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Valency Patterns in Swedish

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och hur vredgat omkring mig än stormarnas brus går
bära solskimrets gyllene krans omkring min hjässa.
(Karin Boye, *Moln*, 1922)

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1. Introduction

Verbal valency has a long story of researches in linguistics, and the comparison among valency structures from different languages has received renewed attention, since there is common agreement on the importance played by valency and argument structures in several linguistic fields like syntax, semantics and typology. Basic valency has been thoroughly examined in many modern and ancient Indo-European languages, pushing the creation of databases such as the *Valency Patterns Leipzig* (Hartmann et al. 2013), and more recently the *Pavia Verbs Database* (Luraghi et al. 2022), with future developments on the possible reconstruction of the common Germanic protolinguistic scenario, through a fuller understanding of valency classes in modern and ancient Germanic languages, which is the aim of the ongoing VALGER project. In respect to Germanic languages, in fact, the PaVeDa did not have data on any of the mainland Scandinavian languages, which is the reason why the research shown in this work felt necessary.

Valency in Swedish linguistics has been treated as a strategy to approach other topics as in Walder's (2004) research on function verbs, or as a consequence of other phenomena, like in Lyngfelt's (2007) study on reflexive and deponent constructions. Malmgren & Toporowska Gronostaj (2009) address the problem of the description of valency in Swedish dictionaries, without further exploring how it affects Swedish verbs. More recently, De Cuypere et al. (2014) make a corpus-based analysis of the passive alternation in Swedish, without describing, however, how the alternation itself acts on the arguments.

Given that the state of art, this research aims at describing the valency alternations available in Swedish. As explained in Chapter 2, the PaVeDa project allows a proper description of valency patterns. The PaVeDa methodology requires a corpus-based approach to the topic, that will be described in Chapter 3, after a clear and concise introduction to the Swedish language and to the corpus chosen for this research. Chapter 4 will then describe Swedish basic valency patterns,

before moving to a thorough examination of the argument alternations found in the corpus.

2. Theoretical frame

This chapter will briefly introduce the theoretical frame that underlies this research, describing the concept of verbal valency (Section 2.1), subsequently presenting the PaVeDa project and its terminology in relation to verbal valency (Section 2.2).

2.1 Valency and argument structure

The concept of valency, a term borrowed from chemistry, was first introduced by Tesnière (1959) to describe the relation between a verb and its arguments. As valency in chemistry is defined as the number of bonds, i.e. the combining capacity, that an atom can form, so valency in linguistics is the number of mandatory complements required by the verb to express its meaning in a proper grammatical sentence. In Tesnière's interpretation, the *actants* were the complements expressing the semantic participants needed to complete the *procès*, i.e. the action expressed by the verb meaning. According to this view, since valency represents the number of arguments required by every single verb, it can be considered a lexical property. As every verb has its own number or arguments, their possible combinations and the information they carry have to be considered idiosyncratic and very word-specific. (Herbst & Gotz-Votteler 2007).

In theoretical linguistics, the *actants* defined by Tesnière are called arguments, a term that comes from logic (Ježek 2016). An argument can be a noun, an adverb, a prepositional phrase, or even a subordinate clause (Luraghi 2010), and its most remarkable characteristic is obligatoriness, that distinguishes it from any other complement, that in this perspective is called adjunct, adverbial or circumstantial. The lack of obligatoriness makes the adjuncts mere syntactical elements, whose presence or absence is irrelevant to the semantics of the verb:

(1) *Bollen* *rullade* *långsamt* *mot* *hål*

ball.SG.DEF roll.PST slow.ADV towards hole.SG

'The ball rolled slowly towards the hole.' (Svt Nyheter 2005)

In its basic valency structure, the verb *rulla* 'roll' only requires the subject to convey its actional meaning, while the phrase *mot hål* 'towards the hole' specifies the direction of the movement, but does not contribute to express the meaning of the verb. For this reason, *bollen* 'the ball' must be considered an argument, while the prepositional phrase *mot hål* is an adjunct. Sw. *rulla* is hence a monovalent verb. As shown by the example above, adjuncts can usually give more information about the space and time where the action takes place but can also specify the manner or indicate the instrument used to perform the action (see Luraghi 2010).

Despite this apparently clear distinction, tracing the line between arguments and adjuncts is not always an easy endeavor. The verb *gömma* 'hide' offers an example of this difficulty:

(2) *mannen* *gömde* *kroppen* *på* *balkongen*

man.SG.DEF hide.PST body.SG.DEF on balcony.SG.DEF

'The man hid the body on the balcony' (Svt Nyheter 2006)

The fact that *gömma* is a bivalent verb appears obvious, being it transitive. However, one could question argumental vs. adjunctival nature of the prepositional phrase *på balkongen* 'on the balcony': even without being strictly necessary to complete the meaning of the verb *gömma*, the place where something is hidden usually appears in the sentence, proving that the border between arguments and adjuncts can sometimes be very thin.

The number of arguments required by the verb, their syntactic expression and the semantic relation to the verb, make up its argument structure (see Grimshaw 1990). When the number of arguments associated to a verb varies or is

rearranged in relation to semantic needs, the resulting structure constitutes an argument — or valency — alternation, that can include, for example, variations on the argument number (i.e. addition or omission), cases of argument displacement, changes in voice and others (see the relevant chapters).

2.2 The PaVeDa project

The aim of this research is to analyze Modern Swedish through the methodology of the *Pavia Verbs Database* (hencefoprth PaVeDa), creating a corpus on Swedish valency alternations that can be integrated to the existing database. The PaVeDa is "an open-source relational database for investigating verb argument structure across languages" (Zanchi et al. 2022), that has been created to expand and enrich the already existing ValPaL (*Valency Pattern Leipzig*) database (Hartmann et al. 2013). The PaVeDa was developed following the studies of Levin (1993), who suggested that syntactic diagnostics could be applied to achieve a semantic classification of verbs. The PaVeDa thus aims at studying verb valency classes from a cross-linguistic perspective, adding data on older language stages of those languages, for which data is already available through the ValPaL database, and adding corpus-based data on other modern European and non-European languages.

Together with the objectives above, one of the main efforts of the PaVeDa is refining the terminology used in the ValPaL, concerning the semantic roles expressed by the verbal arguments. See the example below:

(3) *så* *vi* *frös*

so 1PL freeze.PST

'so we froze' (Svt Nyheter 2006)

In the ValPaL database, the only argument of FEEL COLD *frysa* could have been labeled as S, the single central argument of intransitive verbs, regardless of its actual semantic role, that is closer instead to that of an Experiencer. In this respect, the PaVeDa makes a bigger effort to distinguish the arguments syntactic and semantic properties, introducing missing labels and correcting the discrepancies in the already present ones, in order to allow a further level of comparison among the project languages (Luraghi et al. 2024).

However, since this work pretends to cast only a preliminary look into the Swedish verbal valency patterns, microroles will not be further explored in the following chapters, making only, when necessary, some brief observations in this respect.

3. Data and methodology

3.1 The Swedish language and its history

Swedish is one of the three main Scandinavian languages, together with Norwegian and Danish. Together with other languages such as Icelandic and Faroese, they are part of the northern branch of Germanic. Swedish and Danish constitute the eastern branch of North Germanic.

The history of Swedish is traditionally divided by Scandinavian linguists in four major periods: the runic period (*runsvenska*) that dates back to 800 CE; the Old Swedish period (*fornsvenska*), that goes from roughly 1250 to 1526; the Modern Swedish period (*nysvenska*), from 1526 to the end of the 19th century; finally, the Contemporary Swedish period, which began with the 20th century. The very first Old Swedish text is the Westrogothic Law (*Västgötalagen*). The translation of the New Testament in Swedish commissioned by king Gustav Vasa in 1526 marks instead the beginning of Modern Swedish, a very long historical

period that saw substantial grammatical changes[1], such as the loss of the case system and the stabilization of the modern article system (Larsson & Petzell 2022). By the end of the 19th century, with the works of August Strindberg, the grammatical system of Swedish became similar to that of the contemporary language, except for the plural forms of verbs which were gradually lost, however, during the 20th century. In this research, I will refer to Swedish in the narrow sense of standard language, which was shaped on the varieties along the Baltic coast around the Stockholm region (Thelander 2011), as it is the historical capital and main cultural center of Sweden. ¨

3.2 The Corpus KORP

The texts used as data come from the *SVT Nyheter* online newspaper, one of the main Swedish news channels. I decided to opt for the language as found in a very widespread newspaper, because it guarantees that the data are elicited from a language variety that is neither too formal nor too informal, so that the linguistic occurrences found are closer to the users' daily speech. In addition, having examples from a speaker-friendly variety of Swedish, such as the one used in online newspapers, allows for full management of the elicited data, yielding a higher accountability of the structures found.

Data was elicited through the tool *KORP*, which enables the access to several annotated corpora from a wide variety of Swedish texts, gathered in the *Språkbanken* (Forsberg et al. 2025), the online database provided by the University of Gothenburg, currently the widest linguistic database available for the Swedish language. The *Språkbanken* contains data spanning from Old Swedish laws and literary prose to modern authors and online speakers. Contemporary data in the *Språkbanken* were also gathered from a wide range of communicative situations:

[1] Given its extremely wide duration, Scandinavian linguistics further distinguish between Early Modern Swedish (1526–1732) and Late Modern Swedish (1732–late 19th century)

online communities, social networks, blogs, parliamentary sessions and finally, several kinds of news broadcast websites.

The journalistic corpus that I decided to use for this research comes then from a wide data sample, which I shrinked down to a smaller corpus made up of the news from the main Swedish news broadcast network, the SVT (*Sveriges Television*), containing news articles from 2004 to 2023. To further circumscribe data elicitation, I took into account only the first 100 occurrences of the basic meaning of each verb.

3.3 The PaVeDa methodology in a corpus-based analysis of Swedish

The ValPaL project (Malchukov 2015) aimed at studying valency classes variation throughout the world languages from a typological perspective, following Apresjan (1969) and Levin's (1993) studies of Russian and English, which demonstrated the link between the possibility of a classification of verbs based on their syntactic behavior. The ValPaL project, now broadened with new data by the ongoing PaVeDa project (see Section 2.2), focused on 80 verb core meanings, paired with their most fitting translational equivalents in 50 different languages, enriched also with language-specific verbal meanings. All verbs are accompanied by a description of their coding properties (flagging, indexing and word order) whose presence, according to Malchukov (2015:91) distinguishes coded alternations from uncoded ones. Both in the ValPaL and in the PaVeDa the verbs are also described through their possible alternations, that can hint to valency patterns when they satisfy the following criteria: i) they involve arguments and not adjuncts; ii) they concern the same lexeme, avoiding periphrasis; iii) they should involve referential arguments; iv) they manifest in different coding frames; v) they should not depend on properties of the argument (Malchukov 2015: 91–95). The following table displays the 80 meanings of the PaVeDa list with their chosen Swedish counterparts.

