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The basic valency orientation of Old English and the causative *ja*-formation: a synchronic and diachronic approach[1]

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The basic valency orientation of Old English has been addressed in a number of studies, without any consensus emerging so far. From a synchronic point of view, a key question is whether the pronounced tendency to labile coding in Present-day English can be traced back to the Old English period. In order to give a convincing answer, this article examines from a synchronic and diachronic point of view two of the procedures by which the basic valency of Old English has been assessed: computation of verbs and evaluation of the causative *ja*-formation. Concerning the former, it shows that the valency of whole verb classes in Old English is determined by previous processes of morphophonetic merger and cannot therefore be used as evidence for labilisation processes (transitivisation or detransitivation) taking place in OE itself. With respect to the latter, the article assesses whether the causative *ja*-formation is still a transitivising operation in Old English by examining the valency of all causative *ja*-pairs and incorporating recent research on the effectiveness of sound alternations as morphological markers. This article concludes that it is not, as it does not consistently signal an increase in valency. Rather, a tendency to labile coding is detected. In this respect, the article supports, with more conclusive evidence, previous research which advanced the same hypothesis.

1 Introduction

The BASIC VALENCY ORIENTATION of a language has been posited as a typological parameter by Nichols, Peterson & Barnes (2004). Languages, they maintain, differ in the ways they express valency. They may be *transitivising* if their intransitive verbs are coded as basic and their transitive verbs as derived, or *detransitivising* if intransitive verbs are morphologically coded as derived. They can also treat both transitive and intransitive verbs as derived or non-derived. The authors show how basic valency correlates with another typological parameter, namely morphosyntactic alignment, of which accusative and ergative are the best-known types. They also affirm the usefulness of valency in characterising languages, linguistic areas and language families (Nichols *et al.* 2004: 149, 165–78).

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Present-day English (henceforth PDE) has a large number of verbs that lack any coding for valency, such as *burn* or *melt.* These are LABILE verbs, whose transitive and intransitive uses have the same form, as in:

(1) (a) The house **burned** down.
(b) The fire **burned** the house down.

The high proportion of labile verbs in English is unusual both in absolute cross-linguistic terms and relative to other European languages (Haspelmath 1993; Comrie 2006; McMillion 2006; Poppe 2009).[2] The causes and wider context of the frequency of labile coding in English have been addressed by a number of studies (McMillion 2006; Poppe 2009; van Gelderen 2011). A crucial question of course is when this trend becomes salient, in other words, whether it can be traced back to the first attestations of the language (the Old English period) or whether it developed in the critical Middle English period. Since labile coding involves the lack of morphological specification of a derivational parameter – verbal valency – assessment of its origins involves addressing the process of morphological loss in English, but not from the usual perspective of loss of inflectional case and gender in early English.

The valency of Old English (henceforth OE) has not previously been the object of an independent study, although it is discussed at length in Hermodsson (1952), Visser (1963), McMillion (2006), van Gelderen (2011) and Ottosson (2013).[3] From these, no general consensus emerges, even on the question of how basic valency is to be measured, although van Gelderen and Ottosson agree that the development of the causative formation is crucial to determining the basic valency of OE. It is probably no coincidence that causatives play a major role in research on basic valency outside OE, such as Nichols *et al.* (2004) and Plank & Lahiri (2015).

The goals of the study are, first, to ascertain the basic valency orientation of OE, with particular attention to the question of whether labile coding is prominent or not. To achieve this goal, I will assess different strategies for determining basic valency orientation and examine more closely those which prove to be best suited to OE. Given that the causative *ja*-formation[4] is indeed key to studying valency-coding tendencies in OE, a second goal of the study is to analyse its role as valency-changing mechanism in this language. This will be done both from a diachronic perspective, comparing it with previous language stages and cognate languages, and synchronically, by gauging its productivity in OE in the light of new insights on sound alternations as morphological markers (Plank & Lahiri 2015). The loss of the causative formation is related to tendencies in valency coding in English,

[2] In this respect, English diverges notably from other languages of the Germanic branch, in which there is an appreciable detransitivising tendency (see example (4) below).

[3] Ottosson 2013 is a revised version of a 2009 manuscript, which in fact pre-dates van Gelderen 2011, who refers to the original 2009 version.

[4] The term refers to verbs that are derived from other verbs by means of the Germanic suffix **-(i)ja-* and that have a causative meaning with respect to their derivational base. Examples are OE *ferian* 'carry', causative to *faran* 'go', or *rǣran* 'cause to rise, rear, raise', causative to *rīsan* 'rise; be fitting, becoming'.

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but, contrary to previous claims, it will be shown that it was not productive in OE and that its opacity cannot fully explain the spread of labile coding, as comparison with Present-day German causatives shows.

A second goal is to demonstrate how diachronic analysis can enrich synchronic description by revealing the dynamics that underlie and drive a given state of affairs. In this respect, the study complements and, at times, qualifies previous assessments of the valency of OE by considering other areas of grammar and/or earlier linguistic developments that affect the topic of analysis. This affects particularly the possible limitations of the computation of verbs of a certain valency to assess structural tendencies in valency coding and the productivity of the causative formation in OE. By exploring the etymology of a number of verbs and verb classes in Old English it is possible to show how morphological conditioning may have influenced the valency specification of a whole verb class, namely weak class II, and hence the language's apparent basic valency orientation.

The present study aims to trace the history of valency coding in early English by comparing OE with Proto-Germanic, other early Germanic languages and Middle English. The results can be linked to a diachronic typology of valency and valency coding, which, as Bybee (2002) remarks with respect to diachronic typological analysis in general, 'allow[s] much stronger statements of universals than one can formulate on the synchronic level'.[5] In this sense, it connects with recent work on the typology and evolution of argument structure, such as Kulikov (2009), Cennamo, Eythórsson & Barðdal (2011), Luraghi (2012) and Plank & Lahiri (2015).[6] In its emphasis on detailed diachronic analysis, the present study follows Plank & Lahiri's (2015) 'microscopic' approach to linguistic research.

The article is organised as follows. Section 2 addresses the notion of 'basic valency orientation'. In section 3, previous work on the basic valency of OE is discussed. Section 4 challenges previous assumptions on the reliability of verb lists as evidence for valency orientation by looking at the etymology of OE labile verbs. Section 5 demonstrates how the causative formation is relevant to a study of valency in OE. Section 6 explores the morphology of the OE *ja*-formation, reviewing previous research and focusing on its productivity (or lack of it) and the (lack of) correspondence between sound alternations and valency coding within *ja*-verb pairs. Section 7 presents the conclusions and suggests topics for further research.

2 Basic valency, basic valency orientation and valency changes

Nichols *et al.* (2004) propose basic valency orientation as a new typological parameter. The basic valency of a language is its preference for intransitive or transitive verbs as basic in the sense of underived lexical units. In parallel, the basic valency

[5] The contribution of diachronic analysis in explaining language universals has been stressed by typologists as far back as Greenberg (1978). The necessity of a diachronic approach in lexical typologies has also been pointed out by Nichols *et al.* (2004: 184) in their study on basic valency outlined below.

[6] Unfortunately, van Gelderen's 2018 book *The diachrony of verb meaning: Aspect and argument structure* could not be reviewed for this article.

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orientation of a language is 'the preferred or predominant or most common form of lexicalization or valence-related derivation' (Nichols *et al.* 2004: 150–1). Orientation is thus embodied in a language's derivational processes.

Nichols *et al.* distinguish *transitivising* and *detransitivising* languages, and two more types, *neutral* and *indeterminate* languages (2004: 161, 163). Transitivising languages are those that favour valency-increasing derivation. As an example of valency-increasing derivation of the causative type consider the following Vedic and PDE examples:

(2)	viśá-ti	veśá-ya-ti
	enter-3SG PRES	enter-CAUS-3SG PRES
	'(s)he enters'	'(s)he makes enter'
(3)	laugh	make laugh

For the present purposes, morphological and syntactic coding are not distinguished; it is assumed that *make laugh* is an established expression in English, and hence illustrative of a grammatical operation.

