

# REFLEXIVITY AND DUTCH *VER*-VERBS

Thesis written for fulfillment of MPhil Linguistics at Utrecht University  
Author: Ingmar van de Beld  
Supervisor: Eric Reuland  
Date: 8-11-2010

## A. ABSTRACT

The linguistic literature shows great interest in a language specific phenomenon called binding (cf. Reinhart (1983), Burzio (1996), Chomsky (1981), Chomsky (1986), Reinhart & Reuland (1991), Zribi-Hertz (2004), Safir (1997), Pica, (1991). Every natural language possesses a sub-system that is responsible for computing the interpretation of lexical elements that may not have referential power by themselves. This thesis focuses on a subclass of binding phenomena that involves reflexivity of predicates. A predicate is reflexive, when one of its arguments binds another argument. Reflexivity involves elements called reflexives. The bold words in the sentences in 1 are examples of reflexives.

- 1      a)      Henk    wast    **zichzelf**.  
              Hank    washes himself.  
              ‘Hank is washing himself.’
- b)      Henk    wast    **zich**.  
              Hank    washes SE.  
              ‘Hank is washing.’
- c)      Piet     ziet    **zichzelf**.  
              Pete    sees    himself.  
              ‘Pete sees himself.’

These elements are members of the broader class of *anaphors*: elements that are referentially dependent and cannot be used deictically. Within the category of anaphors many linguists identify two types: SE-anaphors and SELF-anaphors (Faltz (1977), Reinhart & Reuland (1993), Gast (2006)). In Dutch these anaphors are represented in third person by *zich* and *zichzelf*. Within the domain of reflexivity there are numerous mysteries and micro variations. (Schladt (2000), Heine, (2005), Papen (1978), Lefebvre (1998), Corne (1988), Menuzzi (1999), Reuland (to appear), Barbiers & Bennis (2003), König & Gast (2006), Gast (2006), König & Siemund (2000), Pica (1991)).

### A.1 RESEARCH QUESTIONS

The distribution of SELF-anaphors and SE-anaphors is different in Dutch. This is easy to understand, given that *zich* typically occurs as an argument of a reflexive predicate, as in 1b, that is the result of a lexical operation applying to the verb’s theta grid (Reinhart (2002) and Reinhart & Reuland (1993)). Only a limited number of verbs allows such an operation. The procedure that leads to the SELF-anaphor in 1c, resides in the syntactic component and is hence 100% productive. The central question in this thesis is: what are the properties of verbs that allow lexical reflexivization?

This thesis sets out to contribute to the discussion on this question by investigating a specific class of Dutch verbs. The verbs formed with the prefix *ver* often generate predicates containing SE-anaphors. Hopefully this research will reveal properties that are important to lexical reflexivization. Since lexical reflexivization works on the verb’s theta grid, it is important to find the precise effects of the prefix *ver* on this grid.

In addition it is vital to realize that not all appearances of SE-anaphors are the result of lexical reflexivization. Many languages use the same lexical element to mark impersonal constructions, middle constructions etc. In the class of *ver*-verbs we can find them as markers of unaccusativity and as obligatory elements. Both are exemplified in 2.

- 2      a)      De      deur    opent    (zich).      (optional)  
              The    door    opens    SE.  
              ‘The door opens.’
- b)      Jan      verslaapt    \*(zich).      (required)  
              John    oversleeps    SE.  
              ‘John oversleeps.’

This thesis tries to give insight in three different appearances of the SE-anaphor *zich* with *ver*-verbs. The following questions will be answered.

1. What causes the suitability of *ver*-verbs for lexical reflexivization?
2. What causes the appearance of the SE-anaphor as an obligatory element in predicates formed with a *ver*-verb?
3. What causes the appearance of the SE-anaphor as a marker of unaccusativity in predicates formed by *ver*-verbs?

## A.2 EFFECTS OF *VER* ON THE THETA GRID

In chapter 2 of this thesis will be shown that *ver* is responsible for adding ACC-case and a cause role [+c] to the verb's entry. By this it is possible that unergative verbs, such as *slapen* ('to sleep') and *slikken* ('to swallow'), turn after prefixation by *ver* into verbs with ACC-case, but without an internal role. Since ACC-case is uninterpretable it must be checked (Chomsky 1995). Generally the internal argument will check this feature, however, since the verbs mentioned before, do not have an internal role, they must revert to a different tactic. Furthermore the object position, in which the checking normally takes place, will not be dealt a theta role. We are then in need of an element that does not require a theta role but can check ACC-case. The SE-anaphor is such an element (Reinhart 2002). Verbs that do not have an internal role, but do carry an ACC-feature, will always generate an SE-anaphor. Hence this answers our second question in a straightforward manner.

## A.3 LEXICALLY REFLEXIVE *VER*-VERBS

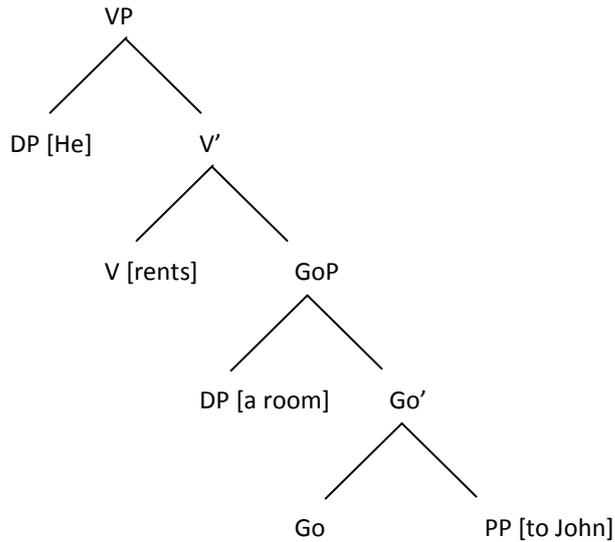
But the lexical reflexives and unaccusativity markers require further investigation. In chapter 3 of this thesis the comparison between *ver*-predicates and resultatives and caused motion predicates is drawn. The latter is exemplified in 3.

- 3
- a) Karel loopt zich kapot.  
Carl walks SE broken.  
'Carl is walking himself to death.'
  - b) De wespen eten zich door de muur.  
The wasps eat SE through the wall.  
'The wasps are eating through the wall.'

Predicates formed by *ver*-verbs and the predicates in example 3 are semantically similar. They can be captured by the semantic primitive GO (Jackendoff 1975b). Furthermore, both can or must occur with a goal role [-c]. Formally there are also similarities. Both show traces of an ACC-case feature and, more importantly, both lead to many appearances of the SE-anaphor in Dutch.

With the help of research on resultatives and caused motion verbs (Hoekstra 1988, Simpson 1983, Goldberg 1992, Goldberg & Jackendoff 2004 etc.) the general structure 4 is proposed for *ver*-verbs. The sentence *Hij verhuurt een kamer aan Jan* ('He rents a room to Jan') is taken as an example.

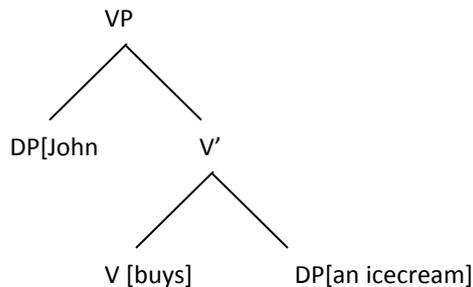
4



Because in this structure an SE-anaphor in object position would be embedded in a different projection than where the subject resides, it escapes the IDI (Reuland 2005a, 2008). This constraint prevents that two instantiations of a variable appear within the same projection. Since lexical reflexivity eliminates a variable, the SE-anaphor is allowed within the same VP. The suspected lexical reflexivity is thus deduced to be an instance of syntactic reflexivity. The many appearances of *zich* with *ver*-verbs are not the result of a lexical operation, but instead are formed in syntax. In this respect they are similar to ECM-constructions and picture NP's that allow SE-anaphors as well.

This would entail that all *ver*-verbs allow reflexivization in which an SE-anaphor is used as reflexive. This is not the case. However structure 4 is only licit for those *ver*-verbs that may still realize their goal role syntactically. In the case that they cannot realize the goal role syntactically the structure would not be the one presented in 4, but that of a simple transitive verb, as shown in 5 (for the sentence *John buys an icecream*).

5



Since this structure does not provide an embedding structure for the object of the verb, an SE-anaphor in that position may only appear when lexical reflexivization applies. Whether the goal role is still present enough to cause a syntactic structure, as the one in 4, instead of a simple transitive structure, is a case of lexical idiosyncrasy.

#### A.4 ZICH WITH UNACCUSATIVES

In the second part of chapter 3 the third question is answered as well. First of all it appears that only *ver*-verbs that are derived from adjectives can lead to unaccusatives that are marked with an SE-anaphor. By then the lexical procedure behind *ver*-verbs is already subdivided in three separate steps, one of which is a verbalizing procedure. This sub-procedure is responsible for deriving a verb from non verbal units, such as an adjective. This step may take place at two different points in the derivation. It may appear before the lexical marking procedures or after the lexical marking procedures. Lexical marking and linking procedures (Reinhart 2002) are responsible for feeding the syntactic component with instructions on where to merge arguments. Dependent on

the place in the theta hierarchy, a role will be fulfilled by an argument in either an internal or external position. In the case the verbalizing function takes place before lexical marking, it leads to a different hierarchy than when it takes place after lexical marking. Therefore *ver*-verbs that must have undergone a verbalizing procedure first will possibly generate two types of theta hierarchies. One of them causes the theme role, [-c-m], to merge externally. It is then possible for an SE-anaphor to merge internally in order to check the case feature. The hierarchy that causes the [-c-m] role to merge internally instead, does not have this secondary tactic available, since in that case the internal position is taken.

These answers will prove to be beneficiary to current linguistic research if they can be extended to other languages and other environments. For now they form a thorough analysis of the different appearances of the SE-anaphor *zich* with predicates formed by *ver*-verbs.

## B SAMENVATTING IN HET NEDERLANDS

In de taalwetenschappelijke literatuur is er grote aandacht voor het taalspecifieke fenomeen binden (Reinhart 1983, Burzio 1996, Chomsky 1981, Chomsky 1986, Reinhart & Reuland 1991, Zribi-Hertz 2004, Safir 1997, Pica, 1991). Elke natuurlijke taal heeft een systeem voor het berekenen van de interpretatie van elementen die niet direct naar een object of een gebeurtenis verwijzen, maar deze verwijzing dienen te ontlenen aan een ander element in de zin. Deze scriptie richt zich in het bijzonder op structuren waar binding leidt tot reflexiviteit van een predicaat. Een predicaat is reflexief wanneer een van zijn argument gebonden wordt door een ander argument. Onderstaande zinnen zijn daar voorbeelden van:

- 1 a) Henk wast **zichzelf**.
- b) Henk wast **zich**.
- c) Piet ziet **zichzelf**.

De vetgedrukte elementen in deze zinnen kunnen nimmer op zichzelf staan en zijn van hun interpretatie afhankelijk van de woorden *Piet* en *Henk*. Omdat zij geen refererende kracht van henzelf bezitten, worden zij anaforen genoemd. Binnen anaforen onderscheiden de meeste taalwetenschappers over het algemeen twee typen: SE-anaforen en SELF-anaforen (Faltz 1977, Reinhart & Reuland 1993, Gast 2006). In het Nederlands vinden deze anaforen in de derde persoon hun representatie in respectievelijk de woorden *zich* en *zichzelf*. Binnen het gebied van reflexiviteit waar deze scriptie zich op richt, bevinden er zich nog talloze raadsels en grote hoeveelheden microvariëteit (Schladt 2000, Heine, 2005, Papen 1978, Lefebvre 1998, Corne, 1988, Menuzzi (1999), Reuland (te verschijnen), Barbiers & Bennis 2003, König & Gast 2006, Gast 2006, König & Siemund 2000, Pica 1991).

### B.1 ONDERZOEKSVRAGEN

De distributie van SELF-anaforen en SE-anaforen in het Nederlands is verschillend. Dit valt te begrijpen aan de hand van Reinhart (2002) en Reinhart & Reuland (1993). Een van de typerende omgevingen waar SE-anaforen optreden, is als argument van een predicaat dat reflexief is, als gevolg van een lexicale operatie die op de rolspecificatie van het werkwoord opereert. Het aantal werkwoorden dat deze lexicale operatie toestaat, is zeer beperkt. De operatie die in 1c tot een SELF-anafoor leidt, bevindt zich in het syntactische gedeelte van ons taalvermogen en is 100% productief. De centrale vraagstelling is dan: wat zijn de eigenschappen van de werkwoorden die de lexicale operatie toestaan?

Deze scriptie probeert aan de discussie rond deze vraag bij te dragen door een categorie van Nederlandse werkwoorden, die werkwoorden die gevormd zijn met het prefix *ver*, te onderzoeken die veelvuldig reflexieve predicaten oplevert met een SE-anafoor (*zich*). Door het onderzoeken van deze klasse werkwoorden in het Nederlands, hoop ik enkele van de onderliggende eigenschappen te onthullen die lexicale reflexiviteit mogelijk maken. Aangezien de lexicale-reflexiviteitsoperator op de rolspecificatie van het werkwoord wordt toegepast, is het voor een bevredigend resultaat noodzakelijk om allereerst vast te stellen wat de invloed is van het voorvoegsel *ver* hierop.

Daarnaast is het belangrijk om te beseffen dat SE-anaforen bij lange na niet louter het resultaat zijn van een lexicale-reflexiviteitsoperatie. Afhankelijk van de taal kunnen zij voorkomen in impersoonlijke constructies, langeafstandsverwijzingen, middenconstructies, beknopte bijzinnen etc. etc. Bij de eerder genoemde *ver*-werkwoorden zijn ze veelvuldig te vinden, naast markeerders van de reflexiviteitsoperatie, als markeerders van onaccusatieve werkwoorden en als verplichte elementen. Beide zijn in voorbeeld 2 te zien.

- 2 a) De deur opent zich. (optioneel)
- b) Jan verslaapt zich. (verplicht)

Deze scriptie probeert een driedig inzicht te geven in *zich* met *ver*-werkwoorden. De volgende drie vragen worden beantwoord:

1. Wat veroorzaakt dat *ver*-werkwoorden in zo hoge mate lexicale reflexiviteit toestaan?
2. Wat veroorzaakt de verschijning van de SE-anafoor als verplicht element van predicaten gevormd met een *ver*-werkwoord?
3. Wat veroorzaakt de verschijning van de SE-anafoor als markeerder van onaccusatieve predicaten gevormd met een *ver*-werkwoord?

### **B.3 HET EFFECT VAN VER OP DE ROLSPECIFICATIE**

In hoofdstuk 2 van deze scriptie wordt aangetoond dat *ver* verantwoordelijk is voor het toevoegen van een causale rol [+c] op de rolspecificatie van het werkwoord en accusatiefcasus. Het is dan mogelijk dat onergatieve werkwoorden, werkwoorden met slechts één externe rol, zoals *slapen* en *slikken*, na prefixatie met *ver*, in tegenstelling tot gebruikelijke werkwoorden, geen interne rol hebben maar wel een accusatiefcasus dragen. Omdat een casuskenmerk oninterpreteerbaar is, zal dit geëlimineerd moeten worden (Chomsky 1995). Normaal gesproken is het interne argument verantwoordelijk voor het elimineren van dit kenmerk, maar aangezien bovengenoemde werkwoorden geen interne rol bezitten is een andere tactiek vereist. Aangezien de syntactische positie waar deze casus geëlimineerd kan worden geen rol krijgt toebedeeld, is een element vereist dat wel het casuskenmerk kan elimineren maar geen rol behoeft. De SE-anafoor is zo'n element (Reinhart 2002). In werkwoorden zonder interne rol, maar wel met een accusatief casuskenmerk, zal de SE-anafoor dus altijd verschijnen. Hiermee is vraag twee direct verklaard aan de hand van de operaties van *ver* op de rolspecificaties van een werkwoord.

### **B.4 LEXICAAL REFLEXIEVE VER-WERKWOORDEN**

Echter ook de lexicaal reflexieven en onaccusatieve werkwoorden gemarkeerd met een SE-anafoor komen erg vaak voor bij *ver*-werkwoorden. Een kwart van alle onaccusatieve *ver*-werkwoorden kan gemarkeerd worden met een SE-anafoor. Een derde van alle *ver*-werkwoorden staat lexicale reflexiviteit toe. Hoe zijn deze aantallen te verklaren?

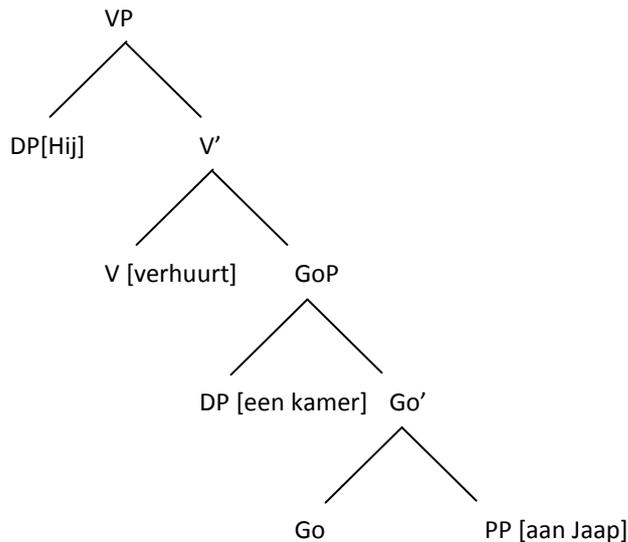
In hoofdstuk drie wordt de vergelijking getrokken tussen predicaten die bekend staan als resultatieve en directieve bewegingspredicaten, waarvan een voorbeeld in 3 is getoond.

- 3
- a) Karel loopt zich kapot.
  - b) De wespen eten zich door de muur.

Predicaten gevormd uit *ver*-werkwoorden en bovenstaande predicaten bezitten dezelfde basisbetekenis die door het semantisch primitief GO (Jackendoff 1975b) wordt gegeven. Tevens moeten of kunnen beide gepaard gaan met een doelrol [-c]. Maar ook op formeel gebied zijn er overeenkomsten. Beide type predicaten tonen sporen van een accusatiefkenmerk. Het allerbelangrijkste is dat beide in hoge mate tot de verschijning van SE-anaforen leiden.

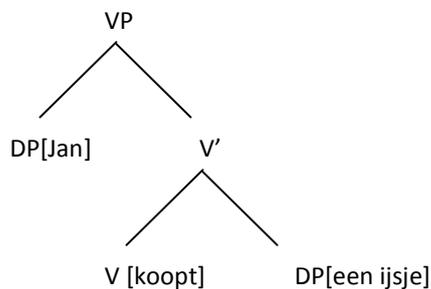
Met behulp van voorgaand onderzoek op het gebied van resultatieven en directe bewegingspredicaten (Hoekstra 1988, Simpon 1983, Goldberg 1992, Goldberg & Jackendoff 2004 etc.) is de gemeenschappelijk structuur in 4 geopperd voor *ver*-werkwoorden. Men beschouwe bijvoorbeeld de zin *Hij verhuurt een kamer aan Jaap*.

