The Language-specific Spatial Marker *fram* in Swedish and the Expression of Frontal Orientation in English and Swedish

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Abstract

This study presents a description of the language-specific spatial marker *fram*, which has a frontal orientation, and how it is translated into English based on data from the English-Swedish Parallel Corpus. Frontal orientation is systematically encoded in English in descriptions of stative location in expressions such as *in front of the house*. However, English lacks any clear correspondence to the dynamic spatial marker *fram* in Swedish both at the structural and at the semantic level. Structurally *fram* is used both as a free word and in many compounds and derived words to an extent that has no parallel in the use of English spatial particles. At the semantic level, English translations of expressions containing *fram* usually lack any element with a frontal orientation. The meaning potential of *fram* is described in three steps: basic spatial meaning > extended spatial meanings > metaphorical meanings.

 $Keywords: \ corpus-based \ contrastive \ analysis; \ cognitive \ semantics; \ spatial \ language; Swedish/English$

1. Introduction

The semantic opposition between 'front' and 'back' is part of a system of axes. Koch, Glawe, and Holt (2011: 215) distinguish three such axes: the vertical up-down axis, the sagittal¹ front-back axis and the lateral (or horizontal) right-left axis. In English, as in Swedish, vertical orientation is frequently referred to with spatial markers that serve as stative prepositions (*above-below*, *over-under*) and as dynamic verbal particles (*up-down*). The front-back axis in English is primarily referred to with stative prepositions such as *in front of* and *behind* and to a more limited

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¹ From Latin *sagitta* 'arrow'.

extent with dynamic spatial markers with frontal orientation (*back* is special in many respects as it also refers to 'returning motion'). This is an important difference at the semantic level between English and Swedish, which has a frequent dynamic particle *fram* ('forward') with frontal orientation. There is also an important structural difference. Swedish exploits its system of basic spatial particles such as *fram* more than English in compounds and derived words (Viberg 2017a).

2. Data and overview of the semantic and structural uses of fram The study is based on data from the English-Swedish Parallel Corpus (ESPC) compiled by Altenberg and Aijmer (2000) according to the same principles as the English-Norwegian Parallel Corpus (see Johansson 2007: 9-21). The ESPC consists of original published texts in Swedish and English together with their translations. The texts are divided into two broad genres: Fiction (F) and Non-fiction (NF). The English originals comprise around 706,000 words (F: 341,000; NF: 365,000) and the Swedish originals around 661,000 words (F: 308,000; NF: 353,000). The present study is based on the Swedish originals and their translations. Concordances of all occurrences of fram/fram* as keywords were extracted from the Swedish original texts. Methodologically, this is a bottom-up corpus-based study, in the sense that all occurrences of the key words have been studied, even if a restricted number of infrequent categories or very free translations will not be accounted for. The study is theoretically based on relevant earlier studies but is open-ended with respect to results of a type that were not foreseen from the beginning.

Traditionally, words containing *fram* are discussed under various headings such as prepositions, adverbs, verb particles and compound words. This study presents a unitary analysis based on the identification of *fram* as a morpheme, which has an invariant form that can be flexibly combined with a wide range of other morphemes belonging to various word classes. The structural uses are summed up in Table 1. The use of *fram* as a spatial particle is the most frequent and basic one, but when *fram* is used as a free word, it sometimes functions as an ordinary spatial adverb rather than a particle. As a free word, *fram* is usually stressed (like other particles) and combined with a verb. In the column '*fram* as a free word' in Table 1, 'types' refer to the number of different verb lemmas that *fram* is combined with in the ESPC. 'Time' refers to a use where *fram* is not combined with a verb, see section 6.2.

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'Target field' refers to the semantic field to which the resulting phrase belongs. The fields will be introduced successively in sections 4–6. *Fram* can also appear as the initial element in a compound together with lexical words belonging to all the major word classes. Such compounds usually have abstract meaning, for example the verb *framstå* (*fram-+ stå* 'stand') 'appear, seem' and the noun *framsteg* (*fram-+ steg* 'step') 'progress', cf. 'a step forward' (metaphorically).

Table 1.	The	distribution	of the	mornheme	fram
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fram as a free word	Verb			
Target fields:	Tokens	Types		
Subject motion	227	91		
Object motion	132	33		
Postural	9	2		
Existence	36	6		
Creation	23	10		
Verbal communication	78	24		
Perception	15	9		
Cognition	59	19		
Time	77			
Other	64	31		
Total	720			
fram- in compounds				
fram- + verb	205	20		
<i>fram</i> - + participle	66	26		
fram- + noun	332	42		
<i>fram</i> - + adjective	102	5		
<i>fram</i> - + adverb	25	5		
Total	730			
Derived forms				
framme	24			
framför	337			
framåt	56			
frampå	2			
framom	1			
framifrån	2			
Total	422			

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The forms (somewhat loosely) referred to as 'derived' consist of *fram* in combination with a morpheme that functions as a preposition when it is used as a free word—except for the adverb *framme*. For reasons of space, the most frequent derived form *framför* 'in front of', which is stative and basically refers to location, will be left out of the present discussion. This preposition, when used in its basic spatial meaning, corresponds relatively closely to the English preposition *in front of*. However, other words which in addition have frequent abstract meanings such as English *before* and Swedish *före* and *inför* have patterns of polysemy that overlap. This results in a complex pattern of correspondences that also involves syntactic restructuring, but zero translation seldom occurs, unlike the case of *fram*.

3. Earlier studies and the aim and outline of the present study From a broad typological perspective, 'spatial grams' with frontal orientation are described in Svorou (1994, Ch. 4) and in Levinson (2003). The semantics of the English frontal markers *in front of* and *before* are described in Tyler and Evans (2003: 154–169).

The analysis of Swedish *fram* in section 4 builds on the thorough and theoretically insightful study by Hellberg (2007), who shows how the spatial meanings are based on four image schemas. His theory cannot be fully accounted for here, but the functions of Swedish *fram* distinguished in section 4 correspond in the main to the subsenses identified by Hellberg. From a contrastive perspective, *fram* has been compared in depth with its closest French correspondences (*s'*)*avancer* ('move forward') and *en avant* ('forward') in a monograph by Andersson (2004). What motivates the present study besides comparing Swedish with another language is the aim to cover the abstract and metaphorical meanings in addition to all major structural uses of the frontal marker *fram* both as a free word and as a constituent of derived words and compounds. This is a part of a larger investigation aiming to cover the Swedish spatial markers *upp* 'up' and *ner* 'down' and *in* 'in' and *ut* 'out' based on the same approach (see Viberg 2017a and 2021).