A brief note on terminology is necessary. Haspelmath *et al.* (2014: 590 and fn. 4) detect confusion between formal and semantic terms in some studies on causatives. They propose a more rigorous terminology, which will be followed in this article. They use the terms *causal/noncausal* to refer to the lexical semantics of the verbs and reserve *causative/anticausative* for the morphosyntactic coding. In the English pair above, *laugh* is noncausal and *make laugh* is the corresponding causal expression. Since the noncausal pair is basic, i.e. non-derived, the coding is causative.

Detransitivising languages, on the other hand, are those that favour valency-decreasing operations. Anticausative coding is frequent in these languages. Consider the following German verb pair:

(4)	erinner-n	sich erinner-n
	remind-INF	REFL remind-INF
	'remind (someone)'	'remember'

Here, 'sich erinnern' shows anticausative coding by means of the reflexive pronoun *sich*.

There are other formal correspondences between causal and noncausal verb pairs, one of which is of particular interest for this study. The intransitive and transitive members of the verb pair can have the same form, with no extra coding, as in (1) above, repeated here for the sake of clarity:

(5) (a) The house **burned** down.
(b) The fire **burned** the house down.

I refer to this type of verb as *labile* in line with a long tradition recently followed in Haspelmath *et al.* (2014: esp. 590–1). Nichols *et al.* classify languages favouring this coding as *indeterminate* (2004: 161).

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The valency of a verb or a group of verbs can change over time, affecting the basic valency orientation of the language in question. For the purposes of this article, the process of a verb becoming labile is particularly relevant. A case in point is example (5). The English verb *burn* is the reflex of OE *bærnan* (weak class I),[7] which was a *ja*-causative originally in Proto-Germanic and therefore used only transitively, as in the following OE sentence:

(6) ac hi godes tempel brǽcan ond **bærndon** (ChristB 706)[8]
but they God's temple broke and burned down
'but they took God's temple by storm and burned it down'

However, it was increasingly used in an intransitive sense, too, as in the following late OE example:

(7) on þisum ylcan geare **bærnde** eall þet mynstre of Burh (Chron.E 1116.16)
on this same year burned all the monastery of Burh
'in this same year the whole monastery of Burh burned down'

OE *bærnan* has become labile through detransitivisation. The opposite process, transitivisation of an intransitive verb, is of course also possible. The term *labilisation* will be used in this article to refer to the process by which a verb with originally only one valency value (i.e. either transitive or intransitive) acquires a second value and becomes *both* transitive and intransitive. The direction of the change, although deserving of attention, is of little relevance in the scope of this study.

Note that coinciding with Nichols *et al.* (2004: 151), causatives are not investigated here for their own sakes, but as representatives of the major valency-changing operation in early Germanic languages (see section 5).

3 Previous studies on the basic valency of Old English

Previous studies on the basic valency orientation of OE have made use of one or several of the possible strategies to measure it: (1) computation of verbs according to valency; (2) the assessment of prevalent derivational valency-changing operations and (3) diagnostic questionnaires of verb glosses, a common practice in typological studies.[9] This section will briefly describe the main findings of these studies and identify the strategies they use, as one of the goals of this article is to examine their arguments critically (see sections 4 and 6 below).

[7] For the phonetic processes involved in this verb, see Stanley (1952–3).

[8] Unless otherwise stated, textual abbreviations follow the *Dictionary of Old English* (*DOE*; Cameron *et al.* 2016).

[9] Nichols *et al.* (2004), for example, select a sample of 18 lexically basic verbal meanings in a noncausal/causal relationship, among others *laugh* / *make laugh*; *die* / *kill*; *sit* / *seat*; *break* / *break*; *open* / *open*; *dry* / *dry*. They then elicit native speakers to find out how the meaning pairs are expressed in 80 different languages in order to diagnose their basic valency.

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Work on the basic valency of Old English pre-dates the term valency itself. In his 1952 book *Reflexive und intransitive Verba im älterem Westgermanischen*, Lars Hermodsson made a solid contribution to establishing the basic valency of OE. He compiled lists of verbs that can be used both as intransitives and transitives in OE (*Verba mit Doppelfunktion*), as well as intransitive and reflexive verbs. Hermodsson's work is also helpful as a typological tool, as OE is compared with other (West Germanic) languages. He observed that the pronounced development of labile verbs in PDE is in fact inherited and can be traced back to Ingvaeonic (comprising Old Frisian, Old English, Old Saxon and Middle Dutch).

> [D]as Ne[uenglische] [hat] bei der starken Entwicklung der Doppelfunktion der Verba *einen altererbten, für das Gemeiningwäonische charakteristischen Zug* [my italics] weiter ausgebildet. (Hermodsson 1952: 210)[10]

Although he comments here on Present-day rather than Old English, it is obvious that he assumes that the latter, as an Ingvaeonic language, shares the trait. Elsewhere, however, he observes that intransitive verbs are more frequent in North-West Germanic (including OE) than in High German (1952: 185).

Visser, in *An Historical Syntax of the English Language* (1963), remarks that whereas in OE intransitives are much more numerous than labile verbs, which he calls 'double-functioned or amphibious' (Visser 1963: 97), the opposite is true in PDE, where the labile construction is much more frequent (Visser 1963: 99).

Hermodsson and Visser differ in the basic valency they assume for OE: Hermodsson points out the strong spread of labile verbs, whereas Visser emphasises the abundance of intransitives (1963: 99).[11]

McMillion (2006) applies to OE Haspelmath's (1993) questionnaire of 31 verb meanings that can take part in an inchoative/causative alternation, such as 'open (intr.) / (tr.)' or 'rise' / 'raise'. He concludes that only ten were labile in OE, which is about the same number as in Present-day Swedish and German, and that:

> [s]ince there is no apparent process of transitivisation taking place in these languages [Swedish and German], it is unlikely that the small set of OE labile verbs would, by itself, be a motivation or trigger for 'whole-sale transitivization' [quotation marks in the original]. (McMillion 2006: 195)

Thus, according to McMillion, the basic valency of OE, like that of Swedish or German, is not particularly labile, and PDE's labile orientation is a later development which cannot have had its origin in OE. In this, McMillion diverges from both Hermodsson (1952) and the next study to be reviewed, Ottosson (2013).

Ottosson (2013) charts the development of various valency-coding mechanisms in early Germanic languages. He rightly asserts that transitivising mechanisms, i.e. *ja*-causatives, are prevalent over any detransitivising ones, such as *na*-verbs[12] or what

[10] 'Present-day English, with its pronounced development of the double-function of verbs, has developed further an inherited feature, which is characteristic of common Ingvaeonic' [my translation].
[11] Mitchell, in *Old English Syntax* (1985: 233–4), does not comment on the subject beyond agreeing with Visser.
[12] E.g. Gothic *disskritnan* 'get torn' < *disskreitan* 'tear', as below.

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he calls 'reflexive Middles', in Proto-Germanic (Ottosson 2013: 347, 356, 378). This makes Germanic a transitivising language. He assumes that Old English makes extensive use of labile verbs, and considers this a North-West Germanic (i.e. Ingvaeonic) tendency, linked to the lack of a reflexive pronoun proper in these languages (Ottosson 2013: 332, 356; this has also been suggested by Poppe 2009: 260). Note that Ottosson (2013: 374–5) considers that the causative formation is still moderately productive in OE.

Van Gelderen's comprehensive study (2011) follows the changes in valency orientation throughout the history of English, including both agent-changing and object-changing strategies. She advances her views on the basic valency of OE cautiously. Having applied Nichols *et al.*'s questionnaire of verb meanings alternating in valency to Old English, she rightly warns that the absence of native speakers of the language makes it difficult to identify the most common gloss (2011: 115). She interprets the results as suggesting that 'there is no basic valency in Old English' and that OE was 'not as intransitive-oriented as sometimes argued' (2011: 117).

