ALFRED HOLL

The inflectional morphology of the Swedish verb with respect to reverse order: analogy, pattern verbs and their key forms

Summary

Learners of a language often try to construct analogy rules based on similarity. In the case of verbs, similarity can be defined with respect to reverse order of present infinitives. However, similar Swedish verbs need not belong to the same conjugation class. With regard to verbs ending in -a, there is a triple choice: e.g., skida belongs to the 1st, smida to the 2nd and rida to the 4th conjugation. On the other hand, there are homogeneous groups whose verbs all belong to the same conjugation. e.g., all verbs ending in -anna belong to the 2nd conjugation. This phenomenon is a difficult hurdle for learners of Swedish. There is not any grammar book which comprehensively shows them where they can trust in this kind of analogy base. In this paper, this problem is dealt with from a descriptive, synchronic and graphematic point of view. Verb tables are presented which comprise the inflectional morphology of the entire Swedish verbal system. They meet four requirements: every arbitrary Swedish verb (without any exception) can be assigned to its pattern verb by a simple, right-bound, longest matching algorithm. Thus, it is shown where analogy rules are applicable. The key forms of each pattern verb are recorded so that every other verb form can be derived. The verb tables can easily be adapted to language changes.

1 Introduction

One core problem for the learner of the Swedish language is to find out which conjugation class a given verb follows. This is quite difficult, as Swedish has four classes: 1st, 2nd (with a couple of important exceptions

in several subclasses) and 3rd are weak, 4th is strong (a result of the Indoeuropean ablaut). In comparison, English and German only have two conjugation classes each: a weak one and a strong one. Swedish 3rd conjugation verbs are (except for a handful of 4th conjugation verbs) the only ones ending in vowels other than a. The other ones all end in a. As you can find exhaustive lists of 4th conjugation verbs and of 2nd conjugation exceptions in Swedish grammar books, but none of the regular 2nd conjugation verbs, the biggest partial problem for the learner is to distinguish between 1st and 2nd conjugation. In this paper, however, I deal with the entire problem.

The learner of Swedish can solve this problem by using a dictionary where the conjugation class is indicated for every verb. How can he remember the conjugation classes for 10,000 Swedish verbs, however? He will try to find rules. Normally, these are based on similarity, type construction and assumption of analogy, e.g.: sända has a similar graphematic shape as tända and follows the same conjugation as tända (the 2nd conjugation). Therefore, the beginner will intuitively assume the following rule: "All verbs of the type «ending in -ända» should follow the conjugation of tända (the 2nd conjugation)", i. e. "tända should be the pattern verb for all verbs ending in -ända" and "this verb group should be homogeneous with respect to conjugation". This assumption is not correct, however, as ända, blända, fullända, skända belong to the 1st conjugation. Parallels can be found in other Germanic languages: e.g., English to like – liked – liked vs. to strike – struck – struck and German siegen – siegte – gesiegt vs. liegen – lag – gelegen.

The mentioned lack of analogy is a frequent phenomenon in the Swedish verbal system. Although they look quite similar, Swedish verbs can belong to different conjugation classes. Depending on their assignment, verbs can even have different meanings: e.g., sluta means 'to finish' in the 1st conjugation and 'to close' in the 4th conjugation. On the other hand, there are some cases where analogy rules can be applied successfully, e.g., "all compounds of tända follow the conjugation of tända" and "all verbs ending in -änna follow the conjugation of känna". This situation is not a problem for adult Swedish native speakers, but it is one for Swedish children before school age as well as for foreigners. Up until now, however, only few analogy rules and exceptions have been mentioned in Swedish grammar books; a complete overview has not existed. Although teaching Swedish as a second language became more and more important during the last 20 years, the estimation in Hellberg 1978: 17 is still valid: "A great deal has been written about the inflectional mor-

phology of Swedish, but very few attempts at a fully comprehensive description have been made."

I would like to thank Torbjörn Fogelberg, a Swedish native speaker, who graduated in Scandinavian philology from Lund University. He checked the entire paper and gave important contributions. I, myself, know Swedish quite well, but I am not a native speaker.

2 Aims

With my approach, I address language teachers, language learners and linguists who are interested in descriptive and normative grammar, particularly in inflectional morphology. For this purpose, it is useful to confine oneself to the current (synchronic), graphemic representation of words, especially because graphemic and phonemic structures of words are not very different in Swedish. A learner of Swedish cannot be expected to deal with the details of Swedish phonology and language history before he can finally start learning Swedish. Hellberg 1978 takes the same view in the field of language parsing research. Therefore, my investigation is not based on generative phonology, as in Kiefer 1970, Kiefer 1975 and Linell 1972, although I get some advantage from their results (see Section 3.4). I pursue the classical aims of language description, standardization and instruction, as in Collinder 1974.

In this tradition, my paper tries to make the situation easier for the learner of the Swedish verbal system. I cannot eliminate its difficulties, of course. As pointed out in the introduction, the help intended cannot be given with the usual catalogs of morphological irregularities in grammar books. It is inevitable to go beyond them and to thoroughly examine the structure of **verb groups** (with the same infinitive endings) which are **inhomogeneous**, i. e. which contain verbs of different conjugation classes. In the context of this paper, the word **ending** is not used in the traditional linguistic dichotomy, "stem vs. ending", but in a technical sense, meaning the last letters of a word. The number of letters in an ending is defined by pragmatic reasons and varies between different verb groups. As a result of this investigation, I can show the language learner in which cases analogy rules are correct and in which cases they are wrong. As a consequence, he will know in which cases he can assign verbs to graphematically similar **pattern verbs**.

In addition, the learner of the Swedish verbal system has to remember the conjugation classes of all these pattern verbs. The latter knowledge is not represented by conjugation class numbers, but by a couple of key forms. From Latin grammatical description, it is obvious that a limited quantity of four key forms is sufficient to derive all the other forms of a verb (e.g., invado, invasi, invasum, invadere). The mathematical theory behind this grammatical principle is developed in Holl 1988. The same principle is used in grammatical descriptions of Germanic languages (e.g., in English: go, went, gone; in German: gehen, ging, gegangen). SAOL 1998 shows that this principle applies to Swedish as well (e.g., gå, gick, gått). Present infinitive (I briefly define infinitive in this paper), past tense and supine are used as key forms. In exceptional cases, these are extended by present tense and perfect participle.

All this knowledge is necessary for the language learner:

- 1 the applicability of analogy rules and the assignment of verbs to pattern verbs and
- 2 the key forms of the pattern verbs.