The semantic analysis is divided into three steps: Basic spatial meaning > Extended (or Specialized) spatial meaning > Metaphorical meaning, where there is no reference to physical space. The analysis of extended meanings is inspired by cognitive semantic theories of conceptual mappings such as metonymy, metaphor and blending (see Dancygier 2017 Part IV: 379–489) and in particular by Lindner's (1983:

317–318) idea that several of the extended meanings of the English particles *in* and *out* refer to things and ideas becoming accessible in what Lindner refers to as the 'region of interactive focus'.

The structure of the paper is as follows. Section 4 will describe the uses of *fram* with a spatial meaning, when *fram* is used as a free word in combination with various verbs of motion. Section 5 discusses non-spatial metaphorical meanings and the use of free and bound forms of *fram* in combination with a verb. The relationships between all the uses of *fram* in combination with a verb are summed up in section 5.4 to show how all the meanings can be described within a unitary framework. Section 6 gives an overview of the uses of *fram* in combination with other word classes than verbs, followed by a brief summary and conclusion in section 7.

4. The description of motion with a frontal orientation

'Motion' and 'location' can be described with reference to a 'trajector' (TR), an entity that moves or is located with respect to a certain 'landmark' (LM): *Bill* (TR) *is standing in front of the mirror* (LM). Below, TR and LM will be used throughout as convenient abbreviations. The terms were introduced by Langacker (1987: 217, 231–236) and represent generalized counterparts of 'Figure' and 'Ground' in Talmy's (1985) model of the motion situation.

Section 4 discusses the use of frontal markers in the description of various types of dynamic motion situations. A major distinction is made between subject motion, when the entity that moves (the TR) is syntactically realized as a subject as in *The troops* [TR] *were rolling forward to the borders of Germany* [LM], and object motion as in *Bill put a table* (TR) *in front of the window* (LM), in which the TR is realized as an object.

4.1. Direction towards the front: Swedish framåt

The major meanings of the Swedish adverb *framåt* ('forward') are summed up in Table 2. Used with a basic meaning *framåt* refers to atelic motion forward without indicating the reaching of a specific goal, see (1).

(1) He started to move *forward* ... and then stopped. (SK1)² Han började röra sig *framåt* ... men hejdade sig.

In Table 2, 'Postural' refers to a change of posture as in: *Hon lutade sig framåt* (reflexive verb: *sig* 'oneself') 'She leaned forward': see section 4.3. 'Mental' refers to expressions such as *se framåt* 'see forward' in examples such as *vi får ny kraft att se framåt* translated *we will obtain new energy to look ahead*. This is a special case of expressions that are based on the metaphor FUTURE IS AHEAD in examples such as *När vi rör oss framåt mot år 2000* translated *As we move forward to the year 2000*.

Table 2: The major meanings of *framåt* and their translations

Meanings	Swedish	English tra	nslations
	framåt	forward	ahead
Subject motion	7	4	
Object motion	3	2	
Postural	7	6	
Mental	5	1	2
FUTURE IS AHEAD	17	0	
PROGRESS IS AHEAD	12	9	
Other	6	0	
Total	57	22	2

Framåt is also used in expressions of temporal duration, which are translated variously: en vecka framåt (lit. 'a week forward') > for a week ahead, för flera generationer framåt > for several generations to come, en mycket snabb utveckling från mitten av 1870-talet och framåt > a rapid development from the mid-1870s on. Another metaphor that is productive with words referring to frontal orientation is PROGRESS IS AHEAD (en lovande väg framåt translated a promising way forward).

4.2. Subject motion and the functions of fram

There are 227 examples where *fram* in combination with a verb indicates subject motion. Very few of the translations contain any word with frontal

² In all examples from the ESPC, the original version is always given first and then the translation. The text code, e.g., (RJ1) in (1), indicates the file. Literal translations and other comments are given, whenever relevant, within square brackets.

orientation. There are only 11 examples of *fram* translated by *forward*. Except for 13 examples of the phrase *back and forth* (see section 4.2.6), there are no other markers of frontal orientation in the translations.

- 4.2.1. Motion to the intrinsic front and to the center of attention Fram usually indicates motion to a place serving as the center of attention. Hellberg (2007), who bases his analysis on image schemas, regards the FRONT-BACK schema as basic and regards motion to the intrinsic front as basic, for example *Gå längre fram i bussen!* ('Move further forward in the bus!'). In (2), there is an example of what Hellberg (2007: 29) aptly refers to as 'institutional front' such as the stage in a theatre, the altar in a church, the bar in a court of justice or the blackboard in a classroom.
 - (2) när han trädde *fram på* scenen. (ARP1) 'when he trod forward on the stage' as he entered *on to* the scene.

As is often the case, there is no reflection of *fram* and frontal orientation in the English translation, only the description of motion to a place.

It may make sense to regard motion to the intrinsic front as conceptually basic, but *fram* usually has a more general meaning based on what Hellberg (2007) refers to as the CENTER-PERIPHERY schema. In (3), *fram* describes motion to a place that is the new center of attention, where a new activity starts.

(3) Han sprang *fram till* fönstret och tittade ner. (KE1) He ran *over to* the window and looked down.

The closest correspondence to *fram* in (3) is the particle *over*. The central meaning of *over* is a combination of 'above' and 'across' (*The boy jumped over the fence*). But 'above' may be backgrounded as in *Peter went over the street*, where *over* refers to motion from one side of something to the other. It appears that *over* in examples such as (3) refers to the passage from one situationally defined place to an interactive space defined by the window and the activities that can typically be carried out there.

- 4.2.2. Canonical encounter and socially defined space
- In (4), *fram* has a function that Hellberg (2007: 33–35) refers to as canonical encounter, a concept introduced by Clark (1973). Both the TR and the LM are human and the TR moves forward towards LM in order to interact.
 - (4) Hon ... sprang direkt *fram till* Nora och kramade henne. (MG1) She ... ran right *up to* Nora and embraced her.

