Dictionary of Medieval Latin from British sources

<sup>&</sup>lt;sup>24</sup> The manuscript reads *Rys taylwr dysywr balch / Anoedd yw gweled vn manach* (see Parry-Williams 1932: 252) where we should probably follow Parry-Williams in amending *balch* "proud" to *bach* "small" for rhyme, and hence "Rhys Taylor, the small dice-player / it's difficult to find one smaller [than him]". The comparative *llai* "smaller" of *bach* does not fit the rhyme here and *manach* may have been pushed to use to make the rhyme work, although it would not normally be used for "small (in size)".

E English

eDIL Electronic Dictionary of the Irish Language

GPC Geiriadur Prifysgol Cymru

L Latin

MB Middle Breton
MC Middle Cornish
MW Middle Welsh

W Welsh

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# Résumé

Cet article étudie le phénomène typologique rare de la supplétion pour le nombre chez les adjectifs. On démontre comment cette supplétion se produit à partir de six exemples recensés, avec une attention particulière pour les langues brittoniques (breton, cornique et gallois). On propose trois généralisations sur la base de cette étude typologique. (i) Les adjectifs signifiant la taille («petit» et «grand») sont au cœur du phénomène. (ii) Lorsque l'étymologie des adjectifs est connue, la forme plurielle de la paire supplétive pour «petit» provient d'un lexème désignant quelque chose ayant été divisé en petites parties ou se composant de petites parties. Ces lexèmes peuvent également être utilisés pour modifier certains noms singuliers, auquel cas ils renvoient à la structure des éléments internes au référent. (iii) Les adjectifs avec supplétion pour le nombre tendent à marquer le pluriel systématiquement dans des contextes où le marquage au pluriel est sinon facultatif ou rare.

# Zusammenfassung

Der folgende Artikel untersucht das typologisch ungewöhnliche Phänomen der Suppletion nach Numerus bei Adjektiven. Anhand von sechs bekannten Beispielen wird, mit speziellem Fokus auf die britannisch-keltischen Sprachen (Bretonisch, Kornisch und Walisisch), die Entstehung dieser Suppletion erklärt. Auf dieser typologischen Grundlage aufbauend, werden

drei Prämissen angenommen: (i) Adjektive die Größe ("klein" und "groß") bezeichnen stehen im Mittelpunkt dieses Phänomens. (ii) Bei durchsichtiger Etymologie von Adjektiven entsteht die Pluralform von "klein" aus einem Lexem, das etwas in kleine Teile Aufgeteiltes oder aus ihnen Bestehendes bezeichnet. Diese Lexeme können auch mit einigen Singularformen verwendet werden, wobei sie hierbei auf die Komponentenstruktur des Denotats verweisen. (iii) Adjektive bei denen Suppletion nach Numerus auftritt weisen auch in grammatikalischen Kontexten in denen der Plural ansonsten nur optional oder selten verwendet wird, regelmäßig Pluralflexion auf.

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#### APPENDIX: W MÂN "SMALL" IN THE CORPORA

For the thirteenth century examples of the context for *mân* are given along with the manuscript references. In cases of multiple manuscript attestations, the citation is from the first listed manuscript and this may not be identical in orthography to the others. For the later corpora only references are given to save space and because readers can easily check the full readings in the online corpora. The 1300–1425 sample is given as a table due to the high number of references. I have provided English translations for all tokens and sometimes more than one translation is possible (between "small" or "minor", and "minor" or "unimportant", for example); I have picked a likely option in each case but this does not exclude other interpretations.

#### THIRTEENTH CENTURY [13c]

#### **PLURAL**

#### mân vsgrubl "small/minor livestock" (in the medieval Welsh laws, see discussion in section 3)

En e ky6reyth e b6 hwch or moch ne6 6n or man escrybyl re dywedassam ny wuchot (Cotton Caligula A.iii ff. 195v col. 2; Cotton Titus D.ii ff. 59v; Peniarth 29 p. 89)

Pwy bynnac a kaffo man escrybyl ay da6at. ay ga6yr. ay hwch. dewysset e deylyat. (Cotton Caligula A.iii ff. 198r col. 1; Cotton Titus D.ii ff. 61v)

