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Valency patterns and alternations in Gothic

Abstract: This paper investigates Gothic valency patterns and alternations applying the methodology of the ValPaL project. Our data consists of 87 verb meanings based on those in the ValPaL corpus, which we supplemented due to gaps in coverage. Valency alternations are divided into uncoded and coded patterns. The uncoded group includes partitive, null object, external possessor, cognate/kindred object, applicative, (marginally) causal : non causal, and (marginally) reflexive alternations. The coded group comprises the applicative, passive, causal : noncausal, reflexive, and reciprocal alternations. The nature of the Gothic corpus (extension, genre, and nature of the text) influenced the results: some constructions were less frequently attested than expected; genre influenced the frequency of some verbal usages; some marginally attested constructions are owed to the Greek translational source. Most remarkably, we showed that: (i) in respect to the debated issue regarding the interpretation of Gothic passives, these can be employed to express noncausal situations; (ii) within the causal : noncausal alternation, whereas the causal domain is tied to *ja*-suffixation, the noncausal domain can be expressed by a variety of means, including *na*-verbs. Our results confirmed Ottósson's (2013) view that the noncausal domain was systematized at a later stage than the causal one.

Keywords: Gothic, ValPaL, valency patterns, valency alternations, basic valency orientation

1 Introduction

The study of transitivity-related formations and constructions has long been an established subfield of Indo-European (IE) studies, not least with regard to Germanic (e.g. Egge 1887; Karsten 1911; Sundén 1913; Bökenkrüger 1924; Hermodsson 1952; Annerholm 1956; Bammesberger 1965; Krämer 1976; Joseph 1981; Suzuki 1989; Riecke 1996; García García 2005; Ottósson 2008). Recently, this line of research has intersected with typologically-oriented approaches to transitivity phenomena such as those investigating valency classes, valency alternations, and basic valency orientation (Nichols, Peterson and Barnes

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2004; Malchukov and Comrie 2015; Hellan, Malchukov and Cennamo 2017). In particular, the Germanic evidence for the so-called anticausative alternation, its diachrony, and its implications for the reconstruction of Proto-Germanic (PGmc) and of Proto-Indo-European (PIE) basic valency orientation has recently received much attention (Ottósson 2008, 2013 on Old Nordic and Old Germanic in general; Cennamo, Eythórsson and Barðdal 2015 on Latin and Old Norse-Icelandic; Plank and Lahiri 2015 on German; as for other Indo-European branches, cf. Kulikov 2009 on Indo-Aryan; Luraghi 2012 on Hittite, Luraghi 2019 on Indo-European in general; Holvoet and Nau 2015 on Baltic; Sausa 2016 on Homeric Greek).

This paper constitutes a further contribution to this field. In it, we apply the ValPaL method (Hartmann, Haspelmath and Taylor 2013; Malchukov and Comrie 2015). The paper is structured as follows. Section 2 describes our methods: in it, we briefly describe the Gothic language and its sources and introduce the ValPaL approach. In Section 3, we review current relevant literature focusing on Gothic sentence structure and we present Gothic valency classes. Sections 4 and 5 are devoted to the description and analysis of coded and uncoded argument structure alternations in Gothic. In Section 6, we summarize our findings.[1]

2 Methodological remarks

2.1 The Gothic corpus

Within Germanic, Gothic belongs to the Eastern branch, now completely extinct. Other members of this branch are Burgundian, Vandalic, and a variety of Gothic, the so-called Crimean Gothic, recorded around the middle of the 16th century by Ogier Ghislain de Busbecq, ambassador of Ferdinand I (Holy Roman Emperor 1556–1564) to Constantinople. In comparison to the other East Germanic languages, which are only fragmentarily attested, Gothic is relatively well preserved and thus qualifies as a corpus language, i.e. one on which we may rely on a small, yet rea-

1 The first data collection for this research was conducted by Caterina Saracco in 2016, while she was working at the Department of Humanities of the University of Pavia within the framework of the project *Transitivity and Argument Structure in Flux* (2015 PRIN call, grant no. 20159M7X5P). In the present study, that data sample was substantially enlarged. We thank two anonymous reviewers for their insightful comments. Needless to say, all remaining errors are ours. Although the two authors jointly wrote and edited this paper, it should be noted for academic purposes that Chiara Zanchi is responsible for Sections 1, 4, 5, and 6, and Matteo Tarsi for Sections 2 and 3.

sonably-sized, textual corpus. The chief source for Gothic is a fourth-century translation of the Bible, traditionally attributed to the Gothic bishop Wulfila, whose main manuscript witness, the *Codex Argenteus*, dates from the sixth century. A number of fragments and glosses are also preserved, mostly of biblical content (chiefly the *codices Carolinus*, *Ambrosiani*, *Taurinensis*, *Gissensis*, *Bononiensis*, *Gotica Parisina*, *Gotica Vindoboniensia*, *Gotica Veronensia*, *Fragmentum Spirense*). Some runic inscriptions have also been identified as Gothic, e.g. the spearhead of Kovel (3rd c., **tilarids** 'target rider'). It is generally acknowledged that Wulfila was fluent in Latin and, most crucially, Greek, which was the chief linguistic source for the translation.

The putative role of Wulfila as the only translator of the Bible is disputed (Miller 2019: 8). Most likely, the translation was a collective work, possibly conducted under the bishop's guidance (Falluomini 2008: 252). For the sake of brevity, we will refer to the author(s) of the translation by using the bishop's name, Wulfila.

The text of the Gothic Bible reflects a number of methodological criteria to which Wulfila adhered in the translation: (a) virtual one-to-one correspondence of translational equivalents, (b) word-to-word translation from Greek, and (c) replication of the Greek word order (Piras 2007: 62). Exceptions to these methodological principles are, of course, attested. The reasons for striving to adhere so closely to the Greek model were both ideological and practical. On the one hand, adherence was called for to preserve faithfulness to God's word as transmitted in the translational source; on the other hand, Greek as a literary language offered a reliable and prestigious model to follow. Unfortunately, but unsurprisingly, the Greek source text of the Gothic Bible is lost (Falluomini 2008). Streitberg (2000[1908]) attempted an artificial reconstruction of it, based on the Greek manuscripts belonging to the so-called "Byzantine class". It is also acknowledged that Wulfila must have had access to a Latin source, for influences from Latin are particularly evident in some portions of the Gothic text (e.g. in the Gospel of Luke, Friedrichsen 1939: 194–196, 242).

Because of the translational nature of the Gothic Bible, the question of whether this text constitutes a reliable source for Gothic morphosyntax has long been debated (cf. Keidan 2005: 49–50). The generally accepted view considers the Gothic Bible to be a faithful word-by-word, interlinear translation of the Greek source text (Yoshioka 1986: 219; Metlen 1993: 548; Ratkus 2020: 6 with references). An older less rigid interpretation of the correspondences between Greek text and Gothic translation instead dared to ascribe them to common genealogical origin, as Curme (1911) and Rice (1932) do. It seems, however, undisputable that the Gothic Bible closely adheres to its source text. Such generally conceded common ground, however, does not prevent scholars from disputing the interpretation of

certain phenomena (see most recently Ratkus 2020 *contra* Kleyner 2019 on the value of the Gothic synthetic passive and cf. on this issue below).

To further complicate the matter, as with every dead language, Gothic, too, suffers from gaps in coverage, due to accidents of manuscript transmission. Hence, we find ourselves faced with major chasms in our understanding that must somehow be bridged (Joseph and Janda 2003: 19). Consequently, any apparent deficit in the corpus does not straightforwardly correspond to an actual lack in the grammar or in the lexicon of Gothic, as one has to reckon with extralinguistic factors, which often play a perceptible role in the shaping of a text (Zanchi 2019: 33–35).

Bearing these caveats in mind, we carried out our investigation of valency patterns in Gothic. At the same time, we constantly kept an eye on the Greek source text which sometimes provided insights, as well as on the two modern Germanic languages contained in the ValPaL database, German and Icelandic.

2.2 The ValPaL method and its applicability to a corpus language

The ValPaL project carried out a crosslinguistic investigation of argument structure properties of verbs belonging to different valency classes (Malchukov and Comrie 2015: 27–130 for full documentation). Before this project, argument structure properties of different verb classes were already being studied within different theoretical frameworks, such as Case Grammar, Role and Reference Grammar, and Lexical Decomposition Grammar (e.g. Apresjan 1969; Lehmann 1991; Dixon 1991, 2005; Levin 1993; Jones 1994; Levin and Rappaport Hovav 2005).

In the ValPaL project, valency classes are understood as groups of verbs with similar morphosyntactic properties, i.e. coding patterns and argument structure alternations. Hence, the classification of verbs into valency classes is morphosyntactically based but is nevertheless correlated with semantic verb classes (Levin 1993). The ValPaL verb selection singled out 80 core verb meanings included in the online database, such as SEE, GO, and KILL, and subsequently identified the semantically most fitting basic verb within the 36 languages included in the project. Additional verb meanings were included for specific languages, up to the total of 162 verb meanings represented in the database today. In the project, which focuses on modern languages only, the basicness of verbal lemmas to express the selected meanings was evaluated by experts (frequently native speakers) of each project language. The coding frames representing flagging, indexing, and word order were stored in a database for each verb meaning as instantiated by each one of the selected languages, together with the coding frames for each argument

structure, i.e. the coded and uncoded alternations that the verbs allow for. Coded alternations are those that are marked on the verb by an affix, a clitic, or an auxiliary, whereas uncoded alternations are not marked in these ways.

Thus, for example, the meaning LIVE (in the sense 'live, dwell') is expressed by the Italian basic verb *abitare*, assigned the coding frame "1 > V.subj[1] (> 2)", "S > V.subj.[S]" > *in* L" (1), in which the > symbol indicates word order, the square brackets show indexing, and the S and L indicate the Subject and the Locative argument types respectively.[2] This verb allows for the uncoded transitive alternation (2), as well as for the coded impersonal reflexive (3), causative, and (marginally) passive alternations (examples and glosses are adapted from Cennamo and Fabrizio 2013). Examples (1)–(3) show the basic usage of this verb and one instance of the uncoded and coded alternations it attests to.[3]

(1) S > V.subj.[S]" > *in* L
Mario ***abita*** *in* *campagna*
M. live.PRS.3SG in countryside
'Mario lives in the countryside.'

(2) Transitive alternation (uncoded)
La *famiglia* ***abita*** *una* *villa* *abbandonata*
DET.F family(F) live.PRS.3SG INDF.F country_house(F) abandoned.F
'The family lives in an abandoned country house.'

(3) Impersonal reflexive (coded)[4]
Lì ***si*** ***abita*** *ancora* *in* *vecchi* *casali*
there REFL live.PRS.3SG still in old.PL farmhouse.PL
'There, one still lives/we/you/they (INDF) live in old farmhouses.'

2 Besides S and L roles, A, P, I, and X argument types are also recorded in the ValPaL, which stand for Agent and Patient of transitive verbs such as *break*, Instrument of verbs such as *cut*, and X for all other roles. We do not use the ValPaL coding frame throughout the paper, but we do use small caps to indicate ValPaL core verb meanings. Verb frequencies are put in round brackets: e.g. SEND *sandjan* (32x).

3 Glosses follow the Leipzig Glossing Rules (https://www.eva.mpg.de/lingua/resources/glossing-rules.php) with some adjustments: on verbs, mood is specified only if not indicative and voice is indicated only if not active. Likewise, on nouns, number is omitted if singular and gender is only included when needed to show agreement. The following language-specific glosses are added to the Leipzig Glossing Rules repertoire: OPT = optative, PRET = preterite.

4 This terminology is taken from Cennammo and Fabrizio (2013) and thoroughly explained in the discussion of example (3) below.

In (1), the locative second argument is expressed by a prepositional phrase headed by the preposition *in* 'in, into'. In (2), the locative argument is promoted from peripheral to core argument position: this is an uncoded applicative alternation in Cennamo's (2015) terms. Example (3) shows an impersonal alternation of the verb *abitare* 'live', in which the S argument is suppressed. The alternation here is coded with the reflexive marker *si* (on this alternation, cf. Cennamo and Fabrizio 2013 with references therein at the following link: http://valpal.info/languages/italian/alternations/3133700559).

Applying the ValPaL method to a corpus language such as Gothic was no trivial task. As we could not rely on native speakers' judgements to assess the basicness of competing verbs for any given core meaning, we had to resort to other morphological, frequency, and historical criteria (on this issue, see also the contributions by Inglese and by Roma in this volume). We regarded as more basic verbal lemmas showing the simplest morphological structure (e.g. GO *gaggan* with respect to all its preverbed variants, e.g. *at-gaggan* 'approach', *af-gaggan* 'go away', *afar-gaggan* 'follow', etc.). If a certain verb is underived but sparingly attested, we considered as basic the derived verb, provided that its number of attestations was significantly higher (e.g LIKE *leikan* 1x vs. *ga-leikan* 20x). If two competing verbal lemmas have a comparable degree of morphological complexity, we included the more frequent one in our study: e.g. EAT *matjan* (90x) vs. *itan* (4x). In the case of EAT *matjan* vs. *itan*, however, we also monitored the behavior of *itan*, as its reflexes represent the basic verb for eating in many modern Germanic languages (cf. e.g. Engl. *eat* and Germ. *essen*) and it allows for interesting comparisons with its preverbed variants (cf. Section 4.1). In cases in which none of these criteria applied, we selected more than one verb (e.g. BE HUNGRY *gredon* 1x and *huggrjan* 2x). In cases of imperfective verbs with a perfective counterpart prefixed with *ga-*, we usually took into account both aspectual variants, especially if neither lemma is very frequent (e.g. DRESS *wasjan* 7x and *ga-wasjan* 15x). To compensate some gaps in coverage (BE A HUNTER, BLINK, BOIL, COUGH, FEEL COLD, HUG, PLAY, SMELL), still in accordance with the ValPaL methodology for data collection, other verbs were added with comparable meaning and/or lexical aspect, especially if they allowed for the inclusion of new patterns.