In (4), *fram* corresponds to *up*. This is one of the two most frequent correspondences of *fram* when it refers to a canonical encounter. English resorts to a conceptualization referred to as 'UP for horizontal approach' by Lindstromberg (2010: 191). When someone approaches you from a distance that person seems to increase in size and to move upwards when getting closer.

The other frequent English correspondence of *fram* associated with social encounter is *over* (see example 5). This use of *over* is conventionalized and will be referred to as OVER for social approach, a special version of the use discussed in connection with example (3). In examples like (5), *over* refers to a socially defined physical space that must be crossed to make social interaction possible (cf. the extended use: *After a heated discussion, they came over to our side and voted for us*).

(5) Hon gick *fram till* Johan och rörde vid honom. (KE1) She went *over to* Johan and touched him.

The total number of occurrences of the social encounter function is 29. The LM is mostly referred to in a PP with the preposition *till* ('to') or is understood. When the LM is understood as in (6), an explicit LM is sometimes inserted into the translation.

(6) Han kunde komma *fram* och skrika att jag var anhållen ... (RJ1) 'He could come forward and shout that-S' Him running *up to me* shouting that I had been arrested ...

In the English translations of *fram* used for social encounter, *forward* is used only twice. Two other correspondences to *fram* dominate: *up* with 11 occurrences and *over* with 6. These particles apparently have functions

that overlap rather than correspond directly with those of *fram*. There are also two examples where *komma fram* is translated by *approach*.

Two verbs dominate when fram is associated with social encounter: $g\mathring{a}$ ('go') and komma ('come') (10 occurrences each out of a total of 29). The following sections will show that different sets of verbs are characteristic of each function of fram as well as different sets of prepositions.

4.2.3. Planned path and motion in geographical space

Canonical encounter is socially defined and usually refers to a short-distance movement. There is another use that normally implies travelling a longer distance in geographical space, often making a journey, with LMs such as buildings or towns or prominent landscape formations such as rivers or mountains. In Viberg (2003: 84), this function was referred to as endpoint focus, when *fram* is combined with *komma* ('come'). This is a central characteristic, but in this article, Hellberg's (2007) term 'planned path' has been adopted to simplify comparison with that work. In the English translations, there are few particles, none of which indicate frontal orientation. When *fram* is combined with the verb *komma*, the most frequent translations are specific verbs of arrival, either *reach* with the goal realized as an object as in (7) or *arrive*, which in most cases is used with an understood 'goal' as in (8).

- (7) Först på kvällen *kom* de *fram* till Röbäck (KE1) They didn't *reach* Röbäck ... until evening.
- (8) Jag hade tänkt segla vid fyra för att *komma fram* i dagsljus nästa dag, ... (BL1)

 I intended to sail at four o'clock so as to *arrive* by daylight in the morning, ...

There are 56 occurrences of 'planned path' in the ESPC with *komma* as the predominant verb with 34 occurrences. $N\mathring{a}$ ('reach'), $g\mathring{a}$ ('go') and *hinna* ('be in time to') have only three occurrences each. As many as 32 cases have a PP introduced by *till* ('to'). In the rest of the cases, there is no PP. In the English translations, *reach* and *arrive*, each appears nine times. However, the most frequent verb is *get*, as in (9), used with various spatial complements.

(9) De hade just *kommit fram till* Skurup. (HM2) They'd just *got as far as* Skurup.

When *get* is used in descriptions of motion events, it tends to be associated with a success reading indicating the presence of some concrete or abstract obstacle. *Hinna* in (10) is a modality verb, which means that you manage to do something in spite of having limited time (Nordrum and Johansson 2022).

(10) Jag måste *hinna fram* före Samain. (BL1) I must *get there* before Samain.

There are some examples with more specific verbs such as *leta* ('search, look for') in (11), which indicate a problem in reaching the goal.

(11) Han *letade sig fram till* bageriet ... (HM2) 'He searched himself forward to the bakery' He *made his way to* the bakery ...

Reaching the goal of a planned path can also be expressed with the derived form *framme* in the conventionalized expression *vara* ('be') *framme* that describes the resultative state of having arrived at a planned destination. This meaning is often directly reflected in the translations as a verb of arrival: see (12).

(12) Så *var* de till sist *framme*. (PE1) Then they *arrived*.

Framme is basically an adverb that indicates location at the front of some place. There is no direct equivalent in English. Expressions that refer to a frontal orientation are used in some translations, but often there is no translation of *framme* in this use, just a reference to proximity as in *framme vid* ('at') *altaret* translated as 'close to the altar'. In total, *framme* is used 24 times, including the expression *vara framme*.

4.2.4. Atelic motion along a path

Spatial particles usually characterize telic events. *Fram*, however, can indicate aimless, atelic motion when it is combined with various verbs that typically indicate manner of motion as in (13). A possible motivation for the use of *fram* in this function may be that forward motion is the default when no specific goal is aimed at.

(13) När jag äntligen vacklade *fram i* sanden mot Stanley ... (LH1)

'When I finally staggered forward in the sand toward Stanley'

As I staggered *across* the sand toward Stanley ...

Atelic motion is not restricted to human TRs but often refers to natural forces, as in (14).

(14) Söndertrasade moln *jagade fram över* himlen. (HM2) '... hunted forward over the sky' Jagged clouds *were racing across* the sky.

Atelic motion clearly differs from the functions considered above with respect to the forms that are used in Swedish. The preposition *till* ('to'), is not used at all. Instead, the most frequent prepositions are *genom* 'through' and *över*, which refer to the 'path'. The verbs *gå* and *komma* are used only a few times. Instead, many different verbs (35 types) are used, most of which indicate various types of manner.

4.2.5. Visibility and appearance in the visual field

What appears in front of us is easy to see. In dynamic sentences, *fram* can be used to describe the coming into view of the subject (TR), as in (15). The LM is implicit and refers to the field of vision of a specific or potential viewer.

(15) Det var först när den okände nattlige besökaren *kom fram* bakom pirhuvudet, mitt i månskensstrimman ... som jag såg vad det var. (BL1)

'It was first when the nocturnal visitor *came forward* behind the pierhead ...'