This complete knowledge is presented for the first time for the entire Swedish verbal system in my verb tables (Chapter 7).

The ideas for my approach were first published in Holl 1988. There, they were checked for Latin and for six Romance languages. Furthermore, the individual models for different languages can easily be corrected in case of errors and adapted to language changes. This is confirmed in the book review Schweiger 1990: 240.

3 Motivations for a reverse order presentation

- 1 The intuitive analogy rules mentioned in the introduction are induced by similarities between infinitives when compared in reverse order.
- 2 All the compound verbs of a simple verb are automatically listed at the same place in a verb catalog in reverse order. This is useful as the compound verbs mostly follow the same conjugation as the corresponding simple verb.
- 3 In Holl 1988, the effectiveness of a reverse order presentation is shown for the verb systems of Latin and six Romance languages. An essential reason is that (Neo-)Latin infinitive endings are responsible for the assignment to a conjugation class. Thus, it is possible to considerably reduce the linguistic material recorded in traditional verb tables.
- 4 The problem of the distribution of weak verbs to the 1st and 2nd conjugations was first systematically discussed in Linell 1972. He mentions

an interesting phenomenon: verbs with polysyllabic roots and verbs with special final consonant clusters before the infinitive a always belong to the 1st conjugation and never to the 2nd (Linell 1972: 67–69). The latter is partly due to accident, partly to phonotactical reasons: a verb such as samla cannot form a 2nd conjugation past tense *samlde, as the produced consonant cluster mld is inadmissible in Swedish. These verbs cannot belong to the 4th conjugation either, as 4th conjugation verbs mostly have single or geminate final consonants in the infinitive. Linell decribes this phenomenon with his consonant cluster rule. Linells results are more or less copied by Kiefer 1975: 139-142. The phonological details are not relevant in the context of my problem. The only important fact is that there are homogeneous 1st conjugation verb groups with the same final consonant cluster. Therefore, I know where I need not look for inhomogeneous verb groups and the language learner gets some help by his intuitive sense for pronouncability. Linells rule also induces an investigation of Swedish verbs in reverse order, as you can find all verbs with a given final consonant cluster at the same place in a verb catalog in reverse order.

4 How to use the verb tables

The application of my verb tables is discussed before their composition (see Chapter 5). This is because it is easier to understand their derivation from the linguistic facts if you are familiar with their use.

4.1 Algorithm for the assignment of an arbitrary verb to its pattern verb

My verb tables only contain pattern verbs. Their trailing parts which are not underscored serve as analogy bases for other verbs. The analogy base plus its underscored leading part is the pattern verb searched for. Trailing passive voice -s is ignored when applying the following algorithm.

When you search the analogy base for an arbitrary verb, you use a simple, right-bound, longest matching algorithm on the infinitives. It is a simple algorithm which you can use without having any idea of computer science. You just have to find the longest possible analogy base in the verb tables. It has two significant qualities: it has all its letters in common with the trailing letters of the arbitrary verb and there are no longer analogy bases in the verb tables. The first quality can also be expressed in other words: the arbitrary verb has to contain at least as many letters as its analogy base, it has to be longer (see Section 5.3.3 for an exact definition) than its analogy base.

In detail, the algorithm runs as follows: you start looking to see whether the entire arbitrary verb is in the verb tables (in reverse order), either as an analogy base (not underscored), or as a verb which is completely underscored (see exception below). If you could not find the arbitrary verb this way, you drop its first letter. Then you look to see whether the rest is an analogy base in the verb tables. Otherwise, you drop its second letter, and so on, until you find the longest possible analogy base for the arbitrary verb.

The algorithm is now illustrated with a few examples:

The analogy base of *skrida* is *rida*, as *skrida* is longer than *rida*, and as any longer analogy base matching *skrida* cannot be found in the verb tables. As there is no underscored part in *rida*, analogy base and pattern verb are equal. The same rule applies for *sprängrida*, *strida*, *vrida*, *förvrida*, etc.

The analogy base for *sjuda* is *juda* (this is not a Swedish verb!), as *sjuda* is longer than *juda* and as any longer analogy base matching *sjuda* cannot be found in the verb tables. *juda* is the part of *bjuda* which is not underscored, so *bjuda* is the pattern verb for *sjuda*.

Using an analogous argumentation, the analogy base of *dagas* is *a* (this is not a Swedish verb!) as the trailing passive voice *s* (even *ss* such as in *slåss*, *lyss*) is ignored. *a* is contained in *jobba*, so *jobba* is the pattern verb for *dagas*.

Exception: Pattern verbs which are completely underscored cannot be used as analogy bases (or pattern verbs) for any other verb; they are valid only for themselves.

Example: <u>indra</u> is not the pattern verb for any other verb, in particular, not for *hindra*, <u>lindra</u>, <u>glindra</u>, <u>tindra</u>, which are all assigned to <u>jobb</u>a.

Remark: The arbitrary verb in question must contain at least as many letters as the analogy base in the verb tables, e.g., *förlisa* is not an analogy base för *lisa*, and *krympa* not for *ympa*.

4.2 Algorithm for the derivation of other forms of an arbitrary verb

The principle of key forms was described in Chapter 2. I use mere anal-

ogy rules for deriving the key forms of arbitrary verbs from the key forms of pattern verbs.

Example: rida is the pattern verb for skrida and has the key forms rida, red, ridit. Therefore, skrida has the key forms skrida, skred, skridit. See Section 5.2 for details.

5 The derivation of the verb tables

5.1 The sources for the linguistic material

The 1st and the 3rd conjugations can be considered as regular: the 1st for the verbs ending in -a, the 3rd for those ending in another vowel. Thus, when compiling the linguistic material, you must look for catalogs comprising the rest, i. e. the 2nd and 4th conjugations, in order to figure out inhomogeneous verb groups. It is quite easy to find lists with all the irregular verbs (complete 4th conjugation and parts of the 2nd conjugation). They are included in every grammar book and every dictionary. It is very difficult, however, to find complete catalogs with all regular verbs in the 2nd conjugation. Even SAG 1999 does not contain any, but only single examples and lists with exceptions.

The first complete list of all verbs in the 2nd and 4th conjugations was published in Collinder 1974: 3-99 under the headline "Tempusböjningslista". However, Swedish has changed since 1974. Thus, this catalog has become a bit obsolete and does no longer represent the current linguistic state described in SAOL 1998.