For these reasons, the verb meanings included in this investigation do not entirely overlap with the canonical verb meanings of the ValPaL (Malchukov and Comrie 2015: 28–29). The overall selection included 87 Gothic verbs, displayed in Table 1, which manifested in 3,447 occurrences, extracted by crosschecking the

digitalized text of the Gothic Gospels available at the PROIEL project and Wulfila project websites.[5]

Table 1: The ValPaL verb meanings in the Gothic corpus.

Verb meaning	Gothic basic lemma	Frequency	In ValPaL
ASK FOR	*bidjan*	130	yes
BE DRY	*ga-staurknan*	1	yes
BE HUNGRY (1)	*gredon*	1	yes
BE HUNGRY (2)	*huggrjan*	2	yes
BE SAD	*gaurjan (gaurs wairþan)*	4	yes
BEAT (1)	*slahan*	10	yes
BEAT (2)	*bliggwan*	5	yes
BREAK (1)	*ga-brikan*	8	yes
BREAK (2)	*us-bruk-nan*	3	yes
BRING	*briggan*	34	yes
BUILD	*timrjan*	7	yes
BURN (1)	*tundnan*	1	yes
BURN (2)	*tandjan*	2	yes
CARRY	*bairan*	44	yes
CLIMB	*steigan*	1	yes
COVER/HIDE (1)	*huljan*	2	yes
COVER/HIDE (1)	*ga-huljan*	7	yes
CRY	*gretan / greitan*	28	no
CUT	*maitan*	1	yes
DIE (1)	*ga-dauþnan*	28	yes
DIE (2)	*ga-swiltan*	42	yes
DIG	*graban*	2	yes
DRESS (1)	*wasjan*	7	yes
DRESS (2)	*ga-wasjan*	15	yes
DRINK (1)	*drigkan*	42	no
DRINK (2)	*dragkjan*	5	no

5 PROIEL Project: http://foni.uio.no:3000/sources/11 (accessed 28 November 2020); Wulfila Project: http://www.wulfila.be (accessed 28 November 2020).

Table 1 (continued)

Verb meaning	Gothic basic lemma	Frequency	In ValPaL
EAT (1)	*matjan*	90	yes
EAT (1)	*itan*	4	yes
FALL (1)	*ga-driusan*	24	no
FALL (1)	*ga-drausjan*	4	no
FEAR	*ogan*	46	yes
FEEL PAIN	*winnan*	48	yes
FILL (1)	*fullnan*	3	yes
FILL (2)	*fulljan*	4	yes
FOLLOW	*laistjan*	48	yes
FRIGHTEN	*ogjan*	1	yes
GIVE	*giban*	129	yes
GO	*gaggan*	201	yes
GRIND	*malan*	1	yes
HEAR	*hausjan*	106	yes
HELP	*hilpan*	4	yes
HIDE	*ga-filhan*	5	yes
JUMP	*laikan*	3	yes
KILL (1)	*dauþjan*	1	yes
KILL (2)	*ga-dauþjan*	1	yes
KILL (3)	*af-dauþjan*	5	yes
KNOW (1)	*kunnan*	90	yes
KNOW (2)	*kannjan*	7	yes
LAUGH	*hlahjan*	1	yes
LEAVE	*bi-leiþan*	26	yes
LIGHT	*liuhtjan*	4	no
LIGHTEN (1)	*lauhatjan*	1	yes
LIGHTEN (2)	*ga-liuhtjan*	2	yes
LIKE (1)	*leikan*	2	yes
LIKE (2)	*ga-leikan*	20	yes
LIVE (1)	*liban*	56	yes
LIVE (2)	*bauan*	14	yes
LOAD	*af-hlaþan*	1	yes

Table 1 (continued)

Verb meaning	Gothic basic lemma	Frequency	In ValPaL
LOOK AT	*in-saihvan*	12	yes
MEET	*ga-motjan*	11	yes
NAME	*namnjan*	11	yes
POUR	*giutan*	6	yes
PUT (1)	*lagjan*	28	yes
PUT (2)	*ga-lagjan*	27	yes
PUT (3) < MAKE SIT	*satjan*	9	yes
RAIN	*rignjan*	2	yes
ROLL (1)	*af-walwjan*	2	yes
ROLL (2)	*walwison*	1	yes
RUN	*rinnan*	14	yes
SAY	*qiþan*	1129	yes
SCREAM	*hropjan*	29	yes
SEARCH FOR	*sokjan*	73	yes
SEE	*saihvan*	102	yes
SEND	*sandjan*	32	yes
SHAVE	*skaban* (only PASS and PTCP.PRF.PASS)	2	yes
SHOUT AT (1)	*wopjan*	17	yes
SHOUT AT (1)	*sakan*	4	yes
SHOW	*at-augjan*	22	yes
SING	*siggwan*	5	yes
SINK (1)	*sigqan*	2	yes
SINK (2)	*sigqjan*	1	yes
SIT	*sitan*	33	yes
SIT DOWN	*ga-sitan*	11	yes
STEAL	*hlifan*	6	yes
TAKE	*niman*	195	yes
TALK	*rodjan*	135	yes
TEACH, LEARN	*laisjan (sik)*	61	yes
TEAR	*tahjan*	6	yes
TELL	*us-spillon*	2	yes

Table 1 (continued)

Verb meaning	Gothic basic lemma	Frequency	In ValPaL
THINK	*hugjan*	13	yes
THROW	*wairpan*	12	yes
TIE	*ga-bindan*	18	yes
TOUCH	*at-tekan*	21	yes
WASH	*þwahan*	5	yes
WIPE	*bi-swairban*	4	yes
	TOTAL	3,447	

The valency patterns and coded and uncoded alternations allowed for by these verbs are described in Sections 3–5. The full lists of verbs included in each valency class and featuring each alternation are shown in Tables 3–5 in Appendix A.1, together with a number of additional examples in Appendix A.2. The full database containing the data for the analysis is available on-line at https://su-lab.unipv.it/tasf/.

3 Gothic basic sentence structure and valency classes

3.1 Basic sentence structure in Gothic

In this section, we briefly introduce the basics of Gothic sentence structure, marking of grammatical relations, to the extent that it is useful for the purposes of the paper, as well as the background of the Gothic causal : noncausal alternation (discussed in Section 5).

Gothic nouns have four cases: nominative, accusative, genitive, and dative. Cases can serve a variety of syntactic and semantic functions, the latter also being encoded by diverse PPs (Kuryłowicz 1964: 31–32, 179–206; Hewson 2006). As in other Indo-European languages, the nominative occurs in S/A arguments in prototypical transitive constructions in which the participants, traditionally called 'subjects' in IE studies, trigger agreement with the verb. The accusative case is taken by P arguments in prototypical transitive constructions, in which it usually plays the role of patient. It can additionally carry out other functions unrelated to grammatical relations, such as allative and perlative roles (Thomason

2006: 82–83; Miller 2019: 109). The genitive has both adnominal and adverbial functions. Semantically, it is primarily used to convey partitive meanings, but it can also indicate spatial functions (Thomason 2006: 83). Syntactically, the dative is used to encode indirect objects, i.e. third arguments of ditransitives. Semantically, it encompasses a variety of additional roles besides recipients (Thomason 2006: 84–85; Miller 2019: 133).

As part of Germanic, Gothic features two main conjugational systems: strong, with seven classes, and weak, with four classes (Miller 2019: 178–205). Apart from strong verbs, in which present and preterite stems are formed by means of ablaut alternation, two classes of weak verbs, i.e. those forming preterite stems by means of a dental suffix, are focused on in this paper: the weak 1 and the weak 4 classes. The weak 1 class comprises the so-called *ja*-verbs, i.e. (chiefly deverbal) verbs derived through a causative *ja*-suffix (< PIE *é-i̯e/o-*; on other types of formation continued in the same verbal class, see Harðarson 2017: 935–936). Deadjectival *ja*-verbs also exist with factitive meaning, i.e. 'cause to have the quality described by the adjectival base', e.g. *fulljan* 'to fill' (⇐ *fulls* 'full') (Miller 2019: 193, 206). The weak 4 class, which is only preserved as distinct in Gothic, comprises verbs derived by means of a nasal suffix, hence the name *na*-verbs. These verbs are chiefly inchoative in meaning (also labelled anticausative, fientive, or nonagentive). Verbs of this class are either denominal and deadjectival (e.g. *fullnan* 'to get filled'), or deverbal (e.g. *tundnan* 'to burn', cf. *tandjan* 'to kindle') (see below in this section; Miller 2019: 193, 206 with references therein; cf. also West 1980; Suzuki 1989; Schwerdt 2001; Ferraresi 2005: 111–117; Ottósson 2008, 2013; Katz 2016; Rousseau 2016: 237–243).

The PIE middle voice is only reflected to a significant extent in the Gothic synthetic passive, which is restricted to the present indicative and optative (on the Gothic periphrastic passives, see below in this section). In the other old Germanic languages, the middle voice of PIE heritage was lost completely as a morphological category, and remnants of it are no more than linguistic fossils: e.g. OIcel. *heiti* (IND.PRS.1SG of *heita* 'to be called'), OE *hātte* (IND.PRS.1/3SG of *hātan* 'to be called') (cf. Cennamo, Eythórsson and Barðdal 2015: 678 on Old Norse). In past tenses, Gothic also developed an analytic passive (for accounts of its development, cf. Lühr 2008: 327; Drinka 2011), constructed with the auxiliaries *wisan* 'be' and *wairþan* 'become'. The analytic passive eventually came to be used in the present tense, thus competing with the synthetic one (Miller 2019: 519; see Section 5.1). Both Gothic passives have traditionally been interpreted as true passives: they allegedly do not allow "middle" noncausal, intransitive, and reflexive

readings (cf. Section 5 for counterexamples).[6] Furthermore, the Gothic reflexive marker *sik* 'self' is said to not yet have fully developed as a strategy to encode the noncausal domain, which is definitely a later development in Germanic. However, Gothic was "in the process of replacing the Indo-European mediopassive forms with nonargument reflexive formations" (Ferraresi 2005: 109–123) and attests to constructions with the reflexive *sik* employed as a noncausal element in the causal : noncausal alternation, to indicate inchoative and spontaneous events (Miller 2019: 393–395 with examples, in which the reflexive construction with *sik* is used to translate Greek passive forms; see also Cennamo, Eythórsson and Barðdal 2015: 678–679).

Hence, Gothic is said to mostly resort to the opposition between *ja*-causatives and *na*-verbs to encode the causal : noncausal alternation (e.g. *fulljan* 'to fill' : *fullnan* 'to get filled'). Given that the causal and the noncausal members of the alternation are equally marked morphologically, Gothic can be said to instantiate the equipollent strategy in terms of basic valency orientation (Nichols, Peterson and Barnes 2004). However, from a diachronic standpoint, this picture of Gothic as an equipollent language could shift slightly, depending on how the functions and dating of *na*-verbs are accounted for with respect to those of *ja*-causatives. According to some scholars (e.g. West 1980; Suzuki 1989; Schwerdt 2001; Ringe 2006; Lazzeroni 2009; Cennamo, Eythórsson and Barðdal 2015), *na*-verbs are inchoatives, indicating change of state events, and represent a more ancient category than *ja*-verbs, in that *na*-verbs derive inchoatives not only from transitives but also from adjectives, participles, and intransitives.

An alternative argument was made by Ottósson (2013). He suggested that *na*-verbs fundamentally indicate noncausal, spontaneous events (and not inchoatives), and that they represent a later PGmc development than *ja*-causatives, as the latter do not form causatives exclusively from *na*-verbs, but also from other verb classes, such as inactive verbs that are semantically noncausal (e.g. *ganisan* 'be healed, be saved' vs. *ganas-jan* 'save (someone)'). Thus, Ottósson argues, the development of *na*-verbs should be viewed in a wider context in which the development of the reflexive middles in other Germanic sub-branches also finds

6 As an anonymous reviewer suggested, we opted to use the terms 'causal' vs. 'noncausal' for the semantically related verb pairs of the type FRIGHTEN : FEAR, AMUSE : LAUGH, DROP : FALL, and then to use the terms 'labile', 'anticausative', 'causative' and so on for particular morphosyntactic coding relationships (see, e.g. Haspelmath et al. 2014). With verbs used in the noncausal domain, the P-argument of the corresponding transitive verb of the causal domain occurs as the sole argument and triggers agreement.

a place: specifically, a wider tendency to systematize the relationship between a transitive verb and its intransitive counterpart.[7]

3.2 Gothic valency patterns

In this section, we offer an overview of Gothic valency patterns. The patterns are described in order of increasing valency slots, starting with the so-called impersonal verbs in Gothic and extending to three-place verbs. The verbs were grouped in valency classes based on their most frequent attested patterns of occurrence; in order to classify argument structure constructions, coding properties, specifically, case marking and agreement, and passivization were taken into account.