The nocturnal visitor *came out of the dark* at the end of the pier into a sudden moonbeam ... That is the moment I discovered what it was.

There are 37 examples where *fram* refers to 'visibility and appearance' on the scene. In English, the same situation is described by focusing on the fact that the TR was not visible before. The dominant spatial marker is *out* (16 occurrences). It would be wrong to say that the contrast is based on different conceptualizations, since the source can be mentioned also in Swedish in examples such as: *Anna steg fram ur mörkret* (prep *ur* ['out of']) lit. 'Anna stepped forward out of the darkness'. In some cases, as in (16) the appearance is signaled in the verb (*appear* 4 occurrences, *emerge* 3; cf. *come* 8).

(16) I nästa ögonblick *dök* ett kvinnoansikte *fram* (BL1) A moment later, the face of a woman *appeared*.

Several different verbs are used in Swedish (23 types). Besides *komma*, *bryta* ('break') is the only verb that occurs more than twice (*bryta* 6, *komma* 5), for example *Solen bröt fram* > *The sun broke through* (MG1).

4.2.6. Motion back and forth

Motion back and forth is mostly expressed by *fram och tillbaka* ('to back') in Swedish with inverse order of *back* and *forth*: see (17). Of the 20 examples, 13 are translated by *back and forth*.

(17) Han hade rest sig och vandrade upprörd *fram och tillbaka* ... (MG1)

He stood up and paced back and forth agitatedly ...

4.3. Postural motion

There are 10 examples where *fram* is used in descriptions of postural change, which differs from subject motion since it only involves one part of the body moving without indicating change-of-place of the subject: see (18).

(18) Han *lutade sig fram* från stolen. (MR1)

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He was leaning forward in his chair, ...

With a few exceptions, the correspondence of *fram* is either *forward*, as in (18) or *over*, as in (19). In Swedish, the reflexive verbs $b\ddot{o}ja\ sig\ ('bend')$ and *luta* $sig\ ('lean')$ are used (sig='oneself').

(19) Mannen i framsätet *böjde sig fram* och slog upp dörren.(SW1)He *leaned over* and threw open the passenger door.

There are also several examples of *framåt* 'forward' as the initial element of compound past participles describing the result of a postural change, usually in combination with a postural verb, as in (20).

(20) Hon *står* en aning *framåtlutad* (IB1) 'She stands a bit forwardleaned' She *is leaning* slightly *forward*

4.4 Object motion

Fram appears primarily in two types of descriptions of object motion as shown in Table 3.

Table 3: Uses of *fram* in descriptions of object motion

Swedish	English spatial markers			
Meaning	fram	out	produce	extend
Preparatory handling	82	43	5	0
Interactive extension of arm and hand	30	18	0	4
Other	20	5		
Total	132	66	5	4

4.4.1 Preparatory handling

Verbs of 'taking' combined with *fram* are often used in Swedish to describe the preparatory phase in the everyday use of physical objects as instruments in a broad sense, see (21).

(21) Jag ... tog fram en termos till kaffet. (BL1)

I ... took out a thermos flask.

To handle an object in peripersonal space you normally need to have it in front of you and that motivates the use of fram in Swedish. It is frequently understood that the TR at the start of the action is stored in some container such as a bag of some type, a box or drawer or a pocket in your clothes. This motivates the use of out in English (cf. section 4.2.5). The source of the motion often remains implicit or vague in Swedish. Only in 17 cases (out of 82) is an explicit source indicated. It is then realized as a PP with the preposition ur ('out of'), as in (22).

(22) Han *tog fram* sin plånbok *ur* bakfickan. (HM1) 'He took forward his wallet out=of his back pocket' He *took* his wallet *out of* his back pocket.

In the most typical examples of preparatory handling, *fram* is combined with a verb of 'taking' (*ta* 37 examples, *plocka* ['pick'] 10). The verb *dra* ('pull') is also frequently used (13 tokens as well as 7 examples of the verbs of 'putting' *sätta*, *ställa*, *lägga*). In some translations, the meaning of *fram* is incorporated into the verb *produce* (5 examples), 3 see (23).

(23) Ur fickan *plockade* jag *fram* en liten kassettbandspelare. (GT1)
Out of my pocket I *produced* a little cassette recorder.

4.4.2. Interactive extension of arm and hand

Descriptions of the movement of limbs out from the body form a special category in the description of *fram*. Usually, arms and hands are involved, as in (24).

(24) ... Klammer ... *sträckte fram handen* till ett bekräftande handslag. (KOB1)

'Klammer stretched forward his hand'

... Klammer, *holding out his hand* to seal their relationship with a handshake.

³ *Produce* stems from the Latin preposition $pr\bar{o}$ ('in front of') and the verb $d\bar{u}cere$ ('lead').

The choice of *fram* represents the movement as part of a sequence of interactions in a human encounter (cf. section 4.2.2). The use of *out* in the translations of examples of this type can be explained by regarding a human being with arms along the body as a canonical position and the shape of the body as forming a kind of container. Lindner (1983) refers to this as the 'body sphere'. The English use of *out* has a parallel in the Swedish use of *ut* in examples such as (25), but *ut* can refer to a wider range of situations than *fram* in descriptions of the movement of body parts.

(25) Nyberg *slog ut ena armen* i en svepande gest. (HM1) Nyberg *threw out one arm* in a sweeping gesture.

Three verbs frequently cooccur with *fram*: *sträcka* ('stretch', 15 examples), *hålla* ('hold', 7) and *räcka* ('reach', 5). Their English cognates tend to be used as translations but not in a one-to-one fashion, *hold* being favored. In addition, Latinate verbs incorporating the meaning OUT are used such as *extend* (Latin *extenděre*, < *ex*- out + *tenděre* ['to stretch']): *räcka fram handen* > *extend one's hand*.

The use of *fram* in descriptions of 'preparatory handling' and 'interactive extension' is goal-oriented: motion to a place where the object is accessible. The use of *out* in the English translations is source-oriented and refers to motion out of the original place where the object was inaccessible.

