Finding a model for contrastive lexical semantics: A look at verbal communication verbs

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Abstract

A basic problem for contrastive lexical studies in general is to find a model for the semantic analysis. This paper is one in a series of corpus-based contrastive studies of the field of Verbal Communication Verbs (VCVs) in English and Swedish. Searle's classification of speech acts serves as an important starting point but is not directly concerned with lexical structure, which is a major concern for the two theories that are compared in this study. FrameNet based on Fillmore's theory of semantic frames and Wierzbicka's theory of semantic primitives (or "primes"). The theories are applied and tested on data from the English Swedish Parallel Corpus (ESPC) containing English and Swedish original texts together with their translations into the other language. Primarily two groups of English verbs and their Swedish correspondents will be analyzed: (1) Information verbs such as tell, inform, notify, report, narrate and describe and (2) Speech activity verbs such as talk, speak, chat, converse, gossip, discuss, debate, negotiate and bargain. There is also an analysis of Swedish berätta 'tell, narrate' based on the Multilingual Parallel Corpus (MPC) as an example of multilingual contrastive analysis. Frames relate in a clear way the conceptual structure and the syntactic argument structure, which is very useful in a contrastive study. However, the definition of the meaning of individual verbs is incomplete and needs to be complemented with some kind of decompositional analysis such as the theory of semantic primes. A special section is devoted to an analysis of a large number of compound and derived forms of the Swedish verb tala 'speak' and a discussion of how contrasts in morphological structure can affect the lexical contrasts between two languages.

Keywords: corpus-based contrastive study, lexical semantics, FrameNet, English, Swedish, Verbal Communication verbs

This paper is one in a series of corpus-based contrastive studies of the field of Verbal Communication Verbs (VCVs) in English and Swedish. The major focus of two earlier studies (see below) were the most frequent verbs. In spite of the fact that there are around 400 Verbal communication verbs in the Swedish SUC-corpus (1 million words, mixed written genres), the 10 most frequent verbs belonging to the field account for close to 50% of the textual occurrences of VCVs in this corpus. The most frequent verb *säga* 'say' alone accounts for 22% of the VCVs in the SUC-corpus. The situation is obviously very similar in English. The most frequent verbs are also the most varied with respect to the range of constructions they can appear in and the

patterns of polysemy that characterize them. The two earlier studies present rather detailed descriptions of the most frequent VCVs. Viberg (2017a) was concerned with the English verbs *say, tell, speak* and *talk* and their Swedish correspondents and the other study (Viberg, 2016) with verbs of asking and answering in both languages. Even if a few verbs dominate the field, the total number of VCVs is very large. Ballmer and Brennenstuhl (1981) present a taxonomy of no less than 4,800 English speech act verbs (including multiword expressions). The present study will discuss various ways to approach the description of more fine-grained distinctions between VCVs in English and Swedish. The major aim is to identify important concepts for the analysis rather than to give complete analyses of individual verbs.

A basic problem is to find a model that accounts for both semantic contrasts and contrasts in the grammatical realization of semantic distinctions. With that aim in mind, various frameworks will be compared.[1] In particular, the analysis of semantic frames in FrameNet will be complemented with elements from componential approaches such as Wierzbicka (1987) and Miller & Johnson-Laird (1976). The bulk of the paper shows how the analysis can be applied to various groups of VCVs based on corpus data. A special section is devoted to a discussion of how contrasts in morphological structure can affect the lexical contrasts between two languages.

Verbal Communication Verbs (VCVs). A Brief Overview

The major types of verbal communication verbs are shown together with a few illustrative examples in Table 1. The verb *say* holds a unique position with respect to both its high frequency and its semantic generality and is referred to as the nuclear verb of the field (for nuclear verbs, see Viberg, 1993). Verbs foreground (or profile) various aspects of the communication frame. Descriptive communication verbs profile other aspects of the communication than the message. The most important descriptive verbs, in particular *speak* and *talk*, refer to the Speech Activity as such without specifying what is said (the message). In the unmarked case, the nuclear verb *say* as well as *speak* and *talk* refer to oral communication, but these verbs can be used to refer to communication in other media (*The letter says…*, *She talks about this in her mail*). There are a number of verbs that profile one specific medium, most important of which is *write* ranked as the fourth most frequent verbal communication verb in both English and Swedish. Verbs like *murmur*, *stutter* and *shout* refer to the Manner of speaking (such as acoustic and rhythmical properties, emotion and intelligibility). The largest and most important group is represented by the Speech Act verbs, which are used to perform and report speech acts in the sense of Austin (1962). Table 1 follows Searle's (1976) classification of speech acts with some modifications, although the present paper will primarily deal with reported speech acts.

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[1] This aim is related to the theme of the LingBaW conference 2016 (CONTROVERSY IN LINGUISTICS AND LANGUAGE STUDIES) even though the comparison is done in the spirit of picking the best parts from each framework rather than discussing controversies.

Table 1: *Verbal communication verbs*

Nuclear verb		say
Descriptive communication verbs		
Speech Activity		speak, talk, discuss, chat, gossip
Medium		write, telegraph, fax, e-mail
Manner of Speaking		murmur, stutter, shout, whisper
Speech Act verbs		
Representatives	Assertives	claim, assert
	Information verbs	tell, inform
Directives		ask, order, request
Commissives		promise, guarantee, vow
Expressives	Verbs expressing emotions	rejoice, complain, scold
	Verbs expressing evaluations	praise, criticize

Primarily two groups of English verbs and their Swedish correspondents will be analyzed. (1) Information verbs such as *tell*, *inform*, *notify*, *report*, *narrate*, *describe*, *explain* and *lecture*; (2) Speech activity verbs such as *talk*, *speak*, *chat*, *converse*, *gossip*, *discuss*, *debate*, *negotiate* and *bargain*. In addition, the role of the morphological structure will be discussed based on the derivational possibilities of the Swedish verb *tala* 'speak'.