Verb meaning	Swedish counterpart
ASK FOR	be
BE A HUNTER	vara (en) jägare
BEAT	slå
BE DRY	vara torr
BE HUNGRY	vara hungrig
BE SAD	vara ledsen
BLINK	blinka
BOIL	koka
BREAK (1)	bryta (sönder)
BREAK (2)	slå (sönder)
BRING (1)	ta med
BRING (2)	hämta
BUILD	bygga
BURN	brinna
BURN (TR.)	bränna
CARRY	bära
CLIMB	klättra
COOK	laga (mat)
COUGH	hosta
COVER	täcka
CUT	skära
DIE	dö
DIG	gräva
DRESS	klä
EAT	äta
FEAR (1)	vara rädd
FEAR (2)	frukta
FEEL COLD	frysa

FEEL PAIN (1)	ha ont
FEEL PAIN (2)	göra ont
FEEL PAIN (3)	smärta
FEEL PAIN (4)	värka
FILL	fylla
FOLLOW	följa
FRIGHTEN	skrämma
GIVE	ge
GO (1)	gå
GO (2)	åka
GRIND	mala
HEAR	höra
HELP	hjälpa
HIDE	gömma
HIT	slå
HUG	krama
JUMP	hoppa
KILL (1)	slå ihjäl
KILL (2)	döda
KILL (3)	mörda
KNOW (1)	veta
KNOW (2)	känna
LAUGH	skratta
LEAVE	lämna
LIKE (1)	tycka om
LIKE (2)	gilla
LIVE (1)	bo
LIVE (2)	leva
LOAD	lasta

LOOK AT	titta
MEET (1)	träffa
MEET (2)	möta
NAME (1)	kalla
NAME (2)	nämna
PEEL	skala
PLAY (1)	leka
PLAY (2)	spela
POUR	hälla
PUSH	trycka
PUT (1)	ställa
PUT (2)	sätta
PUT (3)	lägga
RAIN	regna
ROLL	rulla
RUN	springa
SAY	säga
SCREAM	skrika
SEARCH FOR (1)	söka
SEARCH FOR (2)	leta
SEE	se
SEND	skicka
SHAVE	raka
SHOUT AT	ropa
SHOW	visa
SING	sjunga
SINK	sjunka
SINK (TR.)	sänka
SIT	sitta

SIT DOWN	sätta sig (ner)
SMELL	känna lukten
STEAL	stjäla
TAKE	ta
TALK	prata
TEACH (1)	lära
TEACH (2)	undervisa
TEAR	riva (sönder)
TELL	berätta
THINK	tänka
THROW	kasta
TIE	knyta
TOUCH	röra (vid)
WASH	tvätta
WIPE	torka av

Table 1: PaVeDa meanings list and their Swedish counterparts

Beside listing the verbs that were analyzed in this research, the table above reveals some challenges that had to be dealt with, when applying the PaVeDa methodology to Swedish. The first and most frequent one is the issue of colexification: the meanings BEAT and HIT are both colexified by the verb *slå*, which is a quite versatile verb that could also potentially translate the meaning BREAK with *slå sönder* or KILL in conjunction with *ihjäl* 'to hell' (neither used in this study). Another similar issue is raised by the meaning TOUCH, which I decided to translate with *röra (vid)*, instead of the almost equally common *ta på*. Despite being a phrasal verb, choosing *ta på* would pose the risk of creating ambiguities and confusion, since also TAKE translates with *ta*, and the most used verb for BRING (1) is *ta med*, which is a phrasal verb shaped on *ta*.

Some of the meanings in the list display more than one single available counterpart in Swedish, like the already mentioned BRING. In these cases, the

choice of the adequate translations was driven on one hand, by the similar frequency of use, on the other hand, by the specific context of use. While verbs like LIKE (1) *tycka om* and LIKE (2) *gilla* occur in similar frequencies, other verbs can have a more specific or context-bound meaning that can be reconducted to the one listed in the PaVeDa: a good example is given by GO (1) *gå* 'go on foot' and GO (2) *åka* 'go (by transportation)', or by PUT (1) *ställa* 'put vertically', PUT (2) *sätta* 'put (generally)' and PUT (3) *lägga* 'put horizontally'. Due to the semantic properties of these verbs, the choice of more than one single counterpart could not be avoided in the elicitation of the data.

4. Swedish sentence structure and valency classes

Given what has been said so far, the basic structure of Swedish sentence will be introduced in this chapter, preceded by a succint overview of nominal and verbal inflection according to the Scandinavian traditional approach to Swedish grammar.

4.1 Swedish basic sentence structure

Swedish, which as much as the other Germanic languages used to have a full-fledged case system, has progressively lost its inflectional features. As a result, syntax came to play a bigger role with regard to the fulfilment of semantic roles in the sentence. However, Swedish maintains its historical nominative-accusative alignment, which plays a crucial role in the unambiguous discrimination of the core arguments of the verb.

The Old Swedish nominative used to encode the first argument of both transitive and intransitive verbs, hence the Agent and Subject, respectively (Dixon 1994). Having lost all its cases, contemporary Swedish leaves the task of identifying the syntactic subject of the clause to word order. The first argument of the verb is thus always in the first and preverbal position of unmarked main clauses and triggers verbal agreement, even if its formal morphological codification has

been reduced to a single ending for all persons and numbers. Other semantic roles were thus encoded through the other three cases (4), the case system declining by the 15th century:

(4) *Lucia* *gaf* *rika* *almosor* *fatöko* *folke*

Lucia.NOM give.PST.3SG rich.ACC.PL alm.ACC.PL poor.DAT.N.SG people.DAT

'Lucia gave rich alms to the poor.' (Cod. Bildstenianus, ed. Stephens 1847–1874)

Dative, which used to mark the third argument of trivalent verbs, generally intended as the syntactic indirect object, was the first case that was lost, leaving only the pronominal oblique forms, which took the place of the accusative personal pronouns. Indirect objects are now expressed by prepositional phrases, introduced by prepositions that in Old Swedish required the dative, cf. the crystallized forms in expressions with fixed adverbial meaning such as *till fullo* 'completely' or *ånyo* 'again'. While the dative was falling into disuse, the nominative started to gradually disappear, being completely replaced by the accusative as base form of all nouns. As customary in Indo-European, the Old Swedish accusative marked the second argument of bivalent verbs, which coincides with the semantic role of the Patient in prototypically transitive verbs (Croft 1991). Despite its wide use, also in conjunction with prepositions and with specific value, such as movement Goal, accusative forms gradually became the only possible noun forms in Swedish, transferring all its other functions to prepositional phrases. This process spared, however, the personal pronouns, that still retain an oblique, originally dative, form. For this reason, I decided to keep the labels "nominative" and "oblique" to distinguish between the pronouns as Subject or as other arguments. As a result of this process, the only case left in Modern Swedish is the genitive, whose masculine singular ending *-s* was extended to all genders and to the plural. By 1526, when the New Testament was first translated into Swedish, this inflectional system was already stable and well rooted.

For what concerns verbs, the historical Germanic conjugational system made of strong and weak verbs has survived until our days. The strong and the weak classes are defined by the way they build their preterit. Whereas strong verbs make use of apophony, a process which goes all the way back to Proto-Indo-European, weak verbs constitute an innovation of Germanic, whose preterit is formed by addition of a dental ending (Sw. *-de* and relative allomorphs) to the stem. A number of class changes have taken place during the centuries, mostly from the strong to the weak class, but the opposite case is also found. As for moods, Modern Swedish only has relicts of the subjunctive (e.g. *vore* 'were', *leve* 'may live'). Person and number forms were also reduced to a single form. Finally, Swedish allows two voices, the active and the passive, the latter presenting both a synthetic and an analytic form. The synthetic passive ending in *-s* is a morphological feature that Swedish shares with the other North Germanic languages, but its extension to all tenses, moods and verb classes is peculiar to Swedish (see also Laanemets 2012; 2013. The following table summarizes it:

Bokmål	indicative: group 2 weak verbs (bruktes, gjordes, nåddes) + at least some strong verbs, mainly of group 6 (toks).
	no participial forms
Danish	indicative: weak verbs from groups 1 and 2 (kastedes, brugtes, gjordes, nåedes) + strong verbs from group 6 (togs).
	no participial forms
Swedish	complete paradigm

Table 2: Possibility for the morphological passive in Danish, Norwegian and Swedish

The flexibility of this suffix allows valency alternations that will be discussed in the relative Sections, which are impossible in the other Scandinavian languages.

The loss of cases and the simplification of the verbal system had, of course, consequences for syntax, which became stricter in terms of word order and made all referential null subjects impossible. During the Late Old Swedish period (c. 1375–1526), while the case merger was being completed, the verb eventually took

its mandatory second position in main finite clauses (for a thorough examination of the phenomenon see Sangfelt 2019), leaving only to word order the assignment of the semantic roles in the sentence.

4.2 Valency classes in Swedish

Semantic roles in Swedish can be ambiguous, especially in some impersonal and passive constructions (see the relevant chapter), given that no inflectional ending marks them on nouns, but core semantic roles such as Subject, Agent, and Patient can still be outlined through different linguistic strategies.

4.2.1 Zerovalent verbs

In Swedish, as it is common in many Indo-European languages, this class of verbs mainly includes weather verbs with the impersonal neuter singular pronoun *det*, that acts as a placeholder for the otherwise missing syntactic subject.

The only weather verb in the ValPaL list is RAIN *regna*. When used without figurative meaning, it normally allows no semantic subject, therefore examples such as (5) can show its most common basic syntactic structure:

(5)	*Det*	*regnar*	*också*	*kraftigt*	*i*	*området.*
	3SG.N	rain.PRS	also	strongly	in	region.SG.N.DEF

‘It rains hard also in the region.’ (SVT Nyheter 2005)

Despite its basic structure, the verb *regna* can also be used figuratively, albeit mostly maintaining its core meaning of something inactively falling from the sky. When used in this sense, the verb *regna* allows the presence of a semantic subject, which consists is the falling material and is expressed in syntax by a simple noun, as in (6):

(6) *Sedan började brinnande delar regna ner från himlen*

Then begin.PST burning.PL piece.PL rain.INF down from sky.SG.DEF

'Burning pieces began then to rain down from the sky.' (SVT Nyheter 2006)

Together with zerovalent verbs, it is worth mentioning also BE A HUNTER, BE DRY, BE HUNGRY and BE SAD, meanings listed in the ValPaL that have no verbal counterpart in Swedish. In fact, finding an equivalent verb for meanings like these would result in the literal translation of the phrase into Swedish, e.g. *vara (en) jägare*, constructions where the copula *vara* 'be' has an equational function and functions only as a support for predication (Fillmore 1968), and according to Tesnière (1959) should be considered syntactically avalent. The same valency value applies to all the listed meanings that are rendered in Swedish as predicative phrases with *vara*, such as BE DRY *vara torr* (except for all the forms derived from its causative alternation *torka* 'make something dry' which will be discussed in Section 5.2.3.2, BE HUNGRY *vara hungrig*, BE SAD *vara ledsen* (despite this one allows a causative alternation introduced by the modal verb *låta* 'let', discussed in Section 5.1.8), and FEAR *vara rädd* in the sense of 'being afraid of something'.

4.2.2 Monovalent verbs

Verbs that belong to this class require only one core argument. A good example of this class are atelic verbs of motion with unspecified target, such as ROLL *rulla*, but also RUN *springa* (see 7):

(7) *Han sprang ifrån sina vårdare.*

3SG run.PST from POSS.3PL caregiver.PL

'He ran away from his caregivers.' (SVT Nyheter 2005)

The monovalent verbs present in the corpus selected for this research include stative verbs, such as FEEL COLD *frysa* and FEEL PAIN *smärta* and *värka*.