5. Non-spatial meanings and the use of free and bound forms of fram Together with a verb, fram forms both phrasal and compound verbs. Unlike the better-known system in German, where the alternation between bound and free forms of the spatial particles in combination with a verb is grammatically conditioned, free and bound forms fulfill different functions in present-day Swedish (see Viberg 2017a). In the description of the motion situation, the use of a free particle is productive and semantically transparent, but there are very few examples of compound verbs with fram referring to motion in physical space in the Swedish originals. Free forms are used both with spatial and with extended abstract meanings based on metaphorical mappings, but practically all compound verbs with fram have an abstract meaning. The form is morphologically transparent in the sense that fram can always be easily separated from

the verb stem. Compound verbs often function as **technical vocabulary**, that is 'vocabulary that is very closely related to a particular subject area' (Nation and Meara 2020: 39). In specialist vocabulary, even compound verbs that refer to motion can be found.

5.1 Coming and bringing into existence

Like its English correspondence *grow*, the Swedish verb *växa* basically refers to the development of living things but is often used nonliterally about an increase in size and quantity of both concrete and abstract entities. There is a continuum from concrete to more and more abstract meanings: see (26)–(28). This is also reflected in the translations. The more concrete examples contain *grow*, whereas verbs with an abstract basic meaning are used in other cases.

- (26) Skogen *växer fram* mot rälsen ... (SCO1) The forest *grows out* towards the rails ...
- (27) Hela fasaden, som *växte fram* undan för undan ... (MR1) The whole façade that gradually *appeared* ...
- (28) ... en bättre insikt håller på att *växa fram* ... (ASSI1) ... a better understanding is *emerging* ...

Fram in combination with $v\ddot{a}xa$ contributes a meaning based on the metaphor COMING INTO EXISTENCE IS MOTION INTO THE VISUAL FIELD (i.e., APPEARANCE). The use of $v\ddot{a}xa$ fram and its translations are summed up in Table 4 together with other verbs belonging to the same semantic field.⁴

Table 4 shows that the correspondences are one to many and overlap. Not only do the Swedish verbs have many correspondences, but several English translations correspond to several Swedish verbs, in particular *produce*, which appears as a translation of four different verbs. English often uses Latinate verbs as translations, several of which etymologically refer to frontal orientation (*produce*, *provide*, *present*, *prepare*). This means that, at least etymologically, several of the translations are based on

⁴ As in the other tables the number of translations does not always add up. Only the major translations are shown, and there are often some free translations.

(4)

the same metaphors as the Swedish verbs. However, there are also Latinate verbs that ultimately go back to Latin $ex-/\bar{e}$ - ('out') (*emerge*, *evolve*).

Table 4: Phrasal and compound verbs expressing 'existence' and their major translations

CO	MING INTO EXIST	TENCE IS MO	OVING INTO THE	VISUAL FI	ELD				
Verb	Phrasal verb	English t	ranslations						
meaning									
'grow'	växa fram	grow	emerge	develop	evolve				
	(34)	(5)	(12)	(6)	(3)				
CAUSE TO	COME INTO EXIS	STENCE IS C	CAUSING TO MOV	VE INTO VIS	UAL FIELD				
'take'	ta fram	produce	develop	prepare	provide				
	(18)	(4)	(2)	(1)	(1)				
'get'	få fram	produce	elicit	provide					
	(15)	(4)	(2)	(1)					
'work'	arbeta fram		work	present					
	(3)		(1)	(1)					
	Compound ve	rb							
'put'	framställa								
'standing'	Creation	produce	manufacture						
	(5)	(3)	(1)						
	Verbal	present	describe	explain					
	(4)	(1)	(1)	(1)					
'call'	framkalla								
	Creation	cause	produce	induce	develop				
	(11)	(3)	(2)	(2)	(1)				
	Mental	call up	visualize						
		_							

Fram is also used with both phrasal and compound verbs that refer to creation, the causative version of coming into existence. A few examples refer to the creation of concrete products with phrasal verbs with a vivid meaning, such as *spotta fram produkter* (lit. 'spit forward products') > $mass-produce\ products$, but, in particular, there are phrasal verbs characteristic of political/administrative discourse that refer to the creation of relatively abstract products such as ta ('take') fram or fa ('get') fram: see (29).

(1)

(1)

(29) Varje bolag *tar* också *fram* egna miljömål (PEA1) Each company also *produces* environmental goals

The verbs ta and fa have a general meaning and often serve as support verbs. Some examples could have been discussed below in sections 5.3 and 5.4 on mental and verbal communication meanings, but they are described here since they may involve a combination of activities. The expressions ta fram $f\ddot{o}rslag$ ('prepare proposals') and ta fram underlag ('produce background information') refer to a combination of mental, verbal and sometimes also physical acts. Creation can also be referred to with compound verbs such as $framst\ddot{a}lla$, which can refer to the creation of physical products, as in (30).

(30) ... produkter som är *framställda* på ett miljövänligt sätt.
 (EHUL1)
 ... products *manufactured* in an environmentally friendly way.

Framställa is also used as a Verbal Communication verb referring to the way in which something is portrayed in words: see (31), where the verb is in passive form.

(31) Druiderna och deras ritualer *framställdes* med tydlig ironi. (BL1)

The writer *described* the Druids and their rituals with evident irony.

The verb *framkalla* refers to creation of abstract phenomena. In medical discourse, it refers to phenomena (realized as subject) that cause diseases to come into existence: see (32).

(32) ... ämnen som kan *framkalla* cancer. (BJ1) ... substances that can *cause* cancer.

The verb can also be used in the phrase *framkalla bilder/foton* 'develop pictures/photos (using chemicals)', but that use is perhaps becoming obsolete.

5.2. Mental

The mental (macro)field can be divided into more specific fields, such as 'perception', 'cognition' and 'emotion' (Viberg 2005). Several phrasal and compound verbs with *fram* can extend across these subfields.

5.2.1. From vision to cognition

It is a general characteristic of visual activity verbs to take spatial complements that describe gaze direction. *Fram* is used in seven examples, such as (33), in which *fram* corresponds to *ahead*.

(33) Jag stirrar rakt *fram* ... (PCJ1) I stare dead *ahead* ...