E koc ar dysteyn pyeu cruyn e man escrybyl. Sef eu e rey heny. deueyt ar huyn ar meneu ar yrch ar alanet (Peniarth 29 p. 9; BL Add. 14931 p. 6; Cotton Titus D.ii ff. 4r)

ef a dely cruyn e man escrybyl oll or a del yr kekyn ac e uruyn amdanadunt (Peniarth 29 p. 19; Cotton Titus D.ii ff. 9r; BL Add. 14931 p. 15)

#### mân anifeiliaid "small/minor animals" (in the laws)

ac ny chefyr or man anyueyllyeyt gwyllt namyn hynny (BL Add. 14931 p. 84; Peniarth 29 p. 73) a dyly trayan or trayan a el er brennyn o cruyn e man anyueylleyt guyllt (Peniarth 30 col. 216)

#### **SINGULAR**

#### mân llwdn "minor animal" (in the laws)

puy bennac a kafo man lludyn ar hyd ay dauad ay gauar (Peniarth 29 p. 94)

E dysteyn ar koc byeu krvyn e man escrebyl sef y6 y rey henny e deueyt ar vyn ar mynneu ar yrch. ar alaned a phob man llvdyn y del e kroen er kegyn amdana6 hyt en oet e llassven leyhaf (Cotton Titus D.ii ff. 4r)

#### anifail mân "minor animal" (in the laws)

ar a pop anyueyl man a del y croen yr kecyn amdanau (Peniarth 29 p. 9; BL Add. 14931 p. 6)

#### MOPRHOLOGICAL COLLECTIVE

#### mân wŷdd/manwydd "minor trees, trees of small value" (in the laws)

eythyr askelleyt ny byd henlleu hyd kalan mey kany guys ena a uyd byhu pop keycg or man guyt (Peniarth 29 p. 74; BL Add. 14931 p. 85:)

Pob pren keygya6c or manwyd. i. keynnya6c. ew y werth (Cotton Caligula A.iii ff. 190v col. 1)

Pob keync a gyrcho kallon e pren or manwyd ry dywedassam ny uchot (Cotton Titus D.ii ff. 54v)

#### SINGULAR, +COMPONENT STRUCTURE

# gogr mân "fine sieve"

y g6r a dyly y rydyll ar wreic y gogyr man (BL Add. 14931 p. 24; Peniarth 29 p. 33; Cotton Titus D.ii ff. 14v)

#### FOURTEENTH CENTURY AND EARLY FIFTEENTH CENTURY [1300–1425]

#### **PLURAL**

Example	Text	Manuscript
mân adafedd "fine	Ymborth yr Enaid	NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 37r;
threads"	•	NLW MS. Peniarth 15, p. 46; NLW MS. Peniarth 15, p. 49;
		NLW MS. Peniarth 190, p. 199; NLW MS. Peniarth 190, p.
		208; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi
		Brefi), p. 83v; Oxford, Jesus College MS. 119 (Llyfr Ancr
		Llanddewi Brefi), p. 86v; Oxford, Jesus College MS. 20, p.