Corpora

The analysis will be applied and tested on data from the English Swedish Parallel Corpus (ESPC) consisting of English and Swedish original texts together with their translations into the other language (Altenberg & Aijmer, 2000). The English original texts contain around 705,000 words and the Swedish around 661,000 words. The ESPC is very well-organized. Fiction can be compared to Non-Fiction and the corpus can also be used as a comparable corpus by comparing the original texts in both languages. Below examples from the ESPC will be shown followed by a text code within parentheses based on the author's name (for a list of texts and codes, see Electronic sources). Data will also be taken from the Multilingual Parallel Corpus (MPC), which at present consists of extracts from 22 Swedish novels and their translations into English, German, French and Finnish (around 600,000 words in the Swedish originals). Examples from this corpus will be marked MPC followed by a text code (see Viberg, 2013 for a list of the texts and codes).

Frames in FrameNet

Frame semantics is the theoretical foundation of FrameNet, a large computerized lexical database for English (see Fillmore, Johnson & Petruck, 2003 and Electronic sources). In this theory, verbs (and other relational words) evoke frames – schematic structures of recurring situations (Fillmore, 1982). A frame consists of various frame elements (FEs) such as the ones for Communication shown in Table 2.

Table 2: The Communication frame and its syntactic realization

Communicator/ Medium	Communicative action	Addressee	Topic	Message	Medium
NP	Verb	NP	about/of NP	that-S/to-VP$_{inf}$	PP
Picasso	tells	us	about his feelings		in his paintings
He	signalled	me		to come	
She	indicated			that I should have a seat	
This painting	(really) speaks	to me			

Verbal communication is a more specific frame that inherits the structure from the Communication frame, which includes both verbal and non-verbal communication. The FE Communicator is represented by Speaker, which is a more specific FE. There are many frames that inherit their structure from Verbal communication, among them Telling, which is defined as follows: "A Speaker addresses an Addressee with a Message, which may be indirectly referred to as a Topic. Instead of (or in addition to) a Speaker, a Medium may also be mentioned." Example: *I* [Speaker] *told him* [Addressee] *about the party* [Topic]. The following words are listed as examples: *advise.v, apprise.v, assurance.n, assure.v, brief.v, confide.v, inform.v, let know.v, notification.n, notify.v, tell.v.* (FrameNet also analyzes nouns, but in this paper only verbs will be discussed.) Table 3 shows some examples of the syntactic realization of the frame Telling. Only the phrase structure is indicated. It is possible to add one more layer showing grammatical relations such as Subject and Object, which will also be referred to in the analysis.

Table 3: *The Telling frame and its syntactic realization*

Frame elements	Speaker	Linguistic action	Addressee	Message	Topic	Medium
Syntactic realization	NP	Verb	NP PP	NP that-S Wh-S	PP	PP
	I	told	him		about it	over the phone
	I	told	her	what I knew		
	I	confided	to friends	that I would cancel debts		
	I	briefed	them all		on the current situation	
	I	apprise	you		of the content of the PM	
	I	assured	them	that everything was OK		

In language teaching, one of the advantages with FrameNet is that it can be used to show, for example, the choice of prepositions marking the Topic. On the other hand, there is no systematic account of the semantic differentiation between verbs that belong to the same frame, such as *tell*, *confide* and *brief*. There is also a Swedish FrameNet (see Electronic sources), which presents a similar analysis of the Telling frame in Swedish.

Decomposition: Primes and logical predicates

Wierzbicka (1987) in her semantic dictionary of English speech act verbs manages to distinguish more than 200 VCVs in a systematic way by using "reductionary paraphrases" based on a restricted set of primitives (or "primes"). *Tell*, for example, is represented as in Table 4.

Table 4: *The meaning of* tell *(Wierzbicka, 1987, pp. 286-287)*

I say: X I say this because I want you to hear it I assume this could cause you/someone to know it.

The definition of each verb is accompanied by an elegant essay, which it is hard to do justice to in a short space. The wording of the definition is intended to show that *tell* has a more general meaning than just to impart knowledge. Among other things, the verb is used to refer to the telling of fictional stories that the Addressee wants to hear but not necessarily uses to acquire factual knowledge. Wierzbicka (1987) divides the VCVs into 37 groups. The TELL group contains *tell₁, report₁,₂, narrate, relate, recount, describe, explain* and *lecture₁,₂*. (Some verbs refer to more than one speech act and belong to more than one group. *Tell₂*, 'tell sb to do sth', belongs to the ORDER group). A definition is provided for each verb in a group, which makes it possible

to distinguish each member semantically. The definition of *tell* can be compared to the definition of *narrate* in Table 5.

Table 5: *The meaning of* narrate *(Wierzbicka, 1987, p. 291)*

I want to say what happened, one thing after another I want to say many things because of that, one after another I assume people will understand that one could say it in different ways I want to say it because I think people would want to hear this I say (…)

The definition highlights among other things that *narrate* requires many events and emphasizes the temporal order of events. The definitions of other verbs in the group make it possible to make fine-grained distinctions. *Relate* purports to refer to real events and requires a fairly complex subject matter but does not like *narrate* require a narrative line but can rather refer to a flow of situations. *Recount* like *narrate* emphasizes the sequential nature of the events but is closer to *relate* by paying more attention to descriptive detail.