3.2.1 The so-called impersonal verbs

This class of verbs comprises weather verbs and verbs featuring an accusative experiencer (cf. Table 3 in Appendix A.1). Weather verbs are crosslinguistically zero-valent. However, the Gothic lemma for RAIN, *rignjan*, may feature a dative subject construction:

(4) *rignida* ***swibla*** *jah* ***funin*** *us* *himina*
rain.PRET.3SG brimstone.DAT and fire.DAT from sky.DAT
'(But the same day that Lot went out of Sodom) it rained brimstone and fire from heaven, (and destroyed them all).' (Lk 17:29)[8]

The datives *swibla* 'brimstone' and *funin* 'fire' refer to the substances that rain from heaven. They are better understood as instruments that are made to fall by an omitted agent, i.e, God (see also Rousseau 2012: 192; Miller 2019: 139) for the following reasons. (i) It is usual for Gothic to feature dative instruments with physical transfer verbs and verbs of caused motion, as is *rignjan* in this context.

7 On the antiquity of *ja*-verbs as a causative strategy, note that relics of *ja*-formations can be found in Old English, although Modern English predominantly exhibits lability (van Gelderen 2011; García García 2020).

8 To the Gothic examples, we added the Greek source text and, whenever relevant, the corresponding Latin passages.

(ii) The comparison with the sole other occurrence of *rignjan* in the Gothic Bible (5) also points to a causal reading.[9]

(5)	*unte*	*sunnon*	*seina*	***urranneiþ***	*ana*	*ubilans*
	for	sun.ACC	POSS.ACC	make_rise.PRS.3SG	on	evil.ACC.PL
	jah	*godans*	*jah*	***rigneiþ***	*ana*	*garaihtans*
	and	good.ACC.PL	and	rain.PRS.3SG	on	just.ACC.PL
	jah		*ana*	*inwindans*		
	and		on	unjust.ACC.PL		

'(For he made his sun to rise on the evil and on the good), and made it rain on the just and on the unjust.' (Mt 5:45)

As the passage in (5) includes the verb *ur-rannjan* 'make rise', it undoubtedly indicates that God initiates the described natural phenomena (see Miller 2019: 111, who speaks of a "causative feature"). Thus, in both passages, *rignjan* has a causal usage.[10] (iii) The corresponding Greek verb *brékhō* means 'wet, make wet, make it rain (ACT)' and 'get wet (MID)'. It is used with an explicit subject, God, in the Greek New Testament (e.g. in *Ex*. 9:23, 16:24) and does not allow for impersonal usage. Other Gothic weather verbs, such as LIGHTEN *lauhatjan*, also take a subject, which however does not refer to any supernatural entity but has kindred semantics and sometimes is cognate with the weather verb.

Cross-linguistically, verbs with experiencer participants are often impersonal and experiencers feature a different encoding from the canonical one for S/A arguments, i.e. the nominative case (Malchukov and Siewierska 2011; on accusative highest-ranking arguments, see also Fedriani 2014: 124–126; Wiemer and Bjarnadóttir 2014: 303– 305). Germanic languages constitute no exception in this respect: experiencers often receive a marker different from the nominative case, especially with verbs of liking and of negative experience (Viti 2017; on Gothic verbs for LIKE, cf. Section 3.2.3 below). Our sample includes two such verbs, traditionally labelled 'impersonal' in Gothic grammars, both conveying the meaning BE HUNGRY *huggrjan* and *gredon*, which are constructed impersonally and take the accusative of experiencer (see Appendix A.2.1 for examples).

9 For a discussion of a similar construction in Baltic and Slavic languages, see Holvoet and Nau (2014: 318, 334) and Lavine (2016).

10 This verb is a denominative like other members of the weak 1 class of verbs, e.g. *namnjan* 'name', *domjan* 'judge' and has no inherent causative meaning. The origin of these verbs is different from that of *ja*-causatives. In fact, this verbal class subsumes four different types of formation (see in detail Harðarson 2017: 935–936).

3.2.2 One-place verbs

The nominative subject (NomSubj) construction is canonical for Gothic one-place verbs (see Table 3 in Appendix A.1). From our sample, the verbs that feature this construction can be grouped into two categories: (i) activity verbs and (ii) verbs with noncausal semantics and also, often, derivational anticausative morphology (cf. Section 5.2). We include here an example with the activity verb LAUGH *hlahjan*.

(6)	*wai*	*izwis,*	*jus*	***hlahjandans***	*nu,*	*unte*
	PTC	2PL.DAT	2PL.NOM	laugh.PTCP.PRS.NOM.PL	NOW	because
	gaunon	*jah*	*gretan*	*duginnid*		
	lament.INF	and	cry.INF	begin.PRS.2PL		

'Woe to those laughing now, for you will mourn and weep.' (Lk 6:25)

In the passage in (6), the verb occurs in the present participle and agrees with the nominative second person plural pronoun *jus*.

In addition, the bodily sensation verb FEEL PAIN *winnan* (48x) can be regarded as a one-place verb. It is usually constructed with an accusative object, which is mostly represented by a neuter (plural) adjective with an adverbial value and only rarely (3x) by another noun with kindred meaning (see examples in Appendix A.2.1). Hence, given the limited type of second arguments *winnan* can take, there are reasons to regard it as fundamentally intransitive, allowing for the insertion of an object with kindred semantics (cf. Section 4.5).

3.2.3 Two-place verbs

As is canonical in other IE languages, two-place verbs mostly instantiate the nominative-accusative (NomAcc) construction. In our sample, Gothic verbs occurring in NomAcc are the following (see Table 3 in Appendix A.1):

(i) Prototypically transitive verbs, i.e. verbs that denote events in which a volitional agent causes a change of state or position upon a non-volitional patient (on transitivity as a scalar notion, cf. the seminal paper by Hopper and Thompson 1980; for a more recent account on the inherent meaning of verbal constructions, cf. Croft 2012). In this group, consumption verbs of eating and drinking encode the partitive alternation (Section 4.1).

(ii) Derivationally causative verbs with *ja*-suffix (Section 5.2).

(iii) Transitive verbs that express non-prototypically transitive events, i.e. events in which there is no change of state and/or the affectedness of the patient-

like participant and/or the volitionality of the agent-like participant is lower or absent.

(iv) Experiential verbs of bodily sensations, cognition, and emotion, which take a nominative experiencer and an accusative stimulus.

Verbs of groups (iii) and (iv) denote less prototypically transitive events than group (i) and (ii) verbs. This is shown by the fact that the former ones feature high degrees of construal variability. As for experiential verbs, we have already seen in Section 3.2.1 a four-member group of verbs, traditionally labeled 'impersonal', which take an accusative experiencer. Below in this section we explore the behavior of LIKE *leikan* and *ga-leikan*, which instantiate the DatNom construction. In Section 4, we further discuss some verbs in groups (iii) and (iv) that instantiate other alternations.

Among the ValPaL verb meanings, the only verbs featuring the NomGen construction are FILL *fullnan* and HELP *hilpan* (see Table 3 in Appendix A.1 and examples in Appendix A.2.1). Gothic grammars (e.g. Wright 1910: 184; Miller 2019: 132) cite additional verbs instantiating the NomGen construction: *brūk-jan* 'use', *fraihnan* 'ask', *gaírn-jan* 'long for', *ga-þarban* 'abstain from', *luston* 'desire', and *niutan* 'enjoy'. These are verbs whose second arguments do not undergo a change of state and feature a low degree of affectedness, either because they are "verbs of intent" (on which, cf. e.g. Kiparsky 1998) or because their second argument is positively and not negatively affected by the described event (on the higher degree of affectedness undergone by maleficiary-like participants with respect to beneficiary-like ones, see Luraghi and Zanchi 2018). Given that in Gothic, in the same way as in other ancient IE languages, the genitive case and/or genitive PPs also have partitive functions (Miller 2019: 113 with references), the genitive case with these non-prototypically transitive verbs can be motivated by a low or reduced degree of affectedness of the second participant. A small group of ditransitive verbs, discussed in Section 3.2.4, also take genitive third participants.

Verbs taking a dative second participant are extensively described e.g. in Köhler (1864: 12–17, 20–35), Piper (1874: 1–22, 26–29), Balg (1891: 243–256), Winkler (1896: 4–18, 30–41; 97–107), and Delbrück (1907: 190–191). Among the ValPaL verb meanings, verbs of "social interaction" (Luraghi 2020a) and communication verbs instantiate the NomDat construction, crucially, with animate second arguments (cf. also *ana-biudan* 'command', *andbahtjan* 'serve', *and-hafjan* 'answer', *ga-motjan* 'meet', *kukjan* 'kiss', and *uf-hausjan* 'heed, obey', cited in Wright 1910: 184). In addition, the verb TOUCH *at-tekan* features the NomDat construction and typically describes situations in which Jesus heals the infirm by touching, i.e. by laying his hands upon the suffering people, who are conceived of as recipients/

beneficiaries. Thus, the dative second argument refers to humans with this verb as well (on the dative with *at-tekan*, see also Bernhardt 1888: 76–77).

The link between PIE dative and animacy is well-documented (Luraghi 2003: 39–40): the prepositionless dative consistently tends to encode typically animate participants in IE languages, such as recipients, beneficiaries, maleficiaries, and addressees (this is the so-called "destinative dative" in Hettrich's 2007 terms). Thus, the dative case is frequently employed in those textual contexts in which verbs involve a second animate participant. Certainly, the aforementioned ValPaL verbs can be accounted for in this way.

The verb LEAVE *bi-leiþan* (26x) also tends to select the NomDat construction, as in the following passage (7):

(7) *jah* *bileiþiþ* *þaim* *lambam* *jah* *þliuhiþ*
and leave.PRS.3SG DEM.DAT.PL sheep.DAT.PL and flee.PRS.3SG
'(The hired servant, being not the shepherd, whose own the sheep are not, sees the wolf coming) and leaves [lit. pass around] the sheep and flees.' (Jn 10:12)

Miller (2019: 157) lists *bi-leiþan* among verbs that feature "arbitrary case variability" between the dative and the accusative. This compound verb contains the preverb *bi-* 'around', which, as a preposition, can take the accusative and the dative case (Miller 2019: 240), and a motion verb, specifically PGmc **līþan* 'go (by), pass' < PIE **leit-* 'go (forth/down)' (cf. *af-leiþan* 'go away' and *inn-ga-leiþan* 'go to'). Thus, the compound *bi-leiþan* literally means 'pass around', lexicalizes as 'leave' (similarly to the Eng. particle verb *pass over* and Germ. *über-gehen*), and as such becomes a transitive verb taking a dative/accusative second argument, owing to the applicative function of the preverb *bi-* (Section 4.6). Possibly, the making of the compound verb was still ongoing in the period of translation of the Gospels, which could explain constructional variability.

The DatNom construction is employed with two experiential verbs, LIKE *leikan* (8) and its perfective counterpart *ga-leikan* (Mk 6:22). With these verbs, the animate experiencer is expressed in the dative case, whereas the animate or inanimate stimulus gets the nominative case and syntactically functions as a subject triggering verb agreement (see the relative clause in example [8]).

(8) *unte* *ik* *þatei* *leikaiþ* *imma* *tauja*
for 1SG.NOM REL.NOM.N please.PRS.3SG 3SG.DAT do.PRS.1SG
sinteino
always
'. . . for I always do what pleases him.' (Jn 8:29)

Other than the example in (8), the sole other occurrence of the verb (9) includes an additional accusative indicating an area/topic participant (relational accusative), regarded as an object in Ferraresi (2005: 64–66) and Miller (2019: 164). However, this accusative is an indefinite neuter adjective and is best analyzed as an adverbial dependent and not as a fully-fledged accusative argument taken by *leikan* (on the status of neuter singular and plural objects in Ancient Greek, see Luraghi and Zanchi 2018: 31). This construction is a word-by-word translation of the corresponding Greek passage, in which a neuter plural accusative also occurs (*pánta*).

(9) *swaswe* *ik* *allaim* *all* *leika*
as 1SG.NOM INDF.DAT.PL INDF.ACC please.PRS.1SG
'. . . as I please all men in all'. (1Cor 10:33) [Gk. *kathôs kagô* ***pánta*** *pâsin aréskō*]

The last type of two-place verbs takes argumental PPs: these comprise motion verbs taking goal or path participants and location and posture verbs taking a goal or locative participant (see Table 3 in Appendix A.1). Here, we exemplify this usage with LIVE *bauan,* as it interestingly instantiates an uncoded applicative alternation, discussed in Section 4.6:

(10) *wait* *auk* *þatei* *ni* *bauiþ* *in* *mis* . . . *þiuþ*
know.PRS.1SG PTC that NEG live.PRS.3SG in 1SG.DAT good.NOM
'For I know that the good does not live in me.' (Rom 7:18)
[Gk. *oîda gàr hóti ouk oikeî en emoí . . . agathón*; Lat. *scio enim quia non habitat in me . . . bonum*]

A perception verb from our sample, LOOK AT *in-saihvan,* is also constructed with a PP *du*+DAT stimulus (and another perception verb, *at-saihvan* 'look at', although not in our sample, also behaves this way; see example (55) in Appendix A.2.1). Several factors might yield this effect: first, verbs of seeing/looking at are similar to motion verbs, in that eyes and sight also can be directed toward or away from something (Zanchi 2019: 129, 253). In this sense, stimuli can be conceptualized as goals or recipients toward which sight is turned. Second, the degree of affectedness of the stimulus participant is very low: no change of state or position is undergone by the stimuli, and the mere act of directing sight toward a stimulus does not even require that it actually be seen (Levin 1995: 187).