		22r: Oxford Jasus College MS 20 n 27-
		22r; Oxford, Jesus College MS. 20, p. 27r
mân anifeiliaid "small/minor animals (in the laws)"	Llyfr Iorwerth	NLW MS. Peniarth 32 (Y Llyfr Teg), p. 141
camau bychain mân "small, careful (?) steps"	Llythyr Aristotlys at Alecsander: Pryd a Gwedd Dynion	Cardiff MS. 3.242 (Hafod 16), p. 18
mân gasnod "fine threads"	Ymborth yr Enaid	NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 34v; NLW MS. Peniarth 15, p. 46; NLW MS. Peniarth 190, p. 199; Oxford, Jesus College MS. 20, p. 22r
mân ddafnau "small drops"	Ymborth yr Enaid	NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 35r; NLW MS. Peniarth 190, p. 200; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 84r; Oxford, Jesus College MS. 20, p. 22v
mân ddagrau "small tears"	Ymborth yr Enaid	NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 35r; NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 37v; NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 39r; NLW MS. Peniarth 15, p. 46; NLW MS. Peniarth 15, p. 46; NLW MS. Peniarth 15, p. 49; NLW MS. Peniarth 15, p. 51; NLW MS. Peniarth 190, p. 200; NLW MS. Peniarth 190, p. 210; NLW MS. Peniarth 190, p. 215; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 84r; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 87v; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 89r; Oxford, Jesus College MS. 20, p. 22v; Oxford, Jesus College MS. 20, p. 28r
difynion mân "small pieces"	Ystoriau Saint Greal	NLW MS. Peniarth 11, p. 151r
mânddodrefn "small furniture"	Llyfr Cyfnerth	NLW MS. Peniarth 37, p. 33v
dryll(i)au mân, mân ddryll(i)au "small (broken) pieces, fragments"	Brut y Brenhinedd	BL MS. Cotton Cleopatra B V part i, p. 21v; BL MS. Cotton Cleopatra B V part i, p. 6v; BL MS. Cotton Cleopatra B V part i, p. 70v; BL MS. Cotton Cleopatra B V part i, p. 93r; NLW MS. 3035 (Mostyn 116), p. 126v; NLW MS. 3035 (Mostyn 116), p. 92r; NLW MS. Peniarth 19, p. 68r; NLW MS. Peniarth 19, p. 86r; NLW MS. Peniarth 21, p. 11r; Cardiff MS. 1.362 (Hafod 1), p. 63v; Cardiff MS. 1.362 (Hafod 1), p. 93r; MS. Philadelphia 8680, p. 51v; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 34r; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 50r
	Brut y Saeson	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 249v
	Saith Doethion Rhufain	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 128v; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 128v; Oxford, Jesus College MS. 20, p. 45v; Oxford, Jesus College MS. 20, p. 46r
	Ystoria Carolo Magno: Can Rolant	NLW MS. Peniarth 10, p. 45v; NLW MS. Peniarth 7, p. 40r; NLW MS. Peniarth 8 part i, p. 62; NLW MS. Peniarth 8 part ii, p. 32; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 114v; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 115r
mân weison "small boys"	Diarhebion	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 239r

gwenynllys fân "balm, balm gentle"	Meddyginiaethau	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 231v; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 232r
mân bechodau "minor sins"	Rhinweddau Gwrando Offeren	NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 56r; NLW MS. Peniarth 32 (Y Llyfr Teg), p. 273
mân bethau "small things"	Llyfr Iorwerth	NLW MS. Peniarth 32 (Y Llyfr Teg), p. 31
toriadau mân "small cuts" (as decoration)	Ystoria Carolo Magno: Rhamant Otfel	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 106v

# $\underline{\textbf{COLLECTIVE/SINGULAR, +COMPONENT STRUCTURE}}$

Example	Text	Manuscript
mân adar "small birds"	Ystoria Bown de Hamtwn	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 216v
blawd mân "fine flour"	Campau'r Cennin	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 235v
	Meddyginiaethau	BL Additional MS. 14,912, p. 41r; BL Additional MS. 14,912, p. 41v; BL Additional MS. 14,912, p. 43r; BL Additional MS. 14,912, p. 43r; BL Additional MS. 14,912, p. 69v; Cardiff MS. 3.242 (Hafod 16), p. 84; Cardiff MS. 3.242 (Hafod 16), p. 85; Cardiff MS. 3.242 (Hafod 16), p. 85; Cardiff MS. 3.242 (Hafod 16), p. 86; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 232v; Oxford, MS. Rawlinson B 467, p. 24r; Oxford, MS. Rawlinson B 467, p. 31v; Oxford, MS. Rawlinson B 467, p. 50r; Oxford, MS. Rawlinson B 467, p. 50r; Oxford, MS. Rawlinson B 467, p. 52r
mân geirch "small oats"	Culhwch ac Olwen	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 202v
mân raean "fine gravel"	Culhwch ac Olwen	NLW MS. Peniarth 4 (Llyfr Gwyn Rhydderch, part 2), p. 85v; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 204r
gwallt mân "fine hair"	Ystoria Dared	NLW MS. 3035 (Mostyn 116), p. 9r; NLW MS. Peniarth 47 part i, p. 10; Cardiff MS. 1.362 (Hafod 1), p. 111r; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 3r; BL MS. Cotton Cleopatra B V part iii, p. 228r; BL MS. Cotton Cleopatra B V part iii, p. 229r
mânwlith "fine dew"	Ymborth yr Enaid	NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 35r; NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 39r; NLW MS. Peniarth 15, p. 46; NLW MS. Peniarth 15, p. 46; NLW MS. Peniarth 15, p. 51; NLW MS. Peniarth 190, p. 200; NLW MS. Peniarth 190, p. 215; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 84r; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 89r; Oxford, Jesus College MS. 20, p. 22v
mân wrychion/mânwrychion "small sparks"	Ymborth yr Enaid	NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 35v; NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 39r; NLW MS. Peniarth 15, p. 47; NLW MS. Peniarth 15, p. 51; NLW MS. Peniarth 190, p. 203; NLW MS. Peniarth 190, p. 215; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 85r; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 89r; Oxford, Jesus College MS. 20, p. 24r
halen mân "fine salt"	Meddyginiaethau	BL Additional MS. 14,912, p. 18v; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 232v; BL Additional MS. 14,912, p. 17v