The set of semantic primes in Wierzbicka (1987) has been further developed together with Cliff Goddard into the Natural Semantic Metalanguage (NSM, see e.g. Goddard & Wierzbicka, 1994; 2014). For VCVs, the prime "say" is central and appears in the definitions of all the other VCVs. The primes of NSM cannot be further analyzed. However, it is an open question how far the decomposition should go. Miller & Johnson-Laird (1976) regard their predicate SAY as a combination of producing sounds (*The parrot said 'goodbye'*) and conveying meaning (*The signpost said 'Ten miles to London'*) (Symbolized as UTTER(x, W) and MEAN(x, v).

Information Verbs

Speech acts that are used to describe the world are referred to as Representatives by Searle (1976) and can be reported with two types of verbs: Assertive verbs, which report what is regarded as an opinion by the Reporter, and Information verbs, which report information that the Reporter more or less accepts as a fact. This section will present a corpus-based contrastive analysis of a number of information verbs. Such verbs include the verbs invoking the Telling frame in Frame Net and the verbs belonging to Wierzbicka's TELL group and the closely related INFORM group: *inform*, *inform on*, *notify*, *announce* and *reveal*. It will not be possible to analyze all of these verbs. The selection is restricted to the most frequent verbs and to some related verbs that are reasonably well represented in the two translation corpora.

Tell *and its closest correspondents*

Tell and its closest correspondents in Swedish are analyzed based on data from the ESPC in Viberg (2017a). The major translations of *tell* (as an information verb) are shown in Table 6. The most frequent translation is *säga* 'say', which supports the claim that *tell* has a rather general meaning as an information verb. There are also two frequent verbs that are more direct

correspondents in the sense that they both have *tell* as their dominant translation, when Swedish original texts are translated into English. (English *say* is used as a translation of these two verbs only in a few cases.)

Table 6: Tell *in English original texts in the ESPC and its major translations into Swedish*

	Swedish translations			
	tell	***säga 'say'***	***berätta***	***tala 'om***
Total	583	196	180	78
MESSAGE				
Direct report	79	62	7	1

As is further elaborated in Viberg (2017a), *berätta* tends to refer to a relatively complex message, whereas *tala 'om* tends to relate an individual fact. Intuitively, the prototypical meaning of *berätta* is centered around *berätta en historia* 'to tell a story', even if the majority of the actual examples refer to a less complex message. Clearly the meaning is not as general as that of *tell* (see Table 4 above). Actually, Wierzbicka's definition of *narrate* (see Table 5) comes close to the prototypical meaning of *berätta*. However, *narrate* is an infrequent, rather technical term and does not occur even once as a translation of *berätta* in the ESPC.

As a complement to Viberg (2017a), this study will present data from the MPC showing how the two verbs *berätta* and *tala 'om* in original Swedish texts are translated into English, German, French and Finnish. Example (1) shows the verbs that most frequently are used as translations of *berätta* and the realization of the FEs Message and Addressee.

(1)   Henry ***berättade*** för mig att han tjutit som en kalv på begravningen. (MPC: KÖ)
       Henry ***told*** me that he had howled like a calf at the funeral.
       Henry ***erzählte*** mir, er hätte bei der Beerdigung geheult wie sonst was.
       Henry me ***racontait*** qu'il avait pleuré comme un veau à l'enterrement.
       Henry ***kertoi*** minulle parkuneensa hautajaisissa kuin mölyapina.

In Swedish, the Addressee is realized as a PP with the preposition *för*, which typically marks an Expriencer, whereas it is realized as an object in English and is marked as a dative in German and French (and *à* + Noun). In Finnish, it is marked with the allative case (-*lle*), which signals the Receiver but also motion to a place. The Message is realized as an indirect report (a that-S clause in Swedish, English and French, whereas German uses a specific subjunctive clause and Finnish a participial construction that can replace a *that*-S clause.) Data about *berätta* are summed up in Table 7.

Table 7: *Swedish* berätta *in the MPC corpus*

Total number of occurrences of *berätta:* 344							
Frame elements	Message		Topic		Addressee		
	288	84%	113	33%	90	26%	
Major translations (N>2)of berätta							
English		*German*		*French*		*Finnish*	
tell	255	erzählen	279	raconter	175	kertoa	316
say	14	sagen	9	dire	36	sanoa	4
talk	16	sprechen	3	parler	59	puhua	4
describe	4	berichten	17	expliquer	14		
explain	6	mitteilen	3	annoncer	5		
recount	4	sich äussern	3	relater	3		
relate	5			informer	3		

The extent to which various FEs are explicitly realized contrasts across languages. The section at the top of Table 7 shows that the Message is usually (in 84% of the cases) realized explicitly in Swedish, whereas the Addressee is realized only in 26% of the cases. This means that *berätta* focuses on the Message. In English original texts (Viberg, 2017a), *tell* has an explicit Addressee in 90% of the cases. The simple exchange in (2)-(3) shows how this plays out in context. In (2b), only the Addressee is explicit, but the Message is implicitly retrievable from (2a) and the same applies to (2c).

(2)   a.   "I'm moving into the forest now," said Ronia. (MPC: AL)
        b.   "You must *tell* Lovis [Ø]."
        c.   "Why don't you *tell* her [Ø] yourself?" asked Tapper.

In (3b), which is the Swedish original text (with *tala om*, the other major correspondent of *tell*), the Addressee is explicit, since it represents new information that is not implicit in the context, but in (3c), where both the Addressee and the Message are mentioned in the preceding context, the Message is explicit (*det* 'it') in Swedish but not the Addressee (as in English 2c).