Specifically, these two last verbs typically require the hurting body part as their semantic subject as in (8) and (9):

(8)	*Låret*	*smärtade*	*och*	*tårarna*	*rann.*
	Thigh.SG.DEF	hurt.PST	and	tear.PL.DEF	flow.PST

'The thigh hurt and the tears ran.' (SVT Nyheter 2008)

(9)	*Han*	*vet*	*bara*	*att*	*nacken*	*värker.*
	3SG	know.PRS	only	that	nape.SG.DEF	hurt.PRS

'He just knows his nape hurts.' (SVT Nyheter 2005)

To monovalent verbs also belong several activities such as BLINK *blinka*, COUGH *hosta*, LAUGH *skratta*, SCREAM *skrika*, SING *sjunga*, TALK *prata* and one of the verbs for PLAY, namely *leka*, as in (10):

(10)	*Flickan*	*lekte*	*i*	*ett*	*bostadsområde*
	girl.SG.DEF	play.PST	in	ART.N	residential_area.SG

'The girl was playing in a residential area.' (SVT Nyheter 2005)

There are also some accomplishment and achievement verbs belonging to this class. CLIMB *klättra* and SINK *sjunka*, and DIE *dö*, JUMP *hoppa*, and SIT DOWN *sätta sig ner*, respectively, this last mentioned being actually a lexified reflexive form of PUT *sätta*, which is in turn the causative form corresponding to the stative SIT *sitta*.

According to the *Dictionary of the Swedish Academy* (henceforth SAOB), *klättra* 'climb' actually has a different nuance of meaning in Swedish, as it can be used to describe both upwards and downwards movement: the direction of the movement is described by adverbial particles — most frequently *upp* 'up' and *ner* 'down', followed by the climbing goal (11–12):

(11) *Vi* *klättrade* *upp* *på* *ett* *tak*

1PL climb.PST up on ART.N roof.SG

'We climbed on a roof.' (SVT Nyheter 2004)

(12) *när* *han* *klättrade* *ner* *från* *trädet*

when 3SG climb.PST down from tree.SG.DEF.N

'When he climbed down from the tree.' (Svt Nyheter 2010)

In this example the particles *upp* and *ner* contribute to further specifying the semantics of the verb, conveying more accurate information about the action. It is also worth spending a few words on the adverb *upp* 'up' in (11): since the preposition *på* 'on' historically derives from a no longer perceived univerbation of the two separate particles *upp* + *å* > *uppå* > *på*, the use of *upp* functions here as a reinforce to the action movement.

4.2.3 Bivalent verbs

Bivalent verbs are largely made up by prototypically transitive verbs as defined by Haspelmath (2015), where a first argument expresses the role of Agent and the second argument expresses the one of Patient. The Agent of bivalent verbs can have varying degrees of affectedness, thereby determining the grade of transitivity of the verb (see Haspelmath 2015). The bivalent verbs in my corpus span all aspectual classes: there are stative verbs (as LIKE *gilla*), action verbs like BREAK *bryta*, BEAT *slå* or HELP *hjälpa*, accomplishment verbs as EAT *äta* or FILL *fylla*, and achievement verbs like CUT *skära*.

To consent a clear view of this class, bivalent verbs will be discussed more in depth, in accordance with their transitivity degree: Section 4.1.3.1 will treat prototypically and non-prototypically transitive verbs, while Section 4.1.3.2 will discuss the less-prototypically transitive ones, with a focus on the meanings KNOW

känna and TEACH *lära* in Section 4.1.3.3. Finally, motion verbs will be addressed (Section 4.1.3.4).

4.2.3.1 Prototypically transitive verbs

To prototypically transitive verbs belong BREAK *bryta (sönder)*, BUILD *bygga*, COOK *laga*, COVER *täcka*, CUT *skära*, FRIGHTEN *skrämma*, GRIND *mala*, KILL *döda*, LOAD *lasta*, PEEL *skala*, POUR *hälla*, SEARCH FOR *söka*/*leta*, SHAVE *raka*, STEAL *stjäla*, TAKE *ta*, TIE *knyta*, WASH *tvätta* and WIPE *torka av*. All these verbs feature a clear nominative-accusative construction (see ex. 13):

(13)	*Han* […]	*bröt*	*sönder*	*hennes*	*dator.*
	3SG.M	break.PST	to_pieces	POSS.3SG.F	computer.SG

'He […] broke her computer down.' (SVT Nyheter 2010)

Whereas in prototypically transitive verbs the Patient is directly affected by the action expressed by the verb, in non-prototypically transitive ones, the Patient is not actually affected by the action carried out by the Agent and does not undergo any actual change. The most representative ones in my corpus are the pursuit verb FOLLOW *följa* and the contact verbs BEAT and HIT, co-lexified in Swedish by the verb *slå*.[2] The difference between BEAT and HIT is related to their duration and punctuality, with the first being a progressive action and the latter being a punctual one. The interpretation of the verb *slå* towards the concept of beating or hitting the patient might actually be indicated by the presence of the particles *på* 'on' or *mot* 'against', which seem to favor a more achievement-oriented and conative reading of the verb:

[2] The verb *slå* is actually a very versatile verb and is used in many compound forms to convey a range of meanings that can significantly deviate from the original one, for example in *slå på*/*av* 'turn on/off'

(14) *Han ska även ha slagit henne på baken*

3SG.M MOD even AUX hit.SUP 3SG.OBL.F on back.SG.DEF

'He is said to have hit her on her back.' (SVT Nyheter 2004)

This syntactic behavior can be directly compared to the one of the verbs with prepositional objects analyzed by Platzack (1979), who points out that the presence of a preposition that introduces the direct object reduces the interpretation of the object as a totality, hinting at what the verb *slå* shows in (14).

When *slå* has a less punctual sense, it seems to be more frequently followed by the P-argument without preposition:

(15) *För att någon annan slår sin fru*

For CONJ someone other.SG beat.PRS POSS.3SG wife.SG

'Because someone else beats his own wife.' (SVT Nyheter 2004)

As mentioned in Section 2, the verb *slå* can also be used to convey the meaning KILL, as *slå ihjäl*, which has a durational inherent sense and literally means 'beat to hell', whence 'kill'. Since the PaVeDa methodology requires to mediate between low morphological complexity and frequency, this form was not considered among in this study (see Section 3.3), despite its extremely frequent use both in the written and in the spoken language.

4.2.3.2 Less prototypically transitive verbs

When talking about less prototypically transitive verbs, we generally refer to Tsunoda's (1985) theory on the transitivity scale, where verbs with a more affected Patient occupy a higher position with respect to those where the Patient is little or not affected at all (like KNOW). In these latter cases the second argument is not really a Patient but more a Stimulus affecting an Experient, which occupies the place of the syntactic subject of the sentence. In the elicited data, this group is

represented by verbs like DRESS *klä*, FILL *fylla*, MEET *träffa*/*möta*, NAME *kalla*/*nämna*, together with communication verbs such as SAY *säga*, TELL *berätta* and SHOW *visa*. The Patient is not affected at all in contact verbs such as HUG *krama* and TOUCH *vidröra*, together with experiential verbs such as HEAR *höra*, LIKE *tycka om* and LOOK AT *titta*. Some verbs of this group, namely *krama* and *titta*, are actually rarely found with a noun phrase as their direct object, usually introduced by a prepositional phrase as in the example (16), where the preposition is almost mandatory, and in the example (17):

(16)	*han*	*kramade*	*om*	*sin*	*gamla*	*konkurrent*
	3SG	hug.PST	around	POSS.SG	old.DEF	rival.SG

'He hugged his old rival.' (SVT Nyheter 2005)

(17)	*Jag*	*har*	*tittat*	*strängt*	*på*	*honom*
	1SG	AUX	titta.SUP	strict.SG.N	on	3SG.OBL.M

'I have looked at him severely.' (SVT Nyheter 2004)

4.2.3.3 KNOW and TEACH

It is worth devoting a few lines to the meaning KNOW, whose Swedish counterparts are *veta* and *känna*. The former verb comes from PGmc **witan* a perfect formation on the PIE root **u̯ei̯d-* 'see' (LIV^2, s.v. **u̯ei̯d-*), whose meaning is hence derived as the consequence of having seen (Kroonen 2013). This primary sense of seeing restricted present uses of the verb to situations where the subject has a "necessary knowledge or skills or aptitude for something" (SAOB, s.v. *veta*). This is the reason why most of the occurences of the verb *veta* appear to have a clausal second argument instead of a nominal one, as in (18):

(18) *Jag* *vet* *att* *polisen* *har* *hållit […]*

1SG know.PRS that police.SG.DEF AUX hold.SUP

'I know that the police has held […]' (SVT Nyheter 2004)

According to the SAOB definition and the example above, the use of the verb *veta* reveals that the speaker seems to be quite unsure about the given information, which points to a mediative function of *veta*, as opposed to the verb *känna*, which points instead to a sensory source, which is often more reliable.

To understand why the verb *känna*, which primarily means 'feel', has come to also mean 'know', one has to examine its etymological history. The verb is the causative (*ja*-verb, cf. below, Section 5.2.3.2) corresponding to *kunna* 'to be able', whence the meaning 'to teach', still retained in the Icelandic cognate *kenna*. Example (19) shows this for Old Swedish:

(19) *kände* *hänne* *book*

teach.PRET.3SG 3SG.DAT.F book.ACC

'He taught her to read (lit. book).' (Klosterläsning, ed. Klemming 1877–1878)

In Swedish, the meaning possibly widened to 'feel' because of uses in which the sense 'to come to know' was accompanied by a prepositional instrumental phrase indicating the sensorial means through which a given knowledge was gathered as in (20):

(20) *kenna […]* *mädh* *handom* *och* *allom* *limom*

know.INF with hand.DAT.PL and all.DAT.PL body_part.DAT.PL

'To know […] with the hands and all body parts.'

Despite this, since the meaning FEEL does not appear in the PaVeDa list, the verb *känna* was only considered as the Swedish counterpart for the meaning KNOW, together with *veta*, and thus grouped with the least transitive bivalent verbs, as its syntactic behavior suggests.

Finally, the verb *känna* is also used to convey the meaning SMELL, through the compound form *känna lukten* (literally 'feel the smell'), for which I have only one example in my corpus:

(21) *personer* *som* *kände lukten* *av* *en* *skogsbrand*

person.PL REL smell.PST of ART wildfire.SG

'People who smelled a wildfire' (SVT Nyheter 2006)

In parallel to what was said above, it is necessary to spend some words on the meaning TEACH, which in Swedish raises a semantic issue. The counterpart for this meaning is in fact *lära*, a loanword that entered North Germanic from a West Germanic source (Tarsi 2023). This verb basic structure in Swedish usually displays a double object, where the taught to person immediately follows the verb and the taught thing, the Theme, immediately follows the person: TO TEACH SOMEBODY SOMETHING.

(22) *nytt* *språkprojekt* *lär* *invandrare* *svenska*

new.SG.N language_project.SG teach.PRS immigrant.PL swedish.DEF

'A new language project teaches Swedish to immigrants' (Svt Nyheter 2012)

Despite this construction, which according to SAOB should be the most common, when *lära* yields an absolute meaning, it appears more frequently as the phrasal verb *lära ut*, whose compound nature forces the second argument to be introduced by the preposition *till* 'to':

(23) *för att* *lära ut* *matematiken* *till eleverna*

in_order_to.CONJ teach.INF mathematics.SG.DEF to student.PL.DEF

'In order to teach mathematics to the students' (Svt Nyheter 2012)

Last but not least, if constructed reflexively, the primary reading of *lära* is 'to learn':

(24) *barnet* *lär sig* *tyska*

child.SG.DEF.N learn.PRS german.DEF

'The child learns (lit. teaches him/herself) German.' (Svt Nyheter 2006)

The compound verb *lära sig* is no longer perceived by the speakers as a compound but is treated and often listed in dictionaries as a separate phrasal verb.

