

**POLARITY AND THE MORPHEME**  
**A NEW ANALYSIS OF THE MORPHEMES – LÖS AND FRI IN SWEDISH**  
*Jean-Michel Saury*

1. Introduction<sup>1</sup>

The purpose of the present paper is to propose an analysis of the use of the morphemes -lös and -fri in Swedish. Both morphemes are used primarily to indicate the absence of the object, process or quality referred by the term to which these morphemes are attached. At this level of interpretation, both suffixes are synonymous as they have the same impact on meaning: they make terms negative. This alternance of terms between positive and negative at this level of description I will call cognitive polarity.

At another level of interpretation, however, the morphemes -lös and -fri have different impact on meaning as in the following examples: the Swedish lexeme<sup>2</sup> skuld "debt"<sup>3</sup> is one of the 47 lexemes in our corpus taking both morphemes, so we find both skuldlös and skuldfri. In some sense, both words have the same meaning, namely free from debts, without debts but although each word can be used in each of the following contexts, it seems more natural to use 'skuldfri in (1) and skuldlös in (2):

- (1) Har man betalat sina skulder, då är man -  
"If you have paid your debts, then you are free from it"
- (2) I vårt samhälle kan man inte vara - och överleva.  
"In our society, one cannot be without debts and survive"

This is an example of how polarity works at the morpheme level: It is clear that both terms skuldlös and skuldfri are negative expressions along the dimension of cognitive polarity, since both refer to the absence of something, here the absence of debts. On the other hand, the word skuldfri is felt to be positive in some sense by native speakers while the word 'skuldlös is felt to be negative.

This problem has been noticed by Bengt Sigurd (1971, 1972) who found that "the choice between the morphemes -lös and -fri is a matter of value". According to him (Sigurd 1972:54), the morpheme -lös is used with a lexeme which suggests something good or which, otherwise, has no special connotation; the morpheme -fri is used with a lexeme which suggests something bad. In other words, lexemes associated with goodness take the morpheme -lös, while those associated with badness take the morpheme -fri, and lexemes not associated with any special attitude take the morpheme -lös. This I will call Sigurd's hypothesis and illustrate it by the schema of fig.1:

attitudinal property of lexemes	allomorph to be used
"good" words "neutral" words	<u>-lös</u>
"bad" words	<u>-fri</u>

Fig.1. Sigurd's hypothesis

<sup>1</sup> I want to thank Jens Allwood, Lars-Gunnar Andersson and Pierre Javanaud for their criticism of earlier versions of this paper.

<sup>2</sup> In this paper, I use the term lexeme to refer to the nominals used in this study independently of morphological variations while I use the term morpheme to refer to the suffixes -lös and -fri. Thus, the form föräldra which is a morphological variation from förälder parent is called in this study lexeme, all this for the sake of convenience.

<sup>3</sup> The lexeme skuld also means guilt but I shall not consider this meaning for the sake of simplicity.

It is one of the purposes of this paper to consider whether Sigurd's hypothesis can be investigated and confirmed.

Sigurd also claims, in his paper, that words taking the morpheme -lös belong generally to the following categories which are commonly associated with "goodness":

- 1) praiseworthy human properties,
- 2) efficiency and importance,
- 3) obvious and useful objects,
- 4) desirable privileges such as help, care, etc...

On the other hand, words taking the morpheme -fri generally belong to the following categories which are commonly associated with "badness":

- 1) fees, coercion. and work,
- 2) noxious substances, discomfort and undesirable weather,
- 3) reprehensible human properties,
- 4) criticism and opposition.

In order to test whether Sigurd's proposal that the appurtenance of lexemes taking the morpheme -lös or the morpheme -fri to different categories is a general feature of the material, the sample was structured by classifying the items according to their semantic affinities which resulted into 27 semantic categories and one category of "noncategorized" items. The categories are the following:

- |                             |                                      |
|-----------------------------|--------------------------------------|
| 1. Economics                | 15. Defence                          |
| 2. Moral                    | 16. Perception: visual               |
| 3. Arts & Logic             | 17. Perception: auditive & olfactive |
| 4. Physics                  | 18. Expression                       |
| 5. Psychological Properties | 19. Parts of the body                |
| 6. Psychological States     | 20. Meaning                          |
| 7. Psychological conducts   | 21. Grammar                          |
| 8. Opinion                  | 22. Nature                           |
| 9. Illness                  | 23. Weather                          |
| 10. Home                    | 24. Matter                           |
| 11. Clothes                 | 25. Affiliation                      |
| 12. Laundry                 | 26. Physiological                    |
| 13. Family                  | 27. Prestige                         |
| 14. Work & Holiday          | 28. Noncategorized                   |

The data of this study were gathered from A1InTh (1981) backward lists over Swedish lexemes. All lexemes ending with either the morpheme -lös (294 items) or the morpheme -fri (246 items) were selected and called compound lexemes. From each compound lexeme, the original root was identified and called root lexeme. The root lexemes used in this study are listed in appendix I. I assume that this sample, which contains 540 items, is representative for all the Swedish lexemes taking the morphemes -lös or -fri, because the list has been computed over a large material and that the fact that these morphemes are still productive forces us to use a reduced sample.

In a first step, the cognitive polarity values of all,540 compound. lexemes were computed and it was found that six compound lexemes with the morpheme -fri were positive while the other were negative. In other words, the meaning of the sex following items does not involve the absence of something: fågelfri, gästfri<sup>4</sup> lördagsfri segelfri, seglingsfri and valfri. For these items, the morpheme -fri does not seem to be an instance of negation and the items are not included in the study.<sup>5</sup>

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<sup>4</sup> The lexeme gästfri can be used negatively and then means free from guests but this is not the ordinary use.

<sup>5</sup> While the negative operator -fri can be paraphrased by fri från free from, the positive morpheme -fri can have three different meanings:

In order to test Sigurd's hypothesis (see fig.1), the attitudinal polarity of each of the remaining 535 items was determined by means of questionnaire and interviews from one native informant.<sup>6</sup> Three attitudinal polarity values were available: positive (+), neutral<sup>7</sup> (0), and negative (-). The results are presented in appendix II.

Another aspect not examined by Sigurd is the influence of the use of the morpheme -lös or -fri on the attitudinal polarity of root lexemes. Sigurd claims that the attitude related to a lexeme influences the choice between the morphemes -lös and -fri. But what about the attitude associated with the compound lexeme resulting from the combination of a root lexeme and the suffix -lös or -fri? In order to investigate this, I distinguished two forms for each lexeme of the sample: 1) a root form or root lexeme and 2) a compound form or compound lexeme. To each of these forms was assigned an attitudinal polarity value for each item of the sample. The attitudinal polarity of root lexemes is abbreviated RL-polarity and that of compound lexemes CL-polarity, as fig.2 shows:

Morphological Units	Root lexeme	+ suffixed morpheme	= compound . lexeme
Polarity. ..	RL-polarity		CL-polarity

Fig. 2. The relation between polarity and the morphological levels

The values for RL-polarity and CL-polarity are presented in appendix II.

As I consider the morphemes -lös and -fri as instances of negation, we may expect that their suffixation brings about a reversal of polarity. Therefore, we can combine Sigurd's hypothesis with my hypothesis on polarity reversal into the following general hypothesis:

- 1) Root lexemes of positive RL-polarity take the morpheme -lös and their polarity is thereby reversed such that their CL-polarity is negative;
- 
- 2) Root lexemes of neutral RL-polarity take the morpheme -lös and their polarity remains unchanged;
- 3) Root lexemes of negative RL-polarity take the morpheme -fri and their polarity is thereby reversed such that their CL-polarity is positive.