(3)   a.   "Jag flyttar ut i skogen nu", sa Ronja. (MPC: AL)
        b.   "Det ska du ***tala om*** för Lovis." [It shall you tell Lovis]
        c.   "Varför ***berättar*** du inte det [Ø]själv", undrade Tjegge.
              [Why tell you not it yourself]

There are several parallel examples that illustrate that *tell* focuses on the Addressee to a greater extent than *berätta*, whereas the Swedish verb to a greater extent focuses on the Messsage.

As can be observed in Table 7, one verb dominates as a translation of *berätta* in all languages. However, the degree to which that applies varies greatly. Finnish *kertoa* is used as a translation as much as in 92% of the cases, whereas French *raconter* only reaches 51%. (German

erzählen: 81%, English *tell*: 74%). One reason why French *raconter* is used less than the major translations in the other languages has to do with the use of a Topic as in (4).

(4)   Då **berättade** Jonatan för mej om Karmanjaka, (MPC: AL2)
        Then Jonathan began to **tell** me about Karmanyaka,
        Und da **erzählte** mir Jonathan von Karmanjaka,
        Alors Jonathan m'a **parlé** de Karmannyaka,
        Silloin Joonatan **kertoi** minulle Karmanjakasta,

The Topic marked with a preposition in all languages except Finnish where it has a case marker, the elative (*-sta* in *Karmanjaka-sta*), which basically has a spatial meaning ('out of'). What is particularly noteworthy is that *berätta* in (4) is not translated with *raconter* in French but with *parler* 'speak/talk' that is a speech activity verb. As can be observed in Table 7, where Speech activity verbs are placed on the same line as *talk*, *parler* is used as a translation more frequently than its correspondents in the other languages. *Parler* is primarily used when *berätta* has an explicit Topic (49 examples out of the 59, when *parler* is used as translation). Actually, *raconter* is also used as a translation 43 times (out of totally 175), when *berätta* has an explicit Topic, but in those cases the Swedish Topic often corresponds to an object of *raconter* as in (5) or is restructured in some other way.

(5)   På vägen **berättade** Sigrid om den uppenbarelse hon hade haft. (MPC: JG)
        On the way Sigrid **told** him about the vision that she'd had.
        Sur le chemin du retour, Sigrid **raconta** son apparition. [Sigrid told her vision]

When *berätta* is combined with an explicit Topic it functions as an atelic speech activity verb rather than a telic speech act verb. This can be tested with durational adverbs: *Peter berättade om sin hund **i** två timmar* 'Peter (?told me)/ talked about his dog **for** two hours' vs. *Peter berättade historien **på** fem minuter* 'Peter told (me) the story **in** five minutes'. It appears that *raconter* stays closer to the prototype ('tell a story') than Swedish *berätta* does. In order to test this, French original texts must be included in the analysis. The fact that *tell* is used as a translation of *berätta* as often as in 74% of the cases seems to indicate a close semantic relationship, but, as was demonstrated above, translations from English into Swedish show that *tell* has a much more general meaning than *berätta*. Actually, in addition to the Swedish original texts analyzed in Table 7, the MPC also contains extracts from six French original novels and their Swedish translations. The French original texts contain 23 *raconter*, out of which 19 are translated by *berätta*. The Swedish translations of the same texts contain 60 *berätta*. In addition to the 19 *raconter*, *berätta* is used as a translation of *parler* 15 times. Even if data are limited, they clearly indicate that *raconter* does not (like English *tell*) have a large set of uses that are not covered by *berätta*. The extension of *raconter* obviously is more restricted than that of *berätta*.

    Table 8 shows the most frequent translations of *tala 'om*. It turns out that this verb has the same dominant translation as *berätta*, except in French where *dire* 'say' is more frequent as a translation than *raconter*. This means that the contrast between *berätta* and *tala 'om* is language specific and has no direct semantic equivalent in the other languages. As mentioned, *berätta* has the prototype 'to tell a story' and in general tends to refer to a complex set of events or facts,

whereas *tala 'om* tends to refer to a single fact. English, German and Finnish do not make this distinction and use one verb to cover both meanings, whereas *raconter* stays closer to the prototype of *berätta*. For that reason, the major option is to use the most general speech act verb *dire* 'say' to translate *tala 'om*.

Table 8: *Swedish* tala 'om *in the MPC corpus*

Total number of occurrences *tala 'om*: 65							
Major translations of *tala 'om*							
English		*German*		*French*		*Finnish*	
tell	40	erzählen	24	raconter	9	kertoa	41
say	5	sagen	16	dire	24	sanoa	7
talk	5	sprechen	2	parler	3	puhua	4
speak	2	erklären	4	expliquer	5	jutella	2
report	2	berichten	2	annoncer	2	selittää	2
		mitteilen	3	prévenir	5	ilmoittaa	3
		verraten	2				

The analysis presented above only gives examples of some important contrasts but should suffice to show how a close study of the distribution and realization of frame elements across languages can be used to explain the variable patterns of translational correspondence.

More Specific Information Verbs

Both English and Swedish have a relatively large number of more specific information verbs. This section will give some examples how these are used to express more specific meanings and how these verbs are related to the most basic information verbs.

 Focus on the Addressee. Information verbs are concerned both with the specific factual information contained in the message and who has been given that information. In face to face interaction, production and reception of the message occurs simultaneously (for practical purposes). In institutional settings, a message such as a decision by the board can be drawn up by a small group of people and then disseminated later to a wider group of people. There are a number of verbs that typically are associated with such situations even if some such verbs also are used more generally in informal conversations. Verbs like *inform* and *notify* in English and the Swedish verbs *informera*, *upplysa*, *meddela* and *underrätta* are examples of this type of verbs and focus on the Addressee. All these verbs take the Addresse as a canonical object that can be passivized. In (6) and (7), the original Message is already known to the receiver of the reported speech.