4



Omdat in deze structuur een SE-anafoor in objectpositie ingebed zou zijn in een andere projectie dan het subject waar het naar verwijst, ontsnapt het aan de IDI (Reuland 2005a, 2008). Deze regel voorkomt kortweg dat twee instanties van een variabele verschijnen binnen dezelfde projectie. Aangezien lexicale reflexiviteit een variabele elimineert uit de structuur, is een SE-anafoor in dat geval wel binnen dezelfde projectie toegestaan. De vermoede lexicale reflexiviteit van *ver*-werkwoorden blijkt uiteindelijk dus een syntactische te zijn. Dit zou echter betekenen dat alle *ver*-werkwoorden een SE-anafoor in objectpositie zouden moeten toestaan. Dit is niet het geval. Echter, de structuur in 4 is alleen geldig voor die *ver*-werkwoorden waarvan de doelrol nog in voldoende mate aanwezig is. Wanneer dit niet zo is, ontstaat een structuur die gelijk is aan die van een transitief werkwoord, zoals die in voorbeeld 5 voor de zin: *Jan koopt een ijsje*.

5



Aangezien de objectpositie in de structuur in 5 niet is ingebed, kan in deze positie alleen een SE-anafoor verschijnen als er een lexicale operatie heeft plaatsgevonden. Wanneer en wanneer niet een doelrol nog in voldoende mate aanwezig is, wordt bepaald door idiosyncratische beperkingen.

## B.5 ZICH MET ONACCUSATIEVE VER-WERKWOORDEN

In het tweede gedeelte van hoofdstuk drie wordt tevens de derde vraag beantwoord. Allereerst blijkt dat feitelijk alleen die *ver*-werkwoorden die van adjectieven zijn afgeleid, leiden tot onaccusatieven die gemarkeerd zijn met een SE-anafoor. De lexicale procedures, die in hoofdstuk 2 zijn aangetoond, zijn dan reeds herleid tot drie deelstappen waarvan de eerste verantwoordelijk is voor het omvormen van niet verbale lexicale elementen, o.a. adjectieven, tot werkwoorden. Deze stap kan op twee plaatsen in de derivatie plaatsvinden: voor de lexicale-markeringsoperaties of na de lexicale-markeringsoperaties. Deze lexicale-markeringsoperaties (Reinhart 2002) voeden de syntactische component met een hiërarchie voor het positioneren van argumenten. Afhankelijk van de plaats van de rol in de hiërarchie, wordt het argument dat deze rol op zich neemt in de externe of interne positie van een werkwoord gegenereerd. Wanneer de verbaliseringsfunctie voor de lexicale-markeringsoperaties plaatsvindt, leidt dit tot een andere hiërarchie als wanneer dit erna gebeurt. Derhalve kunnen er bij die *ver*-werkwoorden die eerst een verbaliseringsprocedure moeten zijn ondergaan, twee types hiërarchieën ontstaan.

Een waarbij het argument voor de themarol [-c-m] extern wordt gegeneerd en die het daarom mogelijk maakt dat er intern plek is voor een SE-anafoor voor het elimineren van het accusatiefkenmerk, en een waarbij het argument voor de themarol [-c-m] intern gegeneerd wordt en daarom nimmer een SE-anafoor kan genereren in die projectie.

Of deze antwoorden een wezenlijke bijdrage vormen aan het huidige taalwetenschappelijke onderzoek zal blijken wanneer de hier beschreven oplossingen kunnen worden uitgebreid naar andere talen of andere predicaten binnen de Nederlandse taal. Voor nu vormen zij een gedegen antwoord op de verschillende verschijningsvormen van de SE-anafoor binnen predicaten gevormd met een *ver*-werkwoord.

# CONTENTS

<b>0. INTRODUCTION</b> .....	<b>13</b>
<b>0.1 LEXICAL REFLEXIVITY EMERGING THROUGH VER</b> .....	<b>14</b>
<b>0.2 STRUCTURE OF THE THESIS</b> .....	<b>14</b>
<b>0.3 DEFINITION OF REFLEXIVITY AND REFLEXIVES</b> .....	<b>15</b>
<b>0.3.1 Syntactic and Semantic predicates</b> .....	<b>15</b>
<b>0.3.2 Arguments</b> .....	<b>16</b>
<b>0.3.3 Coindexation</b> .....	<b>16</b>
<b>0.3.4 SELF-anaphors and SE-anaphors</b> .....	<b>16</b>
<b>0.4 INTRODUCTION TO VER-VERB'S</b> .....	<b>18</b>
<b>0.5 OCCURRENCE OF ZICH IN THREE DIFFERENT ENVIRONMENTS</b> .....	<b>19</b>
<b>0.5.1 Lexical reflexive environment</b> .....	<b>19</b>
<b>0.5.2 Obligatory reflexive environment</b> .....	<b>20</b>
<b>0.5.3 Unaccusative environment</b> .....	<b>22</b>
<b>0.5.4 Intermediate summary</b> .....	<b>23</b>
<b>0.5.5 Environments outside the scope of this thesis</b> .....	<b>23</b>
<b>0.6 RESEARCH GOALS</b> .....	<b>24</b>
<b>CHAPTER 1. THEORETICAL BACKGROUND</b> .....	<b>25</b>
<b>1.1 THETA SYSTEM</b> .....	<b>25</b>
<b>1.1.2 Theta role features</b> .....	<b>26</b>
<b>1.1.3 Lexical procedures</b> .....	<b>26</b>
1.1.3.1 Saturation .....	<b>27</b>
1.1.3.2 Reduction: expletivization and reflexivization .....	<b>27</b>
1.1.3.3 Causativization .....	<b>28</b>
<b>1.1.4 Mapping of the theta roles</b> .....	<b>29</b>
<b>1.1.5 Lexical constraints</b> .....	<b>30</b>
<b>1.1.6 Summary of inventory</b> .....	<b>31</b>
<b>1.2 CONVENTIONAL BINDING THEORY (CBT)</b> .....	<b>32</b>
<b>1.2.1 Problems with CBT</b> .....	<b>32</b>
<b>1.3 REINHART AND REULAND 1993 (R&amp;R)</b> .....	<b>34</b>
<b>1.3.1 Reflexivity 1993</b> .....	<b>34</b>
<b>1.3.2 Semantic versus Syntactic predicates</b> .....	<b>35</b>
<b>1.3.3 Loghophoric use</b> .....	<b>36</b>
<b>1.3.4 DvP mechanics</b> .....	<b>37</b>
<b>1.3.5 Referential independence</b> .....	<b>38</b>
<b>1.3.6 IDI</b> .....	<b>38</b>
<b>1.3.7 Marking requirement</b> .....	<b>39</b>
<b>1.3.8 Structure of SELF-anaphors</b> .....	<b>39</b>
<b>1.3.9 Summary</b> .....	<b>40</b>
<b>CHAPTER 2. EFFECTS OF VER ON THE THETA GRID</b> .....	<b>41</b>
<b>2.1 PREFIXATION BY VER</b> .....	<b>41</b>
<b>2.1.1 Productivity of ver</b> .....	<b>42</b>
<b>2.1.2 Meaning of ver</b> .....	<b>43</b>
<b>2.1.3 Similarities between BECOME-type, GO-type and MIS-type</b> .....	<b>45</b>
<b>2.1.4 Result category</b> .....	<b>45</b>
<b>2.1.5 Base categories</b> .....	<b>47</b>
2.1.5.1 Nouns .....	<b>47</b>

2.1.5.2 Idioms.....	47
2.1.5.3 Adjectives.....	47
2.1.5.4 Verbs.....	48
<b>2.2 MARKER OF LEXICAL RELATIONS.....</b>	<b>49</b>
<b>2.3 ACC ADDITION.....</b>	<b>50</b>
<b>2.4 ARGUMENT STRUCTURE OF BECOME-TYPE VER-VERBS.....</b>	<b>53</b>
<b>2.4.1 Ver-verbs derived from adjectives.....</b>	<b>53</b>
<b>2.4.2 Ver-verbs derived from nouns.....</b>	<b>55</b>
<b>2.5 ARGUMENT STRUCTURE OF MIS-TYPE VERBS.....</b>	<b>56</b>
<b>2.5.1 Argument structure of 2-place MIS-TYPE verbs.....</b>	<b>56</b>
<b>2.5.2 Argument structure of 1-place MIS-TYPE verbs.....</b>	<b>58</b>
<b>2.5.3 Status of [+c] in 1-place MIS-TYPE ver-verbs.....</b>	<b>58</b>
<b>2.5.4 Brute force addition of ACC.....</b>	<b>59</b>
<b>2.5.5 Impossibility of zich and [+c].....</b>	<b>60</b>
<b>2.5.6 Why zich cannot have a [+c] antecedent.....</b>	<b>60</b>
<b>2.5.7 Satisfying the RTC.....</b>	<b>62</b>
<b>2.6 INTERMEDIATE SUMMARY.....</b>	<b>62</b>
<b>2.7 ARGUMENT STRUCTURE OF GO-TYPE VER-VERBS.....</b>	<b>63</b>
<b>2.7.1 Argument structure of GO-type verbs (directive motion verbs).....</b>	<b>63</b>
<b>2.7.2 Argument structure of GO-type verbs (other motion verbs).....</b>	<b>65</b>
<b>2.7.3 Argument structure of GO-type verbs (internal role goes away).....</b>	<b>66</b>
<b>2.7.4 Argument structure of GO-type verbs (others).....</b>	<b>67</b>
<b>2.8 EXCEPTIONS TO [+c] ADDITION?.....</b>	<b>68</b>
<b>2.8.1 Argument structure of unaccusative ver-verbs (accusative stem).....</b>	<b>68</b>
2.8.1.1 Source of the internal role.....	68
<b>2.8.2 Argument structure of unaccusative ver-verbs (unaccusative stem).....</b>	<b>69</b>
<b>2.8.3 Argument structure of unaccusative ver-verbs (Theme unergative stem).....</b>	<b>71</b>
2.8.3.1 Marking theme unergatives.....	71
2.8.3.2 Competing for subject.....	72
<b>2.8.4 Will the unergative and non-reflexive 1 place ver-verb please stand up?.....</b>	<b>72</b>
<b>2.8.5 Some (seemingly) exceptional ver-verbs.....</b>	<b>72</b>
2.8.5.1 Indistinctness.....	73
2.8.5.2 Real exceptions.....	74
<b>2.9 SUMMARY AND CONCLUSION.....</b>	<b>74</b>
<b>CHAPTER 3: VER-VERBS AND ZICH.....</b>	<b>76</b>
<b>3.1 DISTINGUISHING REFLEXIVE ZICH AND UNACCUSATIVE ZICH.....</b>	<b>76</b>
<b>3.1.1 Verbs that allow both internal and external reduction.....</b>	<b>78</b>
<b>3.2 LEXICAL REFLEXIVIZATION IN VER-VERBS.....</b>	<b>79</b>
<b>3.2.1 Independent constraints on reflexivization.....</b>	<b>79</b>
3.2.1.1 Phonological restrictions.....	79
3.2.1.2 External role restrictions.....	79
3.2.1.3 Internal role restrictions.....	80
3.2.1.4 Confusing with free datives.....	80
3.2.1.5 Obligatory internal reduction.....	81
3.2.1.6 Intermediate summary.....	81
<b>3.2.2 Ver as embedder.....</b>	<b>81</b>
<b>3.2.3 Goal and Source as licensers.....</b>	<b>82</b>
3.2.3.1 Structure of VP's with a goal or source.....	83
3.2.3.2 Correct predictions with regard to binding.....	84
3.2.3.3 Less correct predictions with regard to binding.....	84

<b>3.2.4</b>	<b><i>Some structural differences</i></b> .....	85
3.2.4.1	2-place particle verbs .....	86
3.2.4.2	Analyzing particle verbs .....	87
3.2.4.3	Different speaker, different analysis, different binding .....	87
3.2.4.4	Intermediate summary .....	88
<b>3.2.5</b>	<b><i>Result themes</i></b> .....	88
<b>3.2.6</b>	<b><i>Lexical goal and result operations</i></b> .....	89
<b>3.2.7</b>	<b><i>Lexical GO-operation</i></b> .....	91
<b>3.2.8</b>	<b><i>Advantages of a GO-sub-procedure</i></b> .....	92
<b>3.2.9</b>	<b><i>Differences between resultative and caused motion predicates and ver-verbs</i></b> .....	93
3.2.9.1	Status of the theme .....	93
3.2.9.2	Distribution of <i>zich</i> .....	94
3.2.9.3	No <i>zich</i> , no goal .....	94
<b>3.2.10</b>	<b><i>Partial Goal-reduction vs Full Goal-reduction</i></b> .....	94
3.2.10.1	Syntax and partial and complete reduction .....	96
3.2.10.2	Varying analyses .....	97
<b>3.2.11</b>	<b><i>Intermediate summary</i></b> .....	98
<b>3.3</b>	<b>UNACCUSATIVE ZICH</b> .....	99
<b>3.3.1</b>	<b><i>Objections to a purely lexical account</i></b> .....	99
<b>3.3.2</b>	<b><i>Semantic differences between differently marked predicates</i></b> .....	101
3.3.2.1	State versus activity .....	102
3.3.2.2	Accidental versus hidden agent .....	102
3.3.2.3	Instrumental phrases .....	103
3.3.2.4	External versus internal cause .....	103
3.3.2.5	<i>Zich</i> and <i>automatisch</i> .....	104
3.3.2.6	Intermediate conclusion .....	104
<b>3.3.3</b>	<b><i>Word category of the stem</i></b> .....	104
3.3.3.1	Aspect of adjectives .....	105
<b>3.3.4</b>	<b><i>External merger</i></b> .....	106
3.3.4.1	Applying GO or DETACH at different points in time .....	106
3.3.4.2	Applying VERBALIZE at a different point in time .....	107
3.3.4.3	Some problems with the analysis .....	107
<b>3.3.5</b>	<b><i>Conclusion</i></b> .....	108
<b>4.</b>	<b>CONCLUSION</b> .....	109
<b>4.1</b>	<b>SUMMARY</b> .....	109
<b>4.2</b>	<b>PREDICTIONS</b> .....	110
<b>4.3</b>	<b>SOME FINAL REMARKS</b> .....	111
<b>REFERENCES</b>	.....	<b>113</b>
<b>APPENDIX A: LIST OF MOST COMMON VER-VERBS</b>	.....	<b>119</b>

## 0. INTRODUCTION

In the literature there has been much attention to anaphoric dependencies involving binding and coreferentiality (cf. Reinhart 1983, Burzio (1996), Chomsky (1981), Chomsky (1986), Reinhart & Reuland (1991), Zribi-Hertz (2004), Safir (1997), Pica, (1991) and many others). More specifically the nature of reflexives has been discussed (Reinhart & Reuland (1993), Reinhart & Siloni (2005) and others). Reflexives are expressions such as the bold words in the sentences below:

- 1        a)        Peter only loves **himself**.
- b)        Pieter    wast    **zich**    elke    morgen.  
                  Peter    washes SE    every    morning.  
                  ‘Peter washes every morning.’

This thesis focuses on a type of reflexivity known as lexical reflexivity. In Dutch this type of reflexivity is marked by the appearance of an SE-anaphor, *zich* in sentence 1b. In Chomsky (1981) this type of anaphor is not separately discussed from the SELF-anaphor, *himself* in sentence 1a. In this theory anaphors are not subdivided and are marked as +anaphoric. The behavior of the anaphors in 1a and 1b are expected to be governed by the same constraint: Condition A.

In a range of important work from Reinhart and Reuland (Reinhart & Reuland (1991, 1993), Reuland (2001), Reinhart & Siloni (2005)) a move to a different view of reflexivity was developed. This view entailed that reflexivity is a result of conditions operating on the predicate, and not as conditions on the arguments and the status thereof. In this theory the notion of SE- and SELF-anaphors can no longer be expressed through a feature specification that contains a +anaphoric feature. Most importantly Reinhart & Reuland (1993) distinguish two types of reflexivity, namely lexical and syntactic.

## 0.1 LEXICAL REFLEXIVITY EMERGING THROUGH VER

Lexical reflexivity is a result of a lexical operation, called reflexivization, applying to the theta role specifications of the verb (Reinhart (2002)). In short terms lexical reflexivization applies to verbs that have both an agent and a theme role. The theme role is reduced (or bundled with the agent role, see Reinhart & Siloni (2005)). Though the role is reduced and can no longer be realized syntactically, the ACC-case present on the verb is not necessarily reduced (depending on the language). In Dutch a case residue remains after internal reduction which needs to be checked. This type of reflexivity results in a predicate featuring the SE-anaphor *zich*, which checks the case residue. The sentence in 1b is a typical instance of lexical reflexivity. In chapter 1 of this thesis lexical reflexivization is discussed in more detail.

As of yet it is unknown how to define the set of verbs that allow lexical reflexivity, although this set is remarkably similar in many languages (Reinhart (2002), Safir (1997), König & Siemund (2000), Calude (2004)). Dutch verbs derived through the prefix *ver* seem highly suitable candidates for lexical reflexivization. Some examples are given in 2.

- 2
- a) Peter vermaakt zich met het spel.  
Peter enjoys SE with the game.  
'Peter enjoys himself with the game.'
- b) De bankiers verrijken zich met hoge provisies.  
The bankers enrich SE with high provisions.  
'The bankers enrich themselves with high provisions.'

In addition many *ver*-verbs result in predicates that feature the SE-anaphor *zich* as a result of operations other than reflexivization. Such examples are shown in 3. Notice that in these cases the internal role is not reduced, as is the case in lexical reflexivization. This can be seen from two facts. The first one is that the external role receives an interpretation that would normally map on the internal role. In 3a the ship is disappearing, it does not cause something or someone else to disappear. Normally the verb *verwijderen* ('to disappear') has an external role which is interpreted as the cause of the disappearance and where the internal role receives an interpretation of going away. In 3a the external role receives the latter interpretation and the cause of the disappearing is not explicitly present in the sentence. The second case is shown in 3b where there is no reason to assume an internal role at all. In 3b it is impossible to form a predicate without the SE-anaphor. Thus, it is impossible to form a predicate with *vergaapen* in which Peter "flabbergasts" something or someone else, which hints to the absence of an internal role all together. This type of verb is sometimes called an inherent reflexive verb.

- 3
- a) Het schip verwijdert zich uit het zicht.  
The ship disappears SE from the sight.  
'The ship disappears from sight.'
- b) Peter vergaapt zich aan de luxe auto's.  
Peter yawns SE on the luxurious cars.  
'Peter is flabbergasted by the luxurious cars.'