The general hypothesis can be illustrated by fig.3:

RL-polarity	Suffixed Morpheme	CL-polarity
+	<u>-lös</u>	-
o	<u>-lös</u>	0
	<u>-fri</u>	+

Fig.3. General hypothesis

- (a) fri att free to' in the lexemes:  
 gästfri = fri att gästa generous as a host  
 segelfri -  
 seglingsfri = fri att segla free to sail
- (b) valfri = fri att välja free to choose (b) fri som free as in the lexeme:  
 fågelfri = fri som en fågel as free as a bird
- (c) fri på = free on in the lexeme:  
 lördagsfri = fri på lördagarna free on Saturdays

<sup>6</sup> For each root lexeme and each compound lexeme, the informant was asked to answer whether she considered - according to her intuitions the presented item to be very positive positive neutral negative or very negative in its most general meaning. Often, the informant was asked the reasons for her choice. When the answer was positive or positive the item was scored positive (+), when the answer was neutral the item was scored neutral(0), and when the answer was negative or very negative, the item was scored negative(-).

<sup>7</sup> ) By neutral attitude is meant any nonpolarized attitude, that is, any attitude which is both positive and negative, any attitude which is between positive and negative, or no attitude at all.

The general hypothesis presented here is a combination of Sigurd's hypothesis about the complementary distribution of the morpheme -lös and -fri and of my own hypothesis about polarity reversal. If Sigurd is right and the polarity reversal hypothesis is right, then the general hypothesis must be confirmed. The general hypothesis predicts that we shall not find:

- 1) root lexemes of negative attitudinal RL-polarity combined with the morpheme -lös;
- 2) root lexemes of neutral attitudinal RL-polarity combined with the morpheme -fri;
- 3) root lexemes of positive attitudinal RL-polarity combined with the morpheme -fri;
- 4) compound lexemes of negative attitudinal CL-polarity with the morpheme -fri;
- 5) compound lexemes of neutral attitudinal CL-polarity with the morpheme -fri; or,
- 6) compound lexemes of positive attitudinal CL-polarity with the morpheme -lös.

The results are presented and discussed in the next section.

## 2. Results And Discussion

The results presented in this section are ordered as follows:

- 1) results concerning lexemes and categories,
- 2) results concerning polarity values,
- 3) polarity combinations.

### 2.1. Lexemes and categories

The lexemes of the corpus have been ordered by myself into 28 categories: 27 semantic categories and one category of noncategorized items. This categorization is made on an intuitive basis and made the processing of the data easier. The results are presented in table 1 where the number and proportion of items taking morphemes -lös and -fri respectively, the total number of items, and the proportion of these to the total number of items in the whole corpus, are given. From table 1, we can make the following observations:

- 1) the total number of categorized items is 483: 54% (263 items) take the morpheme -lös while 45% (220 items) take the morpheme -fri;
- 2) the total number of items studied is 535: 54% (294 items) take the morpheme -lös while 45% (241 items) take the morpheme -fri;
- 3) 16 categories (59% of 27 categories) show items taking the morpheme -lös in a proportion of over 50%. These categories are presented in table 2 where the proportion for each category is calculated;
- 4) 9 categories (33% of 27 categories) show items taking the morpheme -fri in a proportion of over 50%. These categories are presented in table 3 p.10 where the proportion for each category is calculated;
- 5) 2 categories (7% of 27 categories) display as many items taking the morpheme -lös as items taking the morpheme -fri, namely (18) Expression, and (23) Weather.

Semantic category	nb of items taking <u>-lös</u>		nb of item taking <u>-fri</u>		total nb of	proportion of total itemsnb of items (%)
	N	%	N	%		
1. Economics	19	46	22	53	41	8.4
2. Moral	27	58	19	41	46	9.5
3. Arts & Logic	5	62	3	37	8	1.6
4. Physics	7	18	30	81	37	7.6
5. Psychol. properties	30	78	8	21	38	7.8
6. Psychol.states	14	48	15	51	29	5.9
7. Psythol.conduct	6	35	11	64	17	3.5
8. Opinion	15	88	2	11	17	3.5
9. Illness	3	12	21	87	24	4.9
10. Home	9	100	0	0	9	1.8
11. Clothes	6	100	0	0	6	1.2
12. Laundry	1	8	11	91	12	2.4
13. Family	7	77	2	22	9	1.8
14. Work & Holiday	0	0	6	100	6	1.2
15. Defence	9	64	5	35	14	2.8
16.Perception:visual	16	69	7	30	23	4.7
17.Perception:aud&olf.	7	63	4	36	11	2.2
18. Expression	3	50	3	50	6	1.2
19.Parts of the body	19	95	1	5	20	4.1
20. Meaning	9	100	0	0	9	1.8
21. Grammar	5	100	0	0	5	1.0
22. Nature	16	48	17	.51	33	6.8
23. Weather	8	50	8	50	16	3.3
24. Matter	5	17	23	82	28	5.7
25. Affiliation	7	87	1	12	8	1.6
26. Physiological	4	100	0	0	4	0.8
27.Prestige	6	100	0	0	6	1.2
total (categorized items)	263	54	219	45	482	-
28.Noncategorized items	31	-	21	-	52	-
TOTAL.	294	54	240	45	534	-

Table 1. Number and Proportion of lexemes taking -lös or -fri for each category

In order to test the hypothesis according to which the morphemes -lös and -fri are distributed categories, the sample was divided into 27 semantic categories. These categories are listed in table 1. Table 2 gives the categories where most of the items took the morpheme -lös while table 3 gives the categories where most of the items took the morpheme -fri. From table 2, we can notice that for 9 categories, at least 80% of their items take the morpheme -lös and that 6 of these have no items taking the other morpheme. From table 3, we can observe that for 5 categories, at least 80% of the items take the morpheme -fri and that only one of these has no item taking the morpheme -lös.

From these results, we can distinguish the following pattern: many of the categories in table 2 (around 50%) are thought of positively: Home, Prestige, opinion, Affiliation, Family, Defence, Arts & Logic, Moral, while some of the categories in table 3 (around 33%) are thought of negatively. If we look at the figures, however, we find that, although there are as many as 6 categories in table 2 containing only items taking the morpheme -lös (22% of 27 categories), the number of items in these categories is low and represents only 7.8% of all the categorized items. If we take into account the categories with a proportion of items taking the morpheme -lös over 80%, the number of items concerned becomes 15.6% of all the categorized items for 9 categories representing 33% of 27 categories. In table 3, we find that 5 categories (18% of 27 categories) contain a proportion of items taking the morpheme -fri over 80% and that the number of items concerned represents 18.6% of all the categorized items.

Semantic. Category	nb of items taking <u>-lös</u>		percentage	cumulative percentage
	N	%		
			N = 483	
10.Home	9	100	1.8	1.8
20.Meaning	9	100	1.8	3.6
11.Clothes	6	100	1.2	4.8
27.Prestige	6	100	1.2	6.0
21.Grammar	5	100	1.0	7.0
26.Physiological	4	100	0.8	7.8
19.Parts of the body	19	95	3.3	11.1
8. Opinion	15	88	3.1	11.2
25. Affiliation	7	87	1.4	15.6
5. Psychol.properties	30	78	6.2	21.8
13. Family	7	77	1.4	23.2
16. Perception: visual	16	69	3.3	26.5
15. Defence	9	64	1.8	28.3
17. Perception:aud&of.	7	63	1.4	29.7
3. Arts & Logic	5	62	1.0	30.7
2. Moral	27	58	5.6	36.3

Table 2. Categories where 50% or more of the categorized items take the morpheme - lös (ordered according to decreasing percentage value)

Semantic. Category	nb of items taking <u>-fri</u>		percentage	cumulative percentage
	N	%		
14. Work & Holiday	6	100	1.2	1.2
12. Laundry	11	91	2.2	3.4
9. Illness	21	87	4.3	7.7
24. Matter	23	82	4.7	12.4
4. Physics	30	81	6.2	18.6
7. Psychol.conduct	11	68	2.2	20.8
1. Economics	22	53	4.5	25.3
22.Nature	17	51	3.5	28.8
6. Psychol.states	14	51	2.8	31.6

Table 3. Categories where 50% or more of the categorized items take the morpheme -fri (ordered according to decreasing percentage value)

We can therefore conclude that the hypothesis according to which the distribution of lexemes taking the morpheme -lös or the morpheme -fri is predictable for semantic categories was not confirmed even if such a pattern could be discerned.