4.2.3.4 Motion verbs

Following Luraghi's (2010) suggestion that location and direction can likely be argumental in motion verbs, I decided to consider the counterparts for GO (1) *gå*, GO (2) *åka* and LEAVE *lämna* as bivalent verbs, because the distribution of their locative argument suggests that it is nearly mandatory in basic unmarked sentences. This argument marks the destination or the point of departure target of the motion: while with GO (1) *gå* and GO (2) *åka* it is usually a prepositional phrase introduced by *till*, the verb LEAVE *lämna* requires it to be a simple noun phrase:

(25) *ska* *16åringen* *ha* *gått* *till* *Norrviken*

AUX 16year_old.SG.DEF AUX go.SUP to Norrviken.PN

'The 16 yearold is said to have gone to Norrviken.' (Svt Nyheter 2004)

(26)	*Han*	*lämnade*	*landet*	*år*	*2000.*
	3SG	leave.PST	country.SG.DEF.N	year.SG	2000.NUM

'He left the country in 2000.' (Svt Nyheter 2004)

4.2.4 Trivalent verbs

Trivalent verbs require three core arguments to convey their meaning, all usually appearing in unmarked sentences. The first and second arguments are generally Subject and Object, whereas the third one is semantically a Locus or a Recipient, usually introduced by the preposition *till* 'to', as it typically happens with verbs of displacement such as BRING *hämta*, CARRY *bära*:

(27)	*De ...*	*bar*	*honom*	*till*	*sängen.*
	3.PL	carry.PST	3SG.OBL.M	to	bed.SG.DEF

'They […] carried him to the bed.' (Svt Nyheter 2006)

Before moving forward it is necessary spending a few words on the meaning BRING, whose counterparts in Swedish, namely *ta med* and *hämta*, are very specific and context-bound. The use of either verb strictly depends on the direction of movement and on the way the action is performed. In particular, if the Theme is brought by the Subject to the Recipient or to the Goal, then the most fitting verb is *ta med* 'take with (oneself)'. On the other hand, whenever the Subject goes and brings the Theme away from a place to themselves, then the most adequate verb would be *hämta* 'to fetch' (etymologically *hem-ta* 'take-home'). Finally, *ta med* is usually — but not mandatorily — followed by the reflexive pronoun, co-referring the subject:

(28) *Han […]* *hämtar* *hem* *alkohol.*

3SG.M bring.PRS home.ADV alcohol.SG

'He […] brings home alcohol.' (Svt Nyheter 2004)

(29) *Jag* *tog med* *mig* *produkterna* *till* *min* *läkare*

1SG bring.PST REF product.PL.DEF to POSS.1SG doctor.SG

'I brought the products to my doctor.' (Svt Nyheter 2004)

Other semantic classes within this group are: verbs of transfer like GIVE *ge* and SEND *skicka*, verbs of communication like SAY *säga* and TELL *berätta*, verbs of display like SHOW *visa* and, less prototypically, verbs of request like ASK FOR *be*:

(30) *I* *brevet* *ber* *de* *uppgifter* *om* *personer*

In letter.DEF.N ask.PRS 3PL data.PL about person.PL

'In the letter they ask information about people.' (Svt Nyheter 2005)

The third argument of communication and transfer verbs like SAY *säga* and SEND *skicka* can equally be humans or institutions, which are transferred the semantic properties of a human receiver and hence syntactically treated in the same way:

(31) *Det* *säger* *polisen* *till* *Svenska Dagbladet.*

That say.PRS police.SG.DEF to Svenska_Dagbladet.PN

'That says the police to Svenska Dagbladet.' (Svt Nyheter 2004)

To the trivalent group belong also placement verbs whose third argument is introduced by a preposition of movement/state (historically depending on the governed case) such as *på* 'on' or *i* 'in', such as LOAD *lasta* and POUR *hälla*. In the case of PUT, however, whose Swedish counterparts can be *sätta* 'put (generally)',

lägga ‘put horizontally’ or *ställa* ‘put vertically’, the preposition introducing the third argument depends on the final position of the item in the placing action:

(32) *Vårdchefen* *hällde* *diskmedel* *i* *mjölken*

Head_of_care.SG.DEF pour.PST dish_soap.SG in milk.SG.DEF

‘The head of care poured dish soap in the milk.’ (Svt Nyheter 2004)

(33) *jag* *satte* *dem* *under* *hans* *näsa*

1SG set.PST 3PL.OBL under POSS.3SG.M nose.SG

‘I put them under his nose’ (Svt Nyheter 2004)

There are cases where the Recipient can be interpreted as a Beneficiary,[3] a reading that is explicated in syntax by means of the preposition *för* ‘for’, that introduces the third argument instead of the more neutral *till*. This is common with verbs like SHOW *visa* and TELL *berätta*, as in the following example:

(34) *Mannen* *berättade* *detta* *för* *den* *svenske* *ambassadören.*

Man.SG.DEF tell.PST DEM.N for ART Swedish.DEF ambassador.DEF

‘The man told this to the Swedish ambassador.’ (Svt Nyheter 2004)

The preposition *för* introduces also the third argument of the verb NAME *kalla* or *nämna*, the only trivalent verb in the corpus, whose third argument role is not the Recipient, but is instead the name received by the entity addressed in the naming action (35), even if there are cases where the given name is a simple noun phrase without preposition (36), especially with the verb *nämna* (37):

[3] This should not be confused with the Beneficiary added by the so-called *beneficiary alternation*, where this argument is usually introduced by the directional preposition *åt* ‘towards’ (see Section 5.1.3)

(35) *N.* *kallas* *bland annat* *för korkad* *snorvalp*

N. call.PRS.PSV among_other_things.ADV for dumb.SG little_brat.SG

'N. is called dumb little brat, among other things.' (Svt Nyheter 2004)

(36) *hon* *kallat* *honom* *taliban*

3SG.F call.SUP 3SG.M.OBL taliban.SG

'She called him Taliban.' (Svt Nyheter 2004)

(37) *T. O.* *vill* *ännu* *inte* *nämna* *några* *belopp*

T. O. want.PRS yet not name.INF any amount.SG

'T. O. does not want to name any amount yet.' (Svt Nyheter 2004)

4.2.4.1 Double objects in Swedish

Teleman et al. (1999) defines the double object construction as involving a mostly human agentive Subject, an Indirect Object denoting the Recipient, in most of the cases also human, and a Direct Object that is the semantic Theme of the action. Beside the same Teleman et al. (1999), who describe the double-object verbs their referential grammar, the double-object construction in Swedish has been thoroughly studied, among others, by Lundquist (2014), as well as by Silén (2008a) and Valdeson (2017; 2021; 2023), who focus more on ditransitive constructions.

The double object construction is typical of verbs of transfer, and as in other Germanic languages, it is a legacy of the lost dative case. In Old Swedish, as well, the Recipient argument used to appear in the dative and was normally preceded the given object or Theme in the sentence:

(38) *Nu* *giver* *præstr* *bondæ* *sak …*

Now give.PRS.SG priest.NOM.SG farmer.DAT.SG thing.ACC.SG

‘Now the priest gives the farmer a thing […].’ (Upplandslagen Cod. Holm B 1300–1350)

The same structure without case markings, of course, has been kept in contemporary Swedish, where the semantic roles are solely marked by the syntactic position of the arguments:

(39) *En* *kamrat* *som* *gav* *honom* *kniven*

ART comrade.SG REL give.PST 3SG.OBL.M knife.SG.DEF

‘A comrade that gave him the knife’ (Svt Nyheter 2004)

Valdeson (2021) argues that the use of the double object construction seems to be related to the discourse prominence of the Theme or of the Recipient arguments, making it a pragmatically marked construction, even if sometimes the choice can be made from the grammatical weight of the words, as in (39) where the Recipient is a pronoun, that is discoursively and semantically heavy.

Both Silén and Valdeson agree that verbs of handing like SEND *skicka* favor the prepositional object introduced by *till*, cognate with e.g. Ger. *Ziel* ‘objective’, as the research in my corpus confirms with occurrences like the following:

(40) *Barn* *har* *skickat* *brev* *med* *önskelistor* *till* *tomten*

child.PL AUX send.SUP letter.PL with wishlist.PL to Santa.DEF

‘Children have sent letters with their wishlists to Santa’ (Svt Nyheter 2004)

The same Valdeson (2017) argues that verbs of giving like GIVE *ge* favor instead the double object construction, while in this case, my corpus seems to contradict

this trend, since in most of the occurrences where the Recipient of the verb GIVE *ge* is overtly expressed in the sentence, this argument is introduced by a prepositional phrase, instead of appearing in a double object construction:

(41) *man säkert kan ge rätt information till barnet*

3SG surely MOD give.INF right.SG information.SG to child.DEF.N

'One can surely give right information to the child' (Svt Nyheter 2004)

A similar distribution can be observed in verbs of sending like *skicka* 'send' (see example (40) above) and verbs of handing like *överlämna* 'hand over' (not listed in the PaVeDa):

(42) *Japan överlämnade på fredagen en protest till Peking*

Japan hand.PST on Friday.SG.DEF ART protest.SG to Beijing

'Japan handed over on Friday a protest to Beijing' (Svt Nyheter 2004)

The double object construction seems to be instead favored by situations where the Recipient is definite (Teleman 1999) or pronominal, both cases that align with the concept of referential prominence as described by Ariel (1990). Unmarked constructions like (44) are in fact very frequent in Swedish, but not in English, for example:

(43) *Snöovädret gav vägtrafiken svårigheter.*

Snow_storm.DEF give.PST road_traffic.DEF difficulty.PL

'The snow storm gave difficulties to(!) road traffic.' (Svt Nyheter 2004)

Given what has been said so far, to the aims of this research the double object construction will be treated as an argument alternation (see Section 5.1.3), since the contexts of employ and the semantic limitations which the construction seems

to be subjected to (Valdeson 2021) make it difficult to consider it an unmarked structure, at least for the verbs in the ValPaL list.[4]

5. Swedish alternations

Within the PaVeDa methodology, one distinguishes between uncoded and coded alternations. According to Haspelmath & Hartman (2015), uncoded alternations are those where the verb form is the same across all alternant valency frames, while coded alternations are realized through some explicit mark (Malchukov 2015) or morphological change on the verb.

The first part of this chapter will thus take into examination the uncoded alternations (Section 5.1), according to the argument involved, such as the Object (Sections 5.1.1 and 5.1.2), the Recipient (Section 5.1.3), the Instrument (Section 5.1.4) and Locus (Section 5.1.5). Finally, Section 5.1.6 will analyze pronoun-involving alternations. The second part will deal instead with coded alternations, namely the passive alternation (Section 5.2.1), the reciprocal alternation (Section 5.2.2) and the anticausative and causative alternations (Section 5.2.3).

5.1 Uncoded alternations

Uncoded alternations are overwhelmingly attested in the corpus, and are those that cause most of the rearrangements among the semantic roles and that more often affect the number of arguments in the sentence. Due to this extended influence on syntax and semantics, they will be treated according to the type of participants that are affected by the alternations.

[4] I refer, of course, to the counterpart verbs to the ValPaL meanings list that can support a double object construction

5.1.1 Object-involving alternations

According to what was said on bivalent verbs in chapter 4, in presence of transitive verbs the object should be identified as a Patient, because its grade of affection varies according to the grade of transitivity of the verb. In Swedish, the distinction between Object and Patient does not seem to limit the possibility to remove the latter, also when highly affected, such as KILL (3) *mörda*:

(44) *att mörda så mycket och så grymt som möjligt*

kill.INF so much.ADV and so cruel.ADV as possible.ADV

'to kill as much and as cruel as possible.' (Svt Nyheter 2005)

This kind of alternation is common in the corpus, and can also be applied to the Object of verbs with a lower degree of transitivity, like WASH *tvätta* and WIPE *torka av*:

(45) *Man kan duscha varmt, tvätta och laga mat.*

3SG MOD take_a_shower.INF warm.N wash.INF and cook.INF food.SG

'One can take a warm shower, do the washing and cook.' (Svt Nyheter 2005)

(46) *Töm den […] och torka av med en blöt trasa.*

empty.IMP 3SG.OBL and wipe.IMP with ART wet.SG rag.SG

'Empty it […] and wipe it with a wet rag.' (Svt Nyheter 2013)

In such cases, a very common alternation is the one described by Goddard (2013) as *understood object*, occurring whenever "a canonically transitive verb appears in this derived pattern without an overt object, usually implying a specific kind of expected object". This definition applies very well also to Swedish, as it can be

seen among the alternations of the verbs WASH *tvätta* and WIPE *torka av* above, but also EAT *äta* (47), FRIGHTEN *skrämma* (48) and HELP *hjälpa* (49).