The second useful source for my research is Hellberg 1978. Hellberg presents lists of equally inflected verbs. "The dictionary is by no means exhaustive, but large enough ... to give an idea of the distribution of paradigms in a basic Swedish vocabulary." (Hellberg 1978: 12).

The third source, Odhner 1979, is very important. This reverse dictionary classifies all words according to parts of speech and according to inflectional classes. Thus, you find information on inhomogeneous verb groups with the same infinitive ending.

A simple attempt with a similar aim as mine was done in Perridon 1985. It contains a couple of interesting ideas, but it does not exceed the state of a mere attempt, as essential principles of software engineering are violated. Perridon's algorithm for the production of verb forms is written as a Pascal program without any published design concept and without any comments in the source code. It is very complex and only documented in some fragments so that it cannot be followed. The worst critique is that it contains language data in the form of program constants so that the correction of errors and the adaptation to language changes would require modifications of the algorithm — a terrible job. Furthermore, one assertion shows that the linguistic facts were not analyzed correctly: Perridon 1985: 95 states that verbs ending in -örja follow the 2nd conjugation. This is wrong as the frequent verb börja belongs to the 1st conjugation. For the reasons mentioned, the results presented are useless for language instruction and I did not make any further use of this paper.

In contrast to Perridon 1985, my approach is completely documented and efficient. My algorithm does not depend on the language considered. Underlying language data are used in variables, whose values are separated (see Section 5.3, remark 1). Therefore, necessary changes do not affect my algorithm, but only the language data which are accessible to easy modification.

The material from the sources mentioned was checked with SAOL 1998. Every verb group which might contain non-1st conjugation verbs (according to Linells consonant cluster rule) was examined in detail with the reverse dictionary Allén 1993 and SAOL 1998.

5.2 The verbs and verb forms mentioned

I exclude verbs marked as 'finlandsvensk' (Finland Swedish), 'sydsvensk' (Southern Swedish) or 'provinsiellt' (local, regional) in SAOL 1998.

Compound verbs are normally included in my investigation if they are recorded both in SAOL 1998 and in Allén 1993. Only if the conjugation of a simple verb is determined by differences in meaning (such as *sluta*, see introduction), its compounds are excluded. This is because their conjugation is determined by the same difference in meaning.

Passive and deponent forms ending in -s are treated in the reverse order, as if the trailing s would not exist.

Furthermore, SAOL 1998 classifies some alternative verbs and verb forms with 'även' (rekommendation i andra hand), i. e. they are only recommended in second hand. Other verbs and verb forms are marked as 'ålderdomligt' (obsolete). Both are either not considered or recorded in parentheses in my verb tables. If a verb form is mentioned in SAG 1999 and not in SAOL 1998, I confine myself to the more restrictive standard of SAOL 1998.

My verb tables in Chapter 7 contain four columns:

Column 1: present infinitive

Column 2: present tense, if necessary, i. e. if it does not follow the rule: If present infinitive in -a and supine in -at, then present tense in -ar. If present infinitive in -a and supine not in -at, then present tense in -er. If present infinitive in -V (vowel not = a), then present tense in -Vr.

Column 3: past tense Column 4: supine

Column 5: the verb's meaning in a Swedish paraphrase. It is mentioned if and only if it is relevant for the verb's conjugation. This applies only for verbs with different conjugations depending on their meaning. such as sluta which was mentioned in the introduction.

As discussed in Chapter 2, the key forms in columns 1 to 4 are sufficient to derive every other verb form. The derivation procedures can be read in every Swedish grammar book. Therefore, I do not deal with imperative, present participle, past participle, compound tenses and passive voice forms. Subjunctive and optative forms are excluded from my investigation as well because they have become rare in everyday language.

5.3 Systematization of the linguistic material

The systematization is done in the following three steps. Due to the huge amount of linguistic material, I cannot show it in detail for each verb group. I only illustrate it with one example.

- 1 All the 2nd and 4th conjugation verbs are sorted in reverse order. Thus, verb groups with the same graphematic ending arise automatically. Example: bända, hända, lända, sända, tända, vända constitute the group -ända.
- 2 The verb groups are completed with 1st and 3rd conjugation verbs. This is done with reverse dictionaries, such as Allén 1993 and Odhner 1979. Example: ända, skända, blända, fullända.
- 3 The most simple and efficient analogy rule for each group is stated. Example: "In general, the group -ända follows the 1st conjugation, but bända, hända, lända, sända, tända, vända and all longer verbs follow the 2nd conjugation."
 - In this context, I use the following convention: a verb A is 'longer' than another verb B in reverse order if verb B is contained at the end of verb A. Example: anlända, blända, fullända are longer than lända.

Equal length is also included in the mathematical sense, so *lända* is longer than *lända* as well.

That's why the above rule contains a mistake in its preliminary form: it would induce the wrong proposition that *blända* and *fullända* would follow the same conjugation as *lända*. Thus, the above rule has to be completed by: "*blända* and *fullända* belong to the 1st conjugation." By the way, *ända* and *skända* are assigned to the pattern verb *jobba* of the 1st conjugation (cf. Section 4.1).

In formal terms, the rule is written like this in my verb tables:

bänt	bände	bända
hänt	hände	hända
länt	lände	lända
bländat	bländade	blända
fulländat	fulländade	fullända
sänt	sände	sända
tänt	tände	tända
vänt	vände	vända

Remark 1: This rule (and the entire verb tables) is not part of the algorithm which assigns an arbitrary verb to its pattern verb (see Section 4.1). It is part of the language-specific data the algorithm uses.

Remark 2: At first glance, it may seem strange that I do not treat *fullända* as a (linguistic) compound of *ända*, but just as a verb (technically) longer than *lända*. Otherwise, I would expect the user of my verb tables to have the ability to decompose all the Swedish compound verbs. This would require a lot of knowledge about Swedish morphological structures: a list of possible verbal prefixes and of possible verbal stems. However, this is native speaker knowledge, which a language learner does not have. I will just give two crucial examples: Is *presslägga* a compound to *lägga* or to *slägga*? The first alternative is correct. Does *påta* belong to *ta* (4th conjugation)? Yes, but there is also a simple verb *påta*, 'to dig' (1st conjugation).

This leads to my first principle: treat all verbs (in particular their infinitives) without respect to their internal morphological structure; just consider them as unstructured strings of letters. Thus, the descriptions of the verbal systems become a lot easier. This point of view was already used successfully in Holl 1988.