Finally, the verb THINK *hugjan* can take subordinate clauses (NomObj construction), retaining its basic meaning (Phil 2:2; Mt 5:17). Otherwise, it takes different PPs, with which it acquires different semantics: with *afar*+DAT it means 'trust in' (Mk 10:24), whereas with *waila*+DAT 'agree with' (Mt 5:25).

3.2.4 Three-place verbs

According to Malchukov, Haspelmath and Comrie (2010: 2), ditransitive constructions are constructions "consisting of a (ditransitive) verb, an agent argument (A), a recipient-like argument (R), and a theme argument (T)." Gothic ditransitive verbs take the accusative case and additional dative, genitive, or accusative arguments (cf. Ferraresi 2005: 63–65; Rousseau 2016: 262–267, 276–279; Miller 2019: 161–163).

The main types of double object verbs in Gothic take the NomAccDat and the NomDatAcc constructions. These are regarded as representing two different verb classes by Ferraresi (2005), allegedly due to the different respective order of the second and third participants. However, as Gothic word order is too free to establish clear functional differences between the two, we will analyze them together (cf. Miller 2019: 161–163).

The prototypically ditransitive physical transfer verb GIVE *giban* instantiates the NomAccDat construction in Gothic, as is typical of other ancient IE languages, which invariably show indirect alignment (in Malchukov, Haspelmath and Comrie's 2010 terms).

(11) *gibai* *izai* *afstassais* *bokos*
give.OPT.PRS.3SG 3SG.DAT.F divorce.GEN letter.ACC.PL
'(It has been said: whosoever shall put away his wife,) let him give her a writing of divorcement.' (Mt 5:31)

Other verbs of physical transfer take the NomAccDat construction with human destinations, which are construed as recipients or beneficiaries. The verb THROW *wairpan* usually takes a PP encoding the goal but can be also used as a ditransitive with a dative recipient. Other physical transfer verbs can be also seen as ditransitives, in that they are always used with third prepositional arguments expressing goal or recipient-like participants (see Table 3 in Appendix A.1).

By a metaphorical extension according to which a transfer of knowledge can be understood as a physical transfer, verbs of communication and verbs of teaching can take the AccDat construction as well. The knowledge transfer verb SEARCH FOR *sokjan* behaves similarly; it means 'ask someone (R) for something (T)' if used with a T-accusative and a R-PP expressed by *du*+DAT. Note that in (12) below, the preverbed verb *miþ-sokjan* also occurs, which takes a R-dative (and implies an omitted indefinite accusative T-participant):

(12) *jah* *dugunnun* *miþsokjan* *imma* *sokjandans*
and begin.PRET.3PL question.INF 3SG.DAT ask_for.PTCP.PRS.NOM.PL
du *imma* *taikn* *us* *himina*
to 3SG.DAT sign.ACC from heaven.DAT
'(And the Pharisees came forth,) and began to question with him, seeking of him a sign from heaven.' (Mk 8:11)

Although the most typical Gothic verb of teaching, *laisjan*, takes the AccAcc construction in Gothic, (on which see below in this Section), the NomAccDat pattern seems to be well-established with teaching verbs: this pattern is illustrated, for example, by *and-bindan*, which means both 'unfasten, untie' and 'expound, explain'. Only in the latter sense, however, does it instantiate the NomAccDat construction (Mk 4:34).

The ditransitive verbs discussed thus far all show indirect alignment, where the T-participant gets the accusative encoding of patients of transitive verbs, canonical for both Gothic and IE in general. Ditransitives featuring the NomAccGen construction instantiate secundative (Malchukov, Haspelmath and Comrie 2010) alignment, in which the R-participant is encoded in the accusative. From our sample, two verbs feature the NomAccGen construction: FILL *fulljan* and ASK FOR *bidjan* (cf. also Ferraresi 2005: 75; Miller 2019: 170). The former is a physical transfer verb, constructed with the R-participant in the accusative case and the T-participant in the genitive case:

(13) *guþ* *lubainais* *fulljai* *izwis* *allaizos*
God.NOM hope.GEN fill.PRS.OPT.3SG 2PL.ACC INDF.GEN
fahedais
joy.GEN
'The God of hope fill you with all joy.' (Rom 15:13)
[Gk. *ho dè theòs tês elpídos plērṓsai humâs pásēs kharâs*]

The Gothic genitive also displays partitive properties, so the T-participant in genitive with *fulljan* (and with its anticausative counterpart *fullnan*) can be explained as a partitive genitive. It is highly improbable that this construction is a calque from the Greek source text. In fact, although the same construction is instantiated in the Greek verb *plerόō*, it is also paralleled in all three branches of Germanic, i.e. besides Gothic, West and North Germanic (OHG *fullen*, OIcel. *fylla*). The authenticity of this construction in Gothic is moreover confirmed by the occurrence of *ufar-fulljan* (+GEN) in 2Cor 7:4, which corresponds to Greek *huper-perisséuomai* (+DAT). Had the Gothic construction been calqued from Greek, one would only expect to see the dative case in 2Cor 7:4.

However, this construction is not retained in the subsequent modern Germanic languages: German *füllen* and Icelandic *fylla* take an instrumental dative or PP, respectively.

The latter verb featuring the NomAccGen construction, ASK FOR *bidjan* (e.g. Jn 14:14), is a verb of knowledge transfer and of intent (in Kiparsky's 1998 terms). Other verbs with kindred semantics behave similarly: *fraihnan* 'ask' and *beidan* 'wait' (neither included in the ValPaL verb meanings). Thus, the NomAccGen pattern with verbs of cognitive transfer and of intent is not rare, even within the relatively small Gothic corpus.

We conclude this section by discussing the few Gothic ditransitive verbs that feature the NomAccAcc construction exhibiting neutral alignment (Malchukov, Haspelmath and Comrie 2010; cf. Table 3 in Appendix A.1). One such verb is, again, ASK FOR *bidjan* (e.g. Jn 11:22): with this verb, however, the double accusative construction seems to be marginal, as the T-participant is always encoded by a neuter indefinite pronoun (on the status neuter objects with NomAccAcc constructions, cf. Luraghi and Zanchi 2018: 31; see also Section 3.2.3). The Gothic verb for TEACH *laisjan* also takes two accusatives (cf. example (44)), as is common for verbs of teaching in other IE languages (García García 2003; Hock 2014; Luraghi and Zanchi 2018). This fact is understandable, given that these verbs often contain causative derivational morphology, as in Ancient Greek (Luraghi and Zanchi 2018) and that they constitute the most typical cognitive transfer verbs (Haspelmath 2015: 19). In Gothic, *laisjan* also has causative morphology: it is a *ja*-causative beside the preterite-present *lais* 'I know' (the infinitive **lisan* is not attested) and, thus, literally means 'cause to know' (cf. similarly, the couple *kunnan* 'know' and *kannjan* 'cause to know'). Last, the NomAccAcc construction is featured in a group of Gothic verbs that can take a predicative complement (cf. also Wright 1910: 183 and Miller 2019: 168–170).

4 Gothic uncoded alternations

In this section we describe and analyze Gothic uncoded alternations, i.e. those which are not marked morphologically on the verb (cf. Section 2.2).

4.1 The partitive alternation

As anticipated in Section 3.2.3, a number of Gothic verbs that take accusative second arguments can alternate with second arguments in the partitive genitive (for recent accounts of the partitive genitive in Gothic, cf. Leiss 2007;

Miller 2019: 124–125; on the partitive genitive in Ancient Greek, cf. Napoli 2010; Conti and Luraghi 2014; see also Seržant 2014 on Russian and Seržant 2015 on Circum-Baltic languages; on partitives in general, cf. Luraghi and Huumo 2014 with references). The partitive genitive indicates partial affectedness, referring either to parts of specific entities or to an indefinite quantity of a non-specific mass entity (Conti and Luraghi 2014: 446). In our sample, it is used with consumption verbs, such as EAT *matjan* (14), *itan* (15), and DRINK *drigkan* (1Cor 11:28), and corresponds in Greek to a PP with *ek*+GEN or *apó*+GEN.

The partitive genitive is used to indicate a partial quantity of bread in (14) and of specific crumbs in (15). Notably, the verb *itan*, exemplified in (15), is never used with accusative objects but only with partitive genitive ones or indefinite null objects. By contrast, the compound verb *fra-itan* 'devour', which has an associated telic meaning, only allows for accusative objects (16).

(14) *ak* *þatei* *matideduþ* *þize* *hlaibe*
but that eat.PRET.2PL DEM.GEN.PL bread.GEN.PL
'. . . but because you ate of the loaves (and you were filled).' (Jn 6:26)

(15) *jah* *gairnida* *saþ* *itan* *drauhsno*
and desire.PRET.3SG full.ACC.N eat.INF crumb.GEN.PL
'And desiring to be fed with the crumbs (which fell from the rich man's table).' (Lk 16:21)

(16) *saei* *fret* *þein* *swes* *miþ*
REL.NOM devour.PRET.3SG POSS.2SG.ACC property.ACC with
kalkjom
prostitute.DAT.PL
'(But when this son of yours came,) who devoured your living with prostitutes.' (Lk 15:30)

The partitive alternation also features in verbs of giving and taking, such as TAKE *niman* and GIVE *giban* (see Appendix A.2.2 for additional examples). Notably, partitive second arguments can be passivized: in (17), in which GIVE *giban* is used in the passive voice, the partitive genitive occurs as a first argument, thus confirming the fact that genitive partitives are not bound to any specific syntactic function in the sentence (on this feature of Greek partitives, cf. Conti and Luraghi 2014; Seržant 2014 and 2015).

(17) *jabai* *gibaidau* *kunja* *þamma* *taikne*
if give.OPT.3SG.PASS generation.DAT DEM.DAT sign.GEN.PL
'(Why doth this generation seek after a sign? Verily I say to you) if only signs would be given to this generation.' (Mk 8:12)

With TAKE *niman*, the partitive function is encoded once through a PP *us*+DAT, possibly calqued from Greek *ek*+GEN:[11]

(18) *unte* *[us* *meinamma]*$_i$ *nimiþ* *jah* *gateihiþ* Ø$_i$ *izwis*
for from POSS.1SG.DAT take.PRS.3SG and show.PRS.3SG 2PL.DAT
'For he shall take of mine and show (it) to you.' (Jn 16:14)
[Gk. *hóti* ***ek toû emoû*** *lḗmpsetai kaì anaggeleî humîn*]

The *us*+DAT PP in (18) could also indicate the source from which something is taken; however, the partitive reading for this PP is more likely, as the referent partly affected by the act of taking is also referred to via a null anaphor, as a dependent of the coordinated verb *ga-teihan* 'show'.

4.2 Other case alternations

Two-place verbs taking optional dative instruments, such as DRESS *wasjan*, also allow for an alternative construction in which the instrument receives accusative encoding (Miller 2019: 140). Similarly, THROW *wairpan* allows for an alternation between the accusative and the dative of the instrument thrown (cf. Mk 1:16 with the accusative vs. Mk 12:4 with the dative; see also Miller 2019: 157). Hewson (2006: 278) argues that *wairpan* takes the instrumental dative, and Miller adds that the accusative indicates instrument only when *wairpan* is used in a figurative sense. This semantic explanation is not convincing (see example (59) in Appendix A.2.2), but, at any rate, the AccDat alternation is not surprising, as similar verbs behave the same way in other ancient IE languages, as, for example, the Ancient Greek equivalent of this verb, *bállō*, also alternates between these two constructions, even in Homeric Greek (Sausa 2015).[12] Finally, in a single occur-

11 In example (18), we added an empty set symbol to signal the null referential object and to co-reference it with the previously mentioned participant to which it refers. Needless to say, the position of such null object in the sentence cannot be reconstructed, and thus the position of the empty set symbol does not imply any location assumption on our part.

12 In a class of semantically similar Latin verbs, the AccDat and AccAbl constructions alternate (cf. Luraghi and Zanchi 2019 with references). In Latin, the PIE instrumental merged with the

rence containing the communication verb SING *siggwan*, the accusative of the theme is omitted, whereas the addressee is expressed by a dative.

Two Gothic verbs, LEAVE *bi-leiþan* and HEAR *hausjan*, employ three alternate constructions: NomAcc, NomDat, and NomGen. The verb *bi-leiþan* is fundamentally a NomDat verb (Section 3.2.3). Occasionally, it can instantiate the NomAcc construction and the NomGen construction, the latter in negative contexts only (the so-called genitive of negation, on which see Bucci 2020), and be construed as a ditransitive verb. In contrast, the distribution of the three constructions with *hausjan* seems to be motivated by characteristics of the stimulus, i.e. (lack of) animacy, and of the experiencer, i.e. (lack of) active involvement in the perception event (cf. Miller 2019: 162).