This thesis investigates *ver*-verbs with regard to their tendency to form reflexive predicates containing an SE-anaphor.

## 0.2 STRUCTURE OF THE THESIS

Since this thesis deals with reflexives and reflexivity, I will discuss the notion of an SE- and SELF-anaphor as well as reflexivity and pose a working definition. I will point out which appearances of SE- anaphors I am interested in. In chapter 1 I will sketch the theoretical background required for this thesis. I will give a short overview of the

following theories: theta system (Reinhart (2002), Reinhart and Siloni (2005)), conventional binding theory (Chomsky (1981)) and reflexivity (Reinhart and Reuland (1993, 1995), Reuland (2001), Reuland (to appear)) including some of the independently motivated minimalist mechanics therein (Chomsky (1995), (2001) and (2005)). Thereafter, I will give an analysis of *ver*-prefixation with regard to the theta role specifications of these verbs. In chapter 3 I will give an answer to why precisely this type of verb so often results in reflexive predicates with an SE-anaphor.

### 0.3 DEFINITION OF REFLEXIVITY AND REFLEXIVES

In Reinhart and Reuland (1993) reflexivity is a characteristic of the predicate. The definition is:

4 A predicate is reflexive iff two or more of its arguments are coindexed.

Examples of reflexivity are shown in 5.

- 5 a) John<sub>i</sub> loves himself<sub>i</sub>.  
 b) Peter<sub>i</sub> amazed himself<sub>i</sub> during the game.

Three terms require further elaboration in this definition.

#### 0.3.1 SYNTACTIC AND SEMANTIC PREDICATES

First of all I will adopt the definitions used in Reinhart and Reuland (1993) for predicates. They distinguish syntactic predicates and semantic predicates.

- 6 a) The syntactic predicate formed of a head P is P, all its syntactic arguments and an external argument of P (subject).  
 b) The semantic predicate formed of P is P and all its arguments at the relevant semantic level.

The definition in 4 applies to both semantic and syntactic predicates. Hence a predicate may be reflexive if either two or more arguments of the syntactic predicate are coindexed or if two or more arguments of the semantic predicate are coindexed. The semantic predicate and the syntactic predicate are similar but definitely not the same. The Dutch sentence in 7 contains a syntactic predicate with two coindexed arguments (*Jan* 'John' and *zich* 'himself'). The English counterpart in 8 does not contain a syntactic predicate with two or more coindexed arguments (it doesn't even contain two or more arguments).

7 Jan<sub>i</sub> wast zich<sub>i</sub>.  
 John washes SE.  
 'John washes.'

8 John washes.

Likewise a syntactic predicate in 9 contains the arguments *John* and *himself* (which receives case from the head *sees*) and they are coindexed. The semantic predicate is formed by arguments *John* and *himself walking*. These are not coindexed.

9 John<sub>i</sub> sees himself<sub>i</sub> walking.

Finally sentence 5a, repeated in 10, shows a case in which the arguments of the syntactic predicate as well as those of the semantic predicate are coindexed.

10 John<sub>i</sub> loves himself<sub>i</sub>.

Unless otherwise mentioned, the term reflexivity in this thesis either means that the arguments of the semantic predicate are coindexed or the arguments of the syntactic predicate (or both).

### 0.3.2 ARGUMENTS

The term argument in definitions 4 and 6 require more clarification as well. The definition of a semantic argument maps directly onto the general notion of an argument in predicate logic. Note that since there are two types of predicates there must be two types of arguments as well, semantic arguments and syntactic arguments. The definition of a syntactic argument is taken from Reinhart and Reuland (1993).

- 11      a)      Syntactic arguments of a predicate P are the projections assigned  $\Theta$ -role or case by P.  
           b)      Semantic arguments of a predicate  $P^i$  are the terms  $t_1, \dots, t_i$  of  $P^i$  where  $i > 0$ .

### 0.3.3 COINDEXATION

Finally I wish to clarify the term 'coindexed'. Coindexation should not be confused with coreference. Coreference is defined as the assignment of identical values to NP's with distinct syntactic indices (Reinhart & Grodzinsky (1993)). Reinhart (1983) already argues that coreference should be distinguished from bound variable interpretations and that coreference is constrained by other mechanisms than a bound variable interpretation. Namely Rule I (Reinhart & Grodzinsky (1993)): NP A cannot corefer with NP B if replacing A, at LF, with a variable bound by a trace of B yields an indistinguishable interpretation. This rules out coreference of both arguments in a sentence such as *Mary loves her*. Coindexation is still possible but would violate other constraints in this case, which will be discussed in chapter 1.

### 0.3.4 SELF-ANAPHORS AND SE-ANAPHORS

Key-ingredients in reflexivity are of course reflexives. In the introduction it was already mentioned that there are two types of reflexives. In the literature they are known as SE-anaphors and SELF-anaphors. Local anaphors tend to be morphologically complex (often combined by a nominal element meaning *self* (König & Gast (2006)) and long distance anaphors tend to be morphologically simplex (often similar to pronouns) (Faltz (1977)). Hence the names SE(simplex)-anaphor and SELF-anaphor. However, many do not regard these characteristics as primitives (Reinhart & Reuland (1993), Reuland (2001), Fischer (2004), Barbiers & Bennis (2003) etc.). Reinhart & Reuland (1993) assume a definition of anaphors along the lines of those in Chomsky (1986) and hold anaphors referentially defective NP's. Anaphors then cannot be used as demonstratives for example. However it does not mean that they must be bound variables.

A SELF-anaphor is defined as a self-noun with a pronominal or an SE-anaphor in its specifier, as is shown in 12 (Reinhart & Reuland (1991)). The self-noun is a relational noun that relates two variables with each other. Self expresses an identity relation between the pronoun and another element which needs to be found (Reinhart & Reuland (1991)). This is what causes their referentially defective nature.

- 12      [<sub>NP</sub> Pron / SE [<sub>N'</sub> self]]

An SE-anaphor is structurally identical to a pronoun (Reinhart & Reuland (1991)). Both pronouns and SE-anaphors are in determiner position but project to full NP's. This is shown in 13.

- 13      [<sub>NP</sub> SE [<sub>N'</sub> ... e ... ]

In contrast to SELF-anaphors their referentially defective nature comes from their lack of phi features. SE-anaphors are never fully specified for phi-features, although they can be marked for person (and person alone) (Reinhart & Reuland (1991)).

Not all arguments that are part of a reflexive predicate are necessarily SELF-anaphors or SE-anaphors. In many languages pronouns are compatible with a reflexive interpretation as is shown in the Frisian example 14.

14 Jan<sub>i</sub> wasket him<sub>i</sub>.  
 John washes him  
 'John washes himself.'

In Boeckx et. al. (2005), citing Mortensen (2003), data is presented from Hmong<sup>1</sup>.

15 Pov<sub>i</sub> yeej qhuas Pov<sub>i</sub>.  
 Pao always praise Pao.  
 'Pao always praises himself.'

It appears that also potentially referentially independent elements may be compatible with a reflexive interpretation. The case in 14 is explained by the fact that in Frisian pronouns are not marked for structural case and can tail chains (Reuland (2005)). More detailed discussion of this case can be found in chapter 1 of this thesis. The case in 15 may have a similar explanation (for discussion see Reuland (to appear)).

From Reinhart & Reuland (1993) two primitive distinctions follow between SELF-anaphors and SE-anaphors that I wish to point out. The set of Dutch sentences below clearly illustrate this difference.

- 16 a) Jan haat Loes / zichzelf / \*zich.  
 John hates Lucy / himself / SE.  
 'John hates Lucy / himself.'
- b) Jan vraagt \*Loes / \*zichzelf / zich af of hij een  
 John wonders Lucy / himself / SE PRT whether he a  
 paraplu mee moet nemen.  
 umbrella with must take.  
 'John wonders whether he needs to bring an umbrella.'
- c) Jan ziet Loes / zichzelf / zich lopen.  
 John sees Lucy / himself / SE walking.  
 'John sees Lucy / himself walking.'

SELF-anaphors can always be replaced by an appropriate nominal expression without resulting in an ungrammatical sentence. Replacing SE-anaphors however, may result in a high degree of ungrammaticality. Furthermore for every multi-place predicate there must be at least one nominal argument for which replacing it with a SELF-anaphor, given that it has a compatible set of phi-features with its antecedent, will always result in a grammatical and reflexive predicate, leaving aside idiomatic expressions and any pragmatic and world knowledge restrictions. Replacing nominal arguments by an SE-anaphor instead, may result in an ungrammatical sentence. The underlying difference is that SE-anaphors do not require a theta role per se and SELF-anaphors, just like normal arguments, do require one (Reinhart (2002)). In addition a SELF-anaphor has a reflexivizing function. It can turn an otherwise not reflexive predicate into a predicate that has reflexive interpretation. SE-anaphors do not have this function.

---

<sup>1</sup> Hmong is the common name for a group of dialects of the West Hmongic branch of the Hmong-Mien/Miao-Yao language family spoken by the Hmong people mainly located in northern Vietnam, Thailand, and Laos (Ratliff (1992)).

In short SE-anaphors and SELF-anaphors are defined as follows:

17 SE-anaphor:

- a) is of category D.
- b) does not have a full specification of phi-features but may be marked for person and is therefore referentially defective.

18 SELF-anaphor:

- a) is a self-noun with a pronoun or an SE-anaphor in its specifier position.
- b) has the following characteristics (among others):
  - 1. It is referentially defective because it needs to find an argument for which it forms an identity relation with the pronoun in its specifier position.
  - 2. It must receive a theta role.
  - 3. It has a reflexivizing function.

## 0.4 INTRODUCTION TO VER-VERB'S

The *ver*-prefix is discussed in Jong et. al. (1988), Maylor (2002) (on German *ver*), Lieber & Baayen (1993). In Lieber & Baayen (1993) all verbs involving the *ver*-prefix are argued to share the same semantics. They involve the movement or transition to a new location or state of the object of the verb. The resulting verb I call a *ver*-verb in this thesis. Since the *ver*-prefix is only partially productive, I considered verbs starting with *ver* that are morphologically partially or entirely opaque, such as *verdedigen*, *verleppen*, to be part of the set of *ver*-verbs. In addition verbs that are semantically opaque, take for instance *maken* ('to make') and *vermaken* ('to amuze'), were also taken to be part of the *ver*-verbs.

I had several reasons to include opaque forms to the set of *ver*-verbs. First of all most *ver*-verbs are not entirely predictable. For instance the verb *verbruiken* ('to use up') is related to the root *bruik* which is not a Dutch word, but which does function as a root for other words such as *bruikleen* ('loan'), *gebruiken* ('to use'), *bruikbaar* ('usable') etc. Similarly *giftig* ('poisonous') and *vergiftigen* ('to poison') seem to be predictable forms but the meaning of *vergiftigen* is not entirely what we would expect. It does not mean that we make something poisonous, but rather that we poison a person or animal, possibly with lethal consequences. So the term opaqueness is in this case a very gradient scale and would require carefully selected criteria, which could form the basis for a research by itself. Secondly, I wish to focus on the similarities that exist between all *ver*-verbs, namely their semantics of 'transition' as earlier mentioned. Furthermore, the survey of *ver*-verbs that can be found in the appendix of this thesis was, naturally, done before I started the actual research. I did not want to exclude potentially valuable research data beforehand. Finally, the derived form and the base form may have developed independently over time deteriorating the initial relation between the two or even resulting in the loss of the base form entirely, but still showing *ver*-characteristics in the derived form.

Basically this means that any Dutch verb starting with *ver*, will be considered a *ver*-verb. There are however some criteria involved in what I consider a *ver*-verb and what not. First of all in Dutch the verbal prefix *ver* never bears stress. Any verb starting with stressed *ver* is therefore not considered a *ver*-verb. Secondly the prefix *ver* results in a verb that drops the standard perfect tense particle *ge*. This is shown in 19.

- 19 a) Jan heeft een tekening gemaakt.  
 John has a drawing made.  
 'John made a drawing'
- b) Jan heeft zich vermaakt met een tekening.  
 John has SE amuzes with a drawing.  
 'John enjoys himself with the drawing.'

I do not consider a verb starting with *ver* that still shows the prefix *ge* in perfect tense to be a *ver*-verb.

In chapter 2 of this thesis I will discuss characteristics of *ver*-verbs in more detail.

## 0.5 OCCURRENCE OF *ZICH* IN THREE DIFFERENT ENVIRONMENTS

SELF-anaphors appear in many different forms and with deviating binding characteristics (Schladt 2000, Heine, 2005, Papen 1978, Lefebvre 1998, Corne, 1988, Gast 2006, Reuland (to appear)). Even within Dutch itself there is a lot of micro-variation, that spreads across the whole of the language and which is not tied to a specific area (Barbiers & Bennis (2003)). SE-anaphors are no exception in this respect. Some languages mark lexical reflexivity with an SE-anaphor, some mark lexical reflexivity with elements that can function as pronouns as well, in other languages a verbal clitic surfaces and some languages do not have any marking at all. The same marker then, depending on the language, can be used for many different reasons. Likewise in many languages SELF-anaphors can be used as intensifiers or logophors (cf. König & Gast (2006), Gast 2006, König & Siemund (2000), Pica (1991), Reinhart & Reuland (1991), Zribi-Hertz (2004) and many others). However, all languages must somehow license reflexivity, either through a lexical operation or through a SELF-anaphor (Reuland (to appear)). In addition, it is a well known fact that only a remarkably similar set of verbs allow lexical reflexivization regardless of the marking tactic (Reinhart 2002, Safir 1997, König & Siemund 2000, Calude 2004). I will discuss three appearances of the Dutch SE-anaphor with *ver*-verbs in this thesis.

### 0.5.1 LEXICAL REFLEXIVE ENVIRONMENT

In Dutch the SE-anaphor *zich* appears for several underlying reasons. Most notable is its appearance in lexically reflexive verbs, which is this thesis' main interest.

- 20 a) Piet wast zich.  
 Pete washes SE.  
 'Pete washes.'
- b) Erik scheert zich.  
 Eric shaves SE.  
 'Eric shaves.'

Many *ver*-verbs seem to allow lexical reflexivization.

- 21 a) De soldaten verdedigen zich.  
 The soldiers defend SE.  
 'The soldiers defend themselves.'
- b) De manager verwijt zich te veel te surfen.  
 The manager blames SE too much to browse.  
 'The manager blames himself that he browses too much.'

However, this is by far not the only type of environment of *zich*. For this thesis there are other environments that are under scrutiny, especially since, among others, *ver*-verbs tend to generate them.

## 0.5.2 OBLIGATORY REFLEXIVE ENVIRONMENT

A second type I classify as obligatory reflexives. It has all the properties of *zich* that surfaces through lexical reflexivization with one major difference: verbs that are obligatory reflexive do not have a non-reflexive counterpart<sup>2</sup>.

- 22 a) Het begint zich meer en meer af te tekenen dat  
 It starts SE more and more off to draw that
- Peter eigenlijk niet geschikt is voor deze functie.  
 Peter in fact not appropriate is for this position.
- ‘It becomes more and more clear that Peter is in fact not suitable for this position.’
- b) De toren bevindt zich in het midden van de stad.  
 The tower finds SE in the middle of the city.  
 ‘The tower is located in the middle of the city.’

Many qualify these instances as cases of frozen lexical reflexivization (Wehrli (1986), Grimshaw (1982)). The underived form is no longer present in the lexicon and the reflexivized form has become an independent verb. Evidence for such an analysis is provided by non-obligatory reflexives that, though there is still a non-reflexive counterpart available, receive a somewhat idiomatic reading and cannot be paraphrased by a similar sentence containing a SELF-anaphor. However, Dutch has so many obligatory reflexives that such an analysis becomes highly unattractive. In addition, many of the *ver*-verbs provide a class of obligatory reflexives that do not fit such a view at all.

- 23 a) Elmo heeft zich ver- slikt.  
 Elmo has SE mis- swallowed.  
 ‘Elmo chokes.’
- b) Loes heeft zich vergrepen aan een roomsoes.  
 Lucy has SE assaulted to a cream puff.  
 ‘Lucy ate a cream puff, even though she shouldn’t have.’

If these verbs are frozen in the lexicon, we are forced to conclude that the derived transitive verb *verslikken* (‘to choke’) is no longer in existence, but the stem *slikken* (‘to swallow’) still is. In addition the lexical reflexivized form of *verslikken* is also still present in the lexicon. In other words, the intermediate form is lost. We have to make this rather unattractive conclusion for many verbs that are derived through *ver*. In addition, we have to assume that the *ver*-prefix adds a theme role to the verb, given that *slikken* and many other base forms are intransitive. At first sight other instances of *ver* generally do not add theme roles to the grid as can be seen in 24. In 25 it depends on the status of *in kazen* (‘in cheese’) whether a theme is added or simply maintained.

---

<sup>2</sup> There are unergative verbs in Dutch that alternate between an unergative verb and an obligatory reflexive verb. Especially body movement (*bukken* (‘to duck’), *strekken* (‘to stretch’), *rekken* (‘to stretch’)) verbs seem to fit this description.

1. Jaap bukt (zich / \*zichzelf / \*Piet).  
 Jaap ducks SE / himself / Peter.  
 ‘Jaap ducks.’

The SE-anaphor in example 1 is clearly not there as a result of lexical reflexivization since there is not a transitive alternate. For the same reason the SE-anaphor cannot be there as a marker for unaccusativity either. See for discussion on this type of verbs Reinhart & Siloni (2005) and Marelj (2004).

- 24 a) Erik bouwt een huis.  
Eric builds a house.  
'Eric is building a house.'
- b) Erik verbouwt een huis.  
Eric renovates a house.  
'Eric renovates a house.'
- 25 a) Jan handelt in kazen.  
John deals in cheese.  
'John deals cheese.'
- b) Jan ver- handelt kazen.  
John PRE deals cheese.  
'John deals cheese.'

Finally, the *ver*-prefix is pseudo-productive. My informants all accept 26a as a somewhat marked way to say that the construction worker made a mistake in his masonry. The sentence is considered understandable. Whereas sentence 26b and 26c are totally out with the same intended meaning. It would be unattractive to conclude that the only acceptable form is the final step in a two step derivation and that this form should be considered frozen, even though it is not heard of before.

- 26 a) ?De bouwvakker ver- metselde zich bij het  
The construction worker PRE- bricked up SE at the  
  
bouwen van het huis.  
building of the house.  
  
'The construction worker made a mistake building the house.'
- b) \*De bouwvakker ver- metselde bij het  
The construction worker PRE- bricked at the  
  
bouwen van het huis.  
building of the house.  
  
'The construction worker made a mistake building the house.'
- c) ??De bouwvakker ver- metselde het huis.  
The construction worker PRE- bricked up the house.  
'The construction worker made a mistake building the house.'