Van Gelderen also presents as evidence Hermodsson and Visser's lists of intransitive, transitive and labile verbs and concludes that, as Visser had pointed out, OE had many intransitive verbs that became transitive (2011: 118, 119, 122), and that 'even though we have to be cautious with all the verbs in [Visser's and Hermodsson's lists of labile verbs], labile verbs already seem common in Old English but not as common as in Modern English' (2011: 122). In this she coincides with Hermodsson. Like Ottosson, van Gelderen detects some productivity in the causative *ja*-formation in OE (2011: 123–4). This view is disputed in section 6.1 below.

Summing up section 3, the various methods used to assess the basic valency of OE yield different results. Diagnostic tables do not seem to lead to any clear conclusions, other than that labile coding is not conspicuous. Computation of verbs reveals a large proportion of intransitive verbs, with a small but notable number of labiles. Finally, with respect to the main valency-changing mechanism in OE, it is suggested that the causative formation retains some productivity, which is consistent with the high proportion of intransitives. Crucially, as will be argued in section 6.1, this would make OE transitivising, like its Germanic ancestor, and not labile, as Hermodsson and van Gelderen conclude.

Scholars differ in their interpretation of the data. Hermodsson points out the spread of labile verbs in OE as compared to other Germanic languages, while acknowledging, like Visser, the large number of intransitive verbs. In the recent literature on valency, Ottosson and van Gelderen, following Hermodsson, trace back the PDE tendency to favour labile coding to OE, while maintaining that the causative construction was still productive in that period. McMillion, however, claims that OE is not especially labile.

The following sections re-examine the effectiveness of two of the procedures for testing the basic valency orientation of OE: computation of verbs and assessment of its main valency-changing operations, in this case, the causative *ja*-formation. I will argue for the superiority in diagnostic power of the latter and describe how, in both cases, a

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historical approach based on detailed structural analysis of textual evidence may inform synchronic analysis and thus underpin typological statements.

Diagnostic lists are not analysed further, as they do not seem to lead to any clear results for OE and it is doubtful that they can be applied with any reliability to languages with no native speakers on whom to test the accuracy of the glosses, as van Gelderen remarks (see above).

4 The contribution of etymology in establishing morphological typologies: what bare word lists don't tell us

This section discusses the computation of verbs as a strategy to assess valency tendencies from a synchronic and diachronic perspective. For the latter, I have established the word-formation pattern of OE verbs classified as labile in previous literature and carried out a comparative-historical analysis of weak verb classes and their valency expression potential in OE and other Germanic languages. The analysis reveals that many of the labile verbs in OE texts might be inherited, so that they do not necessarily demonstrate labilisation tendencies in the period itself.

The main tools used in this section are etymological dictionaries and grammars of the Germanic language (Krahe & Meid 1969; Seebold 1970; Heidermanns 1993; Ringe 2006), OE grammars (Campbell 1997 [1959]; Brunner 1965; Hogg & Fulk 2011) and OE dictionaries (Bosworth & Toller 1898; Hall & Meritt 1970; *The Dictionary of Old English* (*DOE*); the *NerthusV3* database). Doubtful valency values have been confirmed through a process that will be detailed in the following section.

From a synchronic point of view, the lists of labile verbs in Hermodsson (1952: 196–207) and Visser (1963: 99) are reliable. Overall, the valency assigned to each verb is accurate, even by current standards using updated tools.[13]

A diachronic analysis reveals that morphophonetic processes in Pre-OE, that is, during the period preceding the first attestations,[14] may have influenced the valency of whole verb classes. A large proportion of the labile verbs included in the lists by Hermodsson (1952) and Visser (1963), repeated by McMillion (2006) and van Gelderen (2011) as evidence, may be labile because of *formal conditioning*, as noted in passing by Hermodsson (1952: 62, 195). Many belong to the second weak class,[15] which *historically* contains both transitive and intransitive verbs (see lists in Brunner 1965: 330), as opposed to the first weak class, with only transitive-causative verbs. By way of illustration, consider the following OE weak verbs, class II:

(8) ābiterian 'make bitter'; 'become bitter'
lytlian 'make smaller'; 'become smaller'

[13] Only minor flaws were detected, the most relevant of which for the purposes of this article is the absence of a number of labile verbs, detailed in section 6.3 below.

[14] Hogg (1992: 157) locates this period around the fifth century CE.

[15] Hermodsson lists 94 labile verbs, of which 30 belong to weak class II; Visser lists 55, with 19 weak class II verbs.

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gladian 'make glad'; 'become glad'
gōdian 'make good'; 'become good'

Some of the ambivalence of weak class II verbs is inherited and applies in principle to all Germanic languages. However, the situation was aggravated in OE as the vast majority of the *ē*-verbs, which constitute the third weak class in Germanic, as it is traditionally called, shift to the second weak class (*ō*-verbs) (Campbell 1997 [1959]: 342). The *ē*-class contains mainly intransitive verbs with stative or inchoative meaning and is especially productive in Old High German (OHG) (Krahe & Meid 1969: 249; Ringe 2006: 236, 256–7; see example (10) below). In Gothic and in Old Norse (ON), where the *ē*-class is not productive, derived intransitive verbs could be formed with the *na*-suffix (Krahe & Meid 1969: 250, 253; Ringe 2006: 259; and especially Ottosson 2013 *passim*), as in the following Gothic example (Braune & Heidermanns 2004: 166):

(9) dis-skrit-na-n 'get torn' < dis-skreit-an 'tear'
PREF-tear-ANTICAUS-INF PREF-tear-INF

In OE *ē*- and *na*-verbs survive only fragmentarily (see further Ottosson 2013, esp. 377), and the second weak class is a catch-all and hence heterogeneous in all aspects, including valency. Whereas in other Germanic languages deadjectival verbs can distinguish valency depending on whether they are built with the *ja*-suffix (transitivising) or with the *ē*- or *na*-suffixes (intransitivising), this distinction cannot be expressed in OE. In this language, next to a transitive-causative *ja*-verb there is often a *labile* class II verb (*ō*-verb), instead of an *intransitive ē*- or *na*-verb. The following example may serve to clarify the argument (Germanic forms follow Heidermanns 1993: 280–1):

(10) OHG **hart** 'hard' (< Germanic ***hardu**- 'hard') >
OHG **herten** (*ja*-verb) 'make hard (trans.)' ~ **hartēn** (*ē*-verb) 'become hard (intr.)'
OE **heard** 'hard' (< Germanic ***hardu**- 'hard') >
OE **hyrdan** (*ja*-verb) 'make hard (trans.)' ~ **heardian** (*ō*-verb) 'become hard; make hard (intr. and trans.)'

In example (10), whereas the intransitive/transitive opposition is expressed by two different verbs in OHG (*ē*- and *ja*- respectively), OE lacks an intransitive-only form, and the *ō*-verb *heardian* expresses both valencies.[16] This verb is rightly listed as having a 'double function' ('Doppelfunktion') by Hermodsson (1952: 198). However, neither *heardian* nor the other labile class II verbs necessarily testify to tendencies towards the labilisation of single-valency verbs in OE, but to quirks of word-formation type in the pre-history of OE verbal classes. Crucially, the numerous labile verbs of the second class, or *ō*-verbs, may have been labile from

[16] This is not necessarily always the case. As Ottosson notes (2013: 374, fn. 27), some deadjectival pairs have been formed in OE where the *ja*-causative is transitive and the *ō*-verb intransitive (inchoative), such as *bētan* 'make good, restore' ~ *bōtian* 'get better'.

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their inception in OE (thus also Ottosson 2013: 357) rather than the result of a process of transitivisation or detransitivisation in historical OE.