Examples of this type refer to directions in physical space. However, Swedish se ('see') often has an extended meaning when it has a spatial complement. The meaning of se is removed from ordinary vision into cognition in the phrase se fram mot (lit. 'see forward towards') > 'look forward to', as in (34).

(34) Att få uppleva kärleken är enda orsaken till att jag ibland ser fram mot att bli vuxen. (AP1)

To be able to experience love is the only reason why I occasionally look forward to being grown up.

The expression *se fram mot* refers to thinking with pleasure about something that is going to happen. In examples of this kind, the mental meaning is combined with a temporal meaning (FUTURE IS AHEAD).

5.2.2. Phenomenon-based mental verbs

In the mental examples above, the subject refers to an 'experiencer'. There are also phenomenon-based mental verbs that take the experienced phenomenon as subject as in (35).

(35) På väggen *framträdde* en bild av en äng. (IB1) 'On the wall forward trod an image of a meadow' A picture of a meadow *appeared* on the wall. The corresponding phrasal verb *träda fram* [*träda* 'tread'] can have a similar but not identical meaning: see (36).

(36) [Han fick se] New York *träda fram* ur dimman ... (JMY1) 'N.Y. tread forward out of the mist' [He] caught sight of New York *coming out of* the dimness ...

Example (36) can be interpreted as a case of apparent motion. It is as if New York becomes visible because it moves toward the observer, who is approaching on a boat. Example (35) has a less vivid interpretation. The compound verb can also have a purely cognitive meaning that does not presuppose any external perceptual input: see (37).

(37) I pusslet av minnesbilder *framträdde* så småningom ett mönster. (CE1)
From this jigsaw of recollection there gradually *emerged* a pattern.

Framträda and three more compound phenomenon-based verbs are shown in Table 5 together with their major translations. The cognitive expressions discussed in this section can be regarded as metaphorical extensions of the use of *fram* to describe motion that results in coming into vision, as discussed in section 4.2.5.

Table 5: Phenomenon-based compound verbs with a mental meaning

]	BECOMING MENTALLY ACCESSIBLE IS MOTION INTO THE							
	VISUAL FIELD							
Base verb	Compound		English translations					
	verb							
träda	framträda	appear	emerge					
'tread'	(20)	(5)	(5)					
stå 'stand'	framstå	seem	appear	be				
	(29)	(7)	(5)	(8)				
gå 'go'	framgå	show	be clear	be evider	ıt reveal			
	(59)	(14)	(6)	(6)	(3)			
komma	framkomma	transpire	emerge	find				
'come'	(14)	(4)	(2)	(2)				

Table 5 shows that many of the English translations refer to perceptual accessibility (*appear*, *show*, *be clear/evident*, *find*).

The verb *framstå* is complemented by a *som* ('as')-phrase that describes how a certain phenomenon is perceived or judged in general or by a specific experiencer, who can optionally be referred to in a PP with the preposition *för* ('for'), as in (38).

(38) För mig framstår det som en något bakvänd avtalsskrivning ... (EERI1)
'For me fram+stand it as a rather back-to-front agreement-writing'
This would appear to me to be a rather absurd way of drafting an agreement ...

The verb *framgå* most frequently takes an *att* ('that')-clause referring to a fact that follows from some type of evidence referred to in a PP with the preposition *av* ('of, from'), which in general refers to a source, in this case the source of information. The translations often involve restructuring, as in (39), where the information source appears in a PP in the original text and as the subject in the translation.

(39) Av det digra utredningsmaterialet *framgår* det att Axel Johnson spelade en aktiv roll. (TR1) 'From the huge inquiry-material forth-goes it that-S' The huge report *reveals* that Axel Johnson played a very active part.

The compound verb *framkomma* has a similar meaning to that of *framgå*, but *framkomma* is not combined with a PP indicating the source: see (40).

(40) Det *framkom* att proteinerna i spacklet bryts ned vid hög fuktighet ... (BJ1)

It *emerged* that the proteins in the screed are degraded in the presence of high humidity ...

In both *framgå* and *framstå*, which are used in academic and administrative prose, *fram* refers to what Lindner (1983) calls public access, what is cognitively accessible to people in general.

5.2.3. Experiencer-based mental verbs

Komma can also refer to mental events based on the metaphor PROBLEM SOLVING IS MOTION ALONG A PLANNED PATH. The result of reasoning is realized as a *that*-clause (Swed. *att*-clause), as in (41), or as an abstract mental noun: *komma fram till en slutsats* > *arrive at/ reach a conclusion*. The major translations are shown in Table 6.

(41) En senare undersökning ... kom fram till att inomhustemperaturerna höjts. (BJ1)
A later study ... found that the indoor temperatures had been raised.

Table 6: Experiencer-based mental verbs

PROBLEM SOLVING IS MOTION ALONG A PLANNED PATH								
Construction English translations								
komma fram till	come (3)	arrive	reach	find	conclude	think		
(14)		(2)	(2)	(2)	(1)	(1)		

Experiencer-based mental verbs with *fram* are based on the planned path-frame (see section 4.2.3). The English translations are partly the same as in concrete spatial descriptions (*come*, *arrive*, *reach*), but some verbs with a basic mental meaning are also used (*find*, *think*, *conclude*).

5.3. Verbal communication

Verbal communication, discussed also in Andersson (2004: 85–86, 198–203), involves both the physical production of sounds (or written signs) and the expression of a certain meaning or message (Viberg 2017b). In (42), *stöta* ('thrust') indicates the manner of speaking and the acoustic properties of the speech.

When the production of sound is profiled, *fram* indicates perceptual accessibility, i.e., the sounds can be perceived. The verb contributes the specification of manner (suddenly and violently). There are only a few such examples, one being *snörvla fram* (lit. 'snuffle forward'). When the

message is focused, *fram* indicates cognitive accessibility, that certain information is available to the receiver. The most frequent example in the ESPC is *lägga fram* (*ett förslag*)> *put forward* (*a proposal*), as in (43). Originally, the expression referred to the custom of putting a written document on a table, but in current usage, a proposal can be said to be put forward even if it is presented orally.

(43) ... det skulle vara helt olämpligt att *lägga fram* nya lagstiftningsförslag ... (EISC1) ... it would be totally inappropriate to *put forward* new legislative proposals ...