lludw mân "fine ashes"	Gwasanaeth Mair	Shrewsbury MS. 11, p. 43
pwdr mân "fine powder"	Meddyginiaethau	BL Additional MS. 14,912, p. 42v; Cardiff MS. 3.242 (Hafod 16), p. 86; Oxford, MS. Rawlinson B 467, p. 50r;
gwraidd yr ysgall mân "fine root of thistle(s)"	Meddyginiaethau	BL Additional MS. 14,912, p. 62r; Cardiff MS. 3.242 (Hafod 16), p. 95; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 235r; Oxford, MS. Rawlinson B 467, p. 27r; Oxford, MS. Rawlinson B 467, p. 28r
mân ysgrybl, manysgrybl "small animals"	Amlyn ac Amig	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 277v
	Arwyddion Lloer Ionawr	BL Additional MS. 14,912, p. 82v
	Llyfr Iorwerth	NLW MS. Peniarth 32 (Y Llyfr Teg), p. 10; NLW MS. Peniarth 32 (Y Llyfr Teg), p. 155; NLW MS. Peniarth 32 (Y Llyfr Teg), p. 160; NLW MS. Peniarth 32 (Y Llyfr Teg), p. 23; NLW MS. Peniarth 35, p. 77v; NLW MS. Peniarth 35, p. 80r
	Prif y Lleuad	NLW MS. Peniarth 4 (Llyfr Gwyn Rhydderch, part 2), p. 59r
	Rhinweddau Bwydydd	Oxford, MS. Rawlinson B 467, p. 15r

# **SINGULAR**

Example	Text	Manuscript
cyngaf mân "fruit of agrimony"	Meddyginiaethau	BL Additional MS. 14,912, p. 44v; Cardiff MS. 3.242 (Hafod 16), p. 69; Cardiff MS. 3.242 (Hafod 16), p. 84; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 231v; Oxford, MS. Rawlinson B 467, p. 52r
gogr mân "fine sieve"	Llyfr Iorwerth	NLW MS. Peniarth 32 (Y Llyfr Teg), p. 37
mân gwaith,	Manawydan (Third	NLW MS. Peniarth 4 (Llyfr Gwyn Rhydderch, part 2), p.
manwaith	Branch of the	18v; Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p.
"insignificant work"	Mabinogi)	184v
manwaith "fine/ delicate work"	Penityas	NLW MS. Peniarth 190, p. 253
mân llwdn "minor animal (in the laws)"	Llyfr Iorwerth	NLW MS. Peniarth 32 (Y Llyfr Teg), p. 10
peth mor fân a'r rhai hyn "a thing as insignificant as those"	Culhwch ac Olwen	Oxford, Jesus College MS. 111 (Llyfr Coch Hergest), p. 206r

# **ADJECTIVES**

Example	Text	Manuscript
mân wynion, manwynion "small or fine and white" (GPC)	Ymborth yr Enaid	NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 36r; NLW MS. Peniarth 15, p. 47; NLW MS. Peniarth 190, p. 204; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 85r; Oxford, Jesus College MS. 20, p. 24v
manfrith "finely speckled or freckled, spotted" (GPC)	Ymborth yr Enaid	NLW MS. Llanstephan 27 (Llyfr Coch Talgarth), p. 37r; NLW MS. Peniarth 190, p. 208; Oxford, Jesus College MS. 119 (Llyfr Ancr Llanddewi Brefi), p. 86v; Oxford, Jesus College MS. 20, p. 26v