In summary, as highlighted by previous studies, there are a substantial number of labile verbs in OE. However, this does not necessarily imply that OE favours labile coding, since prior morphophonetic processes may have influenced the valency of a whole verb class. Many of the labile verbs in Old English belong to the second weak class, which contained intransitive and transitive verbs already in common Germanic, and which moreover had been affected by class syncretism in pre-OE. Their being labile may well be related to a morphophonetic development that took place *before* historical OE, rather than the result of a process of labilisation (detransitivation or transitivisation) within OE. They do not point to a tendency to increase labile coding in OE.[17] Note that I am not referring here to verbs of the *first* weak class in *historical, textually attested* OE, which will be addressed below.

5 Main valency-changing operations and the basic valency orientation of Old English

The computation of verbs according to valency has been shown to be a not entirely reliable indicator of the valency orientation of OE. In the remainder of this article another strategy to assess valency tendencies will be put to the test: a language's main valency-changing operation(s), in this case, the causative formation, as will be justified in the paragraphs below. In this section, causative verb-pairs in OE will be introduced, comprehensive lists provided and the importance of this construction in Germanic will be discussed.

The data for this and the following section are part of an ongoing project on causatives in OE and other early Germanic languages from a historical-comparative perspective, which has given rise to several publications (García García 2005, 2012, 2016). The data have been revised and updated, with particular attention paid to valency. Bammesberger (1965) and García García (2012) provide the initial corpus, namely OE deverbal *ja*-verbs. The probable causative verbs among them were identified using the definitions and text examples in the *DOE* where possible, that is, for entries A to H.[18] For these verbs, the information given here is comprehensive. From H onwards, Bosworth & Toller (1898), Hall & Meritt (1970), and the *NerthusV3* database served as preliminary sources of data. Since the information they provide is necessarily incomplete and sometimes misleading with respect to the syntactic pattern of verbs (their valency), it was necessary to ascertain the

[17] As a reviewer has rightly pointed out, this does not invalidate the existence of labile verbs in this period. The point I am raising is the extent to which they reveal the basic valency orientation of OE. Here we could establish a distinction between *synchronic* basic valency, for which *all* labile verbs may be used as evidence, including weak II verbs in the case of OE, and *dynamic* tendencies in valency coding, which involve the implementation of syntactic changes in order to attain a certain valency pattern, in this case, transitivisation or detransitivisation leading to labilisation. Weak II class verbs are not evidence for such tendencies in OE.

[18] In the course of revision of this article, an updated version of *DOE* including letter I was released. The data could not be incorporated in the article.

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usage of verbs in actual OE texts. This was done by conducting spot checks in the *Dictionary of Old English Corpus* (DOEC; diPaolo Healey *et al*. 2009) (a comprehensive examination of the whole corpus of OE is, needless to say, well beyond the frame of a journal article. This includes exact token frequency counts). As the DOEC is not lemmatised, searches were carried out using as many forms of their paradigm as possible. An example might serve to clarify the procedure. In order to find the attestations for the verb *licgan* 'lie', the forms *læg-* (past), *leg-* (past participle), *liþ* and *lit* (present) were used as search strings. Subsequently, the clauses were analysed and translated to determine both valency and meaning.

The information obtained is not exhaustive (except for verbs from A to H), but it is representative of the syntactic patterns of the verbs in question. As a result of this analysis, it was possible to compile an updated list of OE causative *ja*-verbs and their non-causative counterparts, containing both intact and deteriorating causative pairs, as well as unclear cases. The lists include approximate frequency counts, which have been carried out using the *DOE* for entries A to H, and the aforementioned dictionaries and searches in the DOEC for the rest, as described above. Finally, the data used to establish a comparison between OE causatives and those in other Germanic languages have been drawn from Schnieders (1938), Seebold (1970), Riecke (1996) and García García (2005).

In the previous section, some labile verbs in OE were discussed. Besides these verbs, which do not code valency, there is a relatively large and conspicuous group of verb pairs in Old English that *are* coded for valency, namely causative *ja*-pairs, such as:

(11) *þwīnan* 'get less, dwindle' (strong verb, non-causative base)
þwǣnan 'reduce the size, cause to dwindle' (*ja*-verb, causative derivate)
rīsan 'rise; be fitting, becoming'
rǣran 'cause to rise, rear, raise'

At first sight, OE could be classed as transitivising in view of the number of causatives and their frequency, both in type and token frequency. From the 106 deverbal *ja*-verbs that can be identified in OE (see García García 2012), some 70 may be causatives. Of those, 45 have a clear causal meaning with regards to their primary base (Appendix A), whereas for 11 verb pairs a causative interpretation can be neither discarded nor confirmed (Appendix B). Finally, 14 verb pairs were in an intact causative opposition in Pre-OE and underwent valency changes in OE, although the former relationship between the two members is still recognisable (Appendix C). These are decisive for the argument in section 6.3 and will be discussed there.

All in all, there are 59 secure causatives in OE (45 in Appendix A + 14 in Appendix C), some of them belonging to the core vocabulary and extremely frequent. Some examples are *drencan* 'give drink to', *ferian* 'carry', *gremman* 'enrage', *lǣdan* 'lead', *lecgan* 'lay', *rǣran* 'raise', *settan* 'set', *swencan* 'harass'. These data suggest a large incidence of this type of construction in OE, larger, incidentally, than recent studies acknowledge. However, the value of causative verbs as evidence for the basic

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valency orientation, following Nichols *et al.*'s definition given above,[19] does not lie in their exact frequency, be it in token or type, but in the relevance of the causative construction as a valency-changing operation. Thus, although causative verbs are frequent in all Germanic languages, it is because causatives clearly constitute the *main* derivational strategy for code valency changes in Germanic that they can be relied upon as indicators of the language's valency orientation, which can be then safely described as *transitivising*. About a third (184) of the 643 Germanic strong verbs posed by Seebold (1970) have a *ja*-causative in one Germanic language or another (this is my own estimation after surveying the entirety of Seebold's examples). Moreover, the *ja*-formation was productive in Germanic. Most of the *ja*-causatives lack cognates elsewhere in Indo-European, an indication that they have been coined in Germanic itself. Other valency-changing strategies did exist, but are not nearly as widespread. This is the case with anticausative *na*-verbs, which form a separate class in Gothic, are well represented in Old Norse, but minor in West-Germanic languages (Ringe 2006: 260). Ottosson (2013: 347) concludes that *na*-verbs might not have existed as a class in Proto-Germanic (citing Schwert 2001). The primacy of causatives as valency-changing operation suggests a transitivising orientation and hence a preference for intransitive verbs in this language stage (also Plank & Lahiri 2015: 47).

The specific way in which the causative formation develops in early Germanic languages is crucial to assessing their basic valency types.[20] The reason for this is that, as has been argued in the above paragraph, it was the predominant valency-changing mechanism in Germanic.

The valency coding mechanisms in OE will be examined against the background of its Germanic ancestor. The innovations or resilience of OE with respect to Germanic give a clearer indication of the tendencies in valency coding *at work* at that particular stage than a purely synchronic description, including the quantification of verbs of different valencies.

Concerning valency-changing strategies in OE, the two key questions are (1) whether other mechanisms have arisen that compete with the causative formation and (2) to what extent the causative formation is still productive or not. The answer to the first question is no. As explained above (section 4), detransitivising suffixes have all but disappeared in OE, in contrast to other Germanic languages. On the other hand, the use of reflexive middles to form anticausatives (see example 4), fairly widespread in other Germanic languages, is scarcely attested in OE (see Hermodsson 1952: 193–5; Ottosson 2013: 353–4).

Once the absence of other valency-changing mechanisms in OE has been established, it is necessary to decide whether the *ja*-formation is still productive in OE; see sections 6 and 6.1. Obviously, if this was the case, OE should be considered transitivising, given the hegemony of the causative formation as a valency-changing operation. However, as we will see, estimating productivity proper might not be

[19] The basic valency orientation of a language is 'the preferred or predominant or most common form of lexicalisation or valence-related derivation' (Nichols *et al.* 2004: 150–1).

[20] This has been previously stated by van Gelderen (2011: 122), who does not justify her view.