Remark 3: Theoretically, the exception to the above rule could also have been formulated this way: "Verbs longer than *lända* do not follow the

2nd conjugation, with the exception of its compounds (e.g. anlända)." This would have the following disadvantage:

I would be obliged to present complete lists of compound verbs, which is a very difficult task. Even SAOL 1998 does not record all compound verbs. Therefore, I prefer to record the longer 1st conjugation verbs, in the example: blända and fullända.

This leads to my second principle: avoid lists of compound verbs as far as possible. I cannot obey this principle only in the case of the compounds of short non-1st conjugation verbs, such as ta, äta, dra. If I chose ta as a pattern verb for verbs longer than ta, I would indeed avoid listing its compounds, but I would have to list all 1st conjugation verbs ending in -ta. Therefore, it is better to obey my lower third principle in this case: I exclude ta as pattern verb, have to list its compounds, but avoid listing the huge quantity of all 1st conjugation verbs ending in -ta.

Remark 4: Theoretically, the above rule could also have been formulated this way: "In general, the group -anda follows the 2nd conjugation, but ända, skända, blända follow the 1st conjugation." There were two disadvantages, however:

- 1. There is a general rule in Swedish that verbs mostly follow the 1st conjugation, as it comprises the majority of verbs. With this theoretical rule, however, the language learner would learn an explicit list of 1st conjugation verbs which follow the general rule, but he would only get an implicit knowledge of the exeptions of the general rule. Figures from SAG 1999: vol. 2, pg. 558, however, show how important non-1st conjugation verbs are in modern Swedish (and therefore explicit knowledge about them): in newspaper texts from the 1960s, only 25 % of the occurring verb forms belong to 1st conjugation verbs, which include 67 % of all different Swedish verbs. In terms of computer linguistics: 1st conjugation verbs amount to 67% of the verbal types, but only 25 % of the verbal tokens.
- 2. My verb tables shall be open for changes in the Swedish language, but the necessity of modifying them should not arise very often. The 1st conjugation is the only productive one in Swedish, that is, the only one to which new verbs are assigned. If I were to record many enumerations of 1st conjugation verbs, I would frequently run the risk to have to include new ones when they arise in Swedish. If I try to minimize those enumerations, I only run the risk of new verbs which are longer than 2nd or 4th conjugation verbs. Example: I would have to include a fictive 1st conjugation verb *flägga which would otherwise be assigned to the 4th conjugation verb *lägga*.

This leads to my third principle (subordinate to my second principle): avoid lists of 1st conjugation verbs as far as possible. I cannot obey this principle in two cases: firstly, if the quantity of 1st conjugation verbs is very small in comparison with the other verbs of a verb group; e.g., all verbs ending in -öja belong to the 2nd conjugation with the only exception slöja. Secondly, if I would violate my higher second principle; e.g., I do not list the compounds of the 2nd conjugation verbs lända, tiga, åka etc., but present the very short lists of longer 1st conjugation verbs instead.

6 Additional results

There are a couple of additional results which I obtain from compiling my verb tables. They concern types of (in)homogeneous groups (6.1) and a short comparison with Latin and Romance linguistic facts (6.2).

6.1 Homogeneity of verb groups with the same infinitive ending

A Swedish verb group with the same infinitive ending can be homogeneous (its verbs belong to the same conjugation class) or inhomogeneous (its verbs belong to different ones). It is more likely to be homogeneous, the more trailing letters define it. Thus, the group ending in *-binda* is homogeneous, but it contains only the simple verb *binda* and its compounds. As such a result is not interesting, I do not mention verb groups of that kind.

6.1.1 Homogeneous groups

1st conjugation: There are a lot of verb groups that contain only verbs of the 1st conjugation, according to Linells consonant cluster rule. A complete list can be found in Linell 1972: 67–69 (cf. Section 3.4).

2nd conjugation: There are only a few homogeneous groups with verbs of the 2nd conjugation: e.g., all verbs ending in *-länga, -ränka, -ärka, -räka, -änna, -ärpa* and a few which contain only two verbs.

 3^{rd} conjugation: All verbs ending in -0, -y, and - \ddot{a} follow the 3^{rd} conjugation.

4th conjugation: There are only a few homogeneous groups: all verbs ending in *-juta*, *-ryta*.

```
1st and 2nd conjugation: e.g. verbs ending in -eda etc.
```

1st and 4th conjugation: e.g. verbs ending in -inda etc.

1st, 2nd and 4th conjugation: e.g. verbs ending in -ida, -ippa etc.

2nd and 4th conjugation: e.g. verbs ending in -lippa etc.

 3^{rd} and 4^{th} conjugation: e.g. verbs ending in -e, -å and -ö.

The rest of the possible combinations does not occur, as verbs ending in -a (candidates for the 1st and 2nd conjugation) can not occur together with verbs ending in another vowel (candidates for the 3rd conjugation) in the same group.

6.2 Comparison with (Neo-)Latin languages

As the Swedish verbal system contains a lot of inhomogeneous verb groups, in contrast to (Neo-)Latin languages, the condensation of the linguistic material in Section 5.3.3 is less effective in Swedish. My Swedish verb tables contain about 550 pattern verbs with 3 key forms each (with no respect to present tense). This amounts to 1650 entries.

According to Holl 1988: 181, only Romanian needs more pattern verbs than Swedish, namely 800. French and Portuguese need only 150. French requires 7 key forms and Portuguese 6, twice as many as Swedish.

A final interesting detail: the Latin verb tables in Holl 1988: 204–215, contain about 400 pattern verbs with 4 key forms each. This amounts to 1600 entries. Thus, I can state: with regard to the assignment of verbs to pattern verbs, Swedish is more difficult than Latin.