Hence, obligatory reflexives formed by *ver*-verbs should not be considered as a frozen instance of lexical reflexivization. What they are then, aims this thesis to reveal.

### 0.5.3 UNACCUSATIVE ENVIRONMENT

In Dutch unaccusatives are generally marked by a different auxiliary selection in the perfect tense (27).

- 27) a) Hij breekt de vaas. (transitive)  
 He breaks the vase.  
 'He breaks the vase.'
- b) De vaas breekt. (unaccusative present tense)  
 The vase breaks.  
 'The vase breaks.'
- c) De vaas is gebroken. (unaccusative perfect tense)  
 The vase is broken.  
 'The vase has broken.'

However, sometimes unaccusatives can or must be marked by an SE-anaphor instead (28).

- 28 a) Hij opent de deur.  
 He opens the door.  
 'He opens the door.'
- b) De deur opent (zich). (optional)  
 The door opens SE.  
 'The door opens.'
- c) De deur heeft \*(zich) geopend. (required)  
 The door has SE opened.  
 'The door opens.'

In Dutch this is somewhat of a niche. However, many *ver*-verbs allow reduction of the external role resulting in an unaccusative version. For some reason many *ver*-verbs that also have an unaccusative version can be marked with an SE-anaphor.

- 29 a) De stoomboot verwijderde zich langzaam van de kust.  
 The ironclad disappeared SE slowly from the coast.  
 'The ironclad slowly disappeared from the coast.'
- b) Het probleem vergroot zich ieder jaar.  
 The problem enlarges SE every year.  
 'The problem gets bigger each year.'

In some cases it is hard to distinguish the appearance of *zich* as an instance of lexical reflexivity, obligatory reflexivity or unaccusativity marking. Take for instance example 30.

- 30 Erik verwijderde zich uit de kamer van de directeur.  
 Eric removed SE from the room of the CEO.  
 'Eric left the room of the CEO.'

Is *Eric* also initiating the event expressed in 30, or is he merely undergoing it? At first sight it seems hard to conceive that some external cause is removing him from the room. However, given the sentence in 29a, it is clear that the external role does not have to be realized as an agent, which is typically the case with lexical reflexive verbs (Reinhart (2002)). In fact, it does not even have to be realized as a cause. The *stoomboot* ('ironclad') in sentence 29a clearly undergoes the event. The fact then that *Eric* in 30 seems to be an acting person is probably through pragmatic reasons, not because of a particular theta role specification. But there is clearly room for

debate. We will encounter many appearances of *zich* that do not readily fall in one of the three categories: lexical reflexives, obligatory reflexives or unaccusativity marking. Basically, they can be distinguished as in 31.

#### 0.5.4 INTERMEDIATE SUMMARY

I am fully aware that the categories presented here are debatable. First of all, lexical reflexivity presupposes that the internal role is reduced. The predicate in 21a is *prima facie* the same as a typically reflexive predicate such as the one in 20a. Both verbs have the same roles, an agent and a theme, and both predicates do not contain obfuscating material such as auxiliaries or prepositions that would directly hint to a different analysis. Therefore I have categorized these instances as lexically reflexive. However, closer scrutiny, performed in chapter 3, will reveal whether this categorization is correct and whether the internal role is truly reduced.

Secondly, we could wonder whether obligatory reflexives could be considered reflexive in the sense of Reinhart & Reuland (1993). The SE-anaphor in these instances is more likely there for independent reasons and there is no reason to assume that the internal role is reduced or syntactically realized, as is the case in respectively lexical reflexivity and syntactic reflexivity, since there is no reason to assume an internal role at all. However, since some linguists analyze these forms, though incorrectly I believe, as frozen forms of lexical reflexivity (Wehrli (1986), Grimshaw (1982)) and traditional grammar books also categorize them on a par with truly lexically reflexive verbs, I decided to use the term obligatory reflexive.

The same goes for the unaccusative forms. It is at this point a mere assumption that the SE-anaphor is there because of the reduction of a role. Even though the terminology is debatable, it is maintained throughout this thesis.

- 31
1. A subject of a lexical reflexive verb receives the interpretation of both the external and internal role.
  2. A subject of obligatory reflexive verb receives the interpretation of the external role.
  3. A subject of an unaccusative receives the interpretation of the internal role.

For now this distinction will suffice. However, to categorize a case like 30 we are clearly in need of prudent testing devices. These devices will be provided in chapter 3 of this thesis.

All three mentioned types appear regularly with *ver*-verbs. In this thesis I will try to reveal the causes of these appearances of SE-anaphors with *ver*-verbs.

#### 0.5.5 ENVIRONMENTS OUTSIDE THE SCOPE OF THIS THESIS

Besides the three appearances of *zich* discussed in the previous sections, there are many other environments in Dutch where an SE-anaphor can or must appear. It can appear inside PP's (32) (cf. Reinhart & Reuland (1993)), ECM-constructions (33) (cf. Reinhart & Reuland (1993), Reuland (2001), Johnson (2008)) and with many modal verbs (34) (cf. Everaert (1991), Johnson (2008)). In some languages the SE-anaphor also marks middle constructions (cf. Caluda (2004), Marelj (2004), Steinbach (1998)) or impersonal constructions (cf. Rivero (2001), Bach (1995)). In Dutch these constructions are formed without *zich* (35).

- 32
- a) Erik legt het boek naast zich neer.  
Eric lies the book next SE down.  
'Eric puts the book down next to him.'
  - b) Peter ziet achter zich een grote slang.  
Peter sees behind SE a big snake.  
'Peter sees a big snake behind him.'
- 33
- a) Erik hoort zich zingen.  
Eric hears SE sing.  
'Eric hears himself singing.'

- b) Piet laat zich vallen.  
Pete lets SE fall.  
'Pete lets himself fall.'
- 34 a) Erik hoopt zich te slaan.  
Eric hopes SE to hit.  
'Eric hopes to hit himself.'
- b) Piet wil zich slaan.  
Pete wants SE hit.  
'Pete wants to hit himself.'
- 35 a) Dit overhemd strijkt gemakkelijk.  
This shirt irons easily.  
'This shirt irons easily.'
- b) Het woont hier prettig.  
It lives here comfortable.  
'It is nice living here.'

This thesis is not concerned with any of the appearance of *zich* in one of the environments exemplified in 32 to 35.

## 0.6 RESEARCH GOALS

In this thesis I will try to provide satisfactory answers to the questions in 36.

- 36 1. How does the *ver*-prefix affect the theta role specification of a verb?
2. How can we explain the fact that many *ver*-verbs allow lexical reflexivization?
3. How can we explain the fact that with many *ver*-verbs an SE-anaphor appears for reasons different than lexical reflexivization:
- a) as an obligatory reflexive?
- b) as an unaccusativity marker?

Answers to the question may hopefully be extended to other verbs and languages that allow lexical reflexivization. The pursued goals of this thesis are to gain more insight in prefix *ver*, the Dutch SE-anaphor and the lexical reflexivization operations from Reinhart (2002).

## CHAPTER 1. THEORETICAL BACKGROUND

In this chapter I will quickly paraphrase the leading theories on both binding and theta roles. I will go over the most important and settled findings and discuss some of the open areas. First I will present the theta system from Reinhart (2002), then I will turn to conventional binding theory from Chomsky (1981) and finally I will discuss the alternative binding theory of Reinhart and Reuland (1993).

### 1.1 THETA SYSTEM

From the early days in the Principles and Parameters framework the theta theory provided in a system linking roles of verbs to NP-arguments. From Reinhart (1991), Reinhart (1996) to Reinhart (2000) and many other linguistic research (cf. Williams (1981), Pesetsky (1995), Chierchia, (1989), Kremers (1998)) the system developed into a far broader theory, that captures various aspects of lexical entries that are relevant for the syntactic and / or semantic component of language. Reinhart (2002), Reinhart (2001) and Reinhart & Siloni (2005) most notably provide a large overview of all results of research on the theta system. Others, such as Pesetsky (1995), Chierchia (1989) and (Jackendoff 1990), have a different view on certain parts of the theta system. Others hold an entirely different view on the structure of verb concepts in the lexicon (see Vinokurova (2005) for an overview of many theories). By no means is the overview in Reinhart (2002) the only possible theory on argument structure. However, it is the one presented and used in this thesis.

Reinhart (2002) provides lexical entries and lexical operations for the coding and derivation of reflexives, anticausitives and transitive alternations of ergatives. The first of course will be extensively discussed in this thesis. The others prove highly relevant as well.

### 1.1.2 THETA ROLE FEATURES

In the system set out by Reinhart, the two binary features relevant for theta role specifications are +/-c and +/-m. Also called 'cause change' and 'mental state'. Features can be specified, either + or -, or unspecified, leaving room for nine possible configurations of a single theta role. Descriptive names are placed in parentheses.

- 37
1. [+c+m] (agent)
  2. [+c-m] (instrument)
  3. [-c+m] (experiencer)
  4. [-c-m] (theme / patient)
  5. [+c] (cause)
  6. [+m] (sentient)
  7. [-m] (subject matter / locative source)
  8. [-c] (goal / benefactor)
  9. [] (arbitrary)

These feature configurations have a semantic implication of course. For instance a +m feature requires the argument fulfilling this role to be animate. A verb like *feed* selects an agent as external role, rendering arguments of a different type inappropriate, see 38. Although the syntactic component cannot read the feature specifications, there are however syntactic differences linked to feature distinctions. Roles with a +c specification are for instance merged externally as is shown in 39. Reinhart (2002) claims that all verbs with a [+c] subject alternate with an unaccusative verbs, which merge all arguments internally. This difference surfaces in several languages through the assignment of ergative case versus accusative case. In Dutch we see a different auxiliary for perfect tense.

- 38
- a) The baby / \*the spoon / \*hunger ate the soup.
  - b) The father / \*the spoon / \*hunger fed the baby.
- 39
- a) Jaap heeft de vaas gebroken.  
Jaap has the vase broken.  
'Jaap has broken the vase.'
  - b) De vaas is / \*heeft gebroken.  
The vase is / \*has broken.  
'The vase has broken.'

In short, feature combinations have been proven to be relevant for syntactic derivations. However, the features themselves are inaccessible to the syntactic component. They surface through lexical operations that derive the theta grid and the theta hierarchy based on these features.

### 1.1.3 LEXICAL PROCEDURES

Apart from these feature specifications there are important procedures, rules and constraints present in the theta system. These procedures can derive certain feature specification and relate several 'versions' of a verb together. The rules and constraints prevent certain configurations and derive a theta role hierarchy important for the syntactic component. The lexical procedures that are acknowledged in Reinhart (2002) are discussed below.

### 1.1.3.1 SATURATION

When saturation applies on a theta role, it is no longer visible for the syntactic component and will not be realized as is shown in 40. Semantically it is still present. This contrast is shown in 40c.

- 40
- a) Lucy hits John.
  - b) John was hit.
  - c) John was hit (by Lucy).

In 40b and 40c there is no syntactic need to realize the role. However, it is implicitly present and bound by the existential quantifier. Sentence 40b is interpreted as  $x$  ( $x$  hit John). It can also be explicitly present as a PP-phrase, but not as an argument of the verb.

### 1.1.3.2 REDUCTION: EXPLETIVIZATION AND REFLEXIVIZATION

The reduction operation removes an argument from theta grid. There are two reduction operations. Namely expletivization and reflexivization. Expletivization reduces the external role and reflexivization reduces the internal role. Example 42 contains a case of reflexivization and example 41 presents expletivization.

- 41
- a) John opens the door.
  - b) The door opens.
- 42
- a) Mary washes John.
  - b) Mary washes.

The following constraints apply to reduction in general:

- 43
1. It can only apply to two place verbs.
  2. At least one of the arguments must have a + feature.
  3. Saturation and reduction cannot apply to the same verb at once, the operations exclude each other.
  4. The ACC-feature is reduced, fully or partially.

In addition the following constraints apply to reflexivization, reduction of an internal role:

- 44
1. The internal role is semantically still present.
  2. The interpretation of the derived form is reflexive.
  3. Reflexivization can only be applied to a not yet theoretically defined subset of verbs.

Reflexivization removes the internal role. However, the role remains visible to the semantic interface. In addition, the reduced argument is interpreted under identity with (one of) the remaining arguments. The predicate is hence reflexive. Since in Dutch the ACC-feature is not completely removed, a dummy argument surfaces in syntax as can be seen in 45.

- 45 a) No reflexivization applied.
- Mark amuseert ons.  
 Mark amuses us.  
 'Mark entertains us.'
- b) Reflexivization applied.
- Mark amuseert zich.  
 Mark amuses SE.  
 'Mark is amused.'

Finally, the following constraints apply to expletivization operations:

- 46 1. Only external [+c] roles can be reduced.  
 2. The role is eliminated completely.

Condition 2 is illustrated in 47. Notice that the argument in 47 is completely removed and cannot, as with a passive form, be reintroduced using a PP. Not only syntactically, but also semantically the argument is gone.

- 47 a) John opens the door.  
 b) The door opens \*(by John / by the wind).

For reflexivization two important parametric variations exist. The ACC-parameter and the Lex / Syn parameter.

- 48 1. The ACC-feature is weak (completely removed) or strong (partially removed).  
 2. The operation can apply at LF (French) or in the lexicon (Dutch).

Notice that in English the ACC-feature is reduced completely. The argument does not appear in syntax at all. In French a clitic SE appears. The appearance of clitics is argued in Reinhart and Siloni (2005) to be the result of reflexivization applying at LF, hence after syntax, and not in the lexicon. Finally Dutch features an SE-anaphor, *zich*, which removes the obstinate ACC-feature. In addition, since the predicate is reflexive, the SE-anaphor needs to be interpreted under identity with the subject. The reflexive relation is established in syntax and requires not much more than DvP mechanics from Chomsky (1995), as shown in Reuland (2001). The precise mechanics will be discussed later.

The appearance of SELF-anaphors is explained through different mechanics. Hence reflexivization as discussed here is not the same, whether it is performed in the lexicon or at LF, as reflexivization through SELF-anaphors. SELF-anaphors have exactly the same status as normal DP-arguments with respect to the theta system. In other words: the theta-system neither forces nor requires the appearance of SELF-anaphors. The same restrictions hold for SELF-anaphors that hold for other NP's.

### 1.1.3.3 CAUSATIVIZATION

Causativization is the only lexical procedure that is able to add an argument to the theta grid. Reinhart (2002) claims that the added theta role in this case is an agent [+c+m]. In addition, causativization requires a sub-procedure, known as decausativization, to apply first. Decausativization changes a +c feature into a -c feature. Agentivization applies next and adds an agent role to the theta grid. Constraints on causativization as a whole are as follows:

- 49 1. Decausativization must apply first.  
 2. Only one role is decausativized.  
 3. Only roles containing a +c feature can be decausativized.  
 4. Agentivization must apply second.  
 5. An agent role [+c+m] is added to the theta grid.

Some languages allow agentivization to apply without decausativization and the other way around. Although, for reasons yet to be discussed, a verb can never realize two roles containing a +c feature. However, causativization as a whole is considered the application of both procedures after each other. An example of causativization is shown below:

- 50      a)      Peter walks.  
           b)      The nurse walks Peter (to the bed).

Since the subject in 50b is incompatible with an instrument [+c-m] or a cause [+c], the external theta role must be marked as [+c+m]. The internal role, though still actively participating in the event denoted by the verb, no longer causes the event to take place. In the case of *walk* the original external role changed into an experiencer role [-c+m] and is merged internally. Depending on the original cluster, the internal role must be marked as -c and may contain any specification or under specification of the m feature.

#### 1.1.4 MAPPING OF THE THETA ROLES

The feature specifications are invisible to the syntactic component. Hence, the mechanics of DvP, or a similar syntactic framework, cannot determine the correct projection of arguments on the basis of these features. The theta-system includes a component deriving a theta hierarchy. The arguments lowest in the hierarchy are merged first in syntax. This allows for a 1-on-1 mapping of roles and arguments.

The first operation that takes place, even before the previously discussed operations on the role configurations, is called lexicon marking. The operation consists of the following procedures:

- 51      1.      Indexing the roles:
- a)      Mark a [-] cluster with index 2  
           b)      Mark a [+] cluster with index 1
2.      Assigning ACC-features (given an n-place verb with n > 1):
- If the verb entry contains both a [+] cluster and a fully specified cluster [/any,-c], mark the verb with the ACC-feature.

A [-] cluster is a cluster that only has feature specifications that are -, hence: [-c], [-m], [-c,-m]. A [+] cluster can be [+c], [+m], [+c+m]. The ACC-feature is only assigned to verbs that have a previously mentioned [+] cluster and a cluster that contains a -c feature and an m feature, [-c-m], [-c+m]. Arguments fulfilling [-c] and [-m] roles cannot check accusative case. Indeed, in most languages these roles require dative case or a PP to be realized. Also note that a well known class of verbs, unaccusatives, is now properly defined as those verbs that lack the combination of [+] cluster and a fully specified cluster [/any,-c]. Saturation and reduction apply after the marking operation.

The computational system (syntax) uses the following system to merge theta roles in their respective positions:

- 52      1.      When nothing rules this out, merge externally. Otherwise merge internally.  
           2.      An argument realizing a cluster marked 2 merges internally.  
           3.      An argument with a cluster marked 1 merges externally.

Hence the verb transitive verb entry *hit* will be mapped as in 53.

53 Mapping of verb entry *hit*.

1. Two roles of *hit* are: [+c+m] and [-c-m]
2. [+c+m] is a [+] cluster and will be marked as 1
3. [-c-m] is [-] cluster and will be marked as 2
4. The verb contains a [+] cluster (marked as 1) and the verb contains a cluster containing a -c feature specification. Therefore the verb is assigned the ACC-feature.
5. An argument realizing the [+c+m] role will be merged externally in syntax, since it is marked as 1
6. An argument realizing the [-c-m] role will be merged internally in syntax, since it is marked as 2

Verbs that contain mixed clusters, experiencers [-c+m] and instruments [+c-m], will not be indexed and follow rule 1, stating: when nothing rules this out, merge externally. Syntax naturally prohibits multiple external roles. Therefore mixed clusters will merge externally if there is no other [+] cluster present and internally if there is.

### 1.1.5 LEXICAL CONSTRAINTS

Reinhart (2002) adopts a constraint on theta role realization from Kremers (1999), which states that two indistinct theta roles on the same verb entry cannot be both realized. Note that this means it is perfectly fine to have a verb entry with two (or more) indistinct theta roles. Only they cannot all be realized. This constraint is defined as follows:

54 Distinctness constraint:

1. Two indistinct theta-clusters cannot be both realized on the same predicate.

Distinctness: Two feature clusters a, b, are distinct iff,

- a) they share at least one feature, and
- b) there is at least one feature or value which they do not share.