Second participants encoded by prepositionless cases can alternate with second participant PPs. This happens with a number of verbs instantiating the NomAcc construction that denote events characterized by no change of state and a low degree of affectedness of the patients.

A single prototypically transitive verb, BEAT *slahan*, can be constructed with a PP:

(19) *ak* *sloh* *in* *brusts* *seinos*
but beat.PRET.3SG in breast(F).ACC.PL POSS.3SG.ACC.PL.F
'(And the publican, standing afar off, would not lift up so much as his eyes unto heaven,) but smote upon his own breast.' (Lk 18:13)

On the one hand, in (19) the NomPP construction may trigger an imperfective, and a thus less transitive reading of the type 'the publican repeatedly beat upon his own breast' (on the well-established link between perfectivity and transitivity, cf. Hopper and Thompson 1980). On the other hand, *slahan* could simply be construed with a goal participant, as happens in (20):

(20) *jabai* *hvas* *izwis* *in* *andawleizn* *slahiþ*
if INDF.NOM 2PL.ACC in face.ACC beat.PRS.3SG
'. . . if a man beats you on the face.' (2Cor 11:20)[13]

ablative and not with the dative as in Gothic and Ancient Greek. Hence, the Latin AccDat vs. AccAbl alternation presents exactly the same kind of phenomenon as the alternation we see with *wairpan* and *bállō*.

13 In (20), *izwis* is morphologically ambiguous in that it could be either accusative or dative. However, the verb *slahan* usually takes the accusative of the person, and thus the accusative interpretation is more compelling.

Here, the direct object in the accusative expresses the inalienable possessor of the body part that is beaten, encoded by a PP. In the reflexive context in (19), the possessor is instead encoded through a reflexive possessive adjective agreeing with the possessum.

As we have discussed in Section 3.2.3 and 3.2.4, FILL *fullnan* is one of the few Gothic transitive verbs instantiating the NomGen construction, and its causative *ja*-counterpart *fulljan* is one of the rare ditransitives featuring the AccGen construction (on *-na-/-ja*-verb pairs, cf. Section 3.1 and 5.2). The verb *fullnan* arguably calques the corresponding Greek construction in the following passage, where it takes a PP with *in*+DAT (Codex Ambrosianus A) or *du*+DAT (Codex Ambrosianus B) instead of a prepositionless genitive:

(21) *ei* *fulnaiþ*$_{A}$/*fullnaiþ*$_{B}$ *in*$_{A}$/*du*$_{B}$ *allai* *fullon* *gudis*
if fill.OPT.PRS.2PL in/to INDF.DAT fullness.DAT God.GEN
'. . . that you might be filled until all the fulness of God.' (Eph 3:19)
[Gk. *hína plērōthête* ***eis pân tò plḗrōma*** *toû theoû*]

One explanation for this unusual Gothic construction could be as follows: the Greek PP with *eis*+ACC does not mean 'you might be filled *with* the fullness of God' but rather 'you might be filled (with God's breadth, length, depth, and height, all previously mentioned) *up to* the fullness of God'. In New Testament Greek, instruments are not usually encoded by *eis*+ACC, but rather by prepositionless datives, *en*+DAT, *ek*/*apó*+GEN, *diá*+GEN, *epí*+GEN/DAT, and *katá*+ACC (Thomason 2006: 51). Thus, Wulfila did not employ two PPs to encode the usual second genitive arguments taken by the verb *fullnan*, but instead correctly interpreted Greek *eis*+ACC as a goal participant and translated it accordingly.

With the experiential verb *ga-leikan*, the NomDat is the most frequent construction (14 out of 20 occurrences; Section 3.2.3). However, the syntax of the verb changes completely when the past passive participle is used as an adjective translating either forms of the Greek verb *eudokéō* 'regard as good, be pleased by something' (Mk 1:11, Lk 3:22) or the Greek adjective *euarestón* 'pleased' (Lk 10:21, Col 3:20, Rom 12:2). In these contexts, the nominative case encodes the experiencer, whereas the stimuli are expressed by PPs with *in*+DAT, possibly calqued from Greek, which features a very similar PP with *en*+DAT. Furthermore, this verb also permits an impersonal usage: the predicate is inflected in the third person singular, the experiencer is encoded in the dative, and the stimuli are expressed by the PP *in*+DAT.

Ditransitive verbs of physical or knowledge transfer typically feature indirect alignment with the NomAccDat construction (cf. Section 3.2.4). Occasionally, however, R-participants can be encoded by prepositional goal or recipient participants.

4.3 Object insertion and object omission

The verb LIGHT *liuhtjan*, which specifically means 'emit light', occurs four times in the Gospels, where it is mostly (3x) used as an intransitive emission verb. In a single passage (22), *liuhtjan* takes a human second participant, which is conceptualized as an animate goal or recipient of emitted light:

(22) *jah liuteiþ allaim þaim in þamma garda*
and light.PRS.3SG INDF.DAT.PL DEM.DAT.PL in DEM.DAT house.DAT
'And it (a candle) gives light to all those in this house.' (Mt 5:15)

Several two- and three-place Gothic verbs can be construed with omitted objects. In this respect, a distinction should be made between intransitive events and referential null objects. In the former case, several two-place and three-place verbs are often construed as activities and thus encode intransitive events characterized by indefinite null objects. Their frequency is arguably tied to the text genre of the Gothic corpus: Gospels contain many passages that express universally valid moral principles or prophecies, which are likely to include indefinite null objects (the optionality of indefinite objects is discussed in Levin 1993: 33, among others), as in (23):

(23) *saei hlefi, þanaseiþs ni hlifai*
REL.NOM steal.OPT.PRET.3SG again NEG steal.OPT.PRS.3SG
'The one who stole will no longer steal.' (Eph 4:28)

In addition, the argument status of locative second participants with motion and location/posture verbs is notoriously controversial (see e.g. Levin and Rappaport Hovav 1995: 1–21; Sausa 2015: 20), and indeed these participants can be omitted.

Referential null objects are known to be allowed and selected in ancient IE languages under certain syntactic, pragmatic, and stylistic conditions: specifically, with coordinated verbs and clauses, conjunct participles, and yes/no questions (cf. e.g. Luraghi 2004; Keydana and Luraghi 2012; Inglese, Rizzo and Pflugmacher 2019). In this respect Gothic is no exception and allows for referential null objects with ditransitive and transitive verbs. A single verb, CLIMB *steigan*, is attested only with a null referential object in our corpus.

4.4 The external possessor alternation

In Gothic, inalienable possessors can be encoded by genitive modifiers holding a syntactic dependency relation with the possessum. This construction is exemplified in (24) with TOUCH *at-tekan*.

(24) *jah* *attaitok* *handau* *izos*
and touch.PRET.3SG hand.DAT 3SG.GEN.F
'And he touched her hand, (and the fever left her).' (Mt 8:15)

With other verbs from our sample, an alternative construction is allowed, in which the inalienable possessor is expressed by a syntactically independent noun phrase inflected in the dative case, traditionally called *dativus sympatheticus*, 'dative of affection' or 'dative of interest'. In accordance with more recent literature on the topic (e.g. Payne and Barshi 1999), we label this construction 'external possessor construction', due to the syntactic independency of the dative possessor from its possessum (on external possessor construction in IE languages, cf. Luraghi 2020b with references). The construction is shown in (25):

(25) *jah* *weihaim* *fotuns* *þwohi*
and saint.DAT.PL foot.ACC.PL wash.OPT.PRET.3SG
' . . . if she has washed the saints' feet.' (1Tim 5:10ab) [Gk. *ei* ***hagíōn*** *pódas ènipsen*]

According to Miller (2019: 144–146), the Gothic dative of inalienable possession is most typical with highly affected possessors. Similar explanations have been given in the typological literature on the matter (cited e.g. in Luraghi 2020b), which also highlights the fact that this construction is preferably selected with first and second person possessors with respect to other types of noun phrases.

However, our data sample, small though it is, points toward a more intricate picture in Gothic (and in any case, even the examples cited in Miller [2019: 145] point to a pattern that cannot be easily discerned). To begin with, examples (24) and (25) contain third person possessors, so apparently no difference can be detected based on the occurrence of first, second, and other participant types. In addition, in example (24), Jesus is performing a miracle by 'touching' an infirm, who certainly will be highly and positively affected by Jesus' hands. By contrast, example (25), which contains an external possessor construction, describes a situation in which the possessors, the saints, are certainly less affected by having their feet washed than the possessor in example (24) by being healed. Notably, also, the syntactic marking of the external possessor in (25) seems to

be genuinely Gothic, as the corresponding Greek text has a genitive adnominal possessor (*hagíōn* 'of saints'). What can be inferred is that, in (24), the dative external possessor is not used to avoid the occurrence of a double dative construction (cf. also example (26) in Section 4.5, whose dative internal object can be similarly accounted for).

4.5 The cognate/kindred object alternation

Gothic is generally acknowledged to avoid cognate (i.e. etymologically related to the verbs that take them) and kindred (i.e. semantically similar to the verbs that take them) objects (Wolfe 2006: 210–211; Miller 2019: 109–110). However, these arguments are relatively well-represented in our small sample, where we do find usually intransitive, monotransitive, and ditransitive verbs that allow for the insertion of cognate and kindred objects. These objects can occur in the accusative or in the dative case. In particular, dative cognate objects are quite unusual in the framework of IE languages (Horrocks and Stavrou 2010).

For example, the verb FEAR *ogan* allows for both accusative and dative cognate objects:

(26) *jah* *ohtedun* *sis* *agis* *mikil*
and fear.PRET.3PL REFL.DAT.PL fear.ACC great.ACC
'And they feared a great fear.' (Mk 4:41)

(27) *jah* *ohtedun* *agisa* *mikilamma*
and fear.PRET fear.DAT great.DAT
'And they feared with a great fear.' (Lk 2:9) [Gk. *kaì* ***ephobḗthēsan*** *phóbon mègan*]

Examples (26) and (27) are very similar and indeed translate the same Greek expression, containing a passive aorist of the verb *phobéō* 'fear' taking a prepositionless relational accusative.[14] The difference between the two Gothic examples is that, in (26), the noncausal meaning of *ogan* 'fear', which is opposed to the causal *ja*-verb *ogjan* 'frighten' (cf. Section 5.2), is strengthened by the reflexive dative pronoun *sis*, which is lacking in (27). The dative reflexive pronoun expresses the subject experiencer's involvement and occurs commonly with this

14 As an anonymous reviewer pointed out, similar constructions are known to be very prominent in Semitic languages and are also likely to appear in Bible translations of various sorts.

verb (cf. Section 5.3). The occurrence of a dative reflexive participant seems to prevent the occurrence of another prepositionless dative participant, which thus gets accusative encoding instead. Again (see Section 4.4), a construction with a double dative is avoided.

4.6 The applicative alternation

Crosslinguistically, applicatives are overt verbal morphemes that "allow the coding of a thematically peripheral argument or adjunct as a core-object argument" (Peterson 2007: 1). In her account of Italian valency patterns and alternations, Cennamo (2015: 437–438) describes the same pattern for the Italian equivalent of LIVE *abitare*, shown in examples (1) and (2). The Gothic equivalent, *bauan*, behaves the same way. Its usage with a prepositional locative participant encoded by *in*+DAT is shown in example (10), whereas its transitive usage is exemplified below:

(28) *jah* *liuhaþ* *bauiþ* *unatgaht*
and light(N).ACC live.PRS.3SG unapproachable.ACC.N
'And (he) dwells (in) unapproachable light' (1Tim 6:16)
[Gk. *phôs oikôn aprósiton*; Lat. *lucem inhabitans inaccessibilem*]

Both examples (10) and (28) contain metaphoric locative participants, and thus the alternation does not seem to arise from an opposition between literal and metaphorical interpretations of the second argument taken by *bauan*. The corresponding Greek verb *oikéō* allows for the same Acc PP alternation, in that it takes an accusative locative participant as well as a prepositional phrase with *en*+DAT. In the Greek passage corresponding to (28), *oikéō* is used transitively, whereas in (10) *oikéō* takes *en*+DAT. In the Latin Vulgate, we also find a direct object construction with *inhabitans lucem* in the passage corresponding to (28), in which, however, the verb is compounded with the preverb *in-*. In (10), on the other hand, *non habitat in me* occurs, i.e. with the simplex verb taking the expected PP. The Gothic text thus represents a word-by-word translation in this case.

The applicative alternation can also be coded in Gothic (coded alternations are thoroughly discussed in Section 5). One of the Gothic verbs of our sample features the so-called *be*-alternation, known for Germanic languages and described by Haspelmath and Baumann (2013) for the ValPaL core meanings: the activity simplex verb LAUGH *hlahjan* (see example (6)), with the addition of the preverb *bi-* (literally) 'around' (cf. Section 3.2.3), results in the transitive compound *bi-hlahjan*, which takes accusative stimuli, as in (29).

(29) *jah* *bi-hlohun* *ina*
and around-laugh.PRET.3PL 3SG.ACC
'They laughed at him.' (Mk 5:40; cf. also Mt 9:24, Lk 8:53)

Once again, this verb is similar to its Italian equivalent, *ridere*, which also takes a PP with *di* indicating the area semantic role (in e.g. Luraghi's 2003 terms), but a direct object if preverbed with *de-*. The accusative stimulus of *hlahjan* can also be passivized (Lk 6:21; on the applicative functions of IE preverbs, cf. Zanchi 2019: 65–67).