7 Verb tables with pattern verbs and key forms

The following conventions are used for character attributes: all pattern verbs and key forms of the 1st and 3rd conjugations: normal letters:

regular key forms of the 2nd conjugation: **bold type**; irregular key forms of the 2nd conjugation: **italics in bold type**; key forms of the 4th conjugation: **underscored bold type**.

jobba	jobbade	jobbat	
leda	ledade	ledat	röra sig i en led, böja
leda	ledde	lett	föra, vara främst
ledas	ledde s	lett s	känna leda
reda	redade	redat	idka rederi- rörelse
reda	redde	rett	göra i ordning
breda	bredde	brett	
freda	fredade	fredat	
sveda	svedde	svett	
idas	idde s	itts	
lida	<u>led</u>	lidit	
smida	smidde	smitt	
gnida	gned	gnidit	
rida	red	ridit	
sprida	(spridde) spred	spritt, spridit	
bestrida	be stred be	estritt, bestridit	
kvida	kved	kvidit	
svida	svidade	svidat	klä
svida	sved	svidit	göra ont
binda	band	bundit	
bända	bände hände	bänt	
hända lända	nande lände	hänt länt	
blända	bländade	bländat	
fullända	fulländade	fulländat	
sända	sände	sänt	
tända	tände	tänt	
vända	vände	vänt	
varda (tardas)	varder <u>vart</u>	(ptcp. vorden) -	. ezanta bandi
(tordas)	<u>-</u> –	(tordats)	i första hand: töras
bjuda	þjöd	bjudit	
ljuda	ljudade	ljudat	uttala ljud för ljud
ljuda	<u>1jöd</u>	ljudit	ge ljud ifrån sig, höras
lyda	<u>löd</u> , lydde	lytt	
tyda	tydde	tytt	
låda	lådde	lått	
råda	rådde	rått	

(kläda)	klädde	klätt	i första hand: klä
späda	spädde	spätt	
rädas	_	_	
skräda	- skrädde	skrätt	
träda	trädde	trätt	
kväda	(kvädde) kvad	kvädit	
			
<u>öda</u>	ödde	ött	
föda	födde	fött	
göda	gödde	gött	
löda	lödde	lött	
flöda	flödade	flödat	
föröda	för ödde	för ött	
(stöda)	stödde	stött	i första hand:
			stödja
gnaga	gnagde	gnagt	
(draga)	-	dragit	i första hand:
			dra
(taga)	tog	tagit	i första hand:
•			ta
staga	stagade	stagat	
förstaga	förstagade	förstagat	
ligga	ligger låg	legat	
pligga	pliggade	pliggat	
tigga	tiggde	tiggt	
1	1		
hugga	högg	huggit	
bygga	byggde	byggt	
brygga	bryggade	bryggat	brygga över
brygga	bryggde	bryggt	brygga kaffe
lägga	(<u>la</u>) <i>lad</i> e	lagt	
slägga	släggade	släggat	
niga	neg	nigit	
tiga	teg	tigit	
<u>beri</u> ktiga	beriktigade	beriktigat	
berättiga	berättigade	berättigat	
viga	vigde	vigt	
föreviga	förevigade	förevigat	
			förse mad mi
ringa	ringade	ringat	förse med ring
ringa	ringde	ringt	ljuda, telefo- nera
bringa	bringar bringade, bragte	bringat, bragt	
springa	sprang	sprungit	
förringa	förringade	förringat	
stinga	_	stungit	
tvinga	tvingar ($\underline{\text{tvang}}$) tvingade	(<u>tvungit</u>) tvingat	

sjunga		sjöng	sjungit	
tynga		tyngde	tyngt	
dänga		dängde	dängt	
hänga		hängde	hängt	
länga		längde	längt	
mänga		mängde	mängt	
<u>t</u> ränga		trängde	trängt	
stränga		strängade	strängat	
omstränga	OI	msträngade	omsträngat	
stänga		stängde	stängt	
svänga		svängde	svängt	
		- · · - · · - · · ·		
duga	(due	gde) dög	dugt	
ljuga	, ==,	<u>ljög</u>	ljugit	
suga		sög	sugit	
Saga			<u></u>	
blygas		blygde s	blygt s	
flyga		flög	flugit	
smyga		smög	smugit	
äga		ägde	ägt	
säga		(sa) sade	sagt	
väga		vägde	vägt	
ha	har	hade	haft	
<u>coa</u> cha		coachade	coachat	
<u>sma</u> sha		smashade	smashat	
(bedja)	(beder)	bad	bett	i första hand:
				be
			•	
glädja	gläder	gladde	glatt	
(stadja)	(städ(j)er)	(stadde)	(statt)	
stödja	stöder	stödde	stött	
leja		lejde	lejt	
skilja	-	de) skilde	(skiljt) skilt	
<u>vilja</u>	vill	ville	velat	
sälja		sålde	sålt	
tälja		täljde	täljt	
välja		valde	valt	
dväljas	dvalde	s, dväljde s	dvalts, dväljts	
kvälja	GVZIGE	kväljdes	kväljt	inge äckel
kvälja kvälja		kvalde	kvalt	obehörigt
vaalq		v.atre	YAGIL	klandra
dölja		dolde	dolt	
följa		följde	följt	
hölja		höljde	höljt	
-		-	<u> </u>	

~	\sim	r
_	v	٦.

skölja		sköljde	sköljt	
tämja		tämjde	tämjt	
vämjas		vämjdes	vämjts	
			·	
tänja		tänjde	tänjt	
vänja		vande	vant	
,				
skönja		skönjde	skönjt	
snärja		snärjde	snärjt	
värja		värjde	v ärjt	
(svärja)	svär	svor	svurit	i första hand:
				svära
besvärja	-svärjer	be svor	be svurit	
		(be svärjde)	(be svärjt)	
smörja	(sm	orjde) <i>smorde</i>	(smörjt) <i>smort</i>	
spörja	,	sporde	sport	
sörja		sörjde	sörjt	
		,		
(säja)		sade	sagt	i första hand: säga
väja		väjde	v äjt	
<u>b</u> öja		b öjd e	böjt	
slöja		slöjade	slöjat	
klicka		klickade	klickat	lägga en klick; knäppa
klicka		klack	klickat	spritta av sinnesrörelse
dricka		drack	druckit	51651010100
spricka		sprack	spruckit	
sticka		stickade	stickat	sticka strumpor
sticka		stack	stuckit	ge ett stick
				,
lyckas		lyckades	lyckats	ha framgång
lycka		lyckte	lyckt	stänga
knycka		knyckte	knyckt	
rycka		ryckte	ryckt	
tycka		tyckte	tyckt	
stycka		styckade	styckat	
misstycka		miss tyckte	misstyckt	
<u>läcka</u>		läckte	läckt	
kläcka		kläckte	kläckt	
släcka		släckte	släckt	
smäcka		smäckte	smäckt	
knäcka		knäckte	knäckt	
räcka		räckte	räckt	
träcka		träckade	träckat	avge träck
träcka		träckte	träckt	dra fartyg
täcka		täckte	täckt	