The definition on distinctness stated in 54 entails that, in addition to completely identical clusters, clusters that do not share a feature cannot be realized together. These are given in 55.

- 55
1. [+c] and [+m] (this combination is also ruled out because both should be merged externally)
  2. [+c] and [-m]
  3. [-c] and [+m]
  4. [-c] and [-m]

Under this distinctness constraint the theorized [] cluster can never be realized together with any other theta role. Though as of yet there are no verbs that qualify for having such a role, it may be of importance to know that, given the constraint on distinctness, they can only exist in one place predicates. For more discussion on the [] cluster see Marelj (2004).

Main force behind the distinctness constraint is its explanatory power with regard to verbs that can deviate between several two place predicates, such as *angry* and *worry* of which the  $\theta$ -role specifications are shown in 56.

- 56
- a) angry [+c] [-m+c] [-m]
  - b) worry [+c] [-m+c] [-m]

Since the roles [+c] and [-m] are indistinct, they cannot be realized together. Therefore, it must be so that either the [+c] or [-m] is realized. By means of an auxiliary the third role can be reintroduced. This is precisely what we get in example 57 to 60 (examples from Reinhart (2002)).

- 57 The verbs *angry* and *worry* with all roles fully realized.
- a) \*The article angered Bill at the government.  
 b) \*The doctor's letter worried Lucy about her health.
- 58 The verbs *angry* and *worry* with all roles realized using an auxiliary.
- a) The article made Bill angry at the government. (all roles realized using auxiliary)  
 b) The doctor's letter made Lucy worry about her health. (all roles realized using auxiliary)
- 59 The verbs *angry* and *worry* with only the cause and the experiencer realized.
- a) The article angered Bill. (cause and experiencer realized)  
 b) The doctor's letter worried Lucy. (cause and experiencer realized)
- 60 The verbs *angry* and *worry* with only the subject matter and experience realized.
- a) The government angered Bill. (subject matter and experiencer realized)  
 b) Her health worried Lucy. (subject matter and experiencer realized)

### 1.1.6 SUMMARY OF INVENTORY

The following components of the theta system have been discussed:

- 61
1. Theta role specifications in terms of c and m features
  2. Reduction: expletivization
  3. Reduction: reflexivization
  4. Causativization: Decausativization
  5. Causativization: Agentivization
  6. Lex / Syn paramter
  7. ACC paramater
  8. Indistinctness constraint

In chapter 2 these mechanics are used to explain *ver*-verbs.

## 1.2 CONVENTIONAL BINDING THEORY (CBT)

The previous account concerns lexical operations behind reflexivity, as defined in the introduction of this thesis. Another aspect of reflexivity is concerned with syntactic operations for resolving dependencies between nominal arguments. Early binding theory, as proposed in Chomsky (1981), regarded anaphoric relations to be dependent on the participating NP's. NP's could be of the following type:

62	1.	R-expressions	=	[ -anaphor ; -pronominal ]
	2.	pronoun	=	[ -anaphor ; +pronominal ]
	3.	anaphor	=	[ +anaphor ; -pronominal ]
	4.	PRO	=	[ +anaphor ; +pronominal ]

These elements follow 3 separate rules, known as Condition A, B and C of the binding theory. They are given in 63.

63 Condition A: anaphors (reflexive pronouns and reciprocals) must be bound in their local domain (governing category).

Condition B: pronouns must be free (i.e., unbound) in their local domain (governing category).

Condition C: R-expressions must be free (i.e. unbound) everywhere.

Anaphors are those expressions that have a +anaphor feature specification and pronouns are those expressions that have a +pronominal feature specification. The fourth element in the list must therefore comply with both Condition A and Condition B. Since these conditions naturally exclude each other, only an element that has no governing category can have the specification of +anaphor and +pronominal at the same time. Chomsky (1981) proposed the PRO-theorem which states that PRO must be ungoverned. The workings of PRO are handled by control theory (cf. Boeckx & Hornstein (2005), Landau (2001), Chomsky (1981)). A discussion of control is outside the scope of this thesis, however.

The local domain mentioned in Condition A and B is explicated in Chomsky (1981) as the governing category. The governing category may differ from language to language, hence explaining (some) variation of binding domains across languages.

### 1.2.1 PROBLEMS WITH CBT

There is a big conceptual problem with this picture. The feature specification has no independent motivation, as noted in Reuland (2001). There is no other reason to consider an element +anaphor than its behavior in binding relation. Vice versa specific binding relations depend on the feature specification. The explanatory power of the feature specification is hence limited.

Besides this problem the system does not acknowledge the existence of SE-anaphors (or at least their different binding conditions from SELF-anaphors), which are present in a large portion of the world languages. Their behavior is clearly different than any of the other three elements and the possible +anaphor +pronoun proves to be inept at capturing any binding relation. Furthermore, logophors such as discussed in Pica (1991), Zribi-Hertz (2004), Reinhart and Reuland (1991), Vries (1999), Pollard and Sag (1992) etc., systematically escape syntactic binding relations, a situation not allowed in CBT. And finally CBT runs into problems capturing very subtle microvariations across languages. Some of these variations are shown in 64, 65 and 66.

- 64 a) Max keek achter zich / hem / zichzelf.  
 Max looked behind SE / him / himself.  
 'Max glanced behind him / himself.'
- b) Max blikte hinter sich / \*ihn / \* sich selbst.  
 Max looked behind SE / \*him / \*himself.  
 'Max glanced behind him / himself.'
- 65 a) Max haat \*zich / zichzelf / \*hem.  
 Max hates \*SE / himself / \*him.  
 'Max hates himself.'
- b) Max hasst sich / sichselbst / \*ihn.  
 Max hates SE / himself / \*him.  
 'Max hates himself.'
- 66 a) Max rolled the carpet over \*it / itself / \*him / himself.
- b) Max examined the carpet underneath it / itself / him / himself.

Still, however, the notions of binding domain, c-command (as from Reinhart (1976, 1983)) and subject orientation are highly relevant. In addition, the picture drawn in Chomsky (1981), though facing many problems with regard to SE-anaphors, logophors and micro variation, captures a large portion of the data correctly.

### 1.3 REINHART AND REULAND 1993 (R&R)

Many hold a different view on binding theory in language (Fischer (2004), Reinhart and Reuland (1993), Reuland (2001), Safir (1997)). The most notable difference is that reflexivity should be a property of the predicate rather than induced by a specific feature specification, namely +anaphor, of participating elements. This view was the underlying principle behind a theory developed in Reinhart and Reuland (1991), Reinhart and Reuland (1995), Reuland (2001), and Reinhart and Siloni (2005). The system as it is now (Reuland to appear) makes use of independent properties of the theta-system and derivation by phase. Many binding specific issues are captured through independently motivated principles from the DvP framework (Chomsky (1995, 2005)) and the theta theory (Reinhart (2002)).

In R&R anaphors do not have an intrinsic property that requires them to take an antecedent. Reuland (2001) argues that their configuration of phi-features explains their behavior. This rules in the possibility of unbound or not locally bound anaphors. This prediction is of course borne out given the earlier mentioned logophors which, among others, made CBT unsuitable. The workings of binding on the basis of phi features in combination with mechanisms of DvP is shortly explained below, especially for SE-anaphors and SELF-anaphors.

#### 1.3.1 REFLEXIVITY

Reinhart and Reuland (1993) distinguish, unlike Chomsky (1981), two types of anaphoric expressions. They differ mainly in their ability to reflexivize a predicate, as can be seen from the table in 67. The proposed differences are not feature related and are merely descriptive of nature. The referential dependency of both anaphors is related to their phi-features (Reuland (2001)). Similarly the reflexivizing function of SELF-anaphors is not falling out of the air. There are independent reasons why SELF-anaphors behave as they do with regard to reflexivization.

	SELF	SE	Pronoun
<b>Referential independence</b>	-	-	+
<b>Reflexivizing function</b>	+	-	-

Table 67: Properties of referential elements.

SELF-anaphors can mark a predicate as reflexive. SE-anaphors cannot. Instead, the reflexivization procedure in the lexicon, discussed in the previous section, can also mark a predicate as reflexive. The two conditions then in Reinhart and Reuland (1993) are as follows:

68 Condition A: a reflexive-marked predicate is reflexive.

Condition B: a reflexive predicate is reflexive marked.

1. a predicate is reflexive iff two of its arguments are coindexed.
2. a predicate formed of P is reflexive marked iff either P is lexically reflexive or one of P's arguments is a SELF-anaphor.

Hence, a predicate containing a SELF-anaphor must contain a proper antecedent for that anaphor, following Condition A. This rules in 69a and 69b and rules 70a and 70b out.

69 a) John<sub>i</sub> hates himself<sub>i</sub>.

b) Peter<sub>i</sub> washes himself<sub>i</sub>.

70 a) \*John<sub>i</sub> hates himself<sub>j</sub>.

b) \*John<sub>i</sub> washes herself<sub>i</sub>.

In addition, if we have a reflexive predicate, the predicate contains two coindexed arguments, this predicate must be marked as such. For marking there are two options. Either one of the arguments must be a SELF-anaphor or the verb is marked as reflexive through lexical reflexivization. Examples 71a and 71b are marked and are reflexive, while ungrammatical examples 72a and 72b are marked, but are not reflexive.

- 71 a) Jan<sub>i</sub> hates himself<sub>i</sub>.  
 b) Jan<sub>i</sub> wast zich<sub>i</sub>.  
 John washes SE.  
 'John washes.'
- 72 a) \*Himself walks.  
 b) \*John<sub>i</sub> loves himself<sub>j</sub>.

One may wonder why we cannot lexically reflexivize a verb and then use an different element than an SE-anaphor. This is tried in example 73, containing an intrinsic lexical reflexive verb.

- 73 \*Peter vergist zichzelf.  
 Peter mistakes himself.  
 'Peter is mistaken.'

In fact, Condition B does not exclude this option. The theta-system and basic syntax, let us here assume the minimalist framework, do. Since the reflexivization procedure in the lexicon may mark the verb as reflexive, it also removes an argument for syntax. Hence, the SE-anaphor is a special element (more on that later) that is able to check the ACC-feature but that does not require a theta role, as was discussed in the introduction.

### 1.3.2 SEMANTIC VERSUS SYNTACTIC PREDICATES

One may wonder why languages, such as English, that lack an SE-anaphor satisfy Condition B. Since there is only one argument in "*John shaves*", how can it ever be reflexive according to the definition used in 4? The reason, as discussed in the introduction, is the difference between syntactically reflexive and semantically reflexive. Hence, "*John shaves*" is still a reflexive predicate, but not syntactically reflexive. This difference is not made purely for conceptual reasons but also has clear empirical motivation.

The term predicate used in Condition A and B has a different denotation depending on the condition. Reinhart and Reuland (1993) distinguish two different predicates in their theory. Condition A applies to syntactic predicates. Condition B applies to semantic predicates. The definitions of both are stated in 74.

- 74 The syntactic predicate formed of (a head) P is: all its syntactic arguments, and an external argument of P (subject). The syntactic arguments of P are the projections assigned theta role or case by P.

The semantic predicate formed of P is P and all its arguments at the relevant semantic level.

The relevant semantic level is taken to be logical syntax (Reinhart (2000), Reinhart & Siloni (2005)). In the introduction I used the following definitions compatible with the two above.

- 8 a) Syntactic arguments of a predicate P are the projections assigned  $\Theta$ -role or case by P.  
 b) Semantic arguments of a predicate  $P^i$  are the terms  $t_1, \dots, t_i$  of  $P^i$  where  $i > 0$ .

The semantic and syntactic predicate may differ, as we have already seen in the introduction. Reduction through reflexivization in the lexicon semantically preserves the argument. Condition B applies to the semantic representation containing both arguments.

75 Simplified syntactic and semantic representations of the sentence “*John shaves*”.

- a) Syntactic: [VP [DP John ] shaves ]
- b) Semantic: John ( x ( x shaves x ) ) = ( John shaves John )

Similarly ECM expressions differ in syntactic and semantic arguments:

76 Jaap ziet zich / zichzelf lopen.  
Jaap sees SE / himself walk.  
'Jaap sees himself walking.'

- a) Syntactic: [VP [DP Jaap ] ziet [VP [DP zich / zichzelf ] lopen ] ]
- b) Semantic: zien (Jaap, (Jaap lopen))

Semantically there is no reflexivity. There are no arguments of a single semantic predicate identical. The arguments of *ziet* are *Jaap* and (*Jaap lopen*) (which of course differ). Syntactically there is reflexivity, since the syntactic arguments of *ziet* are *Jaap* and *zich / zichzelf*. These arguments are coindexed according to definition 11. Condition A is met in both cases. If *zichzelf* is used the predicate is reflexive marked and must be reflexive, which it is. If *zich* is used the predicate is not reflexive marked and Condition A is met vacuously.

This difference in representation selection also explains reflexive expressions that are disjoint or not disjoint such as the sentence in 77.

77 We<sub>i</sub> voted for me<sub>i</sub>.

Syntactically *me* is not a part of *we*. Semantically this is the case, however. Hence, the predicate should have been marked as reflexive. Note that if it would have been marked reflexive, Condition A would cause trouble, since syntactically the predicate is not reflexive: the *me* part of *we* is not a syntactic argument.

### 1.3.3 LOGHOPHORIC USE

CBT excludes the sentences in 78.

- 78 a) Max thought that the queen would invite both Lucy and himself for tea.
- b) The queen invited both Max and myself for tea.

The anaphors, that is anaphors in CBT-terms that is, *myself* and *herself* have to apply to Condition A and must be bound in their local domain. It is clear that they do not in sentences 78a and 78b. In fact, in 78b there is not even an antecedent present in the sentence. Following CBT these sentences should be ungrammatical. R&R, however, allows syntactically unbound appearances of SELF-anaphors. Notice that in sentence 78a and 78b both anaphors are not a syntactic argument of a predicate that contains an (overt) subject, instead they are part of an argument, e.g. *Lucie and himself*. Hence, Condition A does not apply. The semantic predicates of both sentences are as follows (highly simplified):

79 Simplified semantic representation of 78a and 78b.

- a) Semantic: the queen ( x [ x invited Lucie ] and [ x invited himself ] )
- b) Semantic: the queen ( x [ x invited Lucie ] and [ x invited myself ] )

It is clear that the semantic predicates are not reflexive: Condition B does not apply either. Note that Condition A would rule out the “queen ( x [ x invited myself ] )” if it were not that Condition A does not apply to semantic predicates. Conclusively, Reinhart and Reuland (1993) does not exclude sentences such as 78a and 78b. In fact, the term logophoric turns from descriptive to theoretically meaningful, namely those SELF-anaphors to which Condition A and B do not apply.

Furthermore, the much discussed picture NP's (cf. Chomsky (1981), Williams (1982), Barker (1995), Pollard & Sag (1992, 1994), Reinhart & Reuland (1993), Runner et. al. (2003), Uchiumi (2005) and many others) fall out nicely as well under the same approach.

- 80 a) Lucie liked a picture of herself  
 b) \*/??Lucie liked his picture of herself
- 81 a) A picture of myself would be nice on that wall.  
 b) \*/??Your picture of myself would be nice on that wall.

The predicate formed by the head *picture* in the sentences 80a and 81a does not contain a subject. Condition A applies, but is met vacuously. Condition B, since there is no reflexivity, does not apply. Notice that the head *picture* in the sentences in 80b and 81b does contain a subject. Again Condition A applies. However, since there is a subject it is no longer vacuously satisfied. Instead it is violated since the predicate is not reflexive. This correctly predicts that the b-sentences are out.

### 1.3.4 DVP MECHANICS

In Reinhart and Reuland (1993), Reuland (2001), Reuland (to appear) the reflexivity theory was further elaborated. Most notably the various conditions and definitions have been captured in independently motivated lexical, semantic and syntactic principles. The question then is how table 67 and Condition A and B follow from minimalist mechanics as presented in Chomsky (1995, 2001, 2005).

An intuition is that anaphoric dependencies look much like restrictions on movement (Chomsky (1981), Kayne (1981)). This resemblance is shown in 82 and 83 (examples taken from Reuland (2001)).

- 82 a) Felix<sub>i</sub> was fired t<sub>i</sub>.  
 b) Felix<sub>i</sub> behaved himself<sub>i</sub>.  
 c) \*Felix<sub>i</sub> behaved him<sub>i</sub>.
- 83 a) He<sub>i</sub> is believed t<sub>i</sub> to be smart.  
 b) He<sub>i</sub> believes himself<sub>i</sub> to be smart.  
 c) \*He<sub>i</sub> believes him<sub>i</sub> to be smart.

The dependency of *Felix* and its trace are captured through the formation of a chain. A chain is defined as follows:

84 Chain Definition

$(a_1, \dots, a_n), 1 \leq n$ , is a chain iff

- a) every  $a$  has the same subscript, i.e.  $(a_1, \dots, a_n) = (a_{j_1}, \dots, a_{j_n})$   
 b) for every  $i < n$ ,  $a_i$  antecedent governs  $a_{i+1}$

The dependency of *Felix* and *himself* is captured through the formation of a CHAIN. A CHAIN can refer both to chains and to binding relations. An important restriction on both chains and CHAINS is that they may only contain one link that is +R and marked for structural case (Fox (1993)). Since pronouns and NP's are +R it follows why sentences such as 84 are not allowed (without reverting to Condition A and B of R&R).

- 84      a)      Paul<sub>i</sub> loves Paul<sub>i</sub>.  
           b)      John<sub>i</sub> saw John<sub>i</sub> walking in the street.  
           c)      John<sub>i</sub> hates him<sub>i</sub>.

Since SE- and SELF-anaphors are referentially dependent, -R, they can form CHAINS with +R expressions. In addition, they cannot exist by themselves since a CHAIN must contain exactly one link (no less) that is +R. The latter is of course not borne out, given logophoric uses of SELF-anaphors in, for instance, sentences 71. In addition, first and second person pronouns in Dutch as well as third person pronouns in Frisian can tail a CHAIN. The question, then, is what does it mean to be +R or -R?

### 1.3.5 REFERENTIAL INDEPENDENCE

Basically reflexivity conditions A and B concern referential dependent elements. These may differ from language to language. Also notice that suspiciously reflexive predicates such as the one in 85 are handled through different mechanism. *Oscar* and second *Oscar* do not form a CHAIN. The coindexing is not based on CHAIN dependency but merely an identity dependency.

- 85      Everybody hates Oscar. Even [Oscar]<sub>i</sub> hates [Oscar]<sub>i</sub>.