(6)   – Jag har **informerat** Svedberg och Martinson, fortsatte Björk. (HM2)
        "I've **filled in** Svedberg and Martinson," Björk went on.

(7)   There had to be people I should **notify**, and I didn't know who. (DF1)
        Det måste finnas personer som jag borde **meddela**, och jag visste inte vilka.

As shown in Table 9, the Addressee is expressed as an object in the unmarked case. The Topic is also relatively often expressed explicitly as in (8), but the Message more seldom.

(8)   The Council shall ***inform*** the European Parliament ***of*** its recommendation. (MAAS1)
        Rådet skall ***underrätta*** Europaparlamentet ***om*** sin rekommendation.

When the Message is expressed, the Swedish verbs tend to keep the Topic preposition *om* 'about' as in (9).

(9)   She ***informed us that*** she planned to spend that night, (JSM1)
        Hon ***upplyste oss om att*** hon tänkte stanna över natten, [She informed us about that-S]

Table 9: *Information verbs that focus on the Addressee*

Speaker	Linguistic action	Addressee	Topic	Message
NP	Verb	NP	about/of NP	that_S
She	informed	us	om NP about her plans	om att-S
Hon	informerade upplyste underrättade	oss	om sina planer	
She	informed	us		that she intended to stay
Hon	informerade upplyste underrättade	oss	om	att hon tänkte stanna

Focus on the Topic. Verbs like English *describe* and *characterize* and their Swedish correspondents *beskriva* och *karakterisera* focus on the Topic which is realized as an object (see 10). The Addressee is optional and realized as a PP.

(10)   He described his religion ***to*** the king, (LT1)
      Han beskrev sin religion ***för*** kungen

The Message can be realized as a description marked with *as/som* and indicates the category of the Topic in the form of an NP (see 11) or indicates its properties with one or more Adjective (*He is often described as irresolute*).

(11)   Far ***karakteriserade*** mormor ***som*** en härsklysten satkäring. (IB1)
      Father ***described*** Grandmother ***as*** a domineering bitch

The Topic is often passivized as in (12).

(12)   Jag tror det kan **beskrivas som** ett slags förälskelse.(PE1)
         I believe it could **be described as** some kind of falling in love.

Table 10: *Information verbs that focus on the Topic*

Speaker	Linguistic action	Topic	Addressee	Message: Categorization/Description
NP	Verb	NP Wh-S	to NP	as NP/Adj
			för NP	som NP/Adj
He Han	described beskrev	his religion sin religion	to the king för kungen	
Tegnér Tegnér	described beskrev	Lund Lund		as an academic peasant village. som en akademisk bondby.

Describe and the verbs of similar type cannot take a that-S complement but can take a how-S or what-S complement (see 13). Such complements are Topics rather than Messages.

(13)   He **described how** he proved the superiority of Norwegian ski over the North American snow shoe. (RH1)
         Han **beskrev hur** han hade bevisat de norska skidornas överlägsenhet över de nordamerikanska snöskorna,

Both in English and Swedish, there are a number of more specific verbs that pattern like *describe* (see 14) and are based on the metaphor that something is described in pictures or painted in words (WORDS ARE PICTURES), for example English *depict* and *portray* and Swedish *utmåla* (lit. 'out'- + 'paint') and *skildra* (etymologically derived from German *schilderen* 'paint a coat of arms', cf. Germ. *Schild* 'shield').

(14)   Yet to modern ears, this is a horrible story: it **depicts** God **as** a despotic and capricious sadist (KAR1)
         /---/ Den **utmålar** Gud **som** en despotisk och nyckfull sadist,

Speech Activity Verbs

Speech activity verbs differ from speech act verbs by not specifying the Message. This means that only Addressee and Topic are realized in addition to Speaker: *Mary* [Speaker] *talked to Marvin* [Addressee] *about the movie* [Topic]. The basic English speech activity verbs *speak* and *talk* are analyzed in detail in Dirven et al. (1982) and Viberg (2017a) compares these two verbs with their closest correspondents in Swedish *tala*, *prata* and *snacka*. After a brief summary of an earlier study of *speak* and *talk* directly below, the following section will show how the analysis can be extended to the non-basic, more specialized speech activity verbs.

Speaking and Talking

Speak and *talk* focus on the linguistic activity as such, not the Message, as *say* does (see Viberg, 2017a). The distinctive feature of *talk* is that it focuses on linguistic action as discourse. The subject of *talk* often has the role as speaker-interactor and the verb is also topic-prone and can take the topic as object in a way that *speak* does not (*talk shop/politics* etc.). *Speak*, on the other hand, can focus on the actual speech production (*Don't speak Che Guevara's name*) and can have the code as direct object (*speak English*). In Swedish, there is no parallel to the semantic contrasts between *talk* and *speak*. The contrast between *prata*, *snacka* and *tala* (as a speech activity verb) is rather stylistic but also depends on the formality of the speech situation to which the verb refers. *Tala* tends to refer to a formal speech situation and is the verb that is used to refer to the delivery of a speech. In addition, *tala* has a rich potential to form phrasal verbs and compound and derived verbs with a specialized meaning, which will be discussed in the last section before the Conclusion.