## 22. Attitudinal polarity values

Table 4 presents the attitudinal polarity value (+, 0, -) for items taking the morpheme -lös. On the left the polarity value for root lexemes (RL-polarity) is, registered, on the right, that for compound lexemes (CL-polarity). Table 4, for example, tells us that, of the 19 items belonging to the semantic category economics and taking the morpheme -lös, 17 items have a positive RL-polarity,

ITEMS TAKING <u>-lös</u>						
CATEGORY	RL-polarity			CL-polarity		
	(+)	(0.)	(-).	(+)	(0)	(-)
1. Economics	17	0	2	2	0	17
2. Moral	20	1	6	6	0	21
3. Arts & Logic	2	2	1	1	0	4
4. Physics	1	6	0	1	5	1
5. Psychol. properties	28	0	2	0	0	30
6. Psychol. states	10	0	4	4	0	10
7. Psychol. conduct	3	0	3	3	0	3
8. Opinion	15	0	0	0	0	15
9. Illness	0	0	3	3	0	0
10. Home	4	5	0	0	4	5
11. Clothes	0	6	0	0	4	2
12. Laundry	0	1	0	0	1	0
13. Family	6	1	0	0	0	7
14. Work & Holiday	0	0	0	0	0	0
15. Defence	9	0	0	0	0	9
16. Perception: visual	0	16	0	0	0	16
17. Perception: aud&olf.	4	2	1	1	2	4
18. Expression	1	2	0	0	2	1
19. Parts of the body	3	15	1	1	3	15
20. Meaning	9	0	0	0	0	9
21. Grammar	0	5	0	0	5	0
22. Nature	1	13	2	3	10	3
23. Weather	.2	3	3	2	4	2
24. Matter •	4	0	1	1	0	4
25. Affiliation	7	0	0	0	0	7
26. Physiological	3	0	1	0	0	4
27. Prestige	.6	0	.0	0	0	6
<hr/>						
Total (excl. noncategorized items)	155	78	30	28	40	195
<hr/>						
28 Noncategorized items	3	2.4	.4	4	16	11
<hr/>						
Total	158	102	34	32	56	206

Table 4. Attitudinal polarity values for items taking the morpheme -lös

none has a neutral RL-polarity, 2 items have a negative RL-polarity, 2 items have a positive CL-polarity, no item has a neutral CL-polarity, and 17 items have a negative CL-polarity, all that according to my informant's intuitions.

Table 5 presents the attitudinal polarity values for items taking the morpheme -fri:

ITEMS TAXING - <u>fri</u>						
CATEGORY	RL-polarity		CL-polarity			
	(+.)	(0)	(-).	(+.).	(0)	(-)
3. Economics	3	1	18	20	1	1
2. Moral	7	0	12	17	0	2
3. Arts & Logic	0	0	3	3	0	0
4. Physics	0	5	25	26	4	0
5. Psychol. properties	3	0	5	4	0	4
6. Psychol. states	2	0	13	13	0	2
7. Psychol. conduct	1	0	10	9	2	0
8. Opinion	0	1	1	2	0	0
9. Illness	0	0	21	21	0	0
10. Home	0	0	0	0	0	0
11. Clothes	0	0	0	0	0	0
12. Laundry	0	0	11	11	0	0
13. Family	2	0	0	2	0	0
14. Work & Holiday	3	3	1	5	1	0
15. Defence	1	0	4	5	0	0
16. Perception: visual	1	6	0	6	0	1
17. Perception: aud& olf.	1	0	3	4	0	0
18. Expression	0	1	2	2	1	0
19. Parts of the body	0	1	0	1	0	0
20. Meaning	0	0	0	0	0	0
21. Grammar	0	0	0	0	0	0
22. Nature	0	11	6	13	4	0
23. Weather	0	2	6	5	3	0
24. Matter	1	17	5	9	14	0
25. Affiliation	1	0	0	1	0	0
26. Physiological	0	0	0	0	0	0
27. Prestige	0	0	0	0	0.	.0
Total (excl. noncategorized items)	26	48	146	179	30,	10
2.8 Noncategorized. items	2	16	.3	8	12	1
Total .	2,8	64	149	187	42	11

Table 5. Attitudinal polarity values for items taking the morpheme -fri

The totals of table 4 and those of table 5 are reported in table 6 where the relative proportions are calculated. The totals for all items are also presented as well as their proportions:

		RL-polarity			CL-polarity				
		(+)	(0)	(-)	total	(+)	(0)	(-)	total
Items taking	N	158	102	34	294	32	56	206	294
	%	53	34	11	98	10	19	70	99
Items taking	N	28	64	149	241	187	42	11	240
Items taking	%	11	26	61	98	77	18	4	99
All items	N	186	166	183	535	219	8	217	534
	%	34	31	34	99	40	18	40	98

Table 6. Attitudinal polarity values for items taking the morpheme -'lös the morpheme -fri and all items



For the sake of readability, the percentages of table 6 have been converted into two histograms: one for the attitudinal polarity values of root lexemes is presented in table 7. The other, for the attitudinal polarity values of compound lexemes, is presented in table 8.

The histogram of table 7 gives the percentage for each polarity value (+, 0, -) for root lexemes taking the morpheme *-lös* (L), or the morpheme *-fri* (F), and for all root lexemes (A). This means that the polarity values of the compound lexemes are not considered in this table, but are to be found in table 8. From table 7, we can observe that over half the number of items taking *-lös* (53%) are positive while only 11% are negative and one third (34%) are neutral for items taking *-fri*, we find the opposite pattern: 61% of the items are negative while only 11% are positive and 26% are neutral. For all items, one third (34%) was judged positive, one third (31%) was judged neutral and one third (34%) was judged negative by my informant.

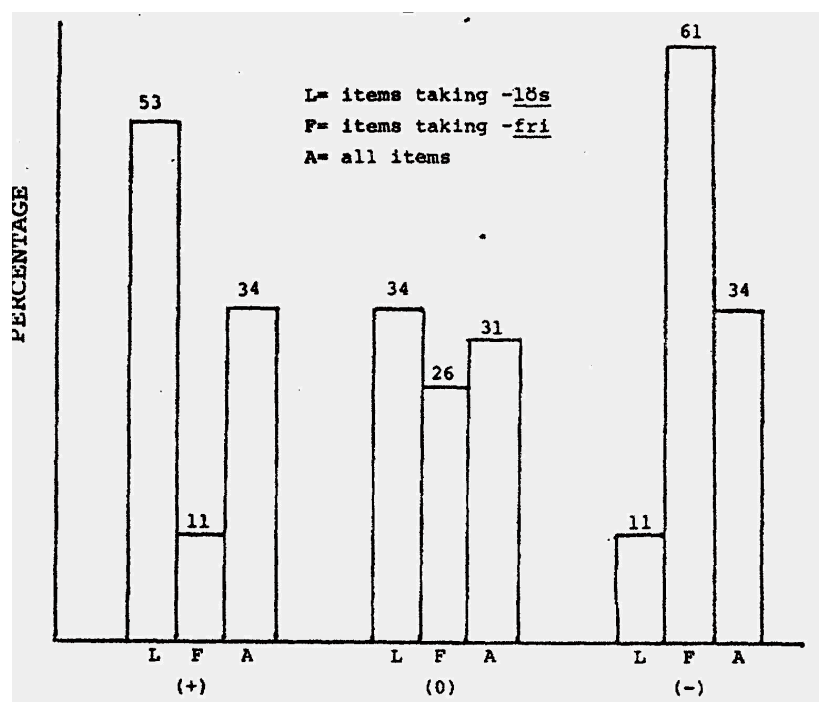


Table 7. Attitudinal polarity values for root lexemes (Percentage)