(47) *11* *personer* *åt* *på* *restaurang.*

NUM person.PL eat.PST at restaurant.SG

‘11 people ate at the restaurant.’ (Svt Nyheter 2005)

(48) *Böter* *skrämmer* *inte.*

fine.PL frighten.PRS NEG

‘Fines do not frighten.’ (Svt Nyheter 2005)

(49) *Enkla* *insatser* *kan* *hjälpa.*

simple.PL achievement.PL MOD help.INF

‘Simple achievements can help.’ (Svt Nyheter 2004)

There are also cases where the argument conveying the direct object is simply omitted, as it happens for example in Old Swedish an Old Norse (Tarsi 2025). This can occur also with verbs that semantically imply a final achievement, just like the verbs ASK FOR *be* and SEARCH FOR (1) *söka* below, that omitting the direct object acquire some kind of atelic interpretation (Tarsi 2025):

(50) *Jag* *kunde* *inte* *ha* *bett* *om* *något* *bättre.*

1SG MOD.PST NEG AUX be.SUP about something good.COMP

‘I could not have asked for anything better.’ (Svt Nyheter 2004)

(51) *Det beror […] på hur lång tid de söker och också*

3SG depend.PRS on how long time.SG 3PL search.PRS and also

'It depends […] on how long they have been searching and also […]' (Svt Nyheter 2004)

According to what emerges from the corpus, the direct object omission also seems to be more likely to occur with verbs that lack an inherent final point (Cennamo 2015), and so behave, for example, verbs of intellectual activities such as KNOW (1) *veta*, TEACH (2) *undervisa* and THINK *tänka*, as in the following examples:

(52) *De tanker att lärarna […] undervisar bra.*

3PL think.PRS CONJ teacher.PL.DEF teach.PRS well.

'They think that the teachers […] teach well.' (Svt Nyheter 2004)

(53) *Telia S. "inte tänker i termen av stora sparpaket"*

PN NEG think.PRS in term.PL of big.PL saving_package.PL

'Telia Sonera does not think in terms of major saving packages.' (Svt Nyheter 2004)

Due to their communicational meaning, the same counterparts for TEACH (1) *lära* and TEACH (2) *undervisa* can take a clause as their direct object (see (54) below), together with other communication verbs like SAY *säga* and TELL *berätta*. The content of the clause of the verb *säga*, in particular, can either appear as a dependent clause introduced by *att* 'that', or, less frequently, as the speech itself directly reported:

(54) *för* *alla* *som undervisar att* *känna* *till mekanismer*

for all.PL REL teach.PRS CONJ know.INF mechanism.PL

'For all those who teach to be familiar with mechanisms.' (Svt Nyheter 2015)

(55) *Ambassadören* *säger* *att* *många* *Svenskar*

ambassador.SG.DEF say.PRS CONJ many.PL swede.PL

'The ambassador says that many Swedes […]' (Svt Nyheter 2004)

The object can appear as a clause also with other verbs involving vocal transmissions like SCREAM *skrika* and SHOUT AT *ropa*[5], as well as with the verb NAME (2) *nämna*, where the sense of naming something slightly changes into that of mentioning something that was previously said:

(56) *för* *att* *ha* *skrikit* *rasistiska* *glåpord*

for CONJ AUX scream.SUP racist.PL taunt.PL

'For having screamed racist taunts.' (Svt Nyheter 2004)

(57) *Tidigare* *har* *Reinfeldt* *nämnt* *att* *människor […]*

early.COMP AUX.PRS PN name.SUP CONJ person.PL

'Earlier Reinfeldt has mentioned that people […]' (Svt Nyheter 2004)

[5] Although in this case the verb just means 'to shout' and does not have the negative sense of scolding someone as in the ValPaL list.

5.1.2 Resultative, cognate and kindred object

For verbs whose meaning may imply some sort of achievement like CUT *skära* and GRIND *mala*, the resulting state of the object is generally introduced by the preposition *i* 'in' or goal-oriented *till* 'to', like in the examples below:

(58) *Skala och skär äpplet i 24 tärningar.*

peel.IMP and cut.IMP apple.SG.DEF.N in 24 die.PL

'Peel and cut the apple in 24 dice.' (Svt Nyheter 2005)

(59) *och gammalt kött maldes till köttfärs.*

and old.SG.N meat.SG grind.PST.PSV to mincemeat.SG

'And old meat was ground into mincemeat.' (Svt Nyheter 2007)

The verb HIT *slå*, however, can appear in a very specific structure that displays the result of the action as the direct object of the verb, while the real Patient, i.e. the hit thing, is introduced by the preposition *i* 'in', as in the example below:

(60) *personbilen […] slog hål i tanken*

person_car.SG.DEF hit.PST hole.SG in tank.SG.DEF

'The passenger car […] made a hole (by hitting) in the tank.' (Svt Nyheter 2004)

While this can appear, at a first glance, like a resultative alternation, Viberg (2016) explains that it is instead an idiosyncratic use of the verb *slå*, being highly polyfunctional in Swedish, where the word *hål* 'hole' behaves like a verbal particle and results in an "expression that can be used concretely but is often used abstractly" (Viberg 2016: 201).

It is worth noting that with some verbs the resulting Object can belong to the same semantic field of the verb or share the same etymology with it, hence

instantiating the cognate/kindred object alternation. Kindred objects pertain to the same semantic field of the verb, whereas cognate objects share the verb's root etymology. The example in (61) exemplifies a cognate object, which, synchronically, can also be seen as kindred, given that the formal relationship between *mala* 'grind' and *mjöl* 'flour' is quite obscured by historical phonological processes.

(61) *sista* *kornsäckarna* *maldes* *till* *mjöl*

last.PL corn_sack.PL.DEF grind.PST.PSV to flour.SG

'The last sacks of corn were ground into flour.' (Svt Nyheter 2010)

There is a small group of intransitive verbs, which can be transitivized through the insertion of cognate/kindred objects, e.g. SING *sjunga* (62) and JUMP *hoppa*. Similarly, also NAME (2) *nämna* or PLAY (2) *spela* (63), that have a low transitivity grade:

(62) *eleverna* *nu* *tillåts* *sjunga* *sånger* *av* *populära* *artister*

student.PL.DEF now allow.PRS.PSV sing.INF song.PL of popular.PL artist.PL

'Students are now allowed to sing songs of popular artists' (Svt Nyheter 2005)

(63) *när* *de* *spelade* *ett* *spel* *med* *våld*

when 3PL play.PST ART.N game.SG with violence.SG

'When they played a game with violence' (Svt Nyheter 2008)

5.1.3 Recipient omission and addition

Teleman et al. (1999 2:507) state in their referential grammar that the role of the Recipient encompasses a wide range of semantic roles related to one another, that

can include Experiencers, Receivers, Beneficiaries, Maleficiaries and Addressees. My corpus confirms this, offering samples of most of the roles identified above.

First, the Recipient can be omitted with verbs that have a trivalent basic frame in unmarked sentences, without causing major changes in their semantics. Only GIVE *ge*, TEACH (1) *lära* and TEACH (2) *undervisa* display this kind of alternation in the corpus. While the semantics of the verb *ge* requires a receiver of the Theme, for the verbs *lära* and *undervisa* the Recipient is the beneficiary of the action. The clearest example of Recipient omission comes from the verb *ge*:

(64) *vd:n ger en annan förklaring och skyller på […]*

CEO.SG.DEF give.PRS ART other.SG explanation.SG and blame.PRS

'The CEO gives another explanation and blames […].' (Svt Nyheter 2004)

As for both counterparts of TEACH, *lära*[6] and *undervisa* the Receiver actually represents the one who benefits from the teaching, in their case the Recipient can be identified as a less prototypical Beneficiary, since there is no preposition introducing it (see below), and can thus be omitted, when the verb is used in an absolute way:

(65) *Skolan skulle lära ut arbetarrörelsens historia.*

School.SG.DEF MOD teach.INF Labor_Movement.SG.DEF.GEN history.SG

'The school should also teach the history of the Labor Movement.' (Svt Nyheter 2004)

[6] Note that Recipient omission is possible only when the verb *lära* appears in its semi-equivalent form *lära ut* (see the paragraph on TEACH counterparts above)

(66) *Lärarna som undervisar i ett eller flera ämnen […]*

teacher.PL.DEF REL teach.PRS in one CONJ more.PL subject.PL

'The teachers that teach one or more subjects […]' (Svt Nyheter 2005)

As mentioned above, the Recipient can sometimes be a Beneficiary. Since the ValPaL project aims, among other goals, at giving more specific tags to likewise specific participants, distinguishing the Beneficiary here becomes essential. In Swedish, the Beneficiary of an action is generally introduced by a preposition, most frequently by *för* 'for' and *åt* 'at', the latter being an originally directional preposition that in Swedish acquired a mainly benefactive sense, configurating the so-called benefactive alternation:

(67) *Tränaren gav också överbetyg åt kantspelaren.*

trainer.SG.DEF give.PST also overrated_grade.PL to winger.SG.DEF

'The trainer also gave overrated grades to the winger.' (Svt Nyheter 2005)

As quickly mentioned before, the preposition *åt* generally introduces the Beneficiary of the action, but it can also yield a negative sense, as it happens with the verb SHOUT AT *ropa*, whose Maleficiary is introduced by *åt*, giving to *ropa* the more negative sense that is firstly intended in the ValPaL:[7]

(68) *Demonstranter ropade slagord åt kungen.*

demonstrator.PL shout.PST slogan.PL to king.SG.DEF

'The demonstrators shouted slogans at (against) the king.' (Svt Nyheter 2008)

[7] The fact that the ValPaL list is in English generates of course interpretational bias: the Swedish counterpart of the verb SHOUT AT is the same *ropa åt* that appears in the example above, but it cannot be considered a verb on its own.