väcka	väckte	väckt	
leka	lekte	lekt	
smeka	smekte	smekt	
steka	stekte	stekt	
beveka	be vekte	be vekt	
förlika	för likte	för likt	
snika	snikte, snek	snikt, snikit	
skrika	skrek	skrikit	
vika	vek	vikt, vikit	
svika	svek	svikit	
slinka	slank	slunkit	
stinka	stank		
Jeima	<u>s cana</u>		
sjunka	sjönk	sjunkit	
skänka	skänkte	skänkt	
blänka	blänkte	blänkt	
<u>d</u> ränka	dränkte	dränkt	
sänka	sänkte	sänkt	
tänka	tänkte	tänkt	
koka	kokade	kokat	klumpa (jord)
koka	kokar kokte , kokade	kokt, kokat	bringa i kokning
styrka	styrkte	styrkt	
<u>m</u> ärka	märkte	märkt	
sluka	(<u>slök</u>) slukade	slukat	
byka	bykte	bykt	
dyka	dök	dykt	
ryka	(rykte) rök	rykt	sända ut rök
ryka	rök	rykt	slåss; förloras
stryka	strök	strukit	
åka	åkte	åkt	
pjåka	pjåkade	pjåkat	
råka	råkade	råkat	
	• • • •		
läka	läkte	läkt	
späka	späkte	späkt	
bräka	bräkte	bräkt	
kväka	kvakte	kväkt	
röka	rökte	rökt	
föröka	förökade	förökat	
söka	sökte	sökt	
gala	gal gol	galt, galit	
mala	(maler) mal malde	malt	

tala	talar	(-1 te)	talade	(talt) talat	
betala	-talar			betalt, betalat	
				,	
falla			föll	fallit	
befalla		h	e fallde	befallt	
Delaila		D	claride	Delair	
spilla		1	spillde	spillt	
fylla			fyllde	fyllt	
förgylla			r gyllde	för gyllt	
skylla			skyllde	skyllt	
hålla			höll	hållit	
hushålla		hus	hållade	hushållat	
fälla			fällde	fällt	
gälla			gällde	gällt	
hälla			hällde	hällt	
skälla			skällde	skällt	
smälla			smällde	smällt	slå med en smäll
smälla		small,	smalide	smällt	ge knallande
					ljud
gnälla			gnällde	gnällt	
drälla			drällde	drällt	
ställa			ställde	ställt	
välla			vällde	vällt	
<u>kvällas</u>		k.	vällades	kvällats	bli kväll
kvälla		;	kvällde	kvällt	välla, flöda
tillvälla		till	vällade	tillvällat	
skola			skolade	skolat	utbilda, kila
					med skol
skola	ska (11)		skulle	skolat	komma att, böra
kyla			kylde	kylt	
skyla			skylade	skylat	sätta i skyl
skyla			skylde	skylt	hölja, dölja
SKYIG			skylde	SKYIC	norja, dorja
+315	tål		tålde	tålt	
<u>tåla</u>	Car		carde	Lait	
a+431a	1		1	-41-4	
stjäla	stjäl		stal	stulit	
anmäla			an mälde	an mält	
<u>gen</u> mäla	,	-mälte)	-maide	gen mält	
·		_			
förnimma			ör <u>nam</u>	för <u>nummit</u>	
simma	simmar	(<u>sam</u>)	simmade	(<u>summit</u>) simmat	
komma			kom	kommit	
$\underline{\mathtt{r}}\mathtt{ymma}$			rymde	rymt	
${\tt f\"{o}rgrymmas}$		förg	rymmades	förgrymmats	
dämma			dämde	dämt	
skämma			skämde	skämt	
klämma			klämde	klämt	

212 Alfred Holl

drämma		drämde	drämt	
_ stämma		stämde	stämt	
gömma		gömde	gömt	
glömma		glömde	glömt	
drömma		drömde	drömt	
berömma		be römde	be römt	
tömma		tömde	tömt	
värma		värmde	värmt	
svärma		svärmade	svärmat	
gräma		grämde	grämt	
döma		dömde	dömt	
dolla		dollide	dome	
mena	menar	(mente) menade	(ment) menat	
förmena		förmenade	förmenat	neka, förvägra
förmena	-menar	(-mente) -menade	(-ment) -menat	anse
		,	(3,23,2)	
skina		sken	skinit	
vina		ven	vinit	
nämna		nämnde	nämnt	
finna		fann	funnit	
hinna		hann	hunnit	
minnas		mindes	mints	
spinna		spann	spunnit	
rinna		rann	runnit	
skrinna		skrinnade	skrinnat	
vinna tvinna		<u>vann</u> tvinnade	<u>vunnit</u> tvinnat	
utvinna		ut vann	ut vunnit	
acvima		a c vaini	uc <u>vamire</u>	
kunna	kan	kunde	kunnat	
begynna		be gynte	be gynt	
<u>k</u> änna		kände	känt	
bryna		brynte	brynt	
syna		synade	synat	besiktiga
synas	syns	synte s	synt s	vara synlig,
				ses, tyckas
röna		ränta	rönt	
röna dröna		<i>rönte</i> drönade	drönat	
arona		aronade	aronat	
skapa	skapa	r skapade	skapt, skapat	
svepa	•	svepte	svept	
-		-	-	
knipa		knep	knipit	
pipa		pipade	pipat	rörförmigt vecka

pipa		pep	pipit	kvittra, gnälla, vina
gripa		grep	gripit	vina
<u>h</u> jälpa		hjälpte	hjälpt	
dimpa		damp	dumpit	
krympa		krympte	krympt	
klippa		klippte	klippt	
slippa		slapp	sluppit	
släppa		släppte	släppt	
<u>k</u> näppa		knäppte	knäppt	
skräppa		skräppte	skräppt	
täppa		täppte	täppt	
<u>sk</u> ärpa		skärpte	skärpt	
snörpa		snörpte	snörpt	
supa		söp	supit	
stupa	(<u>s</u>	töp) stupade	stupat	
nypa		nöp	(nupit) nypt	
drypa		dröp	drupit	
strypa	(stry	pte) ströp	strypt	
dräpa		dräpte	dräpt	
köpa		köpte	köpt	
förlöpa		=	(förlupit) förlöpt	
gröpa		gröpade	gröpat	grovmala
gröpa		gröpte	gröpt	gräva, urholka
fara befara	far	<u>for</u> befarade	<u>farit</u> befarat	frukta
befara	befar			
	spar(ar)	be for	be farit	fara på/över
spara vara	spar (ar)	sparade varade	sparat varat	pågå; utsöndra var
vara	är	var	varit	hjälpverb
förevara	42	före var	före varit	,
övervara	-varar	övervarade		
närvara	-varar	närvarade	närvarat, -varit	
svara	varar	svarade	svarat	
dra	drar	drog	dragit	
neddra	-drar	ned drog	ned dragit	
bedra	-drar	be drog	bedragit	
föredra	-drar	före drog	före dragit	
segdra	-drar	seg drog	seg dragit	
bidra	-drar	bi drog	bi dragit	