# **ADVERBS**

Example	Text	Manuscript
morteru'n fân	Campau'r Cennin	BL Additional MS. 14,912, p. 74v; Cardiff MS. 3.242 (Hafod 16), p.
"to pound		65; Oxford, MS. Rawlinson B 467, p. 35v
finely in a		
mortar"		
tafellu'n fân	Meddyginiaethau	BL Additional MS. 14,912, p. 14v; Oxford, Jesus College MS. 111
"to slice finely"		(Llyfr Coch Hergest), p. 232r; Oxford, MS. Rawlinson B 467, p. 23r
malu'n fân "to	Meddyginiaethau	BL Additional MS. 14,912, p. 19r; Cardiff MS. 3.242 (Hafod 16), p.
grind finely"		32; Oxford, MS. Rawlinson B 467, p. 77r
briwo'n fân	Meddyginiaethau	BL Additional MS. 14,912, p. 59r; Cardiff MS. 3.242 (Hafod 16), p.
"to		98; Oxford, MS. Rawlinson B 467, p. 67v; Oxford, Jesus College MS.
break/pound		111 (Llyfr Coch Hergest), p. 234v; Cardiff MS. 3.242 (Hafod 16), p.
finely"		23; Cardiff MS. 3.242 (Hafod 16), p. 27; Cardiff MS. 3.242 (Hafod
		16), p. 33; Oxford, MS. Rawlinson B 467, p. 78v; Oxford, MS.
		Rawlinson B 467, p. 84v; Oxford, MS. Rawlinson B 467, p. 89r

#### **FIFTEENTH CENTURY [15c]**

#### **PLURAL**

**mân ddagrau** "small tears" (Oxford, Jesus College MS. 23 p. 131, p. 140; Llanstephan 3 p. 456; Oxford, Jesus College MS. 23 p. 137)

drylliau mân "small (broken) pieces, fragments" (Peniarth 23 19r; Peniarth 23 68r, 68r, 91v) mân adafedd "fine threads" (Llanstephan 3. 455, p. 463; Oxford, Jesus College MS. 23 p. 130, p. 135) mân ddafnau "small drops" (Llanstephan 3 p. 456; Oxford, Jesus College MS. 23 p. 131) mân bechodau "minor sins" (Llanstephan 3 p. 451)

#### MORPHOLOGICAL COLLECTIVE

manwlith, mân wlith "fine dew" (Oxford, Jesus College MS. 23 p. 131; Llanstephan 3 p. 456) mân wrychion "fine sparks" (Oxford, Jesus College MS. 23 p. 132, p. 140; Llanstephan 3 p. 459) mân gasnod "fine threads" (Llanstephan 3. 455; Oxford, Jesus College MS. 23 p. 130) gwallt melyn mân "fine yellow hair" (Peniarth 263 col. 27)

#### **ADJECTIVES**

manfrith "finely speckled" (Oxford, Jesus College MS. 23 p. 135) manwynion "small or fine and white" (Oxford, Jesus College MS. p. 133; Llanstephan 3 p. 459)

# A HISTORICAL CORPUS OF THE WELSH LANGUAGE 1500–1850 [see website for the abbreviations]

#### **PLURAL**

"small"

mân draethau "small beaches" (NLW 17B: LIGO 17 220. 10) mân gyrtiau (spelled *gyrtie* in the text) "small courts" (poetry) (Pen. 218: Wtreswr 348) mân drefi "small towns" (RhY 13. 14) mân bryfed "small worms" (poetry) (TCh 2608) ydau mân (text yde) "fine grains" (poetry) (BWB 108-2 53)

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tameidiau mân (text tameidie) "little pieces" (poetry) (BWB 370-1 49)
dryll(i)au mân "small (broken) pieces, fragments" (NLW 13075B: YAL 77v. 13; YK 94r. 8; YK 131r. 17)