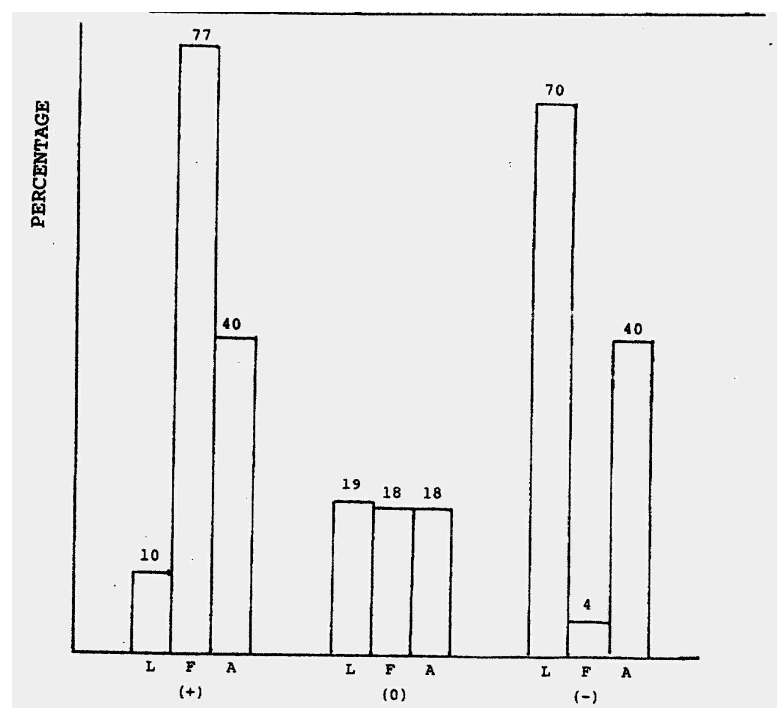


Table 8. Attitudinal polarity values for compound lexemes (percentage)

The histogram of table 8 gives the percentage for each polarity value (+, 0, -) of compound lexemes formed with the morpheme -ls (L), of those formed with the morpheme -fri (F), and of all compound lexemes (A). From this table, we can observe that only 10% of compound lexemes with -lös are positive while 70% are negative and 19% neutral for compound lexemes with -fri, we again find the opposite pattern with only 4% of negative items while 77% are positive and 18% neutral. For all items, the proportion is 40% for the positive lexemes, 40% for the negative ones and 18% which are neutral.

Thus, from table 7, we could conclude that a) lexemes taking the morpheme -lös are mostly positive and seldom negative b) lexemes taking the morpheme -fri are mostly negative and seldom positive. From table 8, we could conclude that c) compound words formed with the morpheme -lös are mostly negative and seldom positive and d) compound words formed with the morpheme -fri are mostly positive and very seldom negative.

If we compare the figures for all items (A) in table 7 with those of table 8 - the figures are reproduced below -, we notice that for compound words, the proportion of neutral items decreases while that of both positive and negative polarized items increases:

	(4-)	(0)	(-)
RL-polarity	34	31	34
CL-polarity.	..40	1.8 .	.40

We can therefore conclude that the use of either morpheme (-lös or -fri) is connected with an increased lexeme polarization.

- lexemes taking the morpheme -lös are mostly positive but most of the compound lexemes with lös are negative;
- lexemes taking the morpheme -fri are mostly negative but most of the compound lexemes with -fri are positive

The results of this section suggest that Sigurd's hypothesis can only be partly confirmed. We accordingly found that lexemes associated with a positive attitude tended to take the morpheme -lös, while lexemes associated with a negative attitude tended to take the morpheme -fri. It was also found, however, that lexemes to which no special attitude was associated with could take - contra Sigurd - both the morpheme -fri and the morpheme -lös, that is, Sigurd's hypothesis that neutral words take the morpheme -lös was not confirmed.

### 2.3. Polarity combinations

In order to investigate the hypothesis according to which the morphemes -lös and -fri have polarizing and polarity reversing properties, I computed the possible combinations of input polarity values (RL-polarity: +, 0, -) and of output polarity values (CL-polarity: +, 0, -) and obtained  $3 \times 3 = 9$  possible combinations: (+,0), (0,+), (0,0), (0,-), (-,+), (-,0),

The number of items for each combination of RL-polarity and CL-polarity is presented in table 9 where the relative proportion of items taking -lös or -fri is specified.

For the sake of readability, the figures of table 9 have been converted into an histogram presented on page 18 (table 10).

RL-polarity		(+)	(+)	(+)	(0)	(0)	(0)	(-)	(-)	(-)
CL-polarity		(+)	(0)	(-)	(+)	(0)	(-)	(+)	(0)	(-)
Items	N	2	0	156	1	55	46	29	1	4
taking	%	0	0	53	0	18	15	9	0	1
Items	N	14	3	11	26	37	0	147	2	0
taking	%	5	1	4	10	16	0	60	0	0
All	N	16	3	167	27	92	46	176	3	4
items	%	2	0	31	5	17	8	32	0	0

Table 9. Polarity combinations

From the histogram of table 10, we can at first notice that most of the items taking -lös (53%) are originally positive and become negative as compounds while most of the items taking -fri (60%) are originally negative and become positive as compounds. One difficulty, however, with the histogram of table 10 is that we did not know what the different combinations of L-polarity and CL-polarity stand for. I found that the nine combinations of table 9 and 10 could be adequately reduced to five categories, namely:

- (1) Polarity reversed is the category containing terms where the compound lexeme and the root lexeme have opposite polarity values (positive-negative or negative-positive),
- (2) Polarity maintained is the category containing terms where the compound lexeme and the root lexeme have the same polarity value (positive or negative),
- (3) Polarized is the category containing terms where the compound lexeme is polarized (positive or negative) while the root lexeme is not (it is neutral),
- (4) Depolarized is the category containing terms where the compound lexeme is not polarized (it is neutral) while the root lexeme has a negative or positive polarity value,
- (5) Nonpolarized is the category containing terms where both the compound lexeme and the root lexeme are neutral.

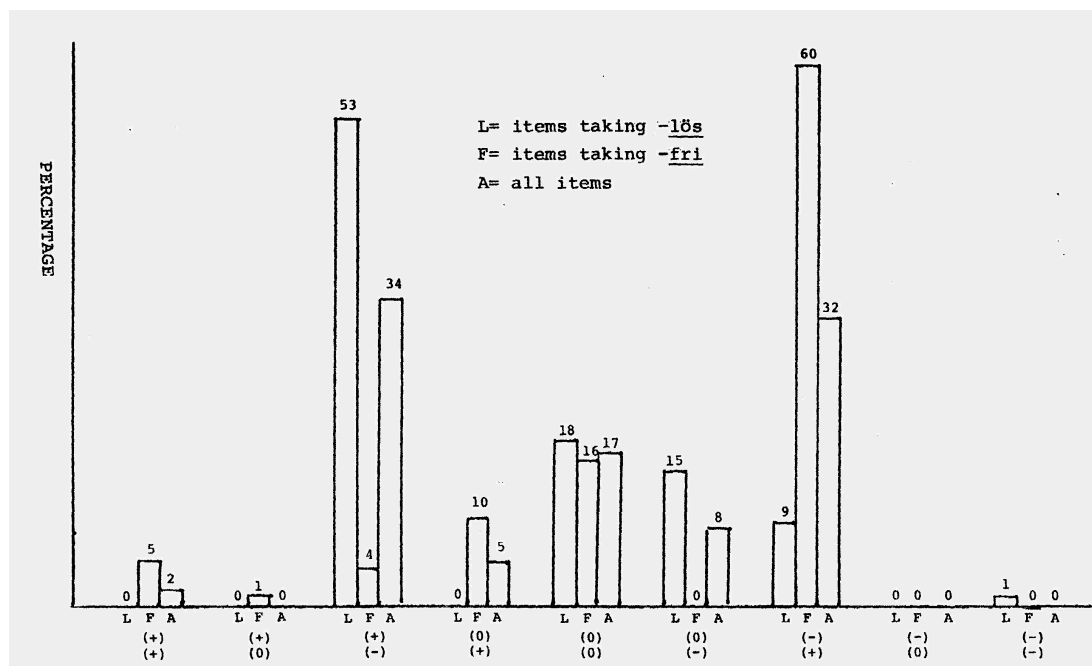


Table 10. Polarity combinations (percentage)