The benefactive alternation applies to a heterogeneous group of verbs, where the prepositions introducing the Beneficiary can vary according to each single verb. This happens for communicative verbs like SCREAM *skrika*, and achievement verbs such as SEARCH FOR (1) *söka* below:[8]

(69) *föräldrarna* *sökte* *vård* *för* *henne*

parent.PL.DEF search.PST care.SG for 3SG.OBL.F

'The parents sought care for her.' (Svt Nyheter 2004)

(70) *Publiken* *skrek* *på* *Wislander* *i takt.*

public.SG.DEF scream.PST on NP in_rhythm.ADV

'The public screamed in favor of Wislander in rhythm.' (Svt Nyheter 2004)

Experiential verbs like FEAR *frukta* and motion verbs like RUN *springa* can also have a third argument introduced by *för* that could seem, at first glance, a beneficiary or, more generally a target, representing as a matter of fact the cause of the action, introduced by a prepositional phrase:

(71) *Sedan* *springer* *jag* *för* *livet*

Then run.PRS 1SG for life.SG.DEF.N

'Then I run for (to save) my life' (Svt Nyheter 2005)

Finally, the verb TELL *berätta* is the only one in my corpus that displays a benefactive unmarked frame, with a prepositional phrase led by *för* 'for' that introduces the addressee of the speech, whose removal would constitute an

[8] Experiential verbs like FEAR *frukta* and motion verbs like RUN *springa* can also have a third argument introduced by *för* that could seem, at first glance, a beneficiary or, more generally a target. That is actually the cause of the action, which is introduced by a prepositional phrase that can be analyzed as a full clause with an omitted predicate, as in the following example

argument omitting alternation like those identified for the counterparts of TEACH, some paragraphs above:

(72) *Mannen berättade detta för den svenske ambassadören.*

man.SG.DEF tell.PST DEM.N for ART Swedish.DEF.M ambassador.SG.DEF

'The man told this to the Swedish ambassador.' (Svt Nyheter 2004)

(73) *I själva verket hade mannen berättat det ett år tidigare.*

in_fact.ADV AUX man.SG.DEF tell.SUP that ART.N year.SG early.COMP

'The man had in fact told that one year before.' (Svt Nyheter 2004)

Whenever the Beneficiary is the Subject itself, one speaks of self-benefactive alternation. This alternation involves verbs whose semantics already implies an experiential subject like LAUGH *skratta* and PLAY (1) *leka*,[9] below:

(74) *Han skrattade sig igenom intervjun*

3SG.M laugh.PST REF throughout.ADV interview.SG.DEF

'He laughed (and had fun) through the whole interview.' (Svt Nyheter 2007)

(75) *Hammarby kunde leka sig vidare till tredje omgången*

PN MOD.PST play.INF REF wide.CMP to third.DEF round.SG.DEF

'Hammarby managed to play (and win) further to the third round.' (Svt Nyheter 2005)

[9] The fact that this alternation is appliable only to PLAY (1) *leka* and not to PLAY (2) *spela* is not random: while *leka* means 'engage oneself with a game' (SAOB), *spela* is more tightly 'playing with something or by some rules', with a subject that is more agentive than experiential.

Whereas in Old Swedish this alternation could also be expressed by the synthetic passive (a verb's s-form, see below Section 5.2.1; Tarsi forthcoming), Modern Swedish only allows for an analytic construction. In the corpus there seems to be no other way to mark the subject as beneficiary of its own action.

The analytic structure of this alternation allows it to be applied also to the verb DIG *gräva*, where the subject is more agentive and the action usually affects an external patient, a situation that detaches itself quite a lot from the initial middle sense:

(76) *Efter att ha grävt sig igenom lagren av jord […]*

After CONJ AUX.INF dig.SUP 3REF through layer.PL.DEF of soil.SG

'After having digged his way through layers of soil […]' (Svt Nyheter 2005)

One eventual peculiar feature of this alternation is that it can appear in idiomatic expressions like the one below with the verb EAT *äta*, where the verb meaning is refined by the adjective following the reflexive pronoun:

(77) *som ätit sig fulla på jästa äpplen*

REL eat.SUP 3REF full.PL on fermented.PL apple.PL

'[A cow and a calf] that ate (until getting) drunk on fermented apples.' (Svt Nyheter 2005)

5.1.4 Instrument-involving alternations

Another semantic role that can be transformed into an argument through alternation strategies is the Instrument, that is, the object used to perform the action. The Instrument, much like the Recipient above, can be very specific according to the meaning of the verb it accompanies, as one can observe looking at the named assigned to each verb's instrument in the ValPaL database.

Despite strong idiosyncracies correlated to the verbs, the Instrument role is not as versatile as the Recipient, that is, its semantic field seems to be quite narrow. According to Teleman (1999), the instrumental meaning is carried by the preposition *med* 'with', *genom* 'through' or prepositional locutions such as *med hjälp av* 'with the help of'. In my corpus, all the occurrences of an instrument come with the preposition *med*, as below:

(78) *Han ska ha slagit en ordningsvakt med en mobiltelefon.*

3SG.M MOD AUX hit.SUP ART security_officer.SG with ART mobile_phone.SG

'He seems to have hit a security officer with a mobile phone.' (Svt Nyheter 2004)

The instrument can be (and is) often omitted, especially with verbs whose meaning inherently require an instrument, such as BEAT *slå*, BUILD *bygga*, CUT *skära*, COVER *täcka*, DIG *gräva*, FILL *fylla*, GRIND *mala*, HIDE *gömma*, HIT *slå*, KILL (1) *döda*, LOAD *lasta*, PEEL *skala*, PLAY (1) *leka* and PLAY (2) *spela*, SHAVE *raka*, WASH *tvätta* and WIPE *torka av*. The instruments of these verbs show different properties. For example, the instrument of the verb GRIND *mala*, can acquire agentive traits and behave as an Agent:

(79) *en maskin som mal sönder spån*

ART machine.SG REL grind.PRS to_pieces.adv shavings.PL

'A machine that grinds down the shavings.' (Svt Nyheter 2009)

The reason why this placement of the instrument should be considered an alternation relies its semantic properties. The instrument has in fact some features that are typical of a proto-Agent — as defined by Dowty (1991) — for example

the fact that it can cause an event or change of state, or that it can move.[10] as it shares with it According to Baker (1997 in Levin 2005), in absence of an Agent, in fact, the Instrument becomes the Subject of a sentence when it acquires agentive properties

The meanings BEAT and HIT are colexified by the verb *slå*, whose instrumental argument seems to play a decisive role in its disambiguation. Observing the occurrences of *slå* in both meanings, the presence of an overt instrument seems to yield a telic and punctual interpretation of the action, as suggested by the meaning HIT, while when the instrument is absent, the more plausible reading seems to be that of BEAT, thus atelic and someway semelfactive. This is shown quite evidently by the following examples (together with (78) above):

(80) *män som hotar eller slår sina kvinnor även om*

man.PL REL threaten.PRS or beat.PRS POSS.3PL woman.PL even if

'Men that threaten or beat their women even if […]' (atelic and semelfactive) (Svt Nyheter 2004)

(81) *han blivit ... slagen med en köttyxa*

3SG.M AUX.SUP hit.PTCP with ART meat_cleaver.SG

'He has been […] hit with a meat cleaver' (Svt Nyheter 2004) (telic and punctual)

The telicity and punctuality of a hitting event can be conveyed also using the body part used to transfer force as the subject of the sentence. When this

[10] Dowty (1991) defines the properties of proto-Agents and proto-Patient, based on the fact that verbs impose lexical entailments on its arguments.

happens, the verb acquires an involuntary sense: drawing on Dowty (1991) theory of proto-Agents mentioned above, the Instrument level of agency is further lowered, losing its ability to be interpreted as a Subject. The emerging argumental structure can be referred to as *accidental body-part* alternation, as Goddard (2013) describes it:

(82) *han* *föll* *omkull* *och* *slog* *i* *huvudet.*

3SG.M fall.PST over.ADV and hit.PST in head.SG.DEF.N

'He fell down and hit his head.' (Svt Nyheter 2004)

It is interesting noticing that the hit body-part is introduced by the preposition *i* 'in', a stative preposition of place that is the same used to mark the exact target in the force-receiving entity in physical contact verbs, proving its extremely low agency (see Baker 1997 in Levin 2005 for comparison and reference). The verb *slå* also offers the only example in my corpus of the *with-against* alternation, defined by Goddard (2013) for English, where the instrument of hitting is coded as the direct object of the verb:

(83) *efter* *att* *ha* *slagit* *klubban* *mot* *publiken*

after CONJ AUX hit.SUP stick.SG.DEF against audience.SG.DEF

'After having hit with the stick against the audience.' (Svt Nyheter 2004)

There is finally a peculiar case related to the verb GO (2) *åka*, whose meaning implies the use of means of transport (see SAOB), that frequently accepts the instrumental argument, namely the means of transport, as its direct Object. This alternation changes the interpretation of the verb into that of taking the means of transport to perform the motion, as in the following example:

(84) *säkerheten […]* *för barnen* *som åker* *skolbuss*

security.SG.DEF for child.PL.DEF REL go.PRS school_bus.SG

'Security […] for children that ride the school bus' (Svt Nyheter 2004)

Despite the peculiarity of this structure, it is worth noticing that this change only affects syntax and does not change the semantic roles in the verbal meaning, nor promotes the Instrument to some kind of more prominent Patient-like role.[11]

5.1.5 Location and locus

Another participant whose argumental status can vary is the place where an event described by a verb takes place. The ValPaL database distinguishes two kinds of microroles that can be related to this concept: on one hand there is the location, denoting a concrete place where the verbal event occurs, while on the other hand there is the locus, which is a more or less abstract place that can be affected by the event in different ways. Except for a few verbs that, due to their inherent meaning, require a locative argument that appears in their basic unmarked frame, the location where the event takes place can be often left apart and treated as an adjunct. Verbs of motion such as GO (1) *gå*, GO (2) *åka* and LEAVE *lämna* (see ch. 4 above), or verbs of displacement of a theme like as BRING (1) *hämta*, BRING (2) *ta med* and CARRY *bära*, typically appear with a locative argument.

5.1.5.1 Locative arguments for BRING and CARRY

To understand the syntactic behavior of the counterparts for these verbs in Swedish, it is important to briefly discuss their semantics, as compared to English, first.[12]

[11] The underspecification of instrumental roles has been widely complained by Alexiadou and Schäfer (2006)

[12] As mentioned in the methodology chapter, due to the wide aims of the ValPaL project, it was inevitable that its vehicular language would be English, creating an unavoidable bias in the interpretation and selection of the core verbal meanings.

The meaning BRING displays two counterpart verbs in Swedish, labeled in this work as BRING (1) *ta med* and BRING (2) *hämta*. As for other meanings in the list, the verbal counterparts have been selected according to the principles established in the PaVeDa guidelines, where a single-word verb should be preferred to a multi-word verb. However, while the verb *bring* in English has a broader meaning, abstracting away from how the action is carried out, in Swedish, on the contrary, the selection of the verb strictly depends on the kind of movement through which the action is performed: if the Theme is fetched and brought away, the more naturally used verb would be *hämta*, whose etymology reflects this specific event.[13] Please note the use of the cognate locative adverb *hem* 'home' in the example below:

(85)	*han […]*	*regelbundet*	*hämtar*	*hem*	*alkohol.*
	3SG.M	regularly	bring.PRS	home.ADV	alcohol.SG

'He […] regularly brings home alcohol.' (Svt Nyheter 2004)

Opting instead for a more natural form, the best counterpart verb would be *ta med* 'bring', 'take', with a mandatory target argument introduced by *till* 'to' (see Section 4 above).

(86)	*Han*	*tog med*	*dottern […]*	*till*	*Somalia*
	3SG.M	bring.PST	daughter.SG.DEF	to	Somalia.PN

'He brought his daughter […] to Somalia' (Svt Nyheter 2006)

Despite the phrasal nature of the verb *ta med*, the particle *med* can be omitted, without any particular changes in the verb meaning:

[13] The verb etymology can be traced back to a compositional form *hem* + *ta* 'take home' > 'bring', 'fetch'.

(87) *De tog männen till organisationens egen bordell*

3PL bring.PST man.PL.DEF to organization.SG.DEF.GEN own.SG brothel.SG

'They took the men to the organization's brothel' (Svt Nyheter 2005)

Given all that has been said above, the choice of the counterpart verb for this research is related to two different methodological approaches, one more respectful towards the PaVeDa guidelines, the other more native-like.