In order to tail a chain the element must be -R. Reuland (2001) and Reuland (to appear) ascribe this attribute to a lack of phi-features or structural case. The motivation behind this claim is that a DP with an incomplete set of phi-features somehow must obtain them in the syntactic derivation. This can be done through Move / Attract or checking, which are basic syntactic operations from Chomsky (1995). In fact, this is the only way to establish a dependency. Hence, for an argument to be dependent on its interpretation from another element in the derivation, there must be a force that enters both in a checking configuration. This force is formed by uninterpretable features, which must be deleted through checking configurations. This is why N's that are not marked for case or gender and person have to enter a checking relation and hence enter a dependency relation. In most cases an SE-anaphor will acquire its phi-features from the Infl-projection through head-movement (either covert or overt). The Infl-projection is always coindexed with the subject and hence a CHAIN is formed containing the subject, the object and the verb. This is also the underlying reason why SE-anaphors tend to be subject oriented: they acquire their phi-features through head movement to Infl.

In case the SE-anaphor is not able to enter into a checking configuration and form a CHAIN, the road is opened for a logophoric interpretation. In other words, a -R element must form a CHAIN if possible. Only in derivation where CHAIN-forming is blocked, a logophoric interpretation is possible.

The question, then, is why we require SELF-anaphors and SE-anaphors. Would a single referential dependent element not be enough to cover all anaphoric forms? And why is there a Condition A and a Condition B in the first place?

### 1.3.6 IDI

Reuland (to appear) poses a condition on the interpretation of arguments. This constraint is known as the IDI: inability to distinguish indistinguishable. A 2-place predicate has to assign 2 theta roles to two different objects. The computational system must be able to see that there are two objects. When it cannot, and hence only sees one object, a basic theta-criterion violation will occur. Interpretative procedures at the C-I interface will break down syntactic hierarchy, similar to the PF interface, and an order is established. It would lead too far to discuss these procedures, but when a single VP contains two coindexed arguments, a typical form of reflexivity, then the order shown in 86 is derived.

- 86      [VP x [V' V x ]] -> ([VP V "x x" ]) -> [VP V x]

The method to distinguish occurrences of an object is to consider the environment in which they occur. It is clear from 86 that for both instantiations of  $x$  the environment (VP) is exactly the same. Hence, they cannot be distinguished. This would be entirely acceptable if one of these elements is completely superfluous for the interpretative procedures. This is the case in 87a and 87b.

- 87 a) Jan<sub>i</sub> wast zich<sub>i</sub>.  
 John washes SE.  
 'John washes.'
- b) Jan<sub>i</sub> vergist zich<sub>i</sub>.  
 John mistakes SE.  
 'John is mistaken.'

In these cases there is only one theta role to interpret to begin with. For interpretability of the predicates in 87 there is no need to distinguish both instantiations of  $x$  (*Jan* and *zich*). If, in the case of 88a and 88b, the C-I can only see one object, through the ordering such as depicted in 86, we are left with an undischarged theta role.

- 88 a) \*Jan<sub>i</sub> haat zich<sub>i</sub>.  
 John hates SE.
- b) \*Jan<sub>i</sub> ziet hem<sub>i</sub>.  
 John sees him.

This is precisely the reason why reflexivity must be licensed. Either by reducing the valence of the verb in the lexicon (or possibly at a different level) or by somehow forcing an order that will make the IDI see them as two different objects. Reuland (to appear) claims that it is precisely this, what SELF is doing. It forces a syntactic hierarchy that will lead to an ordering of the participating variables. Hence, the order of 89a and 89b will be such that the C-I can distinguish the occurrences of  $x$ .

- 89 a) Jan<sub>i</sub> haat zichzelf<sub>i</sub>.  
 John hates himself.  
 John hates himself.
- b) \*Jan<sub>i</sub> ziet hemzelf<sub>i</sub>.  
 John sees himself.

Note that example 89b is still out for reasons other than the IDI. In this case a CHAIN must be formed with two links being +R, *Jan* ('John') and *hemzelf* ('himself'), which violates the CHAIN condition.

### 1.3.7 MARKING REQUIREMENT

The marking requirement of Condition B is reduced to a general property of the computational system. The existence of Condition B relies solely on the IDI. Also notice that informally I will use the term marking in this thesis, although lexical marking and syntactic marking highly differ in their underlying mechanisms. In fact, lexical marking is merely a valence reduction of the verb rendering the occurrence of two indistinguishable objects acceptable (there is no need for the C-I to distinguish them). Whereas syntactic marking establishes a syntactic hierarchy that will enable the C-I interface to distinguish the two variables as two occurrences (and not one) of the same variable.

### 1.3.8 STRUCTURE OF SELF-ANAPHORS

SELF-anaphors must be structured in such a way that they provide an embedding structure for the variable that would otherwise be semantically lost due to the IDI. Since the IDI functions at C-I, the element protecting the variable must make at least a minimal and independent contribution to the interpretation, otherwise the derived order is still of the form expressed in 86. A possible structure for SELF-anaphors is shown in 90 (Reuland (2001)).

The minimal interpretive contribution of SELF in these cases is that of intensification. In principle, this contribution could be anything, as long as it is compatible with the interpretation of identity. It speaks for itself that a protective embedder can never put too many restrictions or modifications on the interpretation of the variable it tries to protect. If it would, a reading in which the variable must be interpreted under identity with its antecedent becomes hard to process, if not plain inaccessible. Hence, the associated function of lexical elements that perform as SELF-anaphors as intensifiers, markers of contrastive focus and other ascribed capabilities (cf. Gast (2006), Safir (1997, 2004), Gast & Haas (2008)), are not a coincidence. This type of interpretations is compatible with an identity relation.

The particular morphological structure of SELF-anaphors or the independent interpretative component of SELF-anaphors may vary from language to language. For instance, Schladt (2000) shows that a language known as Zande licenses syntactic reflexivity by embedding pronouns inside a PP. This is clearly different from the structure in 90. However, the underlying principle is the same: the variable gets embedded. Thus, there are at least two important (additional) constraints on SELF-anaphors which are expressed in 91.

- 91
- a) The morphology of a proper SELF-anaphor must be such that it provides a properly embedding structure for the variable, so that the C-I will be able to distinguish the variable that is embedded as a different object from its antecedent.
  - b) The meaning of a SELF-anaphor must make a minimal contribution to the interpretation of the derivation, such that it is compatible with the identity relation.

### 1.3.9 SUMMARY

In this chapter I have discussed various mechanisms that explain reflexive data. These mechanisms are summarized in 92:

- 92
1. Condition A
  2. Condition B
  3. Referential independency of anaphors (lack of phi-features / structural case)
  4. CHAIN restrictions
  5. IDI
  6. Lexical marking (avoiding the IDI)
  7. Syntactic marking (satisfying the IDI)
  8. Adjoining SE-anaphors to Infl
  9. Morphological and interpretative template for SELF-anaphors

These operations may explain behavior specific to one of the problems in this thesis: what are exactly the workings of the lexical reflexivization function in the lexicon and how does it differ from syntactic reflexivity?

## CHAPTER 2. EFFECTS OF *VER* ON THE THETA GRID

In order to determine the subset of verbs that can undergo lexical reflexivization, we must look for regularities within these verbs. Since there is no elegant mechanism available to capture this subset and the subset is large in size, an attractive starting point is to look for more fine grained subsets of this subset. The Dutch language provides such a ‘finer grained subset’. Namely those verbs that are formed through prefixation by *ver*. Many verbs that are formed in this way allow lexical reflexivization or form predicates that must contain the SE-anaphor *zich* in order to be grammatical. If we understand the workings of *ver*, we may find more insight in this subset and possible constraints on lexical reflexivization. Hence, this chapter is dedicated to the workings of *ver* on the theta role specifications.<sup>3</sup>

### 2.1 PREFIXATION BY *VER*

The Dutch prefix *ver* has been discussed in various places (Jong et. al. (1988), Maylor (2002) (on German *ver*), Lieber & Baayen (1993)), Neeleman and Schipper (1992). In this thesis I am not interested in the morphological or semantic nature of *ver*, but mainly in its effect on the theta grid. Except from Neeleman and Schipper (1992), the mentioned literature does not provide insight in this area. More particularly I wish to find out why many *ver*-verbs either allow or require the presence of an SE-anaphor, as is shown in 93 and 94.

---

<sup>3</sup> The appendix contains a collection of over 600 *ver*-verbs. Evidence presented in this thesis consists of all of these verbs. Needless to say, space considerations did not allow me to provide full discussion on and examples of all of these verbs.



### 2.1.2 MEANING OF VER

It is noted in the literature that *ver* has typically three meanings (Jong et. al. (1988), Lieber & Baayen (1993)).<sup>4</sup> These meanings, associated with my own terminology, are listed in 96.

- 96
1. BECOME-type: the internal role becomes that what is denoted by the stem.
  2. GO-type: the internal role goes away (possibly metaphorically) through means denoted denoted by the stem.
  3. MIS-type: the internal role is negatively affected by the action denoted by the stem.

The BECOME-type emerges only, without exceptions, when *ver* is attached to nouns or adjectives. This type is semantically the most transparent. The internal argument of BECOME-type receives a characteristic denoted by the noun or the adjective. In 97a this means that the picture becomes big or bigger and in 97c the bricks become grind.

---

<sup>4</sup> Sometimes the difference between the three types is hard to see. I believe this is so because they are all related (Lieber & Baaijen 1993). Take for instance the pair *verpesten* ('to screw up') en *versnipperen* ('to shred'). The difference between the two is that MIS-verbs generally do not denote a specific action. In fact, *verpesten*, *verknallen*, *verprutsen*, *vernachelen*, *verkloten*, *verbroddelen* all mean 'to screw up'. Semantically they are completely interchangeable. How one screws up, is left implicit. While *verknippen* ('to shred'), *verscheuren* ('tear apart') and *versnipperen* ('to shred') render the object of that action useless as well, they do denote a very specific action or result. The difference can be recognized from the fact that the MIS-type allows a 'by' or 'with' phrase that specifies the action that yields the squander. On the other hand the GO-type allows a 'to' phrase that specifies the result of the action. In this case a 'by' or 'with' phrase cannot be used to specify the already specific action.

- 1
- a)
 

Hij	verknalt	het	eten	door	teveel	zout	te	gebruiken.
He	screws up	the	food	by	too	much	salt	to use.

 'He screws up the food by using too much salt.'
  - b)
 

Hij	versnippert	het	formulier tot	een	hoopje	stof.	
He	shreds	the	form	to	a	pile	dust.

 'He shreds the form into a pile of dust.'

Similarly, we could wonder whether some GO-type verbs are not of the BECOME-type. Such as *versnipperen* ('to shred'), *versplinteren* ('to splinter'), *verroesten* ('to rust'). Since these verbs turn the internal object into *snippers* ('pieces'), *splinters* ('splinters') and *roest* ('rust'), they appear to have a BECOME-semantics. However, the crucial factor is again, that the GO-type allows a to phrase specifying the result.

- 2
- a)
 

*Het	karkas	versteent tot	een	menhir.
*The	charkas	fossilizes to	a	menhir.
  - b)
 

De	ontploffing	versplintert	het	glas	tot	een	partij
The	explosion	slivers	the	glass	to	a	bunch

scherven.  
sharves.

'The explosion slivers the glass into a bunch of sharves.'

Hence, the crucial distinction between GO-type verbs and the other two types is that the latter do not allow the specification of the result.

- 97) a) Ik vergoot de foto.  
I enlarge the picture.  
'I enlarge the picture.'
- b) De zon ver- droogt de woestijn.  
The sun PRE- dries the desert.  
'The sun dries the desert.'
- c) De bouwvakker vergruist de bakstenen.  
The construction worker grinds the bricks.  
'The construction worker grinds the bricks.'

The GO-type emerges mostly when *ver* is attached to a verbal stem. In most cases the original verb entails a movement, but this is not a necessity. The GO-type always implies a source or a goal for the movement, but they are never obligatory present. A source or a goal (or both) can in many cases be added in the form of a PP. If they are not present, the interpretation of the movement is simply 'going away'. Examples are given in 98.

- 98) a) Piet verlegt het boek (naar de hoek van de tafel).  
Pete moves the book (to the corner of the table).  
'Pete moves the book (to the corner of the table).'
- b) Erik verkoopt het boek (aan de pater).  
Eric sells the book (to the priest).  
'Eric sells the book (to the priest).'
- c) De voorzittersfunctie is vergeven (aan Erik).  
The chairman position is given away (to Eric).  
'The position of chairman is filled (by Eric).'
- d) Het schip vergaat (op zee).  
The ship perishes (at sea).  
'The ship perishes (at sea).'
- e) Erwin verbraste een jaarsalaris (aan dure etentjes).  
Erwin spent a year salary (to expensive diners).  
'Erwin wasted a yearly salary (to expensive diners).'
- f) Marie verstopte de cocaïne (in haar matras).  
Mary hid the cocaine (in her mattress).  
'Mary hid the cocaine (in her mattress).'

The *ver*-verbs of the MIS-type in 96.3 affect the object role in a negative way. The object suffers damage, disappears, is lost, gets broken, is screwed up or goes away from the subject. The precise change of state of the object cannot be given, but it always has a negative connotation. Often the interpretation of *ver* is comparable to English 'mis'. Therefore I call the verbs in 96.3 MIS-type verbs. Consider examples in 99 for instance.

- 99) a) Elmo vergist zich.  
Elmo mistakes SE.  
'Elmo made a mistake.'
- b) Elvis verprutst zijn carrière.  
Elvis screws up his career.  
'Elvis destroyed his career.'

- c) Karel vernachelt het examen.  
 Carl screws up the exam.  
 'Carl screws up the exam.'

### 2.1.3 SIMILARITIES BETWEEN BECOME-TYPE, GO-TYPE AND MIS-TYPE

It may be attractive to consider the possibility of three different, but phonologically identical prefixes. However, there are significant similarities between the three types. The most important of all is the fact that all types easily form reflexive predicates containing an SE-anaphor. Furthermore, all of these types entail that the internal role gets 'affected'. The term affectedness is used in many places and provides the basis for many theories on arguments structure (cf. Jaeggli (1986), Anderson (1979), Jackendoff (1987), Jackendoff (1990)). Affectedness of an argument yields a change of location or state.

Also notice that the internal role of a *ver*-verb always maps onto the internal role of the original verb (if there is one). Given the affectedness of the object, it seems appealing to think that the original verb does not affect the internal role, whereas the derived verb does. However, in many cases the event denoted by the original verb also affects that internal role.

All *ver*-verbs have an internal role or, at least traces of such a role (99a). The role may be reduced or the verb may be ergative, but as far as I know there are no 1-place unergatives among the *ver*-verbs.

In addition, the semantic contribution of *ver* to the event described mostly concerns the semantic interpretation of the internal role.

Finally, in many cases *ver*-verbs put a 'cause change' interpretation on the external role, if it is not already there, in these cases where the external role is an experiencer, a subject-matter, or any other role that is not marked with a +c feature. In some cases this seems to be the only thing *ver* is doing. Consider the examples in 100.

- 100 a) Pieter krijgt een fiets voor zijn verjaardag.  
 Peter gets a bike for his birthday.  
 'Peter gets a bike as a birthday present.'
- b) Pieter verkrijgt een fiets.  
 Peter obtains a bike.  
 'Peter obtains a bike.'

In many cases the relation of the semantic content of the event denoted by the original verb and the event of the derived form is not that clear anymore. Consider for instance *vallen* ('to fall') and *vervallen* ('to be cancelled'). Since the meaning of *ver* is not the subject of this thesis, I will not attempt to pursue the underlying generalization in the semantics of *ver*-verbs. Instead, the three types are distinguished to recognize something as a *ver*-verb or as likely candidate for a *ver*-verb. We should not consider the appearance of *ver* as something that is phonologically driven or driven by a force to reduce the amount of lexical units in the sense of redundancy rules from Jackendoff (1975a), who investigates the relationship between lexical units such as *admit*, *commit* and *permit*.

The facts about *ver*-verbs that I wish to investigate, are their theta-structure and their tendency to allow lexical reflexivization to occur. Ideally this investigation will also lead to a more thorough understanding of the semantics of the *ver*-prefix.

### 2.1.4 RESULT CATEGORY

Dutch is morphologically a right-headed language. We would expect that a prefix does not have influence on the word category. However, *ver* appears to overrule this pattern. Though the prefix *ver* most notably attaches to verbs, it also attaches to adjectives and nouns, forming verbs (instead of new adjectives or nouns). Neeleman and Schipper (1992) argue that a hidden affix is involved in deadjectival and denominal prefixation by *ver*. It is a

zero morpheme that attaches to the right of the noun or adjective and is used in conversion to V. The right-headness of Dutch is maintained under such an analysis.

It is clear that apart from a few idiomatic forms, all combinations of *ver*, either as a result of a hidden affix, or as a direct result of *ver*-prefixation, with another lexical element turn into verbs. The idiomatic forms I could find show verbal morphology and are probably a lexically frozen perfect tense, as can be seen in 101.

- 101 a) Arjan is verliefd op Laura.  
 Arjan is love on Laura.  
 'Arjan is in love with Laura.'
- b) De overbuurman van het slachtoffer gedroeg zich  
 The neighbour of the victim behaved SE  
 verdacht.  
 suspicious.  
 'The neighbour of the victim was behaving suspiciously.'
- c) Karin reageerde nogal verontwaardigd.  
 Karen reacted rather annoyed.  
 'Karen reacted rather annoyed.'
- d) Henk keek mij verbouwereerd aan.  
 Hank looked me flabbergasted on.  
 'Hank looked surprised at me.'

All adjectives in 101 show a 'd' or 't' ending, typical for Dutch perfect tense, preceded by a morphologically speaking suitable stem (e.g. *verlieven* is not a Dutch verb but it is imaginable). *Verdacht* ('suspicious') even has a related verb *verdenken* ('to suspect'), but it does not (only) carry the meaning of being suspected. Other idiomatic forms also appear to be forms that are frozen such as shown in 102.

- 102 a) Arjan heeft veel verdriet omdat Laura niet van hem houdt.  
 Arjan has much grieve because Laura not of him loves.  
 'Arjan is in great pain because Laura doesn't love him.'
- b) Arjan stortte zich in het verderf.  
 Arjan chrashes SE in the misery.  
 'Arjan delved into misery.'
- c) Erik is verkouden.  
 Eric is cold.  
 'Eric has a cold.'
- d) Sophie is een beetje verlegen.  
 Sophie is a bit shy.  
 'Sophie is a little bit shy.'

The noun *verdriet* ('sadness') is related to the verb *verdrieten* ('to grieve'). Likewise the noun *verderf* ('misery') is related to the verb *verderven* ('cause misery'). Though these verbs are still listed in a basic temporary dictionary (Van Dale (1999)), they are more or less out of grace. Conclusively, prefixation by *ver* leads to verbs.

## 2.1.5 BASE CATEGORIES

### 2.1.5.1 NOUNS

As said in the previous section, *ver* attaches to verbs, nouns and adjectives. A little elaboration is required on this part.