Specialized Speech Activity Verbs

Speak and in particular *talk* have large sets of hyponyms/troponyms, for example *chat*, *converse*, *gossip*, *discuss*, *debate*, *negotiate* and *bargain* in English and *småprata*, *samtala*, *konversera*, *skvallra*, *debattera* and *diskutera* in Swedish. All of these focus on interaction and contrast by referring to specific types of topics and goals of the talking. *Chat* and *småprata* ('small' + 'talk') refer to informal social talk for relaxation and topics that should not be too serious (see 15).

(15)   We exchanged greetings, and ***chatted*** a little ***of*** current concerts and performances. (OS1)
         Vi utbytte hälsningar och ***småpratade*** litet ***om*** aktuella konserter och framträdanden.

Konversera – converse also refers to social talk but topics can be a little more serious. In Swedish, the Addressee can appear in the object slot as in (16).

(16)   började Percy ***konversera gästerna*** på sitt nyvunna artiga sätt. (ARP1)
         Percy began to ***converse with his guests*** with his newly acquired courteous manner.

The Swedish verb *samtala* ('together' + 'talk') is more frequent than *småprata* and *konversera*. Like these two words it focuses on interaction (see 17) but otherwise it is more general and is used as a correspondent of *converse* and *talk* and even of *speak together* and *chat*.

(17)   Its companions ***conversed*** amongst themselves, laughing in throatless undertones as they went along. (BO1)
         Hans kamrater ***samtalade*** sinsemellan och skrattade halslöst och lågmält medan de fortsatte sin väg.

Gossip and *skvallra* refer to indiscreet talk about other people's weaknesses (see 18) but need not be very serious. *Förtala* is a derivation of *tala* and refers to malicious gossip and legally refers to defamation.

(18)   He said, "I don't **gossip** with Harold, Ginny." (JSM1)
        Han sa: "Jag **skvallrar** inte med Harold, Ginny."

Diskutera – discuss and *debattera – debate* focus on verbal interaction but also have a focus on the topic which appears in the object slot as in (19). See also Table 11.

(19)   Med sina uppdragsgivare **diskuterade** han sällan **metoderna**. (KOB1)
        He seldom **discussed methods** with his masters.

The topic is a real object that can be passivized (see 20) (cf. the object of *talk*: *Business was talked*).

(20)   Olika åsikter **debatterades** öppet i en flora av tidskrifter och i tidningar (AA)
        Various opinions **were** now **debated** freely in a flora of journals and news sheet

The aim of a debate is to present arguments for and against certain ideas and requires that there are at least two opposite views.

Table 11: *Speech activity: Focus on Interaction and Topic*

| Interlocutors | Linguistic | Topic | --- | Text location |
Speaker	action		Addressee	
NP	Verb	NP	with NP	PP
			med NP	
Tim and Tom	discussed	politics	with one another	
Tim och Tom	diskuterade	politik	med varandra	
I	'll discuss	politics		in chapter 5
Jag	diskuterar	politik		i kapitel 5
Jag	behandlar	politik		i kapitel 5
	'treat'			

The aim of a discussion is rather to reach a decision. That is explicitly signaled when the topic is realized as an if-S or WH-S complement in the object slot (see 21).

(21)   At that age you don't **discuss** whether or not you're going to be friends, you just are. (JB1)
        I den åldern **diskuterar** man inte om man ska vara vänner eller ej — man bara är det.

In academic texts, *discuss* is often used in a weaker sense as in (22) to indicate that a specific topic is treated more in detail in a specific part of the text. Typically, the verb is in passive form. This kind of realization, where the Topic appears in the subject slot, is shown in Table 12.

(22)   The imaginary exercise of seeding Mars with life, or even of bringing Mars to life, **is discussed** in chapter 8. (JL1)
        Den tänkta uppgiften att beså Mars med liv, eller till och med att ge Mars liv, **diskuteras** i kapitel 8.

In Swedish, *behandla* 'treat', 'deal with' is rather often used as an alternative translation (see 23).

(23)   Many matters ***discussed*** in this annual report (PHA1)
         Många av de frågor ***som behandlas*** i denna årsredovisning [that are treated]

Table 12: An example of the realization with a verb in passive form

Topic	Linguistic action	Text location
NP	Passive Verb	PP
Politics	will be discussed	in chapter 5
Politik	diskuteras/behandlas	i kapitel 5

Tala and the Morphological Potential of Swedish

Contrasts between languages in the general morphological structure contribute to lexical differences. Swedish has a greater potential than English to form derived verbs that are transparently related to the most basic verbs within a semantic field. There is a continuum between grammatical markers that function as free words and bound grammatical markers (cf. the use of case to mark Addressee and Topic in Finnish). For that reason it is motivated to begin by looking at prepositions, which are important in both English and Swedish as markers of Addressee and Topic. In Swedish *med* 'with' is the dominant marker of the Addressee with *tala* and practically the only marker when *prata* and *snacka* are used. This preposition marks the Addressee as an interactor and underscores the interactive nature of *prata* and *snacka*. In English, *to* is the unmarked preposition and is often used even when the Addressee is conceptualized as an interactor. *With* is used only exceptionally to mark the Addressee as in (24). In Swedish, *till* 'to' can be used only with *tala* and unambiguously signals that the talking is mono-directional.

(24)   Han talade ***till*** George, men han talade ***med*** Augusta. (SCO1)
         He was talking ***to*** George, but ***with*** Augusta.

Worth mentioning is also a special case where English and Swedish are similar. Both languages mark what Dirven et al (1982) refers to as a transmitter with the corresponding prepositions *through – genom* (see 25). A transmitter (e.g. a spokesperson) only produces the speech which expresses the message of the original sender which is treated grammatically as the Speaker.