5 Gothic coded alternations

In this section, we deal with Gothic coded alternations, those which are overtly marked on the verb (cf. Section 2.2).

5.1 The passive alternation

Gothic is the sole member of the Germanic family that preserves, only in the present tense, continuants of the PIE mediopassive, which, however, in the overwhelming majority of cases is to be interpreted as a passive (Section 3.1). Hence, Gothic is the only Germanic language which displays a synthetic passive (on the loss of PIE mediopassive in Old Norse, cf. e.g. Cennamo, Eythórsson and Barðdal 2015: 678). However, in a handful of cases, it is still debatable whether nonpassive "middle" readings of the Gothic passive are possible (on this issue, cf. some examples below, Section 5.2, and the abundant references cited in Kleyner 2019 and Ratkus 2020).

In our corpus, a number of verbs attest to synthetic passive forms (cf. Table 5 in Appendix A.1). The verbs DRESS *ga-wasjan* (30) and KILL *af-dauþjan* (31) are discussed by Kleyner (2019) and Ratkus (2020). Kleyner (2019) favors a nonpassive interpretation, whereas Ratkus (2020) strongly argues for a passive reading. The passages in question are displayed below:

(30) *þanuþ~þan* *þata* *diwano* *gawasjada*
so.when DEM.NOM die.PTCP.PRF.PASS.NOM dress.PRS.3SG.PASS
unsdiwanein
immortality.DAT
'So when this mortal will be dressed with immortality . . . ' (1Cor 15:54a)

(31) *saei* *ubil* *qiþai* *attin* *seinamma*
DEM.NOM evil.ACC say.OPT.3SG father(M).DAT POSS.DAT.M
aiþþau *aiþein* *seinai,* *dauþau* *afdauþjaidau*
or mother(f).DAT POSS.DAT.F death.DAT kill.OPT.3SG.PASS
'(He) who speaks evil to his father or to his mother, shall be killed by death.'
(Mk 7:10)[15] [Gk. *ho kakologôn patéra è mētéra thanátōi* ***teleutátō***]

In (30), the passive *gawasjada* could have a reflexive rather than a passive interpretation. However, God is here conceived to be the unexpressed intentional agent performing the miracles reported, i.e. transforming men into light and dressing them with immortality at the time of The Rapture (see also Ratkus 2019: 123–124; D'Agostino 2019: 41–42). Similarly, in (31), the passive form *afdauþjaidau* suggests a true passive reading: being put to death is described as a punishment inflicted by intentional agents. In other words, by using the passive form of the causal verb *af-dauþjan* and not its noncausal counterpart *af-dauþnan* (cf. Section 5.2), death is not construed as a spontaneous event, but rather as the consequence of a deliberate crime punishable by death (*contra* Kleyner 2019: 117; Ratkus 2020: 9–11). Note that the Gothic translation partially calques the Greek text in that *dauþau* is not required in Gothic, in which the verb itself means 'die', whereas the corresponding dative noun *thanátōi* is required in the Greek text, where the verbal form *teleutátō* from *teleutáō* means more generally 'bring to pass, accomplish, finish, make an end'.

As analytic passives can be used both in the present and the past tenses, this construction is thought to be in the process of expanding its domain at the expense of the synthetic form (Miller 2019: 2017; Ratkus 2020). Analytic passives can be constructed with the auxiliaries *wisan* 'be' or *wairþan* 'become', the former indicating an "entailed-state resultative" and the latter expressing "an attained-state resultative" (Katz 2016: 206; see also Kotin 1997; Pagliarulo 2008; Miller 2019: 216–219).

The verbs from our corpus that allow for the analytic passive alternation are in Table 5 in Appendix A.1. Here, we limit the discussion to two passages with analytic passives that may be susceptible to nonpassive interpretations:

15 Cf. also Rom 7:4, which contains an analytic passive of the same verb and in which the same idea of inflicted death is quite clearly conveyed.

(32) *nu fagino, ni unte gauridai*
now rejoice.PRS.1SG NEG as sadden.PTCP.PRF.PASS.NOM.PL
wesuþ ak unte gauridai wesuþ
be.PRET.2PL but as sadden.PTCP.PRF.PASS.NOM.PL be.PRET.2PL
du idreigai
to repentance.DAT
'Now I rejoice, not that you were grieved, but that you were grieved into repentance.' (2Cor 7:9)

(33) *iþ biþe gabauran ist barn ni*
but as carry.PTCP.PRF.PASS.NOM.N be.PRS.3SG child.NOM NEG
þanaseiþs ni gaman þizos aglons
longer NEG remember.PRS.3SG DEM.GEN anguish.GEN
'[The woman has pain when she is giving birth, because her hour has come;] but when the child is brought (to life), she remembers the tribulation no longer.' (Jn 16:21)

The context of (32) points toward a passive reading: the agent is clearly the writer of the letter to which reference is made in the text; in the passage just above (32), the same writer states: *unte jabai gaurida izwis in bokom* 'even if I made you sad with my letter' (2Cor 7:8). The writer also points out that his act of saddening his addressee had both good intentions and outcomes. Similarly, in (33), the passive form of *ga-bairan* has a passive value, as the agent, i.e. the woman who delivers the child, plays a prominent role in the overall context and is the main topic of this whole passage; she also returns to be the subject of the subsequent apodosis.

With ditransitive verbs or verbs that allow for ditransitive usages (Section 3.2.4), the participant that receives the accusative encoding, be it a T- or a R-participant, is invariably passivized. On the other hand, the dative participants, if expressed, remain as such. With verbs instantiating the double accusative construction, such as NAME *namnjan*, the non-predicative accusative is passivized, whereas the predicative accusative can be expressed (Lk 7:11) or omitted. With TEACH *laisjan*, the person who receives the instruction is passivized, while the thing that is taught is omitted (Jn 6:45).

The passive alternation can also be left uncoded with infinitives: these forms are said to be underspecified for voice (Miller 2019: 219–221). In object control structures, the passive reading is instead accounted for as a translational effect (Joseph 1981: 368; Harbert 2007: 331; see Table 4 in Appendix A.1 and example (60) in Appendix A.2.3).

(34) *warþ þan gaswiltan þamma unledin jah*
become.PRET.3SG PTC die.INF DEM.DAT poor.DAT and
briggan fram aggilum in barma Abrahamis
bring.INF by angel.DAT.PL in bosom.DAT A.GEN
'It happened to the poor to die and to be brought by the angels in Abraham's bosom'. (Lk 16:22)

In (34), the impersonal form *warþ* takes a dative participant, designating the maleficiary to whom the mentioned events happened, and two active infinitives. The former infinitive regularly indicates the noncausal event of dying, whereas the latter must be interpreted as a passive, to which a passive agent expressed by a PP with *fram*+DAT is further added.

5.2 The causal : noncausal alternation

Concerning the causal : noncausal alternation, a clear scenario emerges from our data, in which the causal member of the alternation is almost always expressed by *ja*-verbs, whereas the noncausal member seems to be encoded in a much less homogeneous way. This distribution lends support to Ottóson's (2013) suggestion that *ja*-causatives may be older than *na*-anticausatives, which are a later PGmc development occurring within the broader loss of the PIE inflectional middle.

Table 2 summarizes the Gothic causal : noncausal alternation as evidenced from ValPaL core verb meanings, displaying together the *ja*-verbs with causal meanings, their noncausal counterparts, and the strategies through which the alternation is expressed.[16]

Table 2: The causal : noncausal alternation in Gothic ValPaL verbs.

ValPaL verb meaning	Causal member	Noncausal member	Coding strategy
BREAK	*brikan*	*us-bruk-nan*	strong 4 vs. *-na-* + ablaut
BURN	*tand-jan*	*tund-nan*	*-ja- vs. -na-* + ablaut

16 To capture the highest number of attested causal : noncausal alternations, verbs with different preverbs must be paired owing to the inherent limitations of the Gothic corpus (Section 2.2). The fact that the causal and the noncausal members display different preverbs does not make the comparison problematic.

Table 2 (continued)

ValPaL verb meaning	Causal member	Noncausal member	Coding strategy
DRINK	*dragk-jan* *drigkan*	*drigkan* analytic passive	*-ja-* + ablaut Passive
FALL	*ga-draus-jan*	*ga-driusan*	*-ja-* + ablaut
FILL	*full-jan*	*full-nan* synthetic passive	*-ja-* vs. *-na-* *-ja-* vs. passive
FRIGHTEN, FEAR	*og-jan*	*ogan* (*sik*)	*-ja-* vs. (reflexive)
GIVE	*giban*	synthetic passive (*at-giban*)[17]	Passive
GO	*letan gaggan*	*gaggan*	Periphrastic construction
HIDE	*letan ga-filhan*	*ga-filhan*	Periphrastic construction
KILL, DIE	*ga-dauþ-jan*	*ga-dauþ-nan*	*-ja-* vs. *-na-*
KNOW	*kann-jan*	*kunnan*	*-ja-* + ablaut
LIVE	*taujan liban*	*liban*	Periphrastic construction
MAKE SAD, GET SAD MAKE SAD, BE SAD	*gaur-jan*	synthetic passive *gaurs wairþan*	*-ja-* vs. synthetic passive *-ja-* vs. adjective + copula
ROLL	*af-walw-jan*	*walwison*	*-ja-* vs. weak 2[18]
SINK	*sigq-jan*	*sigq-an*	*-ja-*
PUT, SIT	*sat-jan*[19]	*sitan*	*-ja-* + ablaut
PUT	*lag-jan*	*ligan*	*-ja-* + ablaut
SHOW	*at-augjan*	analytic passive *at-augjan sik* *at-augjan*	*-ja-* vs. passive *-ja-* vs. reflexive *-ja-* vs. uncoded
TEACH, KNOW TEACH, LEARN	*lais-jan*	*lais* (**lisan*) *laisjan sik*	*-ja-* + ablaut *-ja-* vs. reflexive

As shown in Table 2, the causal members of the alternation are almost exclusively lexicalized by a *ja*-verb. The only exception to this generalization is the couple *brikan* vs. **bruk-nan*, in which the alternation is encoded through the

17 Cf. fn. 16.

18 The causative **walw-jan* (which only occurs with preverbs) allegedly constitutes a more ancient formation than *walwison* (PIE **wel-w-*, cf. Lat. *volvō*), in light of its parallels in Old English (*wielwan*, *wælwian*). The causative **walw-jan* is primary, whereas *walwison* represents a secondary denominative formation on PGmc **walwiz* (Lehmann 1986: s.v. **af-walwjan*).

19 This *ja*-causative is often used without any objects in the sense of 'plant' (Lk 17:28).

ablaut, and it is the noncausal member that is overtly marked via the *na*-suffix. The couple *brikan* – **bruk-nan* parallels OIcel. *brjóta* – *brotna*, in which the latter verb is formed from the past participle of the former *brotinn*. This kind of *na*-verb formation is only attested in Gothic and Old Norse. The causal domain is also marginally expressed by two periphrastic constructions, which are limited to three verbal lemmas totaling five occurrences. The former construction contains the verb *letan* 'let' (35), whereas the latter includes the verb *taujan* 'do' (36).

(35) ***letiþ*** *þo* *barna* *gaggan* *du* *mis*
let.PRS.2PL DEM.ACC.PL child.ACC.PL go.INF to 1SG.DAT
'Let the children come to me.' (Mk 10:14) [Gk. ***áphete*** *tà paidía érkhesthai prós me*]

(36) *ahma* *ist* *saei* ***liban*** ***taujiþ***
spirit.NOM be.PRS.3SG REL.NOM live.INF do.PRS.3SG
'It is the spirit that makes alive.' (Jn 6:63) [Gk. *tò pneûmá estin tò* ***zōipoioûn***]

In (35), an analogous form of the Gothic verb *letan* 'let' translates an imperative form of the Greek verb *aphíēmi* 'send away' (*áphete*). This construction is labelled as factitive by Cennamo (2015: 448–451), who describes it for the Italian verb *lasciare* 'let', and is obviously used in English as well (cf. the translation of (35)). In (36), the construction with *liban taujan* 'cause to live' seems to be no more than an *ad hoc* solution for translating the Greek compound *zōi-poiéō* '(literally) alive-make'.

The noncausal domain can be encoded by various markers, i.e. a *na*-verb, a class 2 weak verb, a synthetic passive, an analytic passive, a reflexive, or it may be left uncoded (42). As discussed in Section 5.1, whether the synthetic passive can also have nonpassive readings continues to be disputed. The controversy has been brought back in the spotlight by two very recent papers, which maintain opposite positions on the matter: Kleyner (2019) believes that a few Gothic synthetic passives can be used to encode the noncausal members in a causal : noncausal alternation, whereas Ratkus (2020) argues strongly against Kleyner's (2019) interpretation. In our view, both the synthetic and the analytic passives suggest noncausal readings in a handful of passages from our corpus, which are reported in the following.