103	verhouten, to make wooden,	vergruizen, to grind,	verwateren, to adulterate,	verstenen, to fossilize,	vergulden, to engild,	vergisten to ferment
104	verwijven, to feminize,	vermannen, to man,	vervellen, to slough	verkrampen, to spasmodize,	verzanden, to go astray,	verpakken, to wrap
	verankeren, to anchor,	verkassen, to relocate,	verjaren, to get older,	verharen to lose hair		

The set of examples in 103 all involve matter nouns that have an adjectival use, such as *een houten brug* ('a wooden bridge'). The examples in 104 are hard to analyze other than a combination of *ver* and a noun. Since the set of nouns to which *ver* attaches is limited, it might be interesting to scrutinize the set of possible nominal hosts for *ver*. In this thesis, however, I will concentrate on the theta role specification. An important generalization is that almost all *ver* + N verbs fall into the BECOME-category.

### 2.1.5.2 IDIOMS

Another unproductive form is formed by those verbs that clearly start with a *ver*-prefix, but of which the other part is not even (anymore) a recognizable Dutch word. See 105 for illustration.

105	verpatsen, to sell cheaply,	verbazen, to amaze,	verdedigen, to defend,	verrassen, to surprise,	verpieteren, to deteriorate,	verstuiken, to sprain
-----	--------------------------------	------------------------	---------------------------	----------------------------	---------------------------------	--------------------------

There are two obvious reasons to consider these verbs as prefixed forms. First of all, the perfect tense marker *ge* is absent in all with all verbs prefixed with *ver*. This also holds for the verbs in 105. Furthermore, most forms have a meaning that falls into one of the three categories in 96.

### 2.1.5.3 ADJECTIVES

Attachment to an adjective is very productive and will lead to predictable forms of the BECOME-type. Examples are shown in 106.

106	verkleinen, to shrink,	vergroten, to enlarge,	verfraaien, to beautify,	verstompen, to cruden,	versterken, to fortify,	verzwakken, to weaken,
	verslappen, to weaken,	verbeteren, to improve,	verslechteren, to degenerate,	verminderen, to decrease,	vermeerderen, to increase,	verblijden, to gladden,
	vernietigen, to destroy,	verschonon, to exculpate,	vernauwen, to tighten,	verruimen, to broaden,	verdrogen, to dry out,	verharden, to harden,
	verwarmen, to warm,	vergrauwen, to grey,	verzuren, to sour,	verbitteren, to embitter,	verzachten, to alleviate,	verlammen, to paralyze,
	vervreemden to alienate					

The set of adjectives suitable as a host for *ver* is limited. The adjective must have a commonly used comparative. To speak in the terms of Kennedy and McNally (1999): it needs to be an open or half closed scale. In 107a we see

that *ver*-verbs are ungrammatical, if they are derived from a closed scale adjective, which allow modifiers such as *bijna* ('almost') and *zo goed als* ('as good as') (see 107c) and that do not allow a comparative form (see 107b).

107	a)	*ver- PRE- doden, die,	*ver- PRE- gratisen, free,	*ver- PRE- vullen, full,	*ver- PRE- kapotten, broken,	*ver- PRE- leggen empty
	b)	*doder, more dead,	*gratiser, more free,	voller, fuller,	*kapotter, more broken,	leger more empty
	c)	bijna dood, almost dead,	bijna gratis, almost free,	bijna vol, almost full,	bijna kapot, almost broken,	bijna leeg almost empty

Furthermore, it appears that the adjectives most suitable as a host, all denote a physical property given the set of verbs in 106. A precise analysis of possible adjectival hosts would go beyond the scope of this thesis.

#### 2.1.5.4 VERBS

Finally, *ver* may attach to verbs. The result and the host form of the combination *ver* + V may vary in meaning, number of theta roles and in many other areas. Some of these verbs have a different source form. For instance the unaccusative *verlopen* ('to expire') is derived from the unergative *lopen* ('to walk'), while the unaccusative *vergaan* ('to perish') is not derived from an unergative but from the unaccusative verb *gaan* ('to go').

108 List of possible *ver*-verbs.

a) unaccusatives:

vergaan, to perish,	vervallen, to decay,	verlopen, to expire,	verschieten, to waste,	verdwijnen, to disappear,
verdwalen, to get lost,	verleppen, to shrivel,	verpieteren to deteriorate		

b) obligatory reflexive (with a possible PP argument):

verslikken, to choke,	verspreken, to misspeak,	verslapen, to oversleep,	vertellen, vertekken, verrekenen, to miscount, to overlook, to miscalculate,
--------------------------	-----------------------------	-----------------------------	---

c) multiplace unergative:

verhandelen, to trade,	verprutsen, to screw up,	verraden, to trait,	vermaken, to amuse,	verspillen, to spill,
verrassen, to surprise,	verbranden, to burn,	vervoeren, to transport,	verdenken, to suspect,	verwijten, to blame,
vergooien, to throw away,	vertrappen, to crush,	verdrijven, to expel,	verjagen, to scare of,	verbouwen, to renovate,
verwerken, to process,	vervullen, to fulfill,	verzuipen, to drown,	vergroten, to enlarge,	verkleinen, to shrink,
versterken, to fortify,	verlagen, to lower,	verhogen, to lift,	verwarmen, to warm,	verkoelen, to cool down,
verpatsen, to sell cheaply,	vernachelen, to screw up,	verdrinken, to drown,	verblijden to gladden	

These verbs can be further split up in different categories depending on their source, the possibility of a reflexive predicate containing an SE-anaphor and finally on the feature specification of their theta roles. To keep things clear the list of these three types in 96 will suffice for now.

Also notice that some *ver*-verbs tend to be ambiguous. For instance *verrekenen* can either mean ‘to miscalculate’ (MIS-type) or ‘to balance’ / ‘to redeem’ (GO-type).

- 109 a) Jan verrekende zich in de moeilijke som.  
 John miscalculate SE in the difficult equation.  
 ‘John made a mistake in the difficult equation.’
- b) Ik heb de huur van de kamer met het totaalbedrag  
 I have the rent of the room with the total amount
- verrekend.  
 balanced.
- ‘I have incorporated the rent of the room into the total amount.’

Both show typical *ver* characteristics. In 109a the reduced internal role can be interpreted as ‘negatively and permanently affected’. Needless to say it can also be translated into *mis* + *calculate*. The internal role in 109b can be clearly considered ‘dissolved’: the amount is permanently incorporated into the overall balance.

There is more ambiguity among the *ver*-verbs. The example in 109 is not an exception. In most cases, however, the ambiguity arises, as in this case, through an ambiguity of the base verb. The verb *reken* can either mean ‘to calculate’ or ‘to charge’. I will show, however, that in terms of theta roles the effect of *ver* is the same for all three mentioned *ver*-verb categories.

## 2.2 MARKER OF LEXICAL RELATIONS

In addition to other effects, *ver*-prefixation has an effect on the theta role specifications of the verbs. Besides a few exceptions, all ergatives in 108 are derived from unergatives. Furthermore, all inherent reflexives in 108 are derived from 1-place unergatives. The appearance of an obligatory SE-anaphor also hints at a possible lexical operation on theta roles that leaves an ACC-feature behind. Furthermore, the multi-place unergatives in 108 are in many cases derived from a verb that has the same theta role structure, but introduces one of these roles obligatory inside a PP, as can be seen in 110, 111 and 112. The preposition is no longer present in the derived form.

- 110 a) Pieter handelt in kazen.  
 Peter trades in cheese.  
 ‘Peter is in the cheese business.’
- b) Pieter verhandelt kazen.  
 Peter trades cheese.  
 ‘Peter is in the cheese business.’
- 111 a) Karel zorgt voor het kind van zijn zus.  
 Carl cares for the child of his sister.  
 ‘Carl takes care of his sister’s child.’
- b) Karel verzorgt het kind van zijn zus.  
 Carl cares the child of his sister.  
 ‘Carl takes care of his sister’s child.’

- 112 a) Erik jaagt op de eekhoorns.  
Eric hunts on the squirrels.  
'Eric hunts the squirrels.'
- b) Erik verjaagt de eekhoorns.  
Eric chases away the squirrels.  
'Eric chases the squirrels away.'

These facts prelude that *ver*-prefixation involves a lexical theta operation. Other facts also lead into this direction. First of all, prefixation is pseudo productive, which is a common pattern for lexically based operations (Reinhart (2002), Jackendoff (1975a)). Secondly, we see that many pairs formed by a verb and that verb + *ver* maps on pairs of related verbs in other languages that have their own lexical form. Such pairs are shown in 113.

- 113 a) werken - verwerken  
to work - to process
- b) vullen - vervullen  
to fill - to fulfill
- c) drinken - verdrinken  
to drink - to drown
- d) kopen - verkopen  
to buy - to sell

This suggests that the prefixation does not lead to a slightly modified form, but represents universal regularities in lexicons. The prefix *ver* marks a specific lexical operation. This means that lexical unit X with theta role specification Y is related to another lexical unit X' with a theta role specification Y' through relation R. Relation R holds for many pairs of lexical units. In Dutch operation R arises through prefixation *ver*. The question that is important is: what is R? What does combining *ver* with a verbal stem (or perhaps root) do, and why does the resulting verb require or allow in many cases the presence of *zich*?

### 2.3 ACC ADDITION

Neeleman and Schipper (1992) defend the Right-hand Head Rule (RHR). They argue that *ver* exclusively attaches to verbs and adds a theme role to the grid. More precisely, the new category inherits the theme role under certain circumstance from *ver*, through a process called percolation. Likewise, other roles may percolate from the base category or from the zero morpheme. In short, *ver* is responsible for adding a theme, the zero morpheme attaching to nouns and adjectives is responsible for adding an agent. They discuss the possibility that *ver* in fact adds an agent. It is dismissed on the fact that ergative verbs remain ergative verbs after prefixation with *ver* (such as *vervallen* 'to elapse'). In these cases no agent is added, thus it cannot be so that *ver* adds an agent. However there are just as many *ver*-verbs that lack a theme, for instance *verslapen* ('to oversleep') and *verrekenen* ('to miscalculate'). Secondly, *ver* never, apart from a few exceptions, adds a theme, if it attaches to a verbal stem. If *ver* is attached to a noun or an adjective, it always adds a theme, without exception. At first sight it is then more attractive to associate the addition of a theme with the conversion to a verb, rather than with *ver* as a whole. Finally Neeleman and Schipper (1992) focus on the different types of nouns and adjectives to which *ver* attaches. Their analysis of *ver* attaching to verbs is of less importance to the goal of the paper and is, hence, incomplete. Therefore, an alternative analysis is desired in my view.

There is a generalization, not noted in Neeleman and Schipper (1992) that holds for almost every *ver*-verb. All *ver*-verbs show clear presence off ACC-case. If it is not already there, it is somehow added. The three classes distinguished in the previous section also contain unaccusatives. In Dutch unaccusatives have an ACC-case residue that needs to be checked (Reinhart (2000), Reinhart (2002)). The means to do so is by a modification to

the inflectional properties, leading to a different auxiliary selection, or through an SE-anaphor in object position. Since the original forms are unergative, the presence of this residue is clearly not inherited from the base verb, as can be seen in 114 and 115.

- 114 a) Erik loopt.  
Eric walks.  
'Eric is walking.'
- b) Mijn paspoort verloopt binnenkort.  
My passport expires soon.  
'My passport will expire soon.'
- 115 a) Ik dwaalde maar wat rond in het bos.  
I wandered just some around in the forest.  
'I wandered around in the forest.'
- b) Ik was verdwaald in het bos.  
I was lost in the forest.  
'I got lost in the forest.'

The obligatory reflexives, such as the one in 116b, probably also have a case residue, since the SE-anaphor *zich* appears in these predicates. In 116c and 116d we can see two different versions of the verb *verrekenen* ('to miscalculate' or 'to redeem'). In 116c it is an obligatory reflexive. In 116d it is a normal transitive verb. This shows that *ver* has more implications than merely the presence of ACC-case in the result; else we could not get two different *ver*-verbs. Nonetheless both forms, leaving the differences aside, show the presence of ACC-case.

- 116 a) Pieter slikt.  
Peter swallows.  
'Peter is swallowing.'
- b) Pieter verslikt zich.  
Peter chokes SE.  
'Peter is choking.'
- c) Jaap verrekende zich.  
Jaap miscalculate SE.  
'Jaap miscalculated.'
- d) Jaap verrekende de kosten.  
Jaap redeemed the costs.  
'Jaap redeemed the costs.'

The verbs derived from adjectives, all have more than one theta role. The internal role is not realized within a preposition. We must conclude that these *ver*-verbs have an ACC-feature. Needless to say, the adjectives did not already possess this ACC-feature.

- 117 a) De koning versterkt de burcht.  
The king fortifies the castle.  
'The king fortifies the castle.'
- b) De zon vergeelt het papier.  
The sun yellows the paper.  
'The sun yellows the paper.'

Finally, many of the *ver*-verbs that fully realize an internal role are derived from a base verb, that realizes the exact same roles with the exact same feature specification, but of which the internal role is realized inside a

prepositional projection. The difference can be easily explained, if we consider that the *ver*-verb does not need to revert to a preposition for licensing its internal argument, but can do so through ACC-case on the verb.

- 118 a) De leerlingen raden naar het antwoord op de vraag.  
 The students guess to the answer on the question.  
 'The students try to guess the answer on the question.'
- b) De docent verraad het antwoord op de vraag.  
 The teacher reveals the answer on the question.  
 'The teacher reveals the answer to the question.'
- 119 a) De hoofdpersoon van het boek handelt in kazen.  
 The main character of the book deals in cheese.  
 'The main character of the novel deals in cheese.'
- b) De hoofdpersoon van het boek ver- handelt kazen.  
 The main character of the book PRE- deals cheese.  
 'The main character of the novel deals cheese.'

Hence the pattern followed by all forms, is that a full or partial ACC-case feature is present in the derived form. There are some forms that do not follow that pattern. Some *ver*-unaccusatives are derived from verbs already unaccusative (121) and some two-place *ver*-verbs already realized an internal role, without the presence of a preposition (120).

- 120 a) Erik bouwt een huis.  
 Eric builds a house.  
 'Eric builds a house.'
- b) Erik verbouwt een huis.  
 Eric renovate a huis.  
 'Eric renovates a house.'
- 121 a) Het schip gaat over de horizon.  
 The ship goes over the horizon.  
 'The ship goes over the horizon.'
- b) Het schip vergaat aan de horizon.  
 The ship perishes at the horizon.  
 'The ship perishes at the horizon.'

It remains a fact that all forms have an ACC-feature, either complete or reduced (such as the ones in 114, 115 and 121). It is added if it is not there and it remains if it is. The next question we must ask ourselves then is: how is this ACC-feature added? There are two options at hand. The first yields that the ACC-feature is added through a brute force mechanism. The second yields the addition of an argument, that will force the lexicon marking system to mark the verb with the ACC-feature. Both options are problematic.

Brute force addition is conceptually unattractive. It entails that not only the marking system can assign ACC-case but apparently also other mechanics. Since the marking procedures divulge a remarkable generalization across languages, namely that only verbs that include a [+] cluster and a fully specified [ $\alpha$ ,/-c] cluster are accusative, introducing these additional mechanics undermines the power of this generalization.

The second option, however, is problematic for the simple reason that it suggests that *ver*-verbs would have more arguments than their originals. In two of the four distinguished cases above, this is not the case. We know, however that other constraints may prevent realization of theta roles, such as the distinctness constraint or the

impossibility of realizing two roles containing a +c feature. Therefore, I wish to pay attention to both options. I will start discussing *ver*-verbs derived from an adjective (BECOME-type).

## 2.4 ARGUMENT STRUCTURE OF BECOME-TYPE VER-VERBS

### 2.4.1 VER-VERBS DERIVED FROM ADJECTIVES

*Ver*-verbs derived from adjectives appear to have two arguments.

- 122 a) Jan vergroot de foto.  
John enlarges the picture.  
'John enlarges the picture.'
- b) De koning versterkt zijn burcht.  
The king fortifies his castle.  
'The king fortifies his castle.'
- c) De docent verbetert het werkstuk.  
The teacher improves the paper.  
'The teacher corrects the paper.'

The external argument can at least be interpreted as a cause. *John*, doing what he is doing, provides a sufficient condition for the event to take place, namely the picture becoming larger. Reinhart (2002) relates the sufficient condition to +c roles. In the examples in 122 the subjects are clearly interpreted as agent. All subjects are animate and the mental state of the subjects is relevant for the event to take place. It is hard to conceive how *John* could enlarge the photo without mentally being involved in that particular event. The subjects in 122 are interpreted as agents.

The internal argument can naturally not be marked as +c. That would rule out its realization together with the agent role. Furthermore, since it clearly does not cause the event, but instead undergoes the event, it must be concluded that it is marked as -c. Note that this role is probably somehow inherited from the adjective. In addition, the mental state of the internal argument is not relevant for the event. Hence, the internal argument must be a theme. A possible [-c] role might be tempting, since the internal role can and must sometimes be animate as well.

- 123 a) Karel verblijdt ons.  
Carl amuses us.  
'Carl is amusing us.'
- b) De kraamverzorgster verschoont de baby.  
The maternity help cleans the baby.  
'The maternity help changes the baby's diapers.'

However, since the internal argument corresponds in its interpretation to that of the original noun modified by the adjective, it is far more attractive to grasp the difference in these roles in terms of the adjective. Some adjectives cause the selection of a [-c+m], but most, as in 122, will result in a [-c-m] argument. Note that if it would select a [-c] role, the verb would not be marked for case, following the marking procedures of Reinhart (2002). Also note that the analysis of Neeleman and Schipper (1992) would not do well on a verb such as *verblijden*. If the theme comes from the prefix *ver* and the agent not, it is hard to explain why it is precisely the theme that turns into an experience depending on the adjective.

The selection of an agent is not obligatory as can be seen in 124.

- 124 a) Een verrekijker vergroot je zicht.  
 A binocular enlarges your vision.  
 'Binoculars enlarge your vision.'
- b) Een kompas versterkt elke soldaat.  
 A compass strengthens every soldier.  
 'A compass makes every soldier stronger.'
- c) De zon verwarmt het trottoir.  
 The sun warms the sidewalk.  
 'The sun is warming the sidewalk.'

The subjects are still interpreted as a sufficient condition for the event and hence are marked as +c. However, they are clearly no longer animate and the mental state is no longer relevant for the event. Thus it seems that the external role is compatible with the agent role [+c+m] and the instrument role [+c-m] and must then be [+c]. There is a fact that leads to an alternative conclusion, namely that these verbs carry both a [+c+m] and a [+c-m] role. First of all, the instrument role is semantically present, as can be seen in the sentences in 125.