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sufficient. As recent literature has shown, lack of productivity does not preclude some morphological markers being effective. Hence, a more fine-grained definition of the status of the *ja*-formation as a derivational mechanism in OE is needed in order to ascertain to what extent *ja*-verbs were recognised and used by the speakers of OE as derived, higher-valency counterparts to lower-valency basic verbs. If this was the case, OE would still be best described as transitivising. This will be addressed in section 6.2.

6 The opacity of the causative *ja*-formation and the rise of labile verbs in OE

As mentioned above, there are 59 secure causative pairs attested in OE, some of which are not intact:

(12) (a) *weallan* 'bubble forth, flow; well (with); exist in large numbers' (strong verb, non-causative base)
(b) *wyllan* 'boil (something); torment, agitate (someone)' (*ja*-verb, causative derivate)

The meanings of both *weallan* and its causative *wyllan* show metaphorical transfer in different directions – *weallan* does not mean 'be tormented, agitated', nor does *wyllan* express 'create in large numbers'.

At the formal level, the *ja*-suffix is no longer visible in OE, except in a few verbs with light root ending in *-r* such as *ferian* 'carry', causative to *faran* 'go'. The morphological complications of OE *ja*-verbs have been emphasised by many authors, from Bammesberger (1965: 12–13) and Krahe & Meid (1969: 118) to Lass (1994: 166–7). Compare the following *ja*-pair in OE and Gothic:

(13) OE *rīsan* 'rise; be fitting, becoming' ~ *rǣran* 'cause to rise, rear, raise'
Gothic *-reisan* 'rise; wake up' ~ *-raisjan* 'cause to rise, raise; wake (someone) up'

The distinction between causal and noncausal verb in OE rests on a sound alternation and a change of verb class, whereas it has the additional support of the *ja*-suffix in Gothic. The *ja*-formation seems to be already disintegrating in Old English, as its form became more opaque and its function less distinctive (see van Gelderen 2011: 123–4, discussed below; see also García García 2012: 135). A clear example is the verb *myltan*, originally causative 'melt (sth.)', which already in OE adopts the additional intransitive meaning 'melt', like its very similar strong counterpart *meltan* 'melt (intransitive)' (see also section 6.3 below). An example of the intransitive use of *myltan* is:

(14) þonne me mægen and mod **mylte** on hreðre
then me strength and spirit melt in breast
'then strength and spirit melt in my breast' (PPs A5 0226 (70.8); citation follows DOEC)

The example of OE *myltan* illustrates how a labile verb can result from a scarcely distinctive causative opposition (that between *meltan* and *myltan*). This link has been detected before, recently by van Gelderen (2011: 122), who affirms that 'the loss of

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intransitives and the resulting increase in lability are due to the loss of a productive causative affix', without specifying when this occurred. This conclusion seems in broad terms plausible, although some details are disputable.[21]

It would seem that the right conclusion has been reached using slightly flawed arguments. In the first place, van Gelderen's dating of the loss of the causative suffix in Early Middle English (2011: 127) is too late, as will be argued in the next section. Secondly, the visibility of the causative *ja*-suffix in the OE period is illustrated with two examples, both inaccurate.[22] The first one is OE *gladian* (van Gelderen 2011: 121, 123–4). This verb belongs to the second weak class and was therefore never formed with a **ja*-suffix in the first place. The *-i-* that surfaces in some forms of its paradigm is not related to **-ja-*, but to Germanic **-ō-/-ōja-* (see e.g. Krahe & Meid 1969: 238–43). As was argued in section 4, this class, unlike class I, contains both intransitive and transitive verbs already before the OE period and many of its verbs show labile coding from the beginning of the textual transmission.[23] In fact, OE *gladian* means both 'to make glad' and 'to be glad' (thus *DOE* s.v., *pace* van Gelderen 2011: 121, 124).

A second questionable choice on van Gelderen's part is the verb *byrnan* 'burn'. She wonders whether *byrneð* could show 'evidence of an *-i* causativizer through the fronted vowel of the stem' (van Gelderen 2011: 122). Her example (22b) is repeated here:

(15) swa ... fire wudu **byrneð**
such fire wood burns
'As ... the fire burns the wood' (*DOE,* segment 3, 82.10)

There can be no causativiser involved in *byrneð*, as it belongs to the paradigm of the strong verb. The weak causative verb is *bærnan* (see *DOE*). The form *byrneð* is a third-person singular present of an infinitive form *byrnan* or *beornan,* both well attested for the strong verb (see *DOE* s.v. *byrnan* 'burn'). The root-vowel in *byrneð* is either a continuation of the vowel in the infinitive *byrnan*, or the result of the fronting of *-eo-* by a following third-person singular present Germanic suffix **-iþi-* (*beorn-* + **-iþi-* > *byrneð*). As is well known, this type of palatal mutation affects only strong verbs. In fact, what example (15) illustrates is the opposite of what the author understands: not the resilience but the demise of the causative distinction. It attests the causative-transitive use of the originally only intransitive strong verb *byrnan* 'burn'. Thus, it contradicts what Bammesberger (1965: 38–9) holds about the verb pair *beornan* ~ *bærnan*, which van Gelderen (2011: 121) endorses, namely that *beornan* is only intransitive and *bærnan* only causative-transitive. The fact is that they are both labile. The *DOE* contains several instances of causal-transitive and intransitive uses for both verbs. It is one of the 14 verb pairs crucial to evaluating the rise of labile coding in OE, as will be discussed in section 6.3.

[21] Whether the increase in lability results from the loss of intransitives remains controversial (this cannot be pursued further), and the term *due* is too forceful, as it suggests a monocausal process.

[22] Van Gelderen's schematic discussion of OE causatives constitutes a very small part of her article, which contemplates valency changes throughout the history of English and contains many inspiring insights.

[23] Note that the issue with *gladian* is not that it is deadjectival.

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So far in this section two isolated cases of causative verb pairs that become labile have been discussed: *byrnan* ~ *bærnan* and *meltan* ~ *myltan*. They seem to point to a link between the increase of labile coding and the demise of the causative formation in OE. At this point it is necessary to widen the picture and inspect the whole group of causative verbs. Two issues will be dealt with in the next two sections. The first one is whether the causative formation was still productive in OE, as some authors claim (section 6.1). It will be argued that it was not. The second issue is whether this matters at all for an assessment of valency orientation. In this respect, the relationship between the lack of productivity of the causative formation and the increase of labile verbs has been challenged in a recent study by Plank & Lahiri (2015) on sound alternations in noncausal/causal verb pairs. The study has shown that an unproductive causative formation does not necessarily entail the language in question, German in the case of their study, changing its orientation towards labile coding. This will be discussed in detail in section 6.2.

6.1 *Dating of loss of productivity of the* ja*-formation*

Ottosson (2013: 374–5) affirms that 'although *ja*-causatives were probably more opaque in Old English than in [Gothic and Old Norse], the formation seems to have retained some productivity in that language'. Van Gelderen shares Ottosson's view, citing a previous version of his 2013 article (van Gelderen 2011: 123–4). She dates the loss of the '*j*-affixes' [sic] to the Early Middle English period (2011: 127).

The question is what is meant by the term *productive*. It is not difficult to prove that the causative *ja*-formation is not productive in Old English in the strict sense of new *ja*-causatives being formed (see e.g. Haspelmath & Sims 2010: 114; see also García García 2012: 135). In fact, the number of *ja*-verbs decreases in Old English with respect to Germanic, both in absolute terms – 59 causatives in OE against *c.* 184 that have been reconstructed for Germanic in Seebold's 1972 dictionary of strong verbs – and in comparative terms – there are 72 *ja*-verbs attested in OE which had a causative function in Germanic, but 13 have lost this function in OE.[24] One of these is:

(16) *on-ēgan* 'fear' (*ja*-verb to preterite-present *og* 'fear'); compare with the Gothic *ja*-verb *ogjan* 'scare (someone)', with intact causative meaning.