tilldra	-drar	till drog	till dragit	
<u>fra</u> mdra	-drar	fram drog	fram dragit	
andra	-drar	an drog	an dragit	
undandra	-drar	undan drog	undan dragit	
sammandra	-drar	samman drog	samman dragit	
indra	-drar	in drog	in dragit	
fråndra	-drar	från drog	från dragit	
<u>upp</u> dra	-drar	upp drog	upp dragit	
<u>öv</u> erdra	-drar	över drog	över <u>dragit</u>	
hårdra	-drar	hår drog	hår dragit	
fördra	-drar	för drog	för dragit	
<u>bor</u> tdra	-drar	bort drog	bort dragit	
avdra	-drar	av drog	av dragit	
ådra		ådrade	ådrat	göra ådrig
ådra	-drar	ådrog	å dragit	få en sjukdom
<u>yra</u>		yrade	yrat	tala förvirrat
yra	yr	yrde	yrt	virvla,drivas
				med vinden
hyra	hyr	hyrde	hyrt	
pyra	pyr	pyrde	pyrt	
styra	styr	styrde	styrt	
bära	bär	<u>bar</u>	<u>burit</u>	
begära	begär	be gärde	be gärt	
(<u>skära</u>)		(skärade)	(skärat)	rena
skära	skär	skar	skurit	klippa
beskära	-skär	be skärde	be skärt	skänka
beskära	-skär	be skar	be skurit	klippa (träd)
oskära		oskärade	oskärat	
lära	lär	lärde	lärt	
<u>nära</u>	när	närd e	närt	
tära	tär	tärde	tärt	
svära	svär	svor	svurit	
besvära		besvärade	besvärat	
böra	bör	borde	bort	
föra	för	förde	fört	
göra	gör	gjorde	gjort	
höra	hör	hörde	hört	
<u>köra</u>		körade	körat	sjunga i bak-
				grundskör
köra	kör	körde	kört	styra, åka
<u>sköra</u>		skörade	skörat 	
snöra	snör	snörde	snört	
	(snörar)	(snörade)	(snörat)	
röra	rör	rörde	rört	
*töra	tör 	torde	tort	
töras	törs	torde s	(tordats) torts	-4.2.3.1.
<u>störa</u>		störade	störat	stödja med
	,			störar
störa	stör	störde	stört	besvära, oroa
200 -				
resa		reste	rest	

gläfsa		gläfste	gläfst	
fisa		fes	fisit	
förlisa		för liste	för list	
frälsa		frälste	frälst	
glänsa		glänste	glänst	
näpsa		näpste	näpst	
kyssa		kysste	kysst	
förtjusa		för tjuste	för tjust	
<u>l</u> ysa		lyste	lyst	
plysa		plysade	plysat	
mysa		(<u>mös</u>) myste	myst	
nysa		(nyste) <u>nös</u>	nyst	
fnysa		fnös, fnyste	fnyst	
pysa		(<u>pös</u>) pyste	pyst	
rysa		<u>rös</u> , ryste	ryst	
frysa		frös	frusit	stelna av köld [intrans]
frysa		<u>frös</u> , fryste	frusit, fryst	bevara gm köld [trans.]
låsa		låste	låst	
flåsa		flåsade	flåsat	
jäsa		jäste	jäst	
fjäsa		fjäsade	fjäsat	
läsa		läste	läst	
snäsa		snäste	snäst	
fräsa		fräste	fräst	
väsa		väste	väst	
ösa		öste	öst	
slösa		slösade	slösat	
rösa 		rösade	rösat	
överösa		över öste	över öst	
<u>ta</u>	tar	tog	tagit	
tillfångata	-tar	-tog	-tagit	
tillvarata	-tar	-tog	-tagit	
<u>me</u> dta	medtar	med tog	med tagit	
beta		betade	betat	äta gräs; bryta; betsa
beta	betar	be tog	be <u>tagit</u>	beröva, överväldiga
arbata		arbatada	arhotat	

arbetade arbetat

arbeta

216 Alfred Holl

företa	företar	före tog	före tagit	
heta	heter	hette	hetat	
veta	vet	visste	vetat	
gifta		gifte	gift	
lyfta		lyfte	lyft	
klyfta		klyftade	klyftat	
beslagta	-tar	beslag tog	beslag tagit	
bita		bitade	bitat	dela i bitar
bita		bet	bitit	nafsa; vara
				skarp
skita		skitade	skitat	smutsa ner
skita		sket	skitit	tömma tarmen
slita		slet	slitit	
smita		smet	<u>smitit</u>	
delta	deltar	del tog	del tagit	
tillta	tilltar	tilltog	tilltagit	
		<u></u>		
smälta		smälte	smält	göra flytande [trans.]
smälta		(<u>smalt</u>) smälte	(<u>smultit</u>) smält	<pre>bli flytande [intrans.]</pre>
välta		vältade	vältat	bearbeta med vält
välta		välte	vält	falla åt sidan, stjälpa
svälta		<u>svalt</u>	svultit	hungra [intrans.]
<u>svälta</u>		(<u>svalt</u>) svälte	svält	låta hungra [trans.]
framta	framtar	fram tog	fram tagit	
anta	antar	an tog	an tagit	
undanta	-antar	undan tog	undan tagit	
(genta)	(gentar)	(gen tog)	(gen tagit)	
<u>inta</u>	intar	in tog	in tagit	
slinta		slant	sluntit	
frånta	fråntar	från tog	från tagit	
<u>up</u> pta	upptar	upp tog	upp tagit	
överta	övertar	över tog	över tagit	
förta	förtar	för tog	för tagit	
mista	mister	(-ade) miste	(mistat) mist	
rista	mracer	ristade	ristat	skära, hugga
rista	rister		(ristat) rist	skara (smärta);
11304	112661	, auc, Laste	(Listat) List	skaka
brista		brast	brustit	-114114