The expression is characteristic of administrative discourse and refers to information that has the general public as the intended receiver. *Lägga fram*, when referring to verbal communication, gets various translations, e.g., the verb *table*, which originally had a similar motivation as *put forward*: see (44).

(44) Vi från PPE-gruppen har *lagt fram* ett antal ändringsförslag ... (ESTE1)

The PPE Group has *tabled* a number of amendments ...

Two Latinate words occur frequently as translations, *present* as in: *lägga fram en gemensam strategi* > *present a common strategy* and *submit* as in *lägga fram förslag* > *submit proposals*. Proposals are presented and thereby become publicly accessible. Verbal Communication can also lead to the creation of a verbal product such as an agreement or a treaty. An example of that type with the verb *förhandla* ('negotiate') is *förhandla fram ett avtal* > *negotiate a treaty*.

When *fram* is combined with verbs meaning 'order' such as *kommendera*, *beordra* and *kalla* ('call') a motion verb is understood: 'order to move to a place at the front': see (45).

(45) Jag kommenderade *fram* honom. (LH1) 'I commanded forward him' I ordered him *to step forward*. The phrasal verb *lyfta fram* is based on two spatial metaphors in examples such as (46). The verb *lyfta* ('lift') contributes UP IS IMPORTANT and *fram* refers to cognitive access.

Jag vill dock ändå *lyfta fram* den dynamiska effekten ...
 (EVIR1)
 Nevertheless, I would like to *highlight* the dynamic effect ...

The major translations of the phrasal communication verbs are summed up in Table 7 together with the compound verbs that we will turn to now.

Table 7: Phrasal and compound Verbal Communication verbs

Base verb		Phra	sal verb	English translations		
lägga 'lay'	lägga fram	put forward	present	submit	table	
	(37)	(7)	(8)	(5)	(8)	
'command'	kommendera	order	produce			
	<i>fram</i> (3)	(1)	(1)			
'order'	beordra	order				
	fram (1)	(1)				
kalla 'call'	kalla fram	call forward	call out			
	(2)	(1)	(1)			
lyfta 'lift'	lyfta fram	highlight	emphasize	pick out		
	(5)	(2)	(2)	(1)		

	Compound verb				
föra 'move'	framföra	put forward	convey	express	submit
	(22)	(3)	(2)	(1)	(1)
hålla 'hold'	framhålla	emphasize	point out	note	maintain
	(16)	(2)	(2)	(2)	(1)
häva 'lift'	framhäva	emphasize	draw attention	blow one's	
	(5)	(2)	to (1)	<i>horn</i> (1)	
kasta	framkasta	put forward	make		
'throw'	(2)	(1)	(1)		

The most frequent compound verb is $framf\"{o}ra$ ($fram-+f\"{o}ra$ 'move_{transitive}'), which in most examples is combined with a noun referring to the message: see (47).

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(47) Delvis fysiokratinspirerade läror *framfördes* ... (HG1) Doctrines partly inspired by physiocracy *were put forward* ...

Framföra is formal and fram- expresses public access. The verb can also refer to the performance of a piece of music, for example framföra en opera ('perform an opera'). There is no direct correspondence; many different verbs are used in the translations. As a legal technical term, framföra can refer to motion: framföra ett fordon ('drive a vehicle') but this use does not occur in the ESPC.

Framhålla, which is characteristic of political and academic discourse, is a metaphorical extension of the phrasal counterpart hålla fram used to express interactive extension of arms and hands (see section 4.4.2) and serves to highlight certain aspects of what is presented in a piece of discourse: see (48).

(48) Det bör *framhållas* att de undersökta sakfrågorna i sig själva har varit av underordnat intresse; ... (HG1) It should *be emphasized* that the concrete issues studied have been of subordinate interest in themselves; ...

Framhäva, like the phrasal verb lyfta fram (see above), expresses a stronger degree of emphasis. There is also a set phrase framhäva sig själv ('emphasize oneself') > blow one's own horn. The verb framkasta refers to a suggestion made in passing or without reflection (cf. lägga fram above). There are only two examples of framkasta ett förslag translated as make/put forward a suggestion. Framkasta can also take an att ('that')-clause as complement.

Revisiting the summary in Table 7, it can be observed that the Verbal Communication verbs with *fram* have many variable translations (the ones in the table are only a selection). Frontal orientation is represented by *forward* in several of the translations (*put forward*, *call forward*). Several Latinate verbs also occur as translations. Note *present*, which etymologically refers to frontal orientation.

5.4. The relationships between spatial and non-spatial meanings

The meanings of *fram* discussed in sections 4 and 5 are summed up in Figure 1. *Moving to the intrinsic front* serves as the spatial prototype. The rest of the meanings of *fram* discussed in section 4 (except *Atelic motion*) represent spatial extensions that indicate that the TR moves to a place that represents the *Centre of attention*. In Figure 1, these extensions are placed immediately below the box with that name. The spatial extensions situate the TR in physical space at the same time as they indicate one of these functional meanings and are based on pragmatic inferencing. The metaphorical extensions discussed in section 5 appear further below and do not refer to physical space but to various abstract semantic fields via metaphorical mappings.

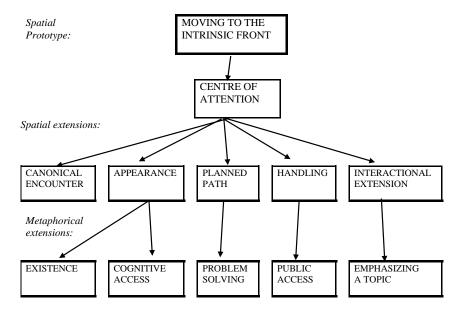


Figure 1: Relationships between the major telic dynamic meanings of fram

6. Uses of fram outside verbal expressions

6.1. A survey of compound words with fram-other than verbs In addition to compound verbs, there are compound nouns, adverbs and adjectives. Compound participles are also regarded as a separate category, since participles, unlike other verb forms, are always compound. Functionally, they overlap with adjectives. The meanings of compound forms are displayed in Table 8. The frequency of compounds that refer to motion and posture is very low compared to phrasal verbs. Most of the meanings are abstract, except nouns that refer to part-whole (Swedish fram- + N > English front + N: framsäte > front seat, framhjul > front wheel, framtass > front paw). This correspondence is very regular. Note, however, that the English noun front corresponds to framsida (sida = 'side'), except as a military term: Västfronten > The West Front.