(37) *iþ* *jabai* *in* *matis* *broþar* *þeins*
but if in food.GEN brother.NOM POSS.2SG.NOM
gaurjada
make_sad.PRS.3SG.PASS
'But if your brother gets upset because of your food.' (Rom 14:15)

(38) *jah ahmins weihis gafulljada*
and spirit.GEN holy.GEN fill.PRS.3SG.PASS
'(For he shall be great in the sight of the Lord and shall drink neither wine nor strong drink;) and he shall be full of the Holy Ghost (even from his mother's womb).' (Lk 1:15)

(39) *þanuh biþe atgibada akran*
but when give.PRS.3SG.PASS fruit.NOM
'But when the fruit is ready . . . ' (Mk 4:29)
[Gk. *hótan dè paradoî ho karpós*; Lat. *et cum se produxerit fructus*]

(40) *jaþ~þatei ataugids ist Kefin, jah*
and that show.PTCP.PRF.PASS.NOM be.PRS.3SG C..DAT and
afar þata þaim ainlibim
after DEM.ACC.N DEM.DAT.PL eleven.DAT.PL
'. . . and that he appeared to Cephas, and after that to the eleven.'
(1Cor 15:5, see also Mk 9:4, 16:12S, 1Tim 3:16a)

In (37), there is no clear intentional agent that brings about the event of becoming sad, which is encoded by a synthetic passive of *gaurjan* 'make sad'. Instead, a cause that triggers the event is overtly expressed in the passage by a PP with *in*+GEN.[20] Similarly, in (38), it is not clear whether the event of being filled or being full is construed as brought about by an agent (i.e. God, in this case) and as having a dynamic temporal development, or whether being full with the Holy Spirit should be better understood as a timeless state that Jesus experiences from the very beginning of his existence. In neither case, however, is a proper passive reading compelling. The passage in (39) is highly disputed (Kleyner 2019: 115–117; Ratkus 2020: 7–8). It contains a compound of *giban*, occurring in a synthetic passive form and possibly bearing a nonpassive value. This Gothic passive form translates a Greek active aorist subjunctive *paradoî* (from *paradídōmi* 'give beside'). The passage is paralleled in Latin by an active future perfect indicative *produxerit* (from *producō* 'produce'), accompanied by a reflexive pronoun *se*. Thus, a Gothic passive construction with a nominative subject retains the word order of Greek and Latin. These languages differ from Gothic, however, in that they permit two active constructions to occur with verbs indicating spontaneous events. The reading of the event being conceived of as spontaneous emerges clearly from the Latin text, in which a reflexive pronoun *se* is also added (D'Agostino 2019: 52–53).

20 As noted in Section 5.1, this passage should be compared with (32).

Indeed, it is difficult to think of an entity that could play the agent's role in this context, especially as in the previous passage it is said that *silbo auk airþa akran bairiþ* 'for the earth itself bears fruit'. Therefore, the synthetic passive is most convincingly interpreted as expressing a spontaneous event. In (40), an analytic passive form of *at-augjan* 'show' is clearly employed to describe Jesus who appears directly to his disciples, and not Jesus who is shown to his disciples by some entity. A passive reading is not satisfying for this passage, which either indicates a spontaneous event (see also Miller 2019: 216, who simply states that the passive of *at-augjan* is used with the meaning of 'appear'). This noncausal interpretation is also strengthened by the fact that this verb also means 'appear' if used with a reflexive pronoun (cf. Miller 2019: 394–396 for Gothic reflexives with "anticausative" and "inchoative" functions in his terms):

(41) *sumai* *þan* *qeþun* *<þatei>* Helias
INDF.NOM.PL then say.PRET.3PL that H..NOM
ataugida *sik*
show.PRET.3SG REFL.ACC
'Others said that Elijah had appeared.' (Lk 9:8)

Surprisingly, with *at-augjan*, such a noncausal reading can also be uncoded (Section 5.3):

(42) *bi* *spedistin* *þan* *anakumbjandam* *þaim*
by last.DAT PTC recline.PTCP.PRS.DAT.PL DEM.DAT.PL
ainlibim *ataugida*
eleven.DAT.PL show.PRET.3SG
'Afterward he appeared unto the eleven as they sat down for a meal.' (Mk 16:14)

In (42), the Gothic active form *ataugida* is employed to denote the same noncausal event of appearing as in (40).[21]

In addition, in two passages the analytic passive of DRINK *drigkan* is used to translate the Greek verb *methú(sk)ō* 'get/be drunk' and denotes noncausal events:

21 The reflexive pronoun does not occur in the previous context, as it does e.g. in (46).

(43) *jah* *þaiei* *drugkanai* *wairþand,*
and REL.NOM.PL drink.PTCP.PRF.PASS.NOM.PL become.PRS.3PL
nahts *drugkanai* *wairþand*
night.GEN drink.PTCP.PRF.PASS.NOM.PL become.PRS.3PL
'And those who get drunk get drunk overnight.' (1Thess 5:7; see also 1Cor 11:21)

A reflexive of first or second person pronoun (Section 5.3) is obligatorily employed with TEACH *laisjan* (44) to mean LEARN *(ga-)laisjan sik* (45). As mentioned in Section 3.2.4, *laisjan* is a causative verb beside the preterite-present *lais* 'I know', thus originally meaning 'cause to know' → 'teach' (see Miller 2019: 294).

(44) *Jah* *laisida* *ins* *in* *gajukom* *manag*
And teach.PRET.3SG DEM.ACC.PL in parable.DAT.PL much.ACC.N
'And he taught them many things by parables.' (Mk 4:2)

(45) *ik* *galaisida* *mik* *in* *þaimei* *im*
1SG.NOM teach.PRET.1SG REFL.ACC in REL.DAT.PL be.PRS.1sg
ganohiþs *wisan*
satisfy.PTCP.PRF.PASS.NOM be.INF
'I learned to be satisfied in whatever circumstances I am in.' (Phil 4:11)

5.3 The reflexive and the reciprocal alternation

The reflexive alternation is encoded by the reflexive pronoun *sik* or *sik silba* with the third person, whereas it is expressed by the addition of a first or a second person pronoun in the respective persons (Wright 1910; cf. example (45) above and verbs in Table 5 of Appendix A.1):

(46) *unte* *jabai* *ni* *huljai* *sik* *qino* *skabaidau*
for if NEG cover.OPT.3SG REFL.ACC woman.NOM shave.OPT.3SG
iþ *jabai* *agl* *ist* *qinon* *du* *kapillon*
but if shameful.NOM.N be.PRS.3SG woman.DAT to cut_hair.INF
aiþþau *skaban,* *gahuljai*
or shave.INF cover.OPT.3SG
'For if a woman does not cover herself, also let her be shorn. And if it is disgraceful to a woman to be shorn or to be shaven, she should cover (herself).' (1Cor 11:6)

In (46), the reflexive alternation in the first protasis is regularly expressed by the reflexive pronoun in the accusative. In the second apodosis, however, the reflexive meaning is implied but does not receive any overt marker. This may well be a case of referential null object; however, other Gothic verbs allow for an uncoded reflexive alternation.

Three verbs from our corpus can denote reflexive situations without the overt occurrence of the reflexive pronoun (see Table 4 in Appendix A.1). They all translate Greek middle aorists, as shown in (47):

(47) *gagg* *þwahan* *in* *swumsl* *Siloamis . . .* *galaiþ* *jah*
go.IMP.2SG wash.INF in pool.ACC S..GEN go.PRET.3SG and
afþwoh *jah* *qam* *saihvands*
wash.PRET.3SG and come.PRET.3SG see.PTCP.PRS.NOM
'"Go and wash in the pool of Siloam." . . . He went there and washed and came back seeing.' (Jn 9:7) [Gk. *húpage nípsai . . . apélthen oûn kaì enípsato, kaì élthen blépōn*]

In (47), the simplex and the compound verbs *þwahan* and *af-þwahan* are used in active forms but describe reflexive situations. One might argue that the reflexive usage for the first active infinitive *þwahan* is motivated by the fact that these forms may be underspecified for voice (Section 5.1). However, this explanation is not possible for the preterite of *af-þwahan*. In the ValPaL database, this same alternation is called "understood reflexive object" alternation and is attested for WASH and DRESS and other verbs denoting "caring for the body" (http://valpal.info/languages/english/alternations/3532288527).

The reciprocal alternation is almost exclusively encoded by the reflexive pronoun *sik* (or its equivalent first and second person pronouns) accompanied by the adverb *misso* 'mutually' (Wright 1910: 189; Miller 2019: 392–394):

(48) *jah* *jus* *skuluþ* *izwis* *misso* *þwahan*
and 2PL.NOM should.PRS.2PL 2PL.DAT mutually wash.INF
fotuns
foot.ACC.PL
'And you should mutually wash your feet.' (Jn 13:14)

In (48), the reciprocants (*izwis misso*) take the dative case and play the role of external possessors (on which see Section 4.4).

In a single passage, reciprocity is encoded via a bipartite construction of the polyptotic type (cf. Nedjalkov 2007: 154–157 and Evans 2008: 46 on this terminology): *anþar*-NOM *anþar*-ACC. This construction (49) is instantiated by the verb BUILD *timrjan*, which acquires the metaphorical interpretation of 'morally edify one another'.

(49) *inuh þis þrafsteiþ izwis misso jah*
for DEM.GEN comfort.PRS.2PL 2PL.DAT mutually and
timrjaiþ ainhvarjizuh anþar anþarana
build.OPT.PRS.2PL each_and_every.NOM another:NOM another.ACC
'Because of that, you comfort yourselves mutually, and you should – each and every one – edify one another.' (1Thess 5:11)

6 Conclusions

In this paper, we applied the ValPaL methodology to study valency patterns and alternations of 87 Gothic verbs. After providing a short overview of Gothic sentence structure, we detailed the syntactic and semantic properties of Gothic impersonal, one-, two-, and three-place verbs. We then described and analyzed Gothic uncoded and coded alternations. In terms of uncoded alternations, the verbs of our sample attest to the partitive, null object, external possessor, cognate/kindred object, applicative, causal : noncausal (marginal), and reflexive alternations (marginal), as well as a number of other case alternations that have parallels in other ancient IE languages. Regarding the coded alternations, we discussed the applicative, passive, causal : noncausal, reflexive, and reciprocal alternations.

In carrying out the analysis, we faced a number of methodological challenges, due to the nature of the Gothic corpus. In particular, we observed that (i) some constructions (e.g. NomGen and NomDat) occur less frequently than they might be expected to due to the ValPaL verb selection; (ii) some verbal usages (i.e. the frequent absolute usage of transitive verbs and the causal reading associated with the weather verb *rignjan*) are tied to textual genre and the view of the world of which the Gospels are an expression; (iii) a number of verbal constructions (e.g. periphrastic construction to encode the causal member in the causal : noncausal alternation) can be ascribed to the adherence to the Greek text as the chief translational source. To address these issues diligently, not only did we keep a constant eye on the Greek text, but we also consistently integrated our data with those contained in reference grammars.

We showed that a systematic corpus analysis, conducted within a solid typological framework, is useful for shedding light on still-debated and intricate issues pertaining to Gothic syntax, and Gothic passive constructions in particular. Our data suggests that both synthetic and analytic Gothic passives can occasionally be used to express noncausal situations. Moreover, we showed that the reflexive alternation, too, is at times employed to express noncausal event types.

Moreover, our data showed that, while the noncausal domain in the causal : noncausal alternation can be encoded by a variety of means (*na*-verbs, class 2 weak verbs, passives, the reflexive pronoun), the causal domain, in contrast, is tightly restricted to *ja*-verbs beyond two poorly-attested periphrastic constructions calqued from Greek. We argue that this data supports Ottósson's (2013) view according to which the encoding of noncausal domain was systematized at a later stage than was the causal domain. This scenario may be well framed within larger Indo-European picture, in which the loss of PIE inflectional middle arguably contributed to the emergence of an array of new noncausal formations, which underwent a systematization later than Gothic allows us to observe.

List of abbreviations

(Not in the Leipzig Glossig Rules)

A	agent
Engl.	English
Eph	*Letter to the Ephesians*
Ex.	*Exodus*
Germ.	German
Gk.	Greek (New Testament Greek)
IE	Indo-European
Jn	*John's Gospel*
Lat.	Latin (of Jerome's *Vulgate*)
Lk	*Luke's Gospel*
Mk	*Mark's Gospel*
Mt	*Matthew's Gospel*
OE	Old English
OIcel.	Old Icelandic
OPT	optative
PGmc	Proto-Germanic
Phil	*Letter of Paul to the Philippians*
PIE	Proto-Indo-European
PRET	preterite
R	Recipient
Rom	*Letter to the Romans*
S	subject
T	Theme
1Cor	*First Letter to the Corinthians*
1Thess	*First Letter to the Thessalonians*
1Tim	*First Letter to Timothy*
2Cor	*Second Letter to the Corinthians*

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A.1 Tables

Table 3: Gothic valency classes and verbs that instantiate them.