- 125 a) Jan vergroot zijn zicht met een verrekijker.  
 John extends his vision with a binocular.  
 'John extends his vision with binoculars.'
- b) De koning versterkt de burcht met een extra gracht.  
 The king fortifies the castle with an extra canal.  
 'The king fortifies the castle with an extra canal.'
- c) Jaap verwarmt zijn huis met fakkels.  
 Jaap warms his house with torches.  
 'Jaap uses torches to warm his house.'

Instrument roles can always be introduced somehow, as is shown in the triplet in 126. So this is a weak argument.

- 126 a) John opens the door.  
 b) This key opens the door.  
 c) John opens the door (with the key).

Another argument is formed by 124c. *De zon* ('the sun') is clearly not an instrument, but a cause. And finally, many of this type of *ver*-verbs have an unaccusative alternate. Since external reduction targets a [+c] role, we must conclude that A + *ver*-verbs have a theta role specification as in 127. The different versions depend on the selected adjective, although 127a is definitely the most common type. I have never seen an A + *ver*-verb that has entry 127c. Since such an entry would not be marked with the ACC-feature (it does not contain a fully specified cluster containing a -c feature), it would have to realize its argument inside a PP.

127 a) ver + A: ( [+c] , [-c-m] )

versterken ('to fortify'), verlagen ('to lower'), vergroten ('to enlarge'), verhogen ('to raise'), verdrogen ('to dry out'), verkleinen ('to shrink'), vernauwen ('to tighten'), verbreden ('to widen'), verlengen ('to extend'), verharden ('to harden'), verwarmen ('to warm'), verkoelen ('to cool'), verzuren ('to make sour'), verzoeten ('to sweeten'), verruimen ('to broaden'), verfraaien ('to beautify'), verminderen ('to decrease'), vermeederen ('to increase'), vernietigen ('to destroy'), versimpelen ('to simplify'), vereenvoudigen ('to simplify'), verduidelijken ('to clarify'), verzachten ('to soften'), verlichten ('to relieve'), verduisteren ('to darken'), vergiftigen ('to poison'), verstijven ('to freeze'), vergelen ('to yellow') etc.

b) ver + A: ( [+c] , [-c+m] )

verblijden ('to gladden'), verschonen ('to clean'), verstommen ('to numb')

c) ver + A: ( [+c] , [-c] )

Some of the verbs in 127a may alternate between the [-c-m] and [-c+m] role. Such as *verharden* ('to harden').

128 a) De        aanhoudende        droogte   verhardt        de        weg.  
The        continuing        drought   hardens        the        road.  
'The continuing drought is hardening the road.'

b) Het        leger        verhardt        Jaap.  
The        army        hardens        Jaap.  
'The army hardens Jaap.'

However, the adjective *hard* ('tough') also has two semantic uses: one that denotes the mental state of a person and one that denotes the physical state of an object. The distinction between the roles comes from the interpretation of the adjective and hence *verharden* ('to harden') should not be considered as a verb that can select either [-c-m] or [-c+m] (and hence might have a [-c] role), but rather as a verb that can be derived from 'mental hard' and 'physical hard'. The verb *verduidelijken* ('to clarify') shows the same pattern.

#### 2.4.2 VER-VERBS DERIVED FROM NOUNS

The less productive *ver*-verbs derived from nouns show the same pattern. The reason for this is that verbs derived from nouns and verbs derived from adjectives are of the BECOME-type. Most of them also have an external [+c] role, of which all allow expletivization. This is shown in 129 and 130.

129 a) Te        veel        sporten   verkramp        mijn        spieren.  
Too        much        sporting   spasmodizes   my        muscles.  
'Too much sporting strains my muscles.'

b) Mijn        spieren   verkrampen.  
My        muscles   spasmodize  
'My muscle are strained.'

130 a) De        lange        afstand   verwatert        het        contact.  
The        long        distance   waters down   the        contact.  
'The long distance is fading the contact.'

b) Het        contact   verwatert.  
The        contact   waters down.  
'The contact is fading.'

Prefixation by *ver* leads to the addition of a [+c] role. Let us see whether this generalization spreads over the other type of *ver*-verbs as well.

## 2.5 ARGUMENT STRUCTURE OF MIS-TYPE VERBS

### 2.5.1 ARGUMENT STRUCTURE OF 2-PLACE MIS-TYPE VERBS

The MIS-type *ver*-verb leads to a meaning where the internal role is affected in a negative way, it gets ‘screwed up’ so to say. This type consists of two different verbs. Namely verbs that turn into a one place predicate, which happen all to be obligatory reflexives, without exception, and verbs that turn into a two place predicate. The second will be discussed here. Some examples are given in 131 and 132.

- 131 a) De monteur knoeit met de remmen.  
The technician tempers with the brakes.  
‘The technician is tempering with the brakes.’
- b) De monteur verknoeit de remmen.  
The technician screws up the brakes.  
‘The technician breaks the brakes.’
- 132 a) Pieter prutst aan een nieuw schilderij.  
Peter works on a new painting.  
‘Peter is working on a new painting.’
- b) Pieter verprutst zijn schilderij.  
Peter screws up his painting.  
‘Peter screws up his painting.’

Let us see whether these *ver*-derivates are different with regard to the addition of a [+c] role. Examples 133 and 134 show that this is not the case. All verbs mentioned, allow a cause role to be realized after prefixation by *ver*.

- 133 a) \*De donkere achtergrond prutst aan het schilderij.  
The dark background works on the painting.
- b) De donkere achtergrond verprutst het schilderij.  
The dark background screws up the painting.  
‘The dark background screws up the painting.’
- c) Pieter prutst aan het schilderij.  
Peter works on the painting.  
‘Peter is working on the painting.’
- d) Pieter verprutst het schilderij.  
Peter screws up the painting.  
‘Peter screws up the painting.’
- 134 a) \*De harddrugs knoeien met zijn leven.  
The hard drugs mess with his life.
- b) De harddrugs verknoeien zijn leven.  
The hard drugs mess up his life.  
‘The hard drugs mess up his life.’
- c) Pieter knoeit met zijn leven.  
Peter messes with his life.  
‘Peter is messing with his life.’

- d)     Pieter   verknoeit     zijn    leven.  
        Peter    messes up    his    life.  
        ‘Peter is messing up his life.’

Unlike the BECOME-type, the 2-place MIS-type verbs do not allow expletivization, as is shown in 135.

- 135    a)     \*Piet   verknoeit     zich.  
        Pete    messes up    SE.  
        b)     \*Het    schilderij     verknoeit.  
        The    painting     messes up.

The reason for this difference with regard to the BECOME-type, which generally allows expletivization, follows partly under the theory that *ver* adds a [+c] role. The theta role specifications of the verbs in 134 look as in 136 after *ver*-prefixation. Notice that I left the original [+c+m] role from the base form in the grid.

- 136    a)     knoeien [+c+m] =>    verknoeien [+c][+c+m][-c-m]  
        b)     prutsen [+c+m] =>    verprutsen [+c][+c+m][-c-m]

In 136 I assume that the [-c-m] role is added after prefixation. Since this role is implicitly already present in the base form and can be realized inside a PP, this may not be the right conclusion. This issue I will discuss later. For now the important observation is that the *ver*-verbs in 136 have both a [+c] and a [+c+m] role. I do not see a clear reason to remove the [+c+m] role from the grid, at least not through the mechanics discussed thusfar. We add a [+c] role, this does not mean we would delete a role, even if this role is a construal of the [+c] role.

Of the [+c] role and the [+c+m] role only one has to be obligatory realized (Reinhart 2002). If we would apply expletivization, we are left with an [+c+m] role that must still be externally merged. The verb could practically not be considered as an anticausative, since there is still a cause. Technically there is a problem as well. Since the [-c-m] role is marked (before the expletivization procedure) with index 2, it must merge internally. Since the verb no longer has a full ACC-feature, the noun cannot check its case in that position (although the exact status of the case residue left behind after reduction is unclear from Reinhart (2002)). Normally this will lead to movement to a different position. However, the target position is blocked by the external argument in this case. Therefore, the case feature of the internal argument cannot be checked and the derivation will eventually crash. Indeed the verbs discussed in this section do not have an unaccusative alternate, even though the presence of a [+c] role and a [-c-m] would render them suitable candidates for external reduction. Empirically it is correct that the [+c+m] role remains after the addition of the [+c] role.

If we would have followed Neeleman and Schipper (1992), we could not have explained the change from agent to cause. In addition it would be impossible to account for the fact that the 2-place MIS-type verbs cannot undergo expletivization. The hidden affix, that converts nouns and adjectives to verbs, provides the agent (or cause for that matter). It is of course not active in *ver* derivations involving verbal stems. It is unlikely under such an analysis, that the external role undergoes a clear change in interpretation (from agent to cause). It would also be impossible to get two roles with a +c feature on the grid, which precisely predicts why these verbs cannot undergo expletivization.

The 2-place MIS-type verbs hence provide support for the addition of a [+c] role through *ver*.

## 2.5.2 ARGUMENT STRUCTURE OF 1-PLACE MIS-TYPE VERBS

As said before the MIS-type can be split in two separate verbs. Besides 2-place MIS-type verbs we also have a 1-place version. Examples are shown in 137 and 138.

- 137 a) Hij verslikt zich.  
He chokes SE.  
'He chokes.'
- b) Hij vertelt zich.  
He miscounts SE.  
'He is miscounting.'
- c) Jaap verrekende zich.  
Jaap miscalculates SE.  
'Jaap miscalculated.'
- d) Loes vergreep zich aan een roomsoes.  
Lucy assaulted SE to a cream puff.  
'Lucy ate a cream puff even though she shouldn't have.'
- 138 vergalopperen, verslikken, verspreken, vergrijpen, verslapen,  
to underestimate the situation, to choke, to misspeak, to assault, to oversleep,  
  
vertellen, verrekenen, vergissen, verkijken  
to miscount to miscalculate, to mistake, to overlook,

The SE-anaphor in object position is obligatory for all mentioned verbs. Since it is impossible to insert a different lexical unit, as is shown in 139, it is highly unlikely that these verbs discharge a theta role to the complement position. Hence, the SE-anaphor is most likely there to check an ACC-case feature or residue.

- 139 \*Hij verslikt Peter.  
He chokes Peter.

Let us see whether these verbs are compatible with the findings thus far. The list in 138 contains some verbs of which the precise role specification is unclear to me. In any case, for all of them the mental state of the argument in subject position is relevant for the event. In addition, they all involve animate subjects. Reinhart (2002) lists some of the verbs in 138 as V[+m] ('sleep') and some as V[+c+m] ('gallop'). If we would add a cause role, as *ver* thus far seems to entail, the specifications would be: V[+c][+m] and V[+c][+c+m]. Both specifications, though having two roles, will only be able to realize one of them. The V[+c][+m] type has two indistinct roles, and V[+c][+c+m] has two roles that must merge externally, which is ruled out by syntactic restrictions. So it follows that verbs in 138 remain one place verbs. However, it does not follow why *zich* appears: the verbs do not get marked for ACC, since there is no fully specified [/-c] cluster. Furthermore, it is unclear why the roles that contain the +m feature must be realized. It is conceivable that the added [+c] role would be realized instead. The sentences in 140 are totally out, both with and without an object argument.

- 140 a) \*De kapotte wekker versliep (zich / Peter).  
The broken alarm overslept (SE / Peter).
- b) \*De sterke tegenstander vergaloppeerde (zich / hem).  
The strong opponent underestimated (SE / him).

## 2.5.3 STATUS OF [+C] IN 1-PLACE MIS-TYPE VER-VERBS

We can sometimes introduce or reintroduce a PP (except for *verslapen* 'to oversleep'), that seems to have precisely the interpretation of the [+c] role.

- 141 a) Erik verslikt zich in de appel.  
Eric chokes SE in the apple.  
'Eric chokes on the apple.'
- b) Erik vergaloppeerde zich aan de sterke tegenstander.  
Eric underestimated SE on the strong opponent.  
'Eric underestimated the strong opponent.'
- c) \*Erik versliep zich in / op / van / uit / aan de kapotte wekker.  
Eric overslept SE in / on / off / out / on the broken alarm.

If this is the case, the [+c] role is hence semantically still present in the sentence. Like the other MIS-type verbs, these verbs all have a base form that allows an additional PP-argument.

- 142 a) Erik slikt een appel in.  
Eric swallows an apple in.  
'Eric swallows an apple.'
- b) Erik galoppeerde naar het station.  
Eric galloped to the station.  
'Eric galloped to the station.'

The PP realized in 142a should not be seen as a realization of the same theta role as the PP in 141a. Though very similar in nature and both being the object that effectively is swallowed by the subject of the sentence, they appear to have different specifications of c and m features. For 142a a paraphrase along the lines of 143b is completely out while this paraphrase is okay for 141a.

- 143 a) De appel veroorzaakte dat Erik zich verslikte.  
The apple caused that Eric SE choked.  
'The apple caused Eric to choke.'
- b) \*De appel veroorzaakte dat Erik slikte.  
The apple caused that Eric swallowed.  
'The apple caused Eric to swallow.'

However, even if the [+c] role is realized inside a PP, this should not be possible for those verbs that also realize a [+m] role. The distinctness constraint prohibits realization of two indistinct roles. Though attractive at first sight, the [+c] role is not realized inside a PP. Hence, the following questions remain to be answered with regard to 1 place MIS-type verbs:

- 144 1. Why is it impossible to realize the [+c] role externally?  
2. Where does the added [+c] role go, is it even added at all?  
3. Why does *zich* appear in these constructions if there is no direct reason to assume ACC-case?

#### 2.5.4 BRUTE FORCE ADDITION OF ACC

Remember from section *ACC Addition* that for all *ver*-verbs ACC-case is present, regardless of its type and stem. It must be so that *ver* adds ACC-case, one way or the other. Since the base forms of 1 place MIS-type verbs do not appear to have an additional argument and the result forms also do not appear to have an additional argument, the SE-anaphor is not replaceable by a referentially independent argument, it must be concluded that ACC-case is simply added by *ver*, regardless of the presence of a fully specified [/-c] cluster. Since these verbs have no internal argument but they do have ACC case, an SE-anaphor, not requiring a theta role per se, must be inserted. The result is a 1-place verb that is always accompanied by an SE-anaphor. Which is precisely what we get. The role of *zich* differs subtly from lexical reflexivization and expletivization environments. In the latter cases it checks

an ACC-case residue, and not a full ACC-feature. The fact that *zich* can also appear in ECM constructions and PP's, proves that *zich* can check both types of ACC-features.

The answers to the questions 1 and 2 in 144 require more attention and are discussed in the next section.

### 2.5.5 IMPOSSIBILITY OF ZICH AND [+C]

Since a *ver*-verb always has an ACC-feature, *zich* will appear if there is no internal argument. Why is it so that in these cases only an agent can be subject?

Lexical reflexivization is restricted to agentive verbs (Reinhart (2002)). In addition, expletivization, which is sometimes marked by an SE-anaphor, yields the deletion of a [+c]. To state the obvious, the internal role can never be unary, since else the verb would not be accusative. In other languages the SE-anaphor is used to mark middles and impersonal constructions. Marelj (2004) shows that the [ ] role is operative in these constructions. It is semantically present and excludes all underspecified clusters to be realized, because these are indistinct. Now, let us consider lexically reflexive cases of BECOME-type verbs like the one in 145.

145 Bankiers           verrijken           zich   (met   veel   te       hoge   provisies).  
 Bankers           enrich           SE    (with   much   too      high   provisions).  
 'Bankers enrich themselves with provisions that are way too high.'

In 145 the interpretation of the subject is that of a [+c+m]. Even though we know that BECOME-type *ver*-verbs have an external [+c] role. It is impossible to interpret the external role as [+c] when the internal argument is reduced in the lexicon. All these facts point towards the generalization that *zich* (if not receiving a theta role) is never referentially dependent on an argument with an underspecified cluster representation. This is the case in lexical reflexivization, expletivization and middles, and therefore it is no surprise that this is also the case with the obligatory reflexive *ver*-verbs.

It is also no surprise then that the [+c] role, that I claimed earlier to be added through *ver*-prefixation, cannot be realized as such in obligatory reflexive *ver*-verbs. If it would be realized as [+c], it would definitely not change anything about the fact that *zich* is required to remove the ACC-feature that was added by the *ver*-prefix. However, *zich* cannot be inserted anymore, since that would make it dependent on a [+c] role. On realization of the [+c] cluster, the verb would be left with an unchecked ACC-case feature. It is natural, then, that the [+c+m] role, that is still present, will be realized instead and that we will never see the [+c] role surfacing in obligatory reflexive *ver*-verbs. Therefore, the 1-place MIS-type verbs are completely compatible with an analysis of *ver* that adds a [+c] role to the grid.

### 2.5.6 WHY ZICH CANNOT HAVE A [+C] ANTECEDENT

The stated generalization of the previous section, though evident, is, however, hard to explain. Why it is so that *zich* can only have an antecedent that is fully specified for both c and m features?

For middles the [ ] role prevents realization of unary roles all together. Naturally there can never be a binding relation between the SE-anaphor and an unary argument. Since expletivization works on accusative verbs, the antecedent for the SE-anaphor must be a fully specified [/-c] cluster. Also, in this kind of environment the impossibility of *zich* to have an antecedent realizing an unary cluster, falls out naturally. Lexical reflexivization is claimed in Reinhart (2002) to only target agentive verbs. Under such a theory it falls out why *zich* cannot have an antecedent realizing an unary cluster as well. For other environments this restriction does not fall out naturally.

The binding relation between *zich* and its antecedent is created in syntax (Reuland 2001). Since information on the feature specifications of the theta clusters are subject to the lexicon uniformity hypothesis (146) (Reinhart (2002)), a binding relation between *zich* and an argument realizing an underspecified cluster is hard to prevent.

146 The Lexicon Interface Guideline

The syntactic component cannot change  $\theta$ -grids: elimination and modification of a  $\theta$ -role as well as addition of a role to the  $\theta$ -grid are illicit in syntax.

The lexicon interface guideline does not exclude that theta features are visible to the syntactic component. We could therefore pose a constraint such as 147.

147 SE-anaphors cannot refer to an argument realizing a unary theta cluster.

However, this would make the syntactic component less parsimonious and would do no justice to the independent analysis of expletivization and middle formation that rules out such a relation naturally. Why introduce an additional constraint, if that what it tries to achieve, is already captured for a large part of the environments. Such a constraint would be more attractive, if it could be captured in general minimalist mechanics. Agree is a likely candidate to capture this binding restriction. In Chomsky (2001) Agree is defined as:

148 A relation between two matching active categories eliminating the uninterpretable features activating these categories.

If we would implement a constraint exploiting the Agree mechanics, the lexicon interface guideline can clearly not survive. Furthermore, German allows feature bundling required for lexical reflexivization at LF. German *sich* allows antecedents that are interpreted as a not fully specified cluster, as can be seen in 149.

149 Hans hasst sich.  
Hans hates SE.  
'Hans hates himself.'

In addition, *zich* appears in ECM constructions, PP's