(25)   Sedan talar han till mig ***genom*** Maria. (PE1)
         Then he talks to me ***through*** Maria.

Talking to oneself without another person as addressee is signaled with the preposition *för* 'for' in Swedish (see 26) and can be used with all three speech activity verbs referring to overt speech (cf. *säga sig – say to oneself*, which can refer to silent talk, i.e. to thinking).

(26)   These are the ones most likely to talk **to** themselves. (MA1)
          Det är de som oftast pratar ***för*** sig själva.

The preposition *för*, which basically marks an Experiencer or a Beneficiary, appears in a number of other combinations that are worth noting. It can be used when speaking on behalf or in favour of someone else, for examples *somebody who is simply speaking **on behalf of** the tobacco industry* (EJAC1) translated: *någon som helt enkelt talar **för** tobaksindustrin* (cf. *Tala för dig själv - Speak for yourself* (*don't take for granted that I agree*). In Swedish, *för* can be used as a marker of a plausible conclusion, whereas the subject indicates the kind of support on which the conclusion is based (see 27). There are 15 examples of this use in the ESPC, all in Non-Fiction. The verbs *indicate* and *suggest* are the most frequent translations.

(27)   Alla relevanta studier ***talar för*** att de yngsta barnen har den högsta incidensen av luftvägsinfektioner. (CP1)
          All relevant studies ***indicate*** that the youngest children have the highest incidence of respiratory tract infections.

Lexical contrasts must be judged against general structural differences between the languages being compared. There are important differences between English and Swedish with respect to word formation (compounding and derivation). Comparing speech activity verbs in English and German, René Dirven says: "To put the case in a somewhat extreme way, German thrives on its morphological potential to create forms for meanings; English, in contrast, has to create all sorts of syntactic devices and tap the metaphorical potential of language to cope with its conceptual drive" (Dirven, 1990, p. 261). Swedish similar to German has a rich morphological potential. The derivational possibilities of *tala* are demonstrated in Table 13. For comparison, parallel structures with verb particles and prepositions are shown in the last two lines. The derivational processes are general and very productive. They are exploited to a very great extent to form VCVs. Only a small proportion of the Swedish VCVs are simple verbs. The number of Romance borrowings is also low in comparison to English.

Table 13: *The morphological potential of tala*

Compound: Noun-Verb Accent II	valtala	'make an election speech'
Prefix (non-separable) Unstressed	förtala	'slander, defame'
Prefix (non-separable) Stressed, Accent II	samtala	'converse'
Bound particle Stressed; Accent II	omtala	'mention'
Free particle Stressed	tala 'om	'tell'
Preposition Unstressed	'tala om	'talk about'

Note: Stress is marked with an apostrophe, which does not appear in the standard orthography.

Compounding is very productive even if many of the compounds have low frequency and several of them are occasional. A typical example is *valtala* 'make an election speech' consisting of the noun *val* 'election' and the verb *tala*. It is possible to add another noun: *EU-valtala* 'make an election speech as a candidate for the EU parliament'. An important characteristic of Swedish compounds is that they are pronounced with word accent II. A selection of additional examples is given in Table 14 to give an idea of the productivity. Most of these compounds refer to formal or institutionalized speech events and the nouns in most cases indicate the type of event.

Table 14: *N-V compounds with* tala

Compound: Noun-Verb

hälsningstala, inledningstala, öppningstala, invigningstala, avslutningstala, premiärtala, jungfrutala, Almedalstala, hyllningstala, middagstala, avskedstala, högtidstala, griftetala, festtala, majtala, förstamajtala, sommartala, gästtala, brandtala, buktala

Swedish has a number of prefixes, which by definition cannot occur as free words, i.e. they are non-separable. There are two very frequent prefixes, which are unstressed: *för-* and *be-*. Both are used with *tala*. *Förtala*, which means means 'slander', is an old verb but still is transparently related to *tala*, whereas *betala*, which means 'pay' and is a borrowing from Middle Low German *betalen* (*be-* + *talen* 'count'), probably is not experienced as related to *tala* by most speakers. (However, the noun *tal* still has the meaning 'number' in addition to 'speech'). There are also derivations with a stressed non-separable prefix such as *samtala* 'converse, discuss' and *åtala* 'prosecute'. These verbs are pronounced with accent II and form a transition to the large and important group that will be treated next.

Many combinations of verb + particle can be used both with the particle as a free word and with the particle preposed as the first element in a compound verb with accent II. The use with the particle as a free word is unmarked and the most frequent alternative. It can be used both

when the meaning is literal and when it is figurative. As demonstrated in Johannisson (1954), bound forms usually have a nonliteral meaning. Occasionally, a bound form appears with literal meaning but then it tends to be very formal or sound obsolescent. Compare examples such as (28) and (29). (The German translation will be commented on later.)

(28)   Ann **talade in** ett meddelande [talked in a message]
       Ann left a message (on the answering machine)

(29)   Men jag försöker **intala mig** att känna glädje. (MPC: PCJ2)
       But I try to **persuade myself** to feel happy.
       German: Aber ich versuche mir **einzureden**, daß ich mich freue.

When *tala* is used with the free particle *in* as in *tala in* (*ett meddelande*), *tala* has its literal meaning, whereas the meaning is abstract when the particle is bound as in *intala* (*sig*, reflexive) 'persuade (oneself)' based on spatial metaphors (IDEAS ARE THINGS and THE MIND IS A CONTAINER: 'to put an idea into a person's mind by talking').