"insignificant"
meirw fawr a mân "the great and small/insignificant dead (people)" (poetry) (BWB 370-1 34)
mân aerod "petty heirs" (poetry) (BLl 1532)
codau mân (text code) "small bags" (poetry) (BLl 1538)
mân-ladron "petty thieves" (GBC 19. 25)
mân angheuod "minor deaths" (GBC 69. 13)
Na'r hôll Ddynion, mân a mawrion "nor all men, small and great" (poetry) (LIGM 22. 6)
mân bethau "small things" (poetry) (TCh 1310)
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#### MORPHOLOGICAL COLLECTIVE

**mân wlith** "fine dew" (poetry) (BLl 1809)

#### SINGULAR, +COMPONENT STRUCTURE

halen gwynn mân "fine white salt" (RhY 5. 20) can mân "fine white flour" (TN Huet Dat. 18 13)

#### **MODERN WELSH [CEG]**

('x 2' etc. denote multiple tokens in the corpus)

#### **PLURAL**

'small" mân gwmnïau "small companies" mân fryniau a dolydd "small hills and meadows" cerrig mân/mân gerrig "small stones, pebbles" mân frychau "small spots" mân anghysonderau "small inconsistencies" mân dyddynnod "small homesteads/farms" mân bentrefi "small villages" oriau mân (y bore) x 15 "small hours (of the morning)" cymylau mân "small clouds" dannedd mân "small teeth" tonnau mân "small waves" gronynnau mân "small grains" mân deloriaid "small woodpeckers" llythrennau mân, mân "small, small letters" mân doeon "small canopies" mân weithdai "small workshops" y cynadleddau mawr a mân "the large and small conferences" tatws mân "small potatoes" mân raeadrau "small waterfalls" mân draethodau "small essays" nentydd mân "small rivers" brigau mân "small twigs" gwladwriaethau mân a mawr "small and large nations" mân weithgareddau "small activities" mân ffermydd "small farms" mân greaduriaid "small creatures" stribedi mân x 2 "small strips" darnau mân "small pieces" plant mân "small children" mân newidiadau x 3 "small changes" mân streiciau "small strikes" rhai mân iawn yw hadau lawnt "lawn seeds are very small (ones)"

"unimportant; minor" mân swyddi x 2 "minor jobs" mân dyddynwyr "small farmers, smallholders"

#### To appear in *Diachronica* (2017)

mân droseddwyr "minor criminals" mân betheuach "unimportant things" mân straeon "small/short stories" mân benaethiaid "minor chiefs" mân gytundebau "minor agreements" mân jobsus "minor jobs" mân ddefodau'r swydd "little customs of the job" mân wŷr "insignificant men, little men" mân frenhinoedd "petty kings" mân foneddigion "petty nobles" mân feirniaid "petty judges" mân feirdd "poets of lowly status, inferior poets" mân esgusion "petty excuses" mân fynachod "minor monks" mân wallau "minor errors" mân wladwriaethau "petty kingdoms" troseddau mawr a mân "major and minor crimes"

#### MORPHOLOGICAL COLLECTIVE

eithin mân "small/fine gorse" adar mân x 2/adar mawr a mân "small birds"/"big and small birds" mân lwch "fine dust" (or "unimportant") mân us "small husks, fine chaff" po fanaf yr had, manaf y pridd "the finer the seed, the finer the soil"

#### SINGULAR, +COMPONENT STRUCTURE

glaw mân x 5 "fine rain, drizzle" newid mân x 2 "small change" eira mân x 2 "fine snow" arian mân "small change"

SINGULAR genau mân "small mouth" mân greadur "small creature"

print mân/print manach/er mor fân oedd y print "fine print"/"finer print"/"although the print was so fine" teip mân "small type (in printing)"

crib mân x 2 "fine comb"

rhwyd fân x 2 "fine net"

y mân ysbigod bonheddig "the noble little spigot (?)" (spigot seems to refer to a person here and the context suggests belittlement or pejorativeness)

#### **ADVERB**

torri'n fân "to tear finely (of paper)" a cherddodd yn fân ac yn fuan "she walked elegantly(?) and quickly" malu'n fân x 2 "to grind finely"

# **VERBAL NOUNS**

mân siarad x 4 "(to) small talk" mân sôn "(to) murmur, grumble" mân ladrata "(to) pilfer"