drista		dristade	dristat	
turista		turistade	turistat	
missta	misstar	micotos	micot nai t	
		miss <u>tog</u>	miss tagit	
*måsta	måste	måste	måst	
fästa	fäster	(-ade) fäste	(fästat) fäst	
<u>be</u> fästa		be fäste	be fäst	
gästa		gästade		
_		-	=	
nästa		näste , nästade	näst, nästat	
vetta	vetter	vette	vettat	
1000	***************************************	74000	700000	
gitta	gitter	gitte	gittat	
spritta	,	spratt		
-				
sitta		satt	suttit	
iaktta	iakttar	iakt tog	iakt tagit	
motta		mot tog	mot tagit	
bortta	borttar	bort tog	bort tagit	
utta	uttar	ut tog	ut tagit	
hytta		hytte	hytt	
sprätta		sprättade	sprättat	ta upp; skära
				upp
anrätta			sprätt	= =
sprätta		sprätte	spract	krafsa; vara
				sprättig
sätta		satte	satt	
skvätta		skvätte	skvätt	stänka
				[personligt]
skvätta	1.	kvatt) skvätte	skvätt	stänka
SKVacta	\ <u>=</u>	SKVALLE SKVALLE	SAVACE	
				[opersonligt]
gjuta		göt	gjutit	
sluta	slutar	slutade	slutat	komma till ett
				slut
eluta	clutar	slöt , slutade	slutat	
sluta				
sluta	sluter	slöt	slutit	stänga; dra
				slutsats
besluta	-slutar	-slöt,-slutade	(- slutit) beslutat	
avsluta	-slutar	avslutade	avslutat	slutföra;
				upphöra
((-2	/a1#4\	(a1+i+)	
(avsiuta)	(-sluter)	(av <u>slöt</u>)	(av slutit)	överenskomma om
avta	avtar	av tog	av tagit	
byta		bytte	bytt	
<u>fl</u> yta		<u>flöt</u>	flutit	
åta	åtar	å tog	åtagit	
låta	4041			
		lät	låtit	
<u>plåta</u>		plåtade	plåtat	

påta		påtade	påtat	gräva; p	eta;
				pyssla	
påta	påtar	på tog	på tagit	överta	
gråta		grät	gråtit		
äta		åt	ätit		
(förgäta)		-	(för gätit)		
fläta		flätade	flätat		
släta		slätade	slätat		
mäta		mätte	mätt		
näta		nätade	nätat		
räta		rätade	rätat		
fräta		frätte	frätt		
träta		trätte	trätt		
uträta		uträtade	uträtat		
täta		tätade	tätat		
tröstäta		tröst åt	tröst ätit		
väta		vätte	vätt		
aväta		av åt	av ätit		
		_			
höta		hötte	hött		
sköta		skötte	skött		
blöta		blötte	blött		
möta		mötte	mött		
nöta		nötte	nött		
stöta		stötte	stött		
(hava)		hade	haft	i första	hand:
				ha	
skava		skavde	skavt		
begrava	(be gro	v) be gravde	be gravt		
leva	lever	levde	levat, levt		
sleva		slevade	slevat		
(giva)		gav	gett, givit	i första	hand:
				ge	
(bliva)		blev	blivit	i första	hand:
				bli	
kliva		klev	klivit		
riva		rev	rivit		
trivas		trivde s	trivts		
skälva	(ska :	<u>lv</u>) skälvde	skälvt		
välva		välvde	välvt		
sova		sov	sovit		
<u>ärva</u>		ärvde	ärvt		
nedärva		ned ärvde	ned ärvt		
djärvas		djärvde s	djärvt s		
kringvärva		djarvdes	_		
KIIIIgvaiva	!	kring värvde	kring värvt		
omvärva	!	_			

yva	yvade	yvat	bli yvigare; yvas
yvas	yvde s	yvt s	vara stolt
klyva	klöv	kluvit	
häva	hävde	hävt	
gräva	grävde	grävt	
kräva	krävde	krävt	
väva	vävde	vävt	
kväva	kvävde	kvävt	
<u>be</u> höva	be hövde	be hövt	
söva	sövde	sövt	
stridsöva	stridsövade	stridsövat	
växa	växte	vuxit, växt	
be	bad	bett	
ge	gav	gett, givit	
ske	skedde	skett	
le	log	lett	
se	såg	sett	
förse	(-sedde) -såg	-sett	
10150	(bedde) <u>bug</u>	becc	
bli	<u>blev</u>	blivit	
<u></u> b0	bodde	bott	
fly	flydde	flytt	
lyss	lyss lyddes		
-	-		
få	fick	fått	
gå	***	p. gången) gått	
slå	slog	slagit	
må	måtte	mått	hjälpverb
må	mådde	mått	känna sig
nå	nådde	nått	
<u>::</u> u stå	stod	stått	
504	5000	Statt	
<u>kl</u> ä	klädde	klätt	
dö	dog	dött	
strö	strödde	strött	
= -			

8 Bibliography

- Allén, Sture & Sjögreen, Christian 1993: Norstedts svenska baklängesordbok. Norstedts, Stockholm.
- Collinder, Björn 1974: Svensk språklära. CWK Gleerup, Lund.
- Hellberg, Staffan 1978: The morphology of present-day Swedish. Word-inflection, word-formation, basic dictionary [= Data linguistica 13]. Almqvist & Wiksell, Stockholm.
- Holl, Alfred 1988: Romanische Verbalmorphologie und relationentheoretische mathematische Linguistik. Axiomatisierung und Anwendung des klassischen Wort-und-Paradigma-Modells [= Linguistische Arbeiten 216]. Niemeyer, Tübingen.
- Kiefer, Ferenc 1975: "Das schwedische Verbalsystem". Kiefer, Ferenc (ed.): Morphologie und generative Grammatik. Athenaion, Frankfurt, pp. 129–163.
- Kiefer, Ferenc 1970: Swedish morphology. Skriptor, Stockholm.
- Linell, Per 1972: Remarks on Swedish morphology [= Reports from Uppsala University Department of Linguistics Nr. 1, 1972]. Universitetet, Uppsala.
- Odhner, Einar et al. 1979: Svenskt rimlexikon. Forum, Stockholm, 3rd edition.
- Perridon, Harry 1985: "Verbens morfologi i skriven rikssvenska". *Tijdschrift voor Skandinavistiek* 6, pp. 88–120.
- SAG 1999 = Teleman, Ulf et al.: Svenska Akademiens grammatik. Svenska Akademien, Stockholm.
- SAOL 1998 = Svenska Akademiens ordlista över svenska språket. Norstedts, Stockholm, 12th edition.
- Schweiger, Fritz 1990: "Review of Holl 1988". Yearbook of Morphology 3, pp. 238–240.