5.1.5.2 LOAD

The meaning LOAD and its counterpart *lasta* requires a short paragraph on its own, as it is the only verb in the list that displays the characteristic of having a Locative argument that can be either turned into a direct Object, or promoted to the semantic Subject position through verbal passivization. The reason to this possibility is that the locative argument of the verb *lasta* is neither a point of departure, nor a target or a place, but it is the container where the Patient-like role is loaded on:

(88) *de skulle lasta timmer på lastfartyget*

3PL AUX.PST load.INF timber.SG on cargo_ship.SG.DEF.N

'They should load timber on the cargo ship' (Svt Nyheter 2007)

As mentioned above, the most common alternation affecting the locative argument of *lasta* is the so-called *locative alternation*, parallel to the one described by Goddard (2013) for English. In Swedish, the Location becomes the direct Object and the Theme is introduced by the preposition *med* 'with':

(89) *De* *lastade* *lastbilen* *med* *olika* *metaller*

3PL load.PST truck.SG.DEF with different.PL metal.PL

'They loaded the truck with different metals' (Svt Nyheter 2011)

The quite peculiar alternation that affects the locative argument of the verb *lasta*, consists instead in the fact that, in passive sentences, the location argument can be promoted to Subject, not differently from what can happen to the Patient-like one, in this case, the Theme:

(90) *Sedan* *måste* *båten* *lastas* *med* *100* *extra* *kilo*

Then MOD boat.SG.DEF load.INF.PSV with 100.NUM extra kilo.PL

'Then the boat must be loaded with 100 extra kilos' (Svt Nyheter 2005)

5.1.6 Alternations through pronouns

Some of the uncoded alternations in Swedish are realized through the use of pronouns. The pronominal alternations can either involve reflexive pronouns, such as the reflexive and self-benefactive alternations, or be realized through reciprocal pronouns or constructions.

5.1.6.1 The reflexive alternation

Some transitive verbs in my corpus allow the substitution of their direct Object with the reflexive pronoun *sig* 'oneself', appropriately inflected according to the referential Subject. This kind of alternation is generally applicable mainly with transitive verbs, only when the pronoun *sig* has a pronominal status and does not form a phrasal verb whose meaning differs from the same verb without the reflexive pronoun. The verbs that allow this kind of alternation belong to different semantic categories, mainly self-care verbs like DRESS *klä*, SHAVE *raka* and WASH *tvätta*, as follows, but it can also involve less transitive verbs like SEE *se* and NAME (1) *kalla*, and intransitive verbs like ROLL *rulla*:

(91) *Polens* *skäggigaste* *man* *har* *rakat* *sig.*

Poland.GEN bearded.SUPL.DEF man.SG AUX.PRS shave.SUP 3REF

'Poland's most bearded man has shaven himself.' (Svt Nyheter 2007)

(92) *om* *du* *rullar* *dig* *naken* *i* *den*

if 2SG roll.PRS 2REF.SG naked.SG in DEM.SG

'If you roll yourself naked in it […]' (Svt Nyheter 2005)

For the verb DRESS *klä*, the reflexive Object is frequently introduced by the preposition *på* 'on', as to reinforce the final position of the garment:

(93) *pojken* *företagsamt* *klätt* *på* *sig*

boy.SG.DEF enterprisingly dress.SUP on 3REF

'The boy enterprisingly dressed himself.' (Svt Nyheter 2005)

This happens because *klä* is treated like a verb of positioning, like PUT (1) *ställa* and PUT (3) *lägga*. Swedish counterparts for PUT are in fact tightly related to the final position assumed by the object that undergoes the action, and it is important to highlight that for the meaning PUT (3) *sätta*, in its reflexive form colexifies the meaning SIT DOWN *sätta sig*, that is thus treated as a phrasal verb and is often accompanied by the place adverb *ner* 'down', as in the following example:

(94) *Vi* *ska* *sätta* *oss* *ner*

1PL AUX sit.INF 1REF.PL down

'We are going to sit down' (Svt Nyheter 2004)

The occurrence above offers an example of the use of the reflexive pronoun *sig* as a particle, keeping its pronominal form but partially losing its pronominal meaning.

This happens regularly with the verb SEARCH FOR (1) *söka*, for instance: the pronoun *sig* constitutes here a phrasal verb with *söka*, changing its meaning to that of 'heading somewhere' (SAOB). The verb phrase, in this case, is often closed by some locative adverb as one can see in the sentence below:

(95) *att* *söka* *sig* *bort* *från* *kusten*

CONJ *head.INF* *3REF* *away* *from* *coast.SG.DEF*

'[The population had been encouraged] to head away from the coast.' (Svt Nyheter 2004)

To form the reflexive alternation, instead, the verb *söka* should also be followed by *själv* 'self', which functions as an intensifying and disambiguating element, as below:

(96) *huvudpersonen* *Peer Gynt* *söker* *sig* *själv*

main_character.SG.DEF Peer Gynt.PN search.PRS 3REF self.SG

'The main character Peer Gynt searches for himself' (Svt Nyheter 2012)

5.1.6.2 The reciprocal alternation

The so-called *reciprocal alternation* involves the use of a reciprocal pronoun, to convey the sense that the action described by the verb is mutually carried out between the Subject and the Object, that can regardless be singular or plural. This alternation in Swedish can be both uncoded and coded, as it can be marked on the verb through the ending *-s*, that is the typical mark for the passive voice, as it will be described in the next Section.

Given this, the only two examples of uncoded reciprocity in my corpus are offered by the verbs ASK FOR *be*, LIKE (1) *tycka om*, LIKE (2) *gilla*, TEACH (2) *undervisa* and also by the contact verb TOUCH *röra*:

(97) *om de tycker om varandra särskilt mycket*

if 3PL like.PRS RCP particularly much

'If they like each other particularly much' (Svt Nyheter 2006)

The use of the reciprocal pronoun *varandra*, however, is not strictly connected to the verbs above, but it can potentially be placed without any particular hindrance after any other verb whose semantics allows the mutual performance of the action. It is also worth noticing that verbs that usually require a prepositional object like TOUCH *röra (vid)*, can exceptionally take the reciprocal pronoun as their direct object without any preposition, like in the sentence below:

(98) *en sport där vi rör varandra hela tiden*

ART sport.SG REL 1PL touch.PRS RCP whole.DEF time.SG.DEF

'A sport in which we touch each other the whole time.' (Svt Nyheter 2020)

Except for these few occurrences, the rest of the verbs that display a reciprocal alternation in my corpus appear in with the passive ending, which will be discussed in Section 5.2.

5.1.7 The labile alternation

The verb BOIL *koka* and BE DRY (TR.) *torka* belong to the labile verbs, defined by Haspelmath (2022) as "verbs that can refer to a caused event (and be used transitively), or to the base event without the causal component (and be used intransitively)", without any visible morphological change:

(99) *vattnet* *kokar* *upp*

water.SG.DEF.N boil.PRS up

'The water boils up (and evaporates).' (Svt Nyheter 2007)

(100) *enligt* *åklagaren* *kokade* *kocken* *även* *potatis*

according_to prosecutor.SG.DEF boil.PST cook.SG.DEF even potato.PL

'According to the prosecutor the cook boiled even potatoes […]' (Svt Nyheter 2005)

It should be noted that the possibility of anticausativization through the labile alternation might be related to the inherent agency of the verb semantics. Departing from Comrie's (2006) observations on markedness:

> […] it is more usual for entities to freeze, dry, or wake up of their own accord, so the inchoative is typically less marked than the causative. Conversely, it is more usual for entities to be opened, broken, closed, or split by an external force […] so there the causative is typically less marked than the inchoative.

Translating this principle to the Swedish labile verbs, it can be observed that anticausativity is expressed through lability only when the verb semantics allows a less-prototypically agentive subject, like what happens with BOIL *koka* and BE DRY (TR.) *torka*: in these cases, the causative alternant is the marked one (see ex. 112 above). Otherwise, when the verb inherently has a prototypical agent, the *-s* suffix is preferred for anticausativization.[14]

[14] For prototypically agentive features see Dowty (1991)

5.2 Coded alternations

5.2.1 The passive alternation

According to Malchukov (2015), the passive alternation is a sub-type of valency-decreasing alternation, that specifically regards the demotion or the removal of the Subject. The uncoded way of realizing the passive voice in Swedish using the verb *vara* 'to be', or, more peculiarly, the verb *bli* 'to become' as the auxiliary for the main verb, which is conjugated in the past participle:

(101) *han […] blivit slagen av elevens bror*

3SG.M AUX.SUP beat.PTCP by student.SG.DEF.GEN brother.SG

'He […] had been beaten by the student's brother' (Svt Nyheter 2004)

While the use of *vara* seems to imply a stative interpretation of the resulting verbal event, using *bli* has more interesting implications. The verb *bli*, originally *bliva* (see Da. *blive* and No. *bli*), is imported in Swedish through the strong influence that Middle Low German had on the language during the 14th century (Skrzypek & Engdahl 2025), a period in which Sweden had close ties with Low German speaking people, mainly due to the Hanseatic League. The verb *bliva* gradually replaced the original auxiliary used in Old Swedish for passive forms, the verb *varþa* 'to become', which was the only passive-forming auxiliary verb at the time, as shown in the following example offered by Tarsi (forthcoming):

(102) *han wardher hulpin*

3SG.NOM.M become.PRS.3SG help.PTCP.NOM.M.SG

'He will be helped.'

For the aims of this research, I will not further describe the passive forms in Old Swedish, but a few words should be spent on the selection of the verb *bli*: its original meaning was 'remain', denoting a new static situation caused by the action. As Skrzypek & Engdahl (2025) remark, the semantic shift from 'remain' to

'become' did not affect the passive forms at the beginning.[15] It was only when it began to be used as a passive auxiliary that the verb fully acquired its current meaning of 'to become'. The semantic and diachronic journey of this verb could explain, for example, the difference in the uses of the analytic passive in Swedish nowadays, where, as highlighted by De Cuypere et al. (2014) and by the same Engdahl (2006), there is a wide range of factors that determine the choice of the periphrastic passive over the synthetic one[16], which will be discussed in the chapter on coded alternations.

5.2.1.1 The s-passive

An alternative strategy of passivization .in Swedish is the so-called *s-passive*, a morphological feature that is peculiar to North Germanic (*st*-forms in Icelandic and Faroese) and whose origin is rooted in the grammaticalization of a reflexive pronoun PGmc **sik* (Holm 1952), directly attached to the stem.

For what concerns the verbs in my corpus, the passive alternation is possible, of course, with all the transitive verbs, regardless of their grade of transitivity:

(103)	*pengarna*	*gömts*	*för*	*att*	*undgå*	*skatt*
	money.PL.DEF	hide.SUP.PSV	in_order_to	CONJ	evade.INF	tax.PL

'The money (had been) hidden in order to avoid taxes' (Svt Nyheter 2004)

As in the example above, the semantic Agent can frequently be omitted, but when it is overtly expressed, it is generally introduced by the preposition *av* 'by':

[15] The meaning of 'to become' was initially found only when *blivaI* was followed by an adjectival phrase (Skrzypek & Engdahl 2025).
[16] The factors reported by type De Cuypere et al. (2014) that determine the choice of the passive the subject number, the presence of a modal verb, the presence of an explicit agent and the characteristics of the verbal *Aktionsart*.