The figures for the five categories - polarity reversed, polarity maintained, polarized, depolarized, and nonpolarized - are presented in table 11. The figures are given for items taking the morpheme -ls, for. items taking the morpheme -fri, and for all items. For the sake of clarity, the figures of table 11 have been converted into an histogram presented on the next page (table 12).

		nb of it taking <u>-lös</u>		nb of items taking <u>-fri</u>		All items	
		N	%	N	%	N	%
(1) Polarity reversed	(+) (-)	156	53	11	4	167	31
	(-) (+)	29	9	146	60	175	32
	total	185	62	157	64	342	63
(2) Polarity maintained	(+) (+)	2	0	14	5	16	2
	() ()	4	1	0	0	4	0
	total	6	1	14	5	20	2
(3) Polarized	(0) (+)	1	0	26	10	27	5
	(0) (-)	46	15	0	0	46	8
	total	47	15	26	10	73	13
(4) Depolarized	(+) (0)	0	0	3	1	3	0
	(-)(0)	1	0	2	0	3	0
	total	1	0	5	1	6	0
(5).Nonpolariz.	(0) (0) .	.5.5	.1,8	38	.1.6	93	17
Table		294	96	38	96	534	95

Table 11. Number and proportion of items for different polarity combinations

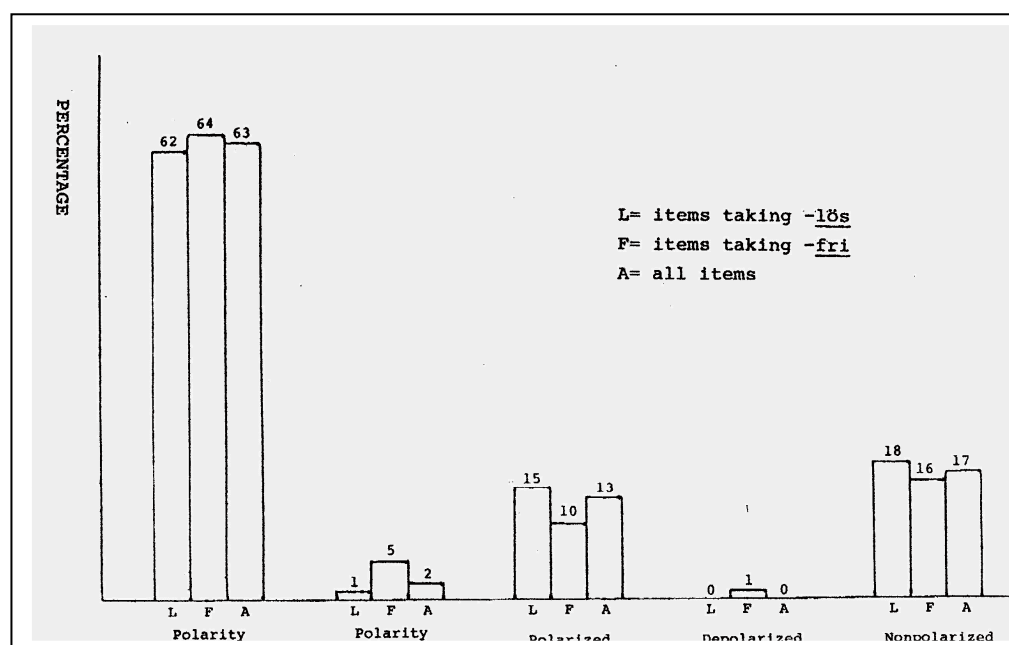


Table 12. Polarity combinations (percentage)

From the histogram of table 12, we can make the following observations:

- the figures for items taking -lös (L) are very similar to those for items taking -fri (F) as well as, consequently to all items (A);
- the majority of items (over 60%) have their polarity reversed when one of the morphemes -lös or -fri is added. (category (1));
- about 17% of items are neutral and remain neutral even if one of the morpheme -lös or -fri is added (category (5));
- about 13% of items are polarized when one of the relevant morphemes is added (category (3));

- only 2% of items show polarity maintenance (category (2)) and almost no items show any kind of depolarization (category (4)) when one of the relevant morphemes is added.

These results suggest that our second hypothesis according to which the morpheme -lös and -fri are polarity reversing is confirmed. As we also found that 13% of the polarized compound lexemes (positive or negative) were derived from a neutral root lexeme and that less than 1% of the root lexemes become depolarized when one of the morphemes -lös or -fri was added, the hypothesis according to which the morphemes -lös and -fri have a polarizing effect on lexemes must be considered as strongly confirmed. We must mention, however, the fact that 17% of the lexemes, which were originally neutral, remained neutral.

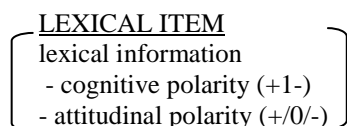
We can then conclude that the morpheme -lös and -fri have a clear polarizing effect along the attitudinal dimension, as 80% of the compound lexemes are attitudinally polarized while only 68% of the root lexemes are. Moreover, these morphemes have a polarity reversing effect along the attitudinal dimension since 63% of the lexemes show such a polarity reversal.

#### 2.4. Lexical meaning and polarity

In this study, two kinds of polarity have been recognized: 1) cognitive polarity which can be described as the dimension along which a term is defined as something which exists (positive) or as something which does not exist (negative),<sup>8</sup> and 2) attitudinal polarity which can be described as the dimension along which a term is defined as something good (positive) or something bad (negative).<sup>9 10</sup> From this it follows that negative linguistic items render a term cognitively negative, and this is what happens to every root lexeme of the sample (but five) which are originally cognitively positive and become cognitively negative as the morpheme -lös or the morpheme -fri is added. We can therefore conclude that the morphemes -lös and -fri have a polarity reversing effect along the cognitive dimension, a property which is a function of their role as negative operators

It is interesting to observe that such a polarity reversing effect was found for these morphemes along the attitudinal dimension. We can also notice a correlation between attitudinal negativity and the use of the morpheme -lös and a negative correlation between attitudinal negativity and the use of the morpheme -fri. In other words, there is a direct connection between cognitive negativity and negation but not between attitudinal negativity and negation. The fact that the polarity reversing effect is found for both dimensions, however, suggests that these polarity dimensions must be related in some way.

In a semantic description, I believe that both dimensions must be specified in some manner as this would permit predictions to be made such as e.g.. which one of the morphemes -lös or -fri should be selected. Such a descriptive schema is presented below:



Although the problems of lexical meaning and of polarity cannot be treated within the scope of this descriptive study, I would like to discuss briefly two questions: polysemy and idiosyncrasy.

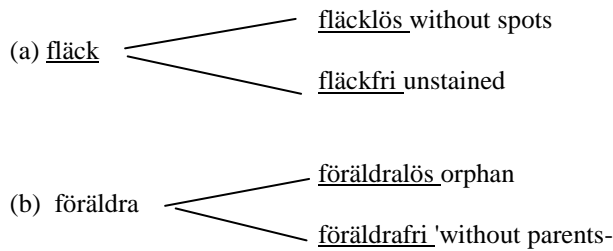
##### 2.4.1. Polysem

The question of polysemy is especially relevant for the 48 items taking both the morpheme -lös and the morpheme -fri, for example, fläck and föräldra

<sup>8</sup> The cognitive polarity of the following terms is negative: disobedience, lack, unefficiency, etc.