VALENCY CLASS	Verb type	Verb lemmas
Zero-place verbs		
	weather verbs	RAIN *rignjan*
One-place verbs		
Accusative experiencer	experiential verbs	BE HUNGRY *huggrjan, gredon*
NomSbj	activity verbs	CRY *gretan/greitan* JUMP *laikan* LAUGH *hlahjan* LIVE *liban* RUN *rinnan* SCREAM *hropjan* THINK *hugjan*

Table 3 (continued)

VALENCY CLASS	Verb type	Verb lemmas
	emission verbs	LIGHT *liuhtjan* LIGHTEN *lauhatjan*
	noncausal verbs	BE DRY *ga-staurknan* BREAK *us-bruknan* BURN *tundnan* DIE *ga-swiltan, ga-dauþ-nan* FALL *ga-driusan* ROLL *walwison* SINK *sigq-an*
	experiential verbs	FEEL PAIN *winnan*
two-place verbs		
NomAcc	prototypically transitive verbs	BEAT *slahan, bliggwan* BREAK *ga-brikan* BUILD *timrjan* CARRY *bairam* CUT *maitan*
		DRINK *drigkan* EAT *matjan* TAKE *niman* TEAR *tahjan* TIE *ga-bindan* THROW *wairpan*
	causative *ja*-verbs	MAKE SAD *gaurjan* BURN *tandjan* KILL *dauþjan, af-dauþjan*
	non-prototypically transitive verbs	COVER/HIDE *huljan* DRESS *wasjan, ga-wasjan* FOLLOW *laistjan* HIDE *ga-filhan* LIGHTEN *ga-liuhtjan* SEARCH FOR *sokjan* SHOUT AT *wopjan* SING *siggwan* WASH *þwahan* WIPE *bi-swairban*
	experiential verbs	FEAR *ogan* FEEL PAIN *winnan* HEAR *hausjan* KNOW *kunnan* SEE *saihvan*

Table 3 (continued)

Valency class	Verb type	Verb lemmas
NomGen	non-prototypically transitive verbs	FILL *fullnan* HELP *hilpan*
NomDat	verbs of "social interaction" (+animacy)	MEET *ga-motjan* TOUCH *at-tekan*
	communication verbs	SHOUT AT *sakan* TELL *us-spillon*
	non-prototypically transitive verbs	LEAVE *bi-leiþan*
DatNom	experiential verbs	LIKE *leikan, ga-leikan*
NomPP	motion verbs	GO *gaggan*
	posture/location verbs	LIVE *bauan* SIT *sitan* SIT DOWN *ga-sitan*
	experiential verbs	LOOK AT *in-saihvan*
NomObj	experiential verbs	THINK *hugjan*
Three-place verbs		
NomAccDat	physical transfer verbs	GIVE *giban* PUT *lagjan, ga-lagjan* THROW *wairpan*
	knowledge transfer verbs	SAY *qiþan* TELL *spillon* TALK *rodjan* KNOW *kannjan* 'make know' SHOW *at-augjan*
NomAccPP	physical transfer verbs	POUR *giutan* SEND *sandjan*
	knowledge transfer verbs	SEARCH FOR *sokjan*
NomAccGen	physical transfer verbs	FILL *fulljan*
	knowledge transfer verbs	ASK FOR *bidjan*
NomAccAcc	knowledge transfer verbs	TEACH *laisjan*
	verbs with a predicative complement	BRING *briggan* GIVE *giban* KNOW *kunnan* LEAVE *bi-leiþan* NAME *namnjan* PUT *ga-lagjan* SAY *qiþan* SEE *saihvan*

Table 4: Gothic uncoded alternations and verbal types and lemmas that instantiate them.

Type of alternation	Verb type	Verb lemmas
Partitive		
	consumption verbs	EAT *matjan, itan* DRINK *drigkan*
	verbs of giving and taking	GIVE *giban* TAKE *niman*
NomAcc / NomDat		
	verbs with dative instruments	DRESS *wasjan* THROW *wairpan*
	communication verbs	SING *siggwan*
NomAcc / NomDat / NomGen		
	non-prototypically transitive verbs	LEAVE *bi-leiþan*
	experiential verbs	HEAR *hausjan*
NomAcc / NomPP		
	non-prototypically transitive verbs	FOLLOW *laistjan* SEE *saihvan* SHOUT AT *wopjan*
	prototypically transitive verb (imperfective reading)	BEAT *slahan*
NomDat / NomPP		
	experiential verbs	LIKE *ga-leikan*
	physical transfer verbs	GIVE *giban* PUT *lagjan, ga-lagjan*
	knowledge transfer verbs	SAY *qiþan* TALK *rodjan*
Object insertion		
	emission verb	LIGHT *liuhtjan*

Table 4 (continued)

Type of alternation	Verb type	Verb lemmas
Null object		
indefinite	two-place verbs construed as activities	BUILD *timrjan* DIG *graban* EAT *matjan* FEAR *ogan* FEEL PAIN *winnan* FOLLOW *laistjan* GRIND *malan* HIT *bliggwan* KNOW *kunnan* LIGHTEN *lauhatjan* LOOK AT *in-saihvan* SEE *saihvan* SHOUT AT *wopjan, sakan* SING *siggwan* STEAL *hlifan* TELL *us-spillon* TEAR *tahjan* ASK FOR *bidjan*
	three-place verbs construed as activites	GIVE *giban* NAME *namnjan* PUT *lagjan* SAY *qiþan* TALK *rodjan* TAKE *niman* TEACH *laisjan*
	motion verbs	GO *gaggan*
	location/posture verbs	SIT *sitan* SIT DOWN *ga-sitan*
referential	two-place verbs	MAKE SAD *gaurjan* BREAK ga-brikan DRESS *wasjan* FOLLOW *laistjan* LIKE *ga-leikan* LOOK AT *in-saihvan* SEARCH FOR *sokjan* TEAR *tahjan* THROW *wairpan* WIPE *bi-swairban*

Table 4 (continued)

Type of alternation	Verb type	Verb lemmas
	ditransitive	BRING *briggan* FILL *fulljan* PUT *ga-lagjan*
External possessor		
	verbs of putting	PUT *lagjan, ga-lagjan*
	verbs of washing	WASH *þwahan*
Cognate/kindred object		
NomAcc	one-place verbs	GO *gaggan*
	three-place verbs	TEACH *laisjan*
NomDat	one-place verbs	DIE *ga-swiltan* SCREAM *uf-hropjan*
	two-place verbs	KILL *af-dauþjan*
NomAcc-NomDat	experiential verbs	FEAR *ogan*
Applicative		
	location verbs	LIVE *bauan*
Passive infinitive		
	two-place verbs	BRING *briggan* HIDE *filhan* SEE *saihvan* SHAVE *skaban*
Causal : noncausal		
	ja-verbs	SHOW *at-augjan*
	experiential verbs	FEAR *ogan (sik)*
Understood reflexive		
	caring for the body verbs	DRESS *wasjan, ga-wasjan* WASH *þwahan*

Table 5: Gothic coded alternations and verbal types and lemmas that instantiate them.

Type of alternation	Verb type	Verb lemmas
Applicative		
	activity verbs	LAUGH *hlahjan*
	motion verbs	LEAVE *bi-leiþan*

Table 5 (continued)

Type of alternation	Verb type	Verb lemmas
Passive		
synthetic	two-place verbs	BUILD *timrjan* FALL *ga-drausjan* SING *siggwan* DRESS *ga-wasjan* KILL *af-dauþjan*
analytic with *wisan*	two-place verbs	MAKE SAD *gaurjan* BREAK *ga-brikan* CARRY *bairan* DRINK *dragkjan* KNOW *kunnan* TIE *ga-bindan*
analytic with *wairþan*	two-place verbs	COVER/HIDE *ga-huljan* HIDE *ga-filhan* KILL *ga-dauþjan*
with three-place verbs	NomAccDat, NomAccGen construction (Acc is passivized)	DRESS *wasjan, ga-wasjan* DRINK *dragkjan* 'make drink' GIVE *giban* KNOW *kannjan* 'make know' LOAD *af-hlaþan* PUT *ga-lagjan* SAY *qiþan* TALK *rodjan*
	NomAccAcc (R passivized)	TEACH *laisjan*
	NomAccAcc (non-predicative passivized)	NAME *namnjan*
Causal : noncausal		
Causal member		
periphrastic causatives	one-place verbs	GO *gaggan* LIVE *liban*
	two-place verbs	HIDE *ga-filhan*
inflectional class	strong 4 verbs	BREAK *brikan*

Table 5 (continued)

Type of alternation	Verb type	Verb lemmas
derivation	*ja*-verbs	BURN *tandjan* DRINK *dringkjan* FALL *ga-drausjan* FILL *fulljan* FRIGHTEN *ogjan* KILL *ga-dauþ-jan* KNOW *kannjan* MAKE SAD *gaurjan* ROLL *af-walwjan* SINK *sigqjan* PUT *lagjan* SHOW *at-augjan* SIT *satjan* TEACH *laisjan*
Noncausal member		
inflectional class	weak 2 verbs	ROLL *walwison*
derivation	*na*-verbs	BREAK *us-bruknan* BURN *tundnan* DIE *ga-dauþ-nan*
	ablaut verbs	DRINK *dringkan* FALL *ga-driusan* KNOW *kunnan, lais* PUT *ligan* SIT *sitan*
passives	two-place verbs	DRINK *dringkan*
	three-place verbs	GIVE *giban*
	ja-verbs	FILL *fulljan* MAKE SAD *gaurjan* SHOW *at-augjan*
reflexive	experiential verbs	FEAR *ogan (sik)*
	ja-verbs	LEARN *laisjan sik* SHOW *at-augjan sik*

Table 5 (continued)

Type of alternation	Verb type	Verb lemmas
Reflexive alternation		
	two-place verbs	COVER/HIDE *huljan* DRESS *ga-wasjan* HIDE *ga-filhan* HIT *bliggwan* SAY *qiþan* TALK *rodjan* THROW *wairpan*
Reciprocal alternation		
sik misso	communication verbs	SAY *qiþan* SHOUT AT *wopjan*
	two-place verbs	SEE *saihvan* WASH *þwahan*
polyptotic construction	two-place verbs	BUILD *timrjan*

A.2 Additional examples

A.2.1 Additional examples to Section 3.2.1

BE HUNGRY *gredon*

(50) *jabai* ***gredo*** *fijand* *þeinana*
if be_hungry.OPT.3SG enemy.ACC POSS.2SG
'If your enemy is hungry . . . ' (Rom 12:20) [Gk. *allà eàn* ***peinâi*** *ho ekhthrós sou*]

FEEL PAIN *winnan*

(51) *ei* ***manag*** ***winnai*** *jah* *frakunþs*
that big.ACC suffer.OPT.PRS.3SG and reject.PTCP.PRF.PASS.NOM
wairþai
become.OPT.PRS.3SG
' . . . that he should suffer greatly and be rejected.' (Mk 9:12)

(52) *ei hveh* ***wrakja*** *galgins Xristaus ni*
that only persecution.ACC cross.GEN X..GEN NEG
winnaina
suffer.OPT.PRS.3PL
'. . . only that they might not suffer the persecution of the cross of Christ.' (Gal 6:12; see also 2Tim 3:12; 1Thes 3:4)

LIKE *ga-leikan*

(53) *in þizei mis* ***galeikaiþ*** *in siukeim,*
in REL.GEN. 1SG.DAT please.PRS.3SG in infirmity.DAT.PL
in anamahtim, in nauþim, in
in reproach.DAT.PL in necessity.DAT.PL in
wrekeim, in þreihslam faur Xristu
persecution.DAT.PL in distress.DAT.PL for X..ACC
'Therefore, I take pleasure in infirmities, in reproaches, in necessities, in persecutions, in distresses for Christ's sake.' (2Cor 12:10)
[Gk. *diò* ***eudokô*** *en astheneíais, en húbresin, en anágkais, en diōgmoîs kaì stenokhōríais hupèr kristoû*]

HELP *hilpan*

(54) ***hilp*** *meinaizos ungalaubeinais*
help.IMP.2SG POSS.1SG.GEN unbelief.GEN
'Help you my unbelief!' (Mk 9:24)

LOOK AT *in-saihvan*

(55) ***insaihvands*** *du himina*
look_at.PTCP.PRS.NOM to sky.DAT
'(Then he took the five loaves and the two fish, and) looking (up) in the direction of heaven, he blessed them.' (Lk 9:16)

PUT *ga-lagjan*

(56) *jah bedun ina ei* ***lagidedi*** *imma*
and ask.PRET.3PL 3SG.ACC that put.OPT.PRET.3SG 3SG.DAT
handau
hand.ACC.PL
'And they beseech him to put his hand upon him' (Mk 7:32; see also 1Tim 5:22)

SHOW *at-augjan*

(57) ***ataugida*** *imma allans þiudinassuns*
show.PRET.3SG 3SG.DAT INDF.ACC.PL kingdom.ACC.PL
'(And the devil . . .) showed him all the kingdoms of the world in a moment of time.' (Lk 4:5)

A.2.2 Additional examples to Section 4

GIVE *giban*

(58) *ei akranis þis weinagardis* ***gebeina*** *imma.*
that fruit.GEN DEM.GEN vineyard.GEN give.OPT.PRET.3PL 3SG.DAT
' . . . that they should give him of the fruit of the vineyard.' (Lk 20:10)

THROW *wairpan*

(59) ***wairpandans*** *nati in marein*
throw.PTCP.PRS.ACC.PL net.ACC in see.ACC
'(Now as he walked by the sea of Galilee, he saw Simon and Andrew his brother) casting a net into the sea: (for they were fishers).' (Mk 1:16)

A.2.3 Additional examples to Section 5

SEE *saihvan*

(60) *Atsaihviþ armaion izwara ni taujan*
beware.IMP.2PL charity.ACC 2PL.GEN NEG do.INF
in andwairþja manne du ***saihvan*** *im*
in face.DAT man.GEN.PL to see.INF 3PL.DAT
'And beware not to do your righteousness before men in order to be seen by them' (Mt 6:1)