(104) *björnen* *söktes* *under* *eftermiddagen* *av eftersöksjägare*

bear.SG.DEF search.PST.PSV during afternoon.SG.DEF by tracking_hunter.PL

'The bear was searched during the afternoon by tracking hunters.' (Svt Nyheter 2005)

It is not rare to find *s*-forms also in subordinate infinitive sentences introduced by modal verbs, with the passive voice directly marked on the main verb in the infinitive:

(105) *salladen* *kan* *bara* *ätas […]* *i* *varma* *rätter*

salad.SG.DEF MOD.PRS only eat.INF.PSV in hot.PL dish.PL

'The salad can only be eaten […] with hot dishes' (Svt Nyheter 2004)

The passivizing function of the *s*-suffix can also be applied to verbs with very low transitivity like PLAY (2) *spela* or intransitive verbs like LAUGH *skratta*, usually in impersonal passive constructions:

(106) *det* *skrattades* *och* *drogs skämt*

EXPL laugh.PST.PSV and tell_jokes.PST.PSV

'We laughed and told jokes.' (lit. "it was laughed and it was told jokes") (Svt Nyheter 2013)

As Teleman et al. (1999, 2:554) point out, this specific use of the passivizing suffix requires the addition of an expletive syntactic subject, invariably the third-person singular neuter pronoun *det*, as a placeholder for the missing subject:

(107) *Det sägs att rånarna ska ha flytt till fots*

EXPL say.PRS.PSV CONJ robber.PL.DEF MOD AUX flee.SUP on_foot.ADV

'It is said that the robbers seem to have fled on foot.' (Svt Nyheter 2007)

(108) *Det berättas att Olav Tryggvason avskaffade […]*

EXPL tell.PRS.PSV CONJ Olav_Tryggvason.PN abolish.PST

'It is told that Olav Tryggvason abolished [the sacrificial ale].' (Svt Nyheter 2016)

This use is also particularly interesting when it comes to those structures that Engdahl (2024) refers to as *non-local passives*, a kind of passive construction where the main phrase generally contains a communication verb, while the dependent phrase contains instead an infinitive. The use of this construction is strictly limited to the *s-passive* (Ramhöj 2016) and the verb in the main clause is often a verb of belief or of communication: clear examples of this structure, in my corpus, are in fact offered by the verbs SAY *säga*, TEACH (2) *undervisa* and TELL *berätta*, that are all verbs of communication or that involve communication:

(109) *Kortet sägs ge rabatter i namngivna butiker*

card.SG.DEF.N say.PRS.PSV give.INF discount.PL in named.PL shop.PL

'The card is said to give discounts in named shops.' (Svt Nyheter 2004)

In this kind of construction, the passivization of the main clause promotes the subject of its subordinate to its own subject, a very common behavior in Swedish, as also confirmed by the remarks made by Lyngfelt (2011) on the fact that such construction seems to be much more productive in passive sentences than in the active ones.

5.2.2 Coded reciprocal

S-forms can also allow the reciprocal alternation. Differently from the uncoded reciprocal (Section 5.1.6.2), here no reciprocal pronoun is involved. This reciprocal form is usually preferred for what McMillion (2006) calls naturally reciprocal events, i.e. actions that normally require more than one subject, a parameter that is not important in the uncoded alternants. Examples of this alternation can be found in verbs like SEE *se* and HUG *krama*, like in the examples below:

(110) *Jag hoppas att vi ses ute i parkeringsplatsen*

1SG hope.PRS.DEP CONJ 1PL see.PRS.RCP outside in parking_lot.SG.DEF

'I hope we see each other outside in the parking lot' (Svt Nyheter 2005)

(111) *De dansade, kramades, grät och skrek av glädje*

3PL dance.PST hug.PST.RCP cry.PST and scream.PST of joy.SG

'They danced, hugged one another, cried and screamed with joy.' (Svt Nyheter 2005)

Despite being described by Teleman et al. (1999, 2: 556) as one of the possible meanings of the deponent *-s* form, Holmes & Hinchliffe (2013) consider reciprocal verbs built with the *s*-suffix as a separate category, as it can have a reciprocal meaning also with transitive verbs. This classification is strengthened by the occurrences of this alternation in my corpus: as shown by the examples above, it appears with HEAR *hora*, HUG *krama*, MEET (1) *träffa* and SEE *se*, which are all transitive verbs.[17] Finally, BEAT and HIT, colexified by the verb *slå*, display instead the form *slåss* 'to fight', which is a lexified reciprocal *-s* form.

[17] It has to be specified that these verbs do not have a high grade of transitivity, as for highly transitive verbs the *-s* form would be interpreted as passive.

5.2.3 Anticausative and causative alternations

The last type of alternations that can be coded on the verb are the morphologically derived anticausative alternation, which can either be yielded by labile verbs like BOIL *koka* or be derived once again through the *-s* suffix, and the causative alternation, whenever it is displayed by inchoative-causative pairs like BURN *brinna* and BURN (TR.) *bränna*.

5.2.3.1 The anticausative alternation

The anticausative alternation, as described by Haspelmath (1993), is derived from a basic transitive verb and can be marked in several ways. In Swedish, the anticausative mark is the *s*-suffix. An example illustrates this:

(112) *Stålet* *är* *sprött* *och* *bryts* *sönder*

steel.SG.DEF.N COP brittle.SG.N and break.PRS.ANTIC into_pieces.ADV

'The steel is brittle and breaks into pieces.' (Svt Nyheter 2006)

Despite this, it is necessary to observe that the use of the *-s* suffix for anticausativity is not always free of ambiguities. See the example below:

(113) *de* *använda* *kärnstavarna* *torkas*

ART.PL used.PL nuclear_rod.PL.DEF become_dry.PRS.ANTIC(PSV?)

'The used nuclear rods get dry (are dried?).' (Svt Nyheter 2006)

The inchoative form *torkas* 'becomes dry' is derived, as expected, from the causative verb *torka* 'cause to become dry', by means of the suffix *-s*. Nevertheless, as Teleman et al. (1999) point out, the interpretation of the verb in the *-s* form can be bound to semantic and syntactic features: the example above, in fact, can also allow an impersonal passive reading, where the use of the suffix gives the sentence an impersonal tone, like that of a rule or an instruction. In any case, as the suffix deprives the action of its causer, it must be included among valency decreasing alternations.

5.2.3.2 The causative alternation

The causative alternation allows to introduce an external argument, namely the Causer, which brings about a change of state event (Schäfer 2009). According to Piñón (2001), this has been traditionally defined as a lexical alternation in relation to inchoative verbs[18], where the same form can encode both a causative and an inchoative actional meaning, without any change in verbal morphology. The same definition mainly applies to labile verbs, but it can also fit some lexical causative pairs, where the causative form is derived from the intransitive verb root (Haspelmath 1993). However, there are also cases where causativity is syntactically expressed through an independent verbal element (Shibatani & Pardeshi 2002). For what concerns Swedish, syntactic causativity is realized through the auxiliary verb *låta* 'to let', conjugated in the intended tense and mood, followed by the infinitive of the main verb:[19]

(114) *JK Rowling låter en av huvudpersonerna dö*

JK Rowling.PN let.PRS one.NUM of main_character.PL.DEF die.INF

'JK Rowling makes one of the main characters die.' (Svt Nyheter 2005)

As one can see in the example above, the causative alternation rearranges the verb arguments: while the newly-introduced Causer becomes the Agent of the derived alternation, the previous Agent turns into the Patient of the alternant one.

It is also worth observing that the syntactic realization of the causative alternation can often yield a deontic meaning:

[18] See, for example, Haspelmath (1993) and Comrie (1981)

[19] The auxiliary verb can also be *få* 'to get', which will not be treated in this work, as it more frequently absolves a deontic function.

(115) *Rumänien* *låter* *USA* *bygga* *baser*

Romania.PN let.PRS USA.PN build.INF base.PL

'Romania lets the USA build bases.' (Svt Nyheter 2005)

Both of the examples above point to the the fact that causative or deontic reading of the construction with *låta* can actually be extremely context-bound: as Dixon (2000) observes, this can depend on semantic factors, like the Causee's grade of control over the action, and several others that can be related to all the participants in the action.

Together with the synthetic strategy discussed above, Swedish has also a group of (historically) morphologically derived causatives, the so-called *ja*-verbs. See, for example, the pairs BURN *brinna* – BURN (TR.) *bränna* and SINK *sjunka* – SINK (TR.) *sänka*:

(116) *I* *Hedemora brann* *ett* *radhus* *ner* *till grund*

in PN burn.INTR.PST ART.N row_house.SG down to ground.SG

'In Hedemora a row house burnt to the ground.' (Svt Nyheter 2004)

(117) *Demonstranter* *brände* *USA:s* *flagga*

demonstrator.PL burn.TR.PST PN.GEN flag.SG

'Some demonstrators burnt the USA flag.' (Svt Nyheter 2005)

Due to its remote origins, as the suffix was already productive for Proto-Indo-European (Tarsi & Zanchi 2021), this process is no longer productive in Swedish, although the verb pair is, understandably still perceived as semantically and formally intimately related. Synchronically, one could speak of conjugation class change, since the causative inflects weak, while the stative is a strong verb. Here, it was chosen to keep up with the terminology used in other studies on Germanic within the PaVeDa project. Further alternations are possible with these verbs:

(118) *två* *bilar* *som* *nyligen* *bränts*

two.NUM car.PL REL recently burn.SUP.PSV

'Two cars that were recently burnt' (Svt Nyheter 2004) (passive alternation)

(119) *Många* *unga* *bränner* *sig* *i* *solarium*

many.PL young.PL burn.TR.PRS 3REF in solarium.SG

'Many young (people) burn themselves in solariums.' (Svt Nyheter 2005) (reflexive alternation)

6. Conclusions

The overview on Swedish basic valency frames showed that, differently from what expected from the application of the PaVeDa methodology, some core meanings in the list do not have a monolexemic and distinguished counterpart. Avoiding repeated colexification and cases of inconsistency between the listed meaning and the counterpart verb, were methodological challenges that impacted the elicitation of the data and the discrimination of the alternances with their meanings. However, these cases also highlighted a certain tendence of Swedish towards the use of compound verbs whose semantic field is partially shared among more than one meaning (e.g. BRING *hämta* and BRING *ta med*), and they also shed light on the importance of particles as tools to shape the meaning of some verbs (e.g. BREAK *bryta (sönder)* and CLIMB *klättra (upp*/*ner)*). This is a very interesting feature of Swedish, where cases of colexification are very common.

The description of the basic verbal valencies of the 80 verbs prompted by the PaVeDa also allows to compare them with the other languages in the project from a typological point of view, especially with the other Germanic languages featured in the project. Since the other mainland Scandinavian languages are missing in the PaVeDa, the comparison with the basic valency of the same verbs

in Danish and Norwegian (both *bokmål* and *nynorsk*) might be interesting, especially for what concerns the uses of the *s*-suffix and its consequences in valency. Extending the research also to Faroese, would also enrich the typological data, since it is the only Scandinavian language that has quite completely lost its *st*-forms.

For what specifically concerns basic valency frames, trivalent verbs showed that Swedish double-object constructions seem to depend on the prominence of the Recipient-like role, together with some influence exerted by the semantic weight of the Theme.

Uncoded alternations involving the Object showed that, even in transitive structures, the use of prepositional objects is very widespread and that with some verbs (e.g. HIT *slå*) it might yield a more focused, telic and punctual reading of the action. This is a very remarkable use of prepositions that could be object of further studies, also from a more cognitive perspective.

The description of coded alternations, in turn, revealed the extreme versatility of the *s*-suffix, both morphologically and semantically. Besides its main passivizing function, the broad application of the *s*-suffix results in other kinds of voice alternations, where the Subject is in some way directly involved: due to its origin as a reflexive pronoun, and then middle marker (Tarsi 2023; Zanchi & Tarsi 2021), it can be now productively used in reflexive, reciprocal and anticausative alternations.

Finally, coded alternations also showed that lability in Swedish seems to be uncommon, and further comparisons with the data elicited for the other Germanic languages in the PaVeDa can perhaps lead to interesting results on the topic.

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