Moreover, of the 59 secure causative pairs, just 7 (12%) are attested in OE only (*dyrfan* 'bring into danger', *smīcan* 'smoke', *þwǣnan* 'reduce the size', *flȳgan* 'put to flight', *āhryran* 'destroy, cause to fall', *sȳcan* 'suckle', *ācwencan* 'extinguish'). Compare the figures with those for OHG, a similarly attested West Germanic language, with 87 secure causatives (Riecke 1996: 673), 31 of which (35%) are documented in OHG only (Riecke 1996: 675).[25] The proportion of causatives is even higher in Old Norse and Gothic (see Schnieders 1938; García García 2005).

[24] Figures from the author's updated corpus on deverbal *ja*-verbs in OE.

[25] Ottosson might not have taken the OHG figures into account when he qualifies the group of verbs exclusively attested in OE as 'not negligible' (2013: 374).

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From a theoretical point of view, if the causative formation was even minimally productive, there would be little chance of OE favouring labile formations, as the two tendencies run counter to each other (see e.g. Kulikov 2009: 88 for Indo-Iranian). Kulikov describes the following process for Indo-Iranian:

> The decay of the labile patterning essentially runs parallel with two processes: the rise and development of new valency-changing categories, causatives with the suffix *-áya-* ... and passives with the suffix *-yá-* ... , which brings the language to a more overt morphological marking of the transitivity oppositions. (Kulikov 2009: 88)

In conclusion, contrary to other accounts, the *ja*-formation is not productive in OE at all. Furthermore, with a productive causative formation, even if only 'to some extent', Old English would have to be classed as a transitivising language, given the predominance of causatives as valency-changing mechanism in OE and Germanic.

6.2 *Productivity vs efficiency of the causative* ja*-formation: the case of Present-day German causatives*

Though the *ja*-causative formation is no longer productive, it may still be operative, that is, able to signal that causal verbs with the former suffix **-ja-* are derived from a noncausal base in OE. An operative causative formation would also reveal a transitivising orientation in Old English, rather than indeterminate or labile, following Plank & Lahiri's (2015) study on valency in German. These authors have detected a transitivising tendency in that language ('a deep current of transitivisation'; 2015: 45) on the basis of a substantial number of intransitive/transitive-causative verb pairs whose coding relies on sound alternations which are no longer productive (2015: 12), but which have a clear derivational direction, namely from basic lower-valency to higher-valency (2015: 47). Plank & Lahiri define the coding as 'derivedness, rather than productive, online derivation' (2015: 18).

They consider two types of sound alternations, of which only the first is relevant here. This is the alternation of the ablaut type, whereby ablaut characterises the noncausal member of causal/noncausal verb pairs, which is strong, as opposed to the causal member, which is non-ablauting and weak (Plank & Lahiri 2015: 11). They cite among others the following pairs (the strong noncausal member precedes the weak causal):

(17) *saugen* 'suck' ~ *säugen* 'suckle'; *springen* 'jump' ~ *sprengen* 'blow up'; *trinken* 'drink' ~ *tränken* 'water, give drink to' (horses, cattle)

These are examples of a relatively large group of 21 causal/noncausal verb pairs, which are, for the most part, reflexes of Germanic *ja*-causative pairs. The authors show that in these verbs, and a few others, there is an identification of intransitive = strong; transitive-causative = weak in German. The morphological coding in these pairs consists of an alternation in the root vowel and in the inflectional class, where the intransitive verb follows the strong and the causal-transitive the weak declension. Note that it is identical to that in OE causative pairs, as manifested by a comparison between the following verbs and those in the previous example:

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(18) *sȳcan* 'suckle' (weak) ~ *sūcan* 'suck' (strong); *sprengan* 'scatter; burst (sth.); cause to spring; apply a clyster' (weak) ~ *springan* 'spring, burst forth, grow, spread (intr.)' (strong); *drencan* 'give drink to; drench, saturate' (weak) ~ *drincan* 'drink' (strong)

Plank & Lahiri's compelling conclusions raise the question of whether a similarly consistent co-variation holds for Old English *ja*-causative pairs, in spite of the formation no longer being productive. To test this, and in the absence of native speakers with whom to conduct the kind of experiments that Plank & Lahri undertake, we can assess the formal coding and the meaning and valency alternations that characterise each *ja*-causative verb pair in Old English in search of any repeating patterns that may point to systematic correspondences. In particular, we will be looking for consistent matching of strong and ablauting verbs with intransitive meaning and weak, non-ablauting verbs with transitive-causative, as Plank & Lahiri suggest exists in German. This is the focus of the next section.

6.3 *Correspondences between form and valency in Old English causatives*

The correlation is the expected one (strong + ablauting = intransitive, and weak – ablauting = transitive-causative) in 45 causative pairs (see Appendix A), in spite of idiosyncratic semantic changes, as in *weallan* above.[26] Among these 45 are the few remnants of causative pairs that have survived into PDE, most of which are subject to lexicalisation and/or frequently not used in a historically faithful fashion: *bite/bait, drink/drench, fall/fell, lie/lay, rise/rear/raise* (Brinton & Traugott 2005: 98, 153).

However, in 14 *ja*-causative pairs (over 31%) one or both members undergo valency changes by adopting the valency of their counterpart in addition to their own. That is, the intransitive strong verb can be used as a transitive as well, and, more often, the transitive weak *ja*-verb can also be used intransitively.[27] They become labile verbs. Below are two well-attested verb pairs of this kind, with etymological information:

(19) (a) *wecgan* (weak) 'move, shake' (trans. and intr.) < Germanic **wagija-* 'shake, move' (trans.)
wegan (strong) 'carry; move (intr. and trans.)' < Germanic **wega-* 'shake, move' (intr.)
(b) *bærnan* (weak) 'burn' (trans. and intr. (-)) < Germanic **brannija-* 'burn' (trans.)
byrnan (strong) 'burn' (intr. and trans. (-)) < Germanic **brenna-* 'burn' (intr.)

The members of the former causative *ja*-verb pairs *wecgan* (weak) ~ *wegan* (strong) and *bærnan* (weak) ~ strong *byrnan* (strong) can be used in both an intransitive and a transitive sense. A list of OE causative verb pairs which become labile is included in the Appendix. A few of them have not been recognised as labile in previous studies; *bærnan, calan, dyrfan, hwyrfan, lǣfan, myltan, smēocan, swengan, weccan, wegan*

[26] For the sake of simplicity, we gloss over the fact that there are a few transitive strong verbs, such as *drincan* 'drink', whose weak, non-ablauting correlate (*drencan* 'give drink to') has an additional object, namely a causee.

[27] This points to an intransitivising rather than transitivising tendency in OE, *pace* Visser (1963: 99).

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are missing from both Visser's and Hermodsson's lists of labile verbs in OE. However, again, what is relevant is not only that these new ascriptions increase the number of labile verbs in OE, but also, and more decidedly, the fact that these verbs had been part of a causative opposition which they have abandoned in favour of labile coding.

The spread of labile verbs that neutralise the inherited alternation expressed by the *ja*-formation reveals the tendencies in valency coding that were at work in OE itself. It also precludes the interpretation of the *ja*-formation as an effective transitivising operation in Old English, as there is no consistent co-variation between intransitive bases and transitive derived *ja*-verbs. This sets OE apart from German, in spite of the fact that causative verb pairs in both languages are characterised by similar morphophonetic alternations and, hence, share the same degree of intransparency.[28] Intransparency of the formation cannot be, therefore, the (sole) reason for the loss of the causative alternation, in spite of what previous accounts appear to assume (Hermodsson 1952: 210; van Gelderen 2011: 123–5; García García 2012: 135).