Table 8: Compound nouns, participles, adverbs and adjectives with fram-

Meaning	Compound		Comp	ound	Comp	ound	Comp	ound	
_	nou	ns	partic	participles		adverbs		adjectives	
	Tok	Тур	Tok	Тур	Tok	Typ	Tok	Тур	
Motion	7	6	10	7	1	1	3	1	
Postural	0	0	11	2	3	1	1	1	
Part-Whole	48	10	0	0					
Existence	7	1	8	2					
Creation	8	6	3	2					
Perception	2	2	1	1					
Mental	5	3	1	1			4	1	
Verbal	13	2	6	5					
FUTURE	136	1	0	0	11	2	57	1	
IS AHEAD									
PROGRESS	100	6	0	0	10	1	37	1	
IS AHEAD									
IMPORTANT	0	0	22	2					
IS AHEAD									
Other	6	4	4	4					
Total	332	41	66	26	25	5	102	5	

In total, there are 525 tokens and 77 types. Among the meanings in Table 8, notice, e.g., FUTURE IS AHEAD—one compound noun type accounts for all the tokens: framtid (tid ['time']) > future and the corresponding derived adjective framtida reaches the highest frequency among the adjectives: EU's framtida utveckling > EU's future development. Compound words based on the metaphor PROGRESS IS AHEAD also reach a high token frequency. Among the nouns, two words dominate: framsteg (steg 'step') > progress, step forward and framgång (gång, noun based on gå 'go') > success. There is also a corresponding adjective framgångsrik (rik 'rich')

> successful and adverb framgångsrikt > successfully. The metaphor IMPORTANT IS AHEAD motivates two compound participles framträdande (present participle of träda 'tread') > prominent and framstående (based on the present participle of stå 'stand')> distinguished, prominent, outstanding.

6.2. Fram as an adverb referring to motion in time

Andersson (2004: 198) sums up her contrastive analysis of temporal meanings of French *avancer* 'advance' and Swedish *fram* by concluding that most of the uses of *avancer* are based on the metaphor TIME IS A MOVING OBJECT (a metaphorical version of Atelic motion; see section 4.2.4), whereas most of the temporal uses of *fram* are based on TIME IS A PATH. Also in the present study, only a handful of Swedish examples are based on the first metaphor, e.g., (49).

(49) ... timmarna släpade sig *fram* ... (LG1) 'the hours dragged themselves forward' ... the hours dragged *past* ...

Time as a path motivates a set of examples, where *fram* functions as an adverb and is not part of the verb's argument structure and thus falls outside the categories that have already been discussed, in all 77 examples (F: 17; NF: 60): see Table 9.

Table 9: Uses of fram as a temporal adverb

Meaning		English translations				
			up to	up until	until	later (on)
Endpoint	(ända) fram till	56	15	8	16	
Gradable	längre fram	10				7
	Other	11				
	Total	77				

The most frequent temporal phrase is $(\ddot{a}nda)$ fram till, which refers to the endpoint of the metaphorical motion along time seen as a path (cf. 'planned path' in section 4.2.3): see (50). In the English translation, time is described with up as motion along a vertical path.

(50) ... perioden fram till första världskriget. (TR1)

... the period up to the First World War.

When *fram* is preceded by the adverb *ända* (literally 'end', N), the exactness of the limit and the duration of the time passed are emphasized: *ända fram till 1000-talet > right up until the 11th century*. The second type of temporal phrase *längre fram* (literally 'longer forward') refers to the passing of time from an earlier to a later time without indicating an exact point in time: *längre fram på sommaren > later on in the summer*. This expression is gradable *lite längre fram på sommaren* ('a little later on in the summer').

7. Summary and conclusion

Methodologically, this represents a bottom-up corpus-based study of all the occurrences of *fram* as a morpheme and of its translational correspondences in English. This kind of analysis can be applied to all words that are basically used as spatial particles in Swedish (cf. Viberg 2017a).

Theoretically, the study shows how the general structure of a language interacts with the meaning of such morphemes. It is possible to present a unitary semantic representation (see Figure 1 above), that accounts for most of the uses of *fram* across the variety of structures in which it occurs (see Table 1) such as its basic function as a spatial particle as well as when it is used in derived words and in compounds. The ambition to cover all types of uses has made it difficult to position the results more precisely with respect to various theoretical models. This remains to be worked out.

From a translation perspective, the study shows what happens when there is no direct equivalent in the target language. When *fram* is used in descriptions of motion, there is often no element in the translation that has a frontal orientation. Instead, various functional meanings, motivated by human goals and interaction with the physical and social environment, are superimposed on the spatial meaning via pragmatic inferencing. Inferencing is a central process in both psycholinguistic (Traxler 2012: 187–240) and neurolinguistic models of discourse comprehension (Kemmerer 2023: 435–439). 'Social encounter', for example, refers to motion into a socially defined space optimal for human interaction. This presupposes getting close enough to another human, which can be reflected in the translation of *fram* by using UP for horizontal approach. Another option is to use 'OVER for social approach'. Frontal orientation

is part of the semantic representation of *fram*, whereas the functions ('social encounter' etc.) rather belong to the pragmatic level and are the result of inferencing. Interpretation is also supported by keeping track of the type of space that is currently relevant (i.e., peripersonal, social and geographical space). This is usually clear from the discourse context.

The use of *fram* to form compound verbs is part of a general pattern characteristic of the most basic spatial particles in Swedish such as *upp*, *in* and *ut*. This kind of word formation represents an important structural difference between Swedish and English. The closest correspondence in English are verbal prefixes. As discussed in Viberg (2017a), Swedish compound verbs tend to be translated with verbs of Latin (or French) origin. Since these are less transparent morphologically and semantically, the structural difference leads to a general difference in transparency.

Corpus material

The English Swedish Parallel Corpus (ESPC). For a description, see https://www.ipd.gu.se/digitalAssets/1333/1333431_manual_espc.pdf.

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