<sup>9</sup> The attitudinal polarity of the following terms is generally negative (see note (12) below): pain disease etc.

<sup>10</sup> These questions can be treated by means of the analysis of presupposition and this is done by Sigurd. But as the purpose of this paper is only to give a description of the facts, I want to leave open how these facts are to be treated in a theory of grammar.



Mostly, the word fläck has not the same meaning when the morpheme -lös is added than when the morpheme -fri is added. So the two meanings of the lexeme fläck can be given different specifications like those below:

FLÄCK 1 (taking <u>-lös</u> )	FLACK 2 (taking <u>-fri</u> )
- LI: 'spot'	- LI: 'stain*'
- CP: (+)	- CP: (+)
- AP:(0)	- AP: (-)

In this case, the morpheme -fri is associated with the negative reading for the lexical item fläck namely stain, while the morpheme -lös is associated with the neutral reading: spot. This complementary distribution is a confirmation of the function of these morphemes as attitudinal polarity markers.

This solution cannot be applied to the lexeme föräldra however because it is clear that the root lexeme has the same meaning in both cases. Rather, this is a good example of how our knowledge of the world influences the use of linguistic means. Our knowledge here is that it is good to be without parents for some time but not all the time.

#### 2.4.2. Idiosyncrasy

When dealing with attitudes, we must be ready to meet individual variations which differ from the general pattern. In order to do this, two concepts must be distinguished: 1) a concept of general attitude and 2) a concept of idiosyncratic attitude. An idiosyncratic attitude is an attitude which differs from that found in the majority of the population. An example may help to understand how these concepts can be used. Suppose someone utters the following sentence:

- (1) Jag tycker om smärta  
 I like pain

Such an utterance is ambiguous: it might mean that the locutor really does like pain in which case he is some kind of masochistic type, or it might mean that the locutor in fact does not like pain and is ironical. First, we can notice that the predicate like generally need an attitudinally positive expression as its object. This point has in fact been noticed by Sigurd (1972:51ff) who points out that sentences like (2) below are anomalous:

- (2) Kalle gick miste om en stor förlust  
 Kale missed a big loss

Sentence (1) is anomalous in the same way. Given this, the ambiguity of this sentence is dependent on the attitudinal polarity value of the lexeme smärta pain as we can see from fig.4 below:

Polarities	masochistic	ironical
general attitudinal polarity	negative	negative
idiosyncratic. attitudinal. polarity	positive	negative

Fig. 4 . Attitudinal polarity value of the item smärta pain for different locutor types

We can complete the presentation of fig.4 where the only relevant difference between the two locutor types is along the idiosyncratic attitudinal dimension, by applying the theory of markedness to the facts we are dealing with here. We do not need to specify whether the attitudinal polarity is general or idiosyncratic: if the idiosyncratic and the general attitudinal polarity values match each other, then this

value is the unmarked attitudinal polarity value. If they do not, then the attitudinal polarity value is the idiosyncratic attitudinal polarity value and a device of some sort to indicate **that** this value is marked, e.g. does not correspond to the general value. Table 13 shows how this simplification of the attitudinal component is carried through. The resulting attitudinal polarity values in table 13 replace without loss of information both the general and the idiosyncratic attitudinal polarity values without loss of information.<sup>11</sup>

General attitudinal polarity values	-	+	-	+
idiosyncratic attitudinal polarity values	-	+	+	-
resulting attitudinal polarity, values	-	+	M+	M-

Table 13. Marking of idiosyncratic features in attitudinal polarity Values

### 3. CONCLUSION

In this study, a sample of Swedish vocabulary consisting of lexemes taking the morpheme -lös or the morpheme -fri as a suffix was investigated. For each compound lexeme, the attitudinal polarity value for both the original root lexeme and the resulting compound lexeme was determined from data gathered from one native informant, and a semantic categorization of the sample was carried out. My purpose was to consider the following, problems: 1) Is there - as Sigurd claimed - a dependency between the choice of the morpheme -lös or -fri and the attitudinal value assigned to the root lexeme? 2) and if there is, is this dependency to be stated at the level of the taxonomic categories used in this study or at the level of single lexical items in the description? 3) Is there, finally, a relation between the attitudinal value of root lexemes and the attitudinal value of the corresponding compound lexeme after the morpheme -lös or -fri has been added and, in that case, what does it tell us about the function of these morphemes?

It was found that 1) there was a dependency between the choice of the morpheme -lös or -fri and the attitudinal value assigned to the root lexeme such that those root lexemes which were found attitudinally positive tended to take the morpheme -lös as a suffix while the root lexemes which were found attitudinally negative tended to take the morpheme -fri; 2) if the root lexeme was found attitudinally neutral, then it could take any one of these morphemes; 3) it could not be found that the dependency stated above could be observed at the level of our taxonomic categories even if such a pattern could be distinguished since sane categories tended to contain only terms taking one of the morphemes and our conclusion was that the level of single lexical items is the level where the dependency is to be stated; 4) the results concerning attitudinal polarity were interpreted as a confirmation of the thesis according to which the morphemes -lös and -fri are instances of the negative operator and that they have, as such, a polarizing and a polarity reversal effect on lexemes. In the last section, some problems concerning the place of polarity in lexical meaning were briefly discussed.

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<sup>11</sup> The concept of general attitude is, of course, a theoretical construct. As attitudes are changing all the time, this concept must be defined with reference to a limited population.

APPENDIX I: List over the root lexemes of the sample

A) Lexemes taking the morpheme -lös

accent	försvars	krag	pietets
aga	förutsättnings	kreaturs	pigment
aksent	föräldra	kritik	plan
and	gadd	krydd	poesi
anings	gagn	källar	poäng
ansikts	gestalt	känsl	predikats
anspråks	gift	känsl	pretentious
ansvars	glans	kärlek	princip
arbets	glädje	kärn	privilegie
artikel	grep	kön	problem
arv	grund	körkorts	program
avsikts	gräns	lag	prunk
avtals	gud	led	puls
axelbands	halt	liv	pärm
barn	harm	ljud	ram
barr	hejd	lott	rast
begrepps	hem	lukt	red
befogenhets	herre	lön	reflektions
bekymmers	historie	lov	reflexions
bekännelse	hjälp	maka	regel
ben	hjärt	makt	regn
besinnings	hopp	man	religions
betydelse	horn	maner	reservatipns
blad	hud	medel	respekt
blod	humor	medvets	rest
bostads	hut	men	resultat
botten	huvud	menings	ridå
bröd	hulle	metod	rim
byx	håg	misskunds	ring
charm	hållnings	mod	ro
chans	hår	moder	roder
disciplin	hämnings	moln	rot
doft	händelse	motor	rum
dogm	hänsyns	motstånd	rygg
dröm	idé	motsägelse	ryggrads
dåd	illusions	must	råd
egendoms	innehålls	mål	räck
energi	intresse	mått	räddnings
exempel	intrig	märg	ränte
fader	invändnings	namn	rätts
fantasi	jag	nit	saft
fläck	jord	norm	sak
flärd	karaktärs	nyans	sakraments
form	kast	närings	sammanhang
fred	kjol	nötkreatur	samvets
<u>frid</u>	klack	omdömes	sannings
frukt	klang	omljud	sans
funktions	klass	ord	sedes
färg	kb	ork	sikt
fönster	ko	orkes	själ
förar	konfessions	orsaks	skades
förbehålls	konst	parti	skaft
föremåls	kontakt	passions	skal
förfallo	kontur	penning	skam
förnufts	kraft	perspektiv	skavank



skog	steg	talang	vett
skon	stig	tand	vikt
skonings	stil	tank	vilje
skons	stipel	temperaments	villkors
skorstens	stjälk	tendens	vind
skugg	stjärn	tid	ving
skuld	stjärt	ton	vise
sky	straff	traditions	vitamin
skydds	struktur	tro	vårds
skygd	strump	tråd	väg
skägg	ström	tröst	värde
skärm	subjekts	tukt	värn
slang	svans	tvek	watt
smak	svars	tvångs	åtskillnads
smycke	svek	tygel	änd
smärt	system	tyngd	ändamåls
snö	sysslo	tår	ändelse
sol	söm	udd	äre
sorg	sömn	undantags	ärm
spant	tack	urskillnings	öron
sprit	tadel	utsikts	övertygelse
spår	tagg	uttrycks	
spännings	tak	vapen	
stats	tal	verknings	