We turn now to labile verbs in later periods. Labile coding increases after OE. The tendency to labilisation is well established by Middle English, when only the following 12 causative pairs survive, four of which show signs of labilisation, e.g. *setten* 'make (sb.) seat, sit' (list compiled with data from *Middle English Dictionary*):

(20) *baiten* (< Old Norse *beita*) 'incite; put to feed' ~ *bīten* 'pierce, cut'; *cwellen* 'kill' ~ *cwēlen* 'die'; *drenchen* 'drown (sb.)', 'be drowned, sink' ~ *drinken* 'drink'; *fleien* 'put to flight' ~ *flēn* 'flee'; *kennen* 'make known', 'come to know' ~ *connen* 'have ability, knowledge'; *lēden* 'lead, carry', 'travel, pass' ~ *līthen* 'travel, sail, go'; *leien* 'put, place, impose' ~ *līen* 'lie, lie down'; *rēren* 'lift, extend upwards, bring about' (and Old Norse *raisen*) ~ *rīsen* 'stand up, rise'; *sengen* 'burn, scorch' ~ *singen* 'sing'; *setten* 'make (sb.) seat, sit' ~ *sitten* 'be seated'; *sprengen* 'sprinkle, scatter' ~ *springen* 'spring, come out'; *werden* 'cause harm to (sb.)' ~ *forworthen* 'perish'

In summary, the basic valency orientation of Proto-Germanic can be defined as transitivising on account of the relevance of its causative formation. Causative verbs are not only frequent in type, but they also belong to the core vocabulary of early Germanic languages. Although they are widely attested in OE, there are fewer of them than in other languages of the family, such as Gothic, ON and OHG. The causative formation is definitely no longer productive at this stage. It is not even operative in the sense that Plank & Lahiri describe it, as the correspondence between strong = intransitive / weak = transitive-causative is not stable, in opposition to what seems to be the case in Present-day German. Members of causative oppositions becoming labile is an unmistakable pointer to a tendency towards labilisation in OE, as the verbs involved *lose* their inherent, inherited specification for valency. Attributing this loss to the opacity of the causative formation is a circular argument, as is made evident by the resilience of causative verb pairs in Present-day German in spite of their being characterised by similar morphophonetic alternations as those in OE.

[28] The verbs in Appendix C are in a sense vacillating verbs as Plank & Lahiri (2015: 15–16) understand them, but with no alignment of weak = transitive.

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7 Conclusion and further research

There is little agreement on the basic valency orientation of OE, which is crucial to clarifying the origins of the widespread labile coding in PDE. Different measuring strategies lead to different results, none of them conclusive thus far. OE seems to be transitivising in terms of the high number of basic intransitive verbs and of the prevalent valency-changing operation, namely causativisation by means of the Germanic *ja*-formation. However, an orientation towards indeterminate coding (using Nichols *et al.*'s 2004 classification) may be deduced from the noticeable number of labile verbs. This has been pointed out by a number of authors (Hermodsson 1952; van Gelderen 2011; Ottosson 2013), but rejected by others (notably McMillion 2006). This article has evaluated the methods for assessing valency-coding tendencies in OE, argues for the superiority in diagnostic force of one of them – namely the evaluation of prevalent valency-changing operations – and applies it to the OE data in a novel fashion. It concludes that labile coding emerged and spread in the OE period.

The article underscores the usefulness of a historical perspective in informing synchronic analysis. In particular it illustrates how the typological evaluation of one phenomenon can benefit from a historical-comparative perspective that takes into account concomitant linguistic processes. Thus, the considerable number of labile verbs, although, strictly speaking, affecting the basic valency of OE, does not necessarily testify to a gravitation towards labile coding at this language stage. Morphophonetic conditioning on a larger scale has been at work at a stage preceding the first OE written records. In particular, class syncretism within weak verbs precludes the possibility of indicating valency through class membership in OE in the same way as is possible in other Germanic languages. This plausibly explains the valency indeterminateness of weak verbs class II, to which many of the labile verbs in OE belong, without any structural tendency towards labile coding being necessarily at work.

The present article complements previous research on the causative construction and its relevance for assessing valency-coding tendencies in OE. It argues that this relevance stems from the fact that, as discussed in section 5, the causative formation is the main valency-changing operation in common Germanic and the early Germanic languages, including OE. Further, while it agrees with previous studies that the decay of the causative formations testifies to labile orientation in OE, it qualifies their results with a more comprehensive and rigorous analysis of the data. Detailed, textually grounded synchronic research, and structural diachronic analysis of OE *ja*-causatives has made possible the evaluation of the morphological status and development of the causative formation in a way that was not feasible in prior studies. As a result, 14 causative oppositions that become labile in OE have been detected, among them ten labile verbs not mentioned in previous literature. Further, new insights by Plank & Lahiri (2015) on the role of sound alternations as morphological markers have allowed us to make more confident statements on the degree of effectiveness of the Germanic causative *ja*-formation as a transitivising mechanism in OE. This article demonstrates how the development of causative verb pairs unequivocally points to burgeoning tendencies towards labile coding in OE.

Concerning the *ja*-formation, the conclusions reached are:

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1. Contrary to the findings of previous studies, it is not productive in OE.
2. Its lack of productivity does not necessarily involve a rise in labile coding, in spite of previous accounts.
3. It has ceased to signal transitive/causative verbs as derived from their intransitive counterparts, as there is no consistent matching between intransitive strong verbs and transitive *ja*-verbs. Therefore, the lingering transitivising power of former *ja*-causatives revealed by Plank & Lahiri in German cannot be detected in Old English. The existence of causative pairs in OE, however high their token frequency, does not testify to transitivising tendencies; it is rather to be interpreted as a fading reflex of a once productive formation.
4. At this stage in the history of the language, a noticeable number of verbs belonging to *ja*-pairs, some of them extremely frequent (*burn*, *melt*), are labile. The present research has brought to light ten OE labile verbs not mentioned in previous studies.
5. The loss of the inherited specifications expressed by the *ja*-formation, resulting in labile coding, points unmistakably to the emergence of labilisation tendencies in the OE period.
6. This loss cannot be fully explained by the lack of formal transparency of causative pairs, as claimed by former researchers. Present-day German still retains causative verb pairs with the same morphophonetic alternations as those displayed by the ones which have disappeared – i.e. become labile – in OE.

Some of the questions open for further research follow. The possible causes of the spread of labile coding in OE have not been properly studied so far. Given that the lack of transparency of the causative formation cannot fully explain this spread (see 6 above), its causes constitute an intriguing topic of enquiry. Whatever the causes of the spread of labile coding in English may be, they reside in the OE period or earlier. If language contact played any role at all, it necessarily pre-dates Scandinavian, and of course Norman settlement in Britain.

Further, the links to other parameters are worth more in-depth research. The possible relationship between the spread of labile verbs and the fixation of word order has been addressed by García García *et al.* (2012) and will be the object of an independent study (García García forthcoming). Another controversial issue is whether labile verbs result from the transitivisation of transitive verbs or the reverse. Finally, establishing the extent to which other Ingvaeonic languages share the tendency towards labilisation with OE would shed further light on the origins of this peculiar trait.