 Several prepositions can also be used as particles. Then they are stressed and follow special word order rules. This applies to *om*, which is unstressed and used as a preposition in '*tala om* 'talk about' and stressed and used as a verbal particle in *tala 'om* 'tell' (see above). There is also an initial bound form: *omtala* 'mention'. Sometimes it is not obvious which form is more abstract as in *uttala* 'pronounce' and *tala ut* 'speak one's mind', but this does not contradict the general rule that free particles can be used with a literal or figurative meaning, whereas the bound form in general is figurative. The variety of derivations and alternations between free and bound forms of many prepositions and verbal particles represents a rich potential to express a large number of separate meanings which often are relatively transparently related, at the same time as there is a high degree of conventionalization and specialization of the meaning. The derived forms of *tala* are shown in Table 15.

Table 15: *Bound particles and prefixed forms with* tala *'speak/talk' in Swedish*

Bound particles. Stressed		**Non-separable prefix. Stressed**	
uttala	1. 'pronounce' 2. 'express'	åtala	'prosecute'
tilltala	1. 'address' 2. 'please'	samtala	'converse'
övertala	'persuade'	**Prefix: Non-separable. Unstressed**	
intala	'talk sb into'	förtala	'slander', 'defame'
avtala	'agree on', 'appoint'	betala	'pay'
vidtala	'arrange with a person to do sth'		
påtala	'criticize'		

Derived forms can be derived a second time: *uttala* 'pronounce' > *feluttala* 'mispronounce' (*fel* 'error'): *åtala* 'prosecute' > *alternativåtala* 'prosecute in alterative ways'; *betala* 'pay' > *delbetala* 'make a partial payment' (*del* 'part'). Some of the derived verbs have several meanings. For example, *uttala* 'pronounce' can also mean 'express' as in (30) and in the reflexive (*uttala sig*) 'make a pronouncement'.

(30)   I flertalet studier **uttalas** misstankar om alltför liberalt bruk av antibiotika (CP1)
         Most studies **express** doubts about the excessively liberal use of antibiotics

The semantically and stylistically regulated alternation between compound and free forms in Swedish is different from the corresponding alternation in German, which is one of the phenomena that has attracted most attention in German word formation. In German, the alternation between prefixed and free particles in separable verbs such as *aussprechen* (out- + speak) 'pronounce', *zusagen* (to- + say) and *einreden* (in-+ talk) 'persuade' is grammatically regulated, whereas there are no grammatical restrictions on verbs in Swedish except that participles always have bound particles. For example, in German the bound form must be used in the infinitive (see example 29 above). In addition, the infinitive marker *zu* appears between the bound particle *ein-* 'in-' and the verb stem *reden* 'talk'. On the other hand, free forms must be used in the present and past tense in main clauses, compare *Ich rede mich ein –Jag intalar mig* 'I persuade myself'. In Swedish, there is a change of meaning, if the free form is used: *Jag talar in ett meddelande* 'I am recording a message'. Subordinate clauses only allow bound forms in German but subordination does not affect the choice between bound and free forms in Swedish. In Swedish, it is possible to exploit the formal alternation between free and bound forms to signal semantic contrasts and to create new lexical items. Often the bound forms have a very specific meaning and are used in specialized registers (administrative and legal language, academic prose). In some cases, the alternation between free and bound forms is only stylistic without any clear semantic differentiation, but that applies to rather few combinations (e.g. *upphöra* and *höra upp* can both be used in the sense 'cease, stop').

In an ongoing study based on the ESPC, all compound verbs containing the bound forms of the spatial particles *in/ut* and *upp/ner* ('down') are studied. In all there are 37 such compound verbs (types) that can be used as verbal communication verbs in the ESPC (see Viberg, 2017b Section 4.3.2).

Conclusion

This paper has compared FrameNet and Wierzbicka's theory of semantic primitives as models for corpus-based contrastive lexical studies. Wierzbicka's (1987) semantic dictionary of English speech act verbs presents detailed descriptions of more than 200 VCVs and can be used as a model for a similar analysis of other languages. The theory of semantic primes aims at giving unique definitions of each individual verb and accounts for fine-grained distinctions between verbs that are closely related semantically. On the other hand, there is no clear link to the syntactic realization of the argument structure.

FrameNet provides a rather robust account of the basic conceptual structure of sentences with VCVs in terms of the core frame elements (FEs) and also accounts for the grammatical realization of the argument structure of the verb. An additional advantage of FrameNet is that it covers a rather extensive part of the lexicon in English and a growing number of other languages, among them Swedish (see Electronic sources). A major limitation of FrameNet is that it does not provide a unique semantic (or conceptual) representation of each lexical unit that belongs to a certain frame.

In a corpus-based contrastive study based on FrameNet, it is possible to study contrasts between correspondents by looking quantitatively at different patterns of realization of FEs as was done for *tell* and *berätta*. *Tell* and *berätta* are described with the same FEs but still differ in meaning. One way to describe this contrast is to say that *tell* focuses on (or profiles) the Addressee, whereas *berätta* focuses on the Message. However, some reference to semantic primes or some other componential theory is needed as well, for example, to account for the language-specific contrast between *berätta* and *tala om* in Swedish.

A closer look at the way FEs are realized with words belonging to the same frame as was done, for example, with *inform* above, makes it possible to give a more fine-grained analysis of words with related meaning. In this way, contrastive comparison can contribute to the further development of framenets of individual languages.

Most frameworks for contrastive lexical analysis seem to ignore the role of differences in the general morphological structure between the languages that are compared. This is highlighted in the last section above, but much remains to be done to integrate morphology into a general model of semantically based lexical comparison.

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