#### B) Lexemes taking the morpheme -fri

accis	bomb	<u>f</u> riktions	klander
affekt	brand	frost	knast
alkohol	bumling	fukt	knick
alkoholskade	censur	fågel*	knuff
allians	chose	fördom	konfessions
amorterings	damm	föräldra	konflikt
ansvars	dialekt	gift	konkurs
arbets	dogm	gnissel	korrosions
ask	drag	gravations	korsnings
atom	dropp	grund	kostnads
atomvapen	dröm	gäld	kross
avgifts	dyrk	gäst*	krymp
avlyssnings	examens	haik	kvist
avunds	exercis	helg	kåd
bacill	explosions	humor.	kärn
bakterie	feber	hyres	kärnvapen
ben	fel	hämnings	landstings
bekymmers	floskel	illusions	licens
besvärs	flyghavre	im	lidelse
betygs	fläck	intelligens	lukt
bil	flärd	invändnings	lytes
bly	fog	is	låsnings
blås	fosfat	järn	läs
<i>bländ</i>	frakt	kant	läx
bländnings	fras	kastnings	löne

positive items not included in the Study (see note(S)P. 2

lördags -	rekyl	slagg	svavel
maner	restriktions	sur	svek
manglings	risk	sløj	sym(p)tom
mask	rost	smak	synd

min	rynk	smet	syre
moln	rått	snicker	söm
moms	ränte	snitt	tadel
moss	rök	smitto	tagg
motsägelse	röt	smärt	tendens
mygg	sackarin	snår	tjäl
mögel	salt	snö	tjänar
nattklubbs	sänd	socker	tjänst
nikotin	segel	sorg	tjänste
ogräs	seglings	sot	traditions
ohyre	sensations	spant	trikin
olats	sjås	splitter	trä
olycks	skade	sprick	tuberkel
os	skak	spritt	tull
oxid	skaknings	spräng	tvångs
pass	skal	spröjs	töcken
passions	skarv	spår	undantags
pjosk	skatte	spännings	underhålls
plåg	skavank	stank	utmatnings
porto	sken	sten	vakt
premie	skinn	stjälk	val
prick	skog	storm	vank
problem	skol	straf	vapen
protest	skorv	stress	vibrations
prål	skott	stryk	viserings
punkter	skrank	ström	värderings
punkterings	skrup(p)el	stybb	väte
reaktions	skryt	stämpel	ånger
recept	skrån	stänk	
recidiv	skugg	störnings	
regn	skuld	stöt	

C) Lexemes taking both morphemes

ansvar	illusions	ränte	straff
arbets	invändnings	skal	ström
bekymmers	konfessions	skugg	svek
ben	kärn	skog	söm
dogm	lukt	smak	tadel
dröm	lön	smärt	tagg
fläck	maner	snö	tendens
flärd	moln	sorg	traditions
föräldra	motsägelse	spant	tvångs
gift	passions	sprit	undantags
humor	problem	spännings	vapen
hämning	regn	stjälk	

APPENDIX II: RL-polarity and CL-polarity values for items taking the morpheme -lös or the morpheme -fri

ITEMS TAKING - <u>lös</u>	RL- POLA RITY.	CL- POLA RITY	ITEMS TAKING - fri	RL- POLA RITY	CL- POLA RITY
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1. E C O N O M I C S

arv	+	-	accis-	-	+
avtal	+	-	amortering-	-	+
egendom	+	-	avgift-	-	+

frukt		-	frakt-	-	+
förfallo	-	+	gravations-	-	+
gagn	+	-	gäld-	-	+
halt	+	-	hyres	-	+
intresse	+	-	konkurrens-	-	+
lott	+	-	kostnads-	-	+
lön	+	-	licens	0	0
medel	+	-	löne	+	-
närings	+	-	moms	-	+
penning	+	-	porto-	-	+
rest		-	premie-	-	+
ring	+		ränte	-	+
ränte	+	-	skatte-	-	+
skuld	-	+	skuld-	-	+
smycke	+	-	stämpel-	-	+
värde	+	-	tjänste+	-	+
			tull-		
			utmättnings	-	+
			värderings		

## 2. MORAL

aga	-	+	ansvar+	+	+
ansvars	+	-	betygs+	+	+
bekännelse	+	-	censur	-	+
disciplin	+	-	dogm		+
dogm	+	-	examens	+	+
exempel	+	+	fel	-	+
fred	+	-	fördoms	-	+
gud	+	-	konfessions	+	+
hejd	+	-	maner	-	+
hut	+	-	prick	-	+
lag	+	-	recidiv	-	+
maner	-	+	restriktions	.-	+
norm	+	-	skruppel	+	-
pietets	+	-	straff	-	+
princip	+	-	synd	-	+
regel	+	-	traditions	+	-
rätts	+	-	tvangs	-	+
saxnvets	+	-	undantags	-	+
sedes	+	-	vakt	-	+
skam	-	-			
skuld	-	+			
straff	-	+			
svars	+	-			
traditions	+	-			
tukt	+	-			
tvangs	-	+			
tygel	0	-			

## 3. ARTS & LOGIC

konst	+	-	invändnings	-	+
metod	0	-	kritik	-	+
motsägelse	-	+	motsägelse	-	+
poesi	+	-			
rim	0	-			

ITEMS TAKING - . -lös	RL- POLA RITY.	CL- POLA RITY	ITEMS TAKING - fri	RL- POLA RITY	CL- POLA RITY
-----------------------------	----------------------	---------------------	--------------------------	---------------------	---------------------

#### 4.PHYSICS

mått	0	-	avlyssnings	0	0
reflektions	0	0	blås	0	0
reflexions	0	0	bländnings	-	+
tid	+	+	drag	-	+
tyngd	0	0	explosions	-	+
vikt	0	0	frikctions.	-	+
watt	0	0	fukt	-	+
			grep		0
			im	0	+
			kastnings	-	+
			korrosions	-	+
			korsnings	-	+
			kross	-	+
			låsning	-	+
			reaktions	-	+
			rekyll	-	+
			rost	-	+
			röt	-	+
			skak	-	+
			skaknings	-	+
			skott	-	+
			sur	-	+
			splitter	-	+
			spritt	-	+
		•	spräng	-	+
			steg	0	0
			stänk	-	+
			störnings	-	+
			tjäl	.-	+
			vibrations	-	+

#### 5.PSYCHOLOGICAL PROPERTIES

and	+	-	avunds	-	+
charm	+	-	chose	-	+
energi	+	-	flärd	-	+
flärd	+	-	humor	+	-
förnuft	+	-	illusions	-	-
glädje			-intelligens	+	-
håg	+		passions	+	-
hållnings	+	-	sjås	-	+
hämning	-	-			
hänsyn	+	-			
illusions.	-	-			
intresse	+	-			
jag	+	-			
karaktärs	+	-			
kraft	+	-			
känsl	+				
känslö	+	-			
mod	+	-			
must	+	-			
ork	+	-			