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Appendices

Note: In the following lists I have included those OE *ja*-verbs whose derivational base is attested in OE or in another Germanic language. The data collection process is explained in section 5. The approximate frequency is indicated as follows:
(–) = fewer than 5 occurrences
(+) = 5 to 10 occurrences
(++) = 10 to 20 occurrences
(+++) = more than 20 occurrences

A. Intact causative verb pairs in OE

Derived *ja*-verb	Strong base verb
bǣtan 'bridle and saddle; bait (so. + acc/dat)' (–)	*bītan* 'bite, bite (sth.), cut (sth.)' (+++)
ā-bylgan 'anger, offend' (++)	*belgan* 'swell with anger' (++)
cennan 'make known, declare' (+++)	*cunnan* 'know, know how to, perceive' (+++)
cwellan 'kill' (+++)	*cwelan* 'die' (++)
ā-cwencan 'extinguish (fire, lamp); snuff out (a candle)' (+++)	*ā-cwincan* 'go out, extinguish (of fire, light)' (++)
drencan 'give drink to; drench, saturate' (+++)	*drincan* 'drink, drink (sth. + acc)' (+++)
dwellan 'lead into error; err (intr.)' (++)	PP *gedwolen* 'perverse, wrong' (+)
dȳpan 'dip, immerse in liquid (sth.); baptise' (++)	*dūfan* 'dive, plunge, sink (intr.)' (++)
ferian 'carry, transport' (++)	*faran* 'go, travel' (+++)
flȳgan 'put to flight, disperse (so., sth.)' (+)	*flēon* 'flee (sth.)' (+++)
fyllan 'cause to fall, fell, kill' (+++)	*feallan* 'fall; stumble; occur; sink; die' (+++)
gremman 'enrage, provoke' (+++)	*grimman* 'rage, vent fury (intr.)' (+)
grētan 'approach, touch; damage, attack; address; greet' (+++)	*grētan*, *grēotan* 'bemoan, weep for' (++)
ā-hrȳran 'destroy, cause to fall' (+)	*hrēosan* 'fall, fall down, go to ruin' (+++)
lǣdan 'lead, take, carry, bring, produce' (+++)	*līþan* 'go, sail' (+++)
lǣran 'teach; preach; persuade, suggest' (+++)	Gothic *lais* 'knows'
leccan 'moisten, wet (sth.)' (-)	Old Norse *leka* 'leak, drip'
lecgan 'cause to lie, lay; slay' (+++)	*licgan* 'lie, be at rest; lie dead' (+++)
lītan 'incline (sth.)' (–)	*lūtan* 'bow, lout, bend forward, fall down' (++)
nerian 'save' (++)	*ge-nesan* 'be saved from, escape from' (++)
rǣran 'cause to rise, rear, raise' (+++)	*a-rīsan* 'rise; be fitting, becoming' (+++)
rēcan 'smoke (sth.), fumigate (sth.)' (+)	*rēocan* 'reek, send forth smoke' (+)
be-rȳfan 'deprive (so. + acc)' (–)	PP *berofen* 'deprived, bereft' (+)
sǣgan 'cause to sink' (–)	*sīgan* 'sink, descend, fall' (+++)
scremman 'cause to stumble' (–)	*scrimman* 'shrink, draw up' (–)
screncan 'cause to stumble, ensnare' (+)	*scrincan* 'wither away, dry up; become weak; shrink' (+)

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Appendix A *cont.*

Derived *ja*-verb	Strong base verb
sellan 'give, offer, sell' (+++)	Germanic **sela-* 'take' (unattested in OE)
sencan 'sink (sth.), submerge, drown' (+)	*sincan* 'sink (intr.); act as an aperient' (++)
sengan 'singe, burn slightly; afflict'(–)	*singan* 'sing' (+++)
slǣtan 'incite (a beast + acc) in order to cause damage' (–)	*slītan* 'tear, slit (sth.); cleave; irritate; tear (intr. (-))' (+++)
slȳpan 'put, slip (sth. + acc)' (-)	*slūpan* 'slip, glide (intr.)' (+)
sprengan 'scatter; burst (sth.); cause to spring; apply a clyster' (++)	*springan* 'spring, burst forth, grow, spread (intr.)' (++)
stæþþan 'support' (–)	*standan* 'stand' (+++)
stēpan 'cause to take a step' (–)	*stæppan*, *steppan* 'step, go, proceed' (++)
ā-styrfan 'cause to die, kill' (–)	*steorfan* 'die' (++)
swebban 'put to sleep; kill' (+)	*swefan* 'sleep; sleep the sleep of death' (++)
be-swemman 'make to swim' (–)	*swimman* 'swim' (++)
swencan 'cause a person to labour, harass, afflict' (+++)	*swincan* 'toil, labour, work with effort' (+++)
sȳcan 'suckle, give suck' (–)	*sūcan* 'suck' (++)
ā-þrȳtan 'weary, tire out (so.)' (–)	*ā-þrēotan* 'be wearisome, tedious, distasteful (intr.)' (+)
þwǣnan 'reduce the size, cause to dwindle' (+)	*þwīnan* 'get less, dwindle' (+)
þyrran 'render dry' (–)	Gothic PP *ga-þaúrsans* 'withered'
wyllan 'boil (sth.); torment, agitate (so.)' (–)	*weallan* 'bubble forth, flow; well (with); exist in large numbers' (+++)
wyltan 'roll (sth.)' (–)	Old Norse *velta* 'roll (intr.)'
wyrdan 'injure, annoy; hinder' (+++)	*for-weorþan* 'perish, vanish; go of' (+++)

B. Not confirmed causative pairs in OE

Derived *ja*-verb	Strong base verb
dwǣscan 'extinguish (fire); abolish, blot out (enmity, sin)' (+)	*dwīnan* 'shrink, dwindle, disappear' (–)
ā-hwǣnan 'vex, afflict' (++)	*hwīnan* 'hiss, whistle' (–) (cf. PDE *whine*)
rȳpan '*spoil*, plunder' (–)	PP *rofen* 'broken' (–)
ā-scylfan 'ruin, destroy' (–)	*scelfan* 'shake, quiver' (–)
sendan 'send' (+++)	*sinnan* 'care for, mind, heed' (–)
tō-slǣfan 'cut up (sth.)' (–)	Past sg. *tō-slāf* 'split' (–)
-sprǣdan 'spread (hand)' (++)	OHG *sprītan* 'extravagate, ramble' (caus./intr.?)
swǣlan 'burn (sth.)' (–)	*swelan* 'burn, perish with heat (intr.)' (–)
swellan 'burn (caus./intr.?)' (–)	*swelan* 'burn, perish with heat (intr.)' (–)
ā-/on-tendan 'kindle (sth.), set on fire; light'(++)	*tinnan* 'break out, begin' (–)
ȳcan 'eke, increase, add' (+)	PP *ēacen*, *ēcen* 'increased, enlarged; great, mighty' (+++)

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C. Causative verb pairs in which one or both members become labile in OE

Derived *ja*-verb	Strong base verb
bærnan 'burn (caus.; intr.)' (+++)	*byrnan* 'burn (intr.; caus.)' (+++)
bīgan 'bend (caus.; intr.); turn (caus.; intr.)' (+++)	*būgan* 'bow, bend (intr.; caus.?); turn (intr.)' (+++)
cēlan 'cool or chill (sth.), make cold; quench (thirst)' (++)	*calan* 'be or become cold; to make cold' (++)
dyrfan 'bring into danger, afflict; engage in' (+)	*deorfan* 'labour; be in danger or trouble' (++)
hwyrfan 'go, return; turn, change (caus.; intr.); exchange' (+++)	*hweorfan* 'go; turn, change (intr.; caus.)' (+++)
lǣfan 'leave; remain' (+++)	*be-līfan* 'be left over, remain' (+++)
myltan 'melt (caus.; intr.); digest' (++)	*meltan* 'melt (intr.), be dissolved, be digested' (++)
settan 'set, place, put; settle, subside (intr.)' (+++)	*sittan* 'sit, be seated; occupy (a seat)' (+++)
smīcan 'emit smoke (intr.); smoke, fumigate (sth.)' (+)	*smēocan* 'emit smoke (intr.); smoke, fumigate (sth.)' (+)
stencan 'scatter; emit breath with effort; stink' (-)	*stincan* 'spring, leap; emit a smell' (++)
swengan 'cause to swing; swing, fling, strike' (++)	*swingan* 'swinge; chastise; whip (cream); strike; beat (the wings)' (+++)
weccan 'waken, arise, spring (intr.; caus.)' (+++)	*wæcnan* 'come into being, be born, spring' (+)
wecgan 'move, shake (sth.)' (++)	*wegan* 'bear, carry; move (caus.; intr.); weigh' (+++)
wendan 'turn (round), change (caus.; intr.); go (refl.; intr.)' (+++)	*windan* 'spring (intr.); roll (intr.; caus.); weave (sth.)' (+++)

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