ITEMS TAKING - .-lös	RL- POLA RITY.	CL- POLA RITY	ITEMS TAKING - fri	RL- POLA RITY	CL- POLA RITY
orkes	+	-			
passions	+	-			
red	+				
respekt	+	-			
själ	+	-			
talang	+	-			
temperaments	+	-			
vett	+	-			
vilje	+	-			
äre	+ -				

#### 6.PSYCHOLOGICAL STATES

bekymmers	-	+	affekt	+	-
besinnings	4-	-	bekymmers	-	+
dröm	+	-	chose	-	+
fantasi	+	-	dröm	+	-
<u>frid</u>	+	-	hämning	-	+
harm	-	+	konflikt	-	+
kärleks	+	-	lidelse	-	+
niedvets	+	-	plåg	-	+
problem	-	+	problem	-	+
rast	+	-	protest	-	+
ro	+	-	sjås	-	+
sans	+	-	sorg	-	+
sorg	-	+	spännings	-	+
sömn	+	-	stress	-	+
			ånger	-	+

#### 7.PSYCHOLOGICAL CONDUCT-----

skons	+	-	gnissel	-	+
skonings		+	-invändnings	-	+
tadel	-	+	klander	-	+
tröst	+	-	kritik	-	+
tvek	-	+	prål	-	+
			skryt	-	+
			smicker	-	+
			svek	-	+
			tadel	-	+
			val	+	0
			ånger	-	0

#### 8. OPINION

anings	+	-	invändnings	-	+
avsikts	+	-	värderings	0	+
hopp	+	-			
hållnings			-		
id	+	-			
mål	+	-			
omdömes	+	-			
plan		+	-		
reservations + -					
råd + -					
sak + -					

ITEMS TAKING -. <u>lös</u>	RL- POLA RITY.	CL- POLA RITY	ITEMS TAKING - fri	RL- POLA RITY	CL- POLA RITY
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tank + -  
tro + -  
urskillnings + -  
övertygelse +

#### 9. ILLNESS

men	-	+	alkoholskade	-	+
risk	-	+	bacill -	-	+
smärt	-	+	bakterie	-	+
			besvärs	-	+
			brand-	-	+
			feber -	-	+
			fel -	-	+
			haik -	-	+
			lidelse	-	+
			lytes	-	+
			pjosk	-	+
			risk -	-	+
			skades	-	+
			skavank	-	+
			skorv -	-	+
			smitt -	-	+
			smärt -	-	+
			syntom	-	+
			trikin -	-	+
			tuberkel	-	+
			vank -	-	+

#### 10. HOME

bostads	+	-
egendoms	+	-
fönster	0	0
hem	+	-
källar	0.	0
ridå	0	0
rum	•+	-
skorstens	0	0
tak	0	-

#### 11. CLOTHES

byx	0	-
kjol	0	0
klack	0	0
krag	0	0
strump	0	-
ärm	0	0

ITEMS TAKING - <u>-lös</u>	RL- POLA RITY.	CL- POLA RITY	ITEMS TAKING - fri	RL- POLA RITY	CL- POLA RITY
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#### 12.LAUNDRY

fläck	0	0	arbets	-	+
dropp		-	+		
			fläck	-	+
			krymp	-	+
			manglings	-	+
			rynk	-	+
			skrynkel	-	+
			smet	-	+
			stryk	-	+
			söm	-	+
			underhålls	-	+

#### 13.FAMILY

barn	+	-	barn	+	+
blod	0	-	föräldra	+	+
fader	+	-			
föräldra	+	-			
maka	+	-			
man	+	-			
moder	+	-			

#### 14. WORK& HOLIDAY

exercis	0	+
helg	+	0
läs	0	+
läx	-	+
skol	+	+
tjänste	+	+

#### 15. DEFENCE

försvars	+	-	atomvapen	-	+
hjälp	+	-	bomb	-	+
motstånd	+	-	kärnvapen	-	+
räddnings		+	-min		+
skydds		+	-vapen	+	+
skygd	+	-			
vapen	+	-			
vårds	+	-			
värn	+	-			

#### 16. PERCEPTUAL PROPERPIES: VISUAL

begrepps	0	-	fog	0	
botten	0	-	grund	0	+
form	0	-	kant	0	+
gestalt	0	-	sensations	+	-
grund	0	-	skarv	0	+
gräns	0	-	skrank	0	+
kontur	0	-	sløj	0	+
perspektiv	0	-			

ITEMS TAKING - <u>-lös</u>	RL- POLA RITY.	CL- POLA RITY	ITEMS TAKING - fri	RL- POLA RITY	CL- POLA RITY
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rain	0	-
sammanhangs	0	-
sikt	0	-
stil	0	-
struktur	0	-
system	0	-
uttrycks	0	-
änd	0	-

#### 17. PERCEPTUAL PROPERPIES: AUD&OLF

doft	+	-	lukt	-	+
klang	+	-	skrän	-	+
ljud	0	0	smak	+	+
lukt	-	+	stank	-	+
ord	+	-			
smak	+	-			
ton	0	0			

#### 18. EXPRESSION

accent	0	0	dialekt	0	0
aksent	0	0	floskel	-	+
tal .	+	-	fras -+		

#### 19.PARTS OF THE BODY

ansikte .	0	-	ben	0	+
ben	0	-			
hjärt	-	+			
horn	0	0			
hud	0	-			
huvud	+	-			
hår	0	-			
kb	-	+			
kön	+	-			
led	0	-			
märg		0			
rygg	0	0			
ryggrads	0	0			
skägg	0	-			
atjärt		0			
svans	0	-			
tand	0	-			
ving	0	-			
öron	0	-			

#### 20.MEANING

betydelse	+	-
chans	+	-
funktions	+	-
innehålls	+	-
menings	+	-
poäng	+	-



ITEMS TAKING - <u>-lös</u>	RL- POLA RITY.	CL- POLA RITY	ITEMS TAKING - fri	RL- POLA RITY	CL- POLA RITY
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tendens	+	-			
utsikts	+	-			
ändamåls,	+	-			

#### 21. GRAMMAR

artikel	0	0			
omljuds	0	0			
predikats	0	0			
subjekts	0	0			
ändelse	0	0			

#### 22. NATURE

barr	0	0	bumling	0	0
blad	0	0	flyghavre	-	+
frukt	0	-	knast	a	+
färg	0	0	kvist	0	+
gadd	-	+	kärn	a	+
jord	+	-	mask	ci	+
kärn	0	+	moss	o	+
löv	0	0	mygg	-	+
rot	0		mögel	-	+
skal	0	0	ogräs	-	+
skog	0	0	ohyre	-	+
et pel	0	0	skal	-	+
stjälk	0	0	skinn	0	+
tagg	-	+	skog	0	0
udd	0	0	snår	0	0
vise	0	0	stjälk	0	0
			tagg	-	+

#### 23. WEATHER

moln	-	+	frost	-	+
regn	-	+	is	-	+
skugg	-	0	moln	-	+
sky	0	0	regn	-	+
sol	+	-	skugg-	-	0
snö	0	0	snö	0	0
stjärn	+	-	storm	-	+
vind	0	C	töcken	0	0

#### 24. MATTER

bröd	+	-	alkohol	0	+
gift	-	+	ask	0	+
krydd	+	-	bly	0	+
sprit	+	-	damm	-	+
vitamin	+	-	fosfat	0	0
			gift	+	
			järn	0	0
			kåd	0	0
			nikotin	-	+
			Os	-	+
			oxid	0	0

rök	0	+
sackarin	0	0
sand.	0	0
slagg	0	0
socker	0	0
sot	-	+
sten	0	0
stybb	0	0
svavel	0	0
syre	+	0
trä	0	0
väte	0	0

## 25.AFFILIATION

kast	+	-	konfessions	+	+
klass	+		-		
konfessions	+		-		
namn	+		-		
parti	+		-		
religions	+		-		
stats	+		-		

## 26. PHYSIOLOGICAL

tår	-	-
pigment	+	-
puls	+	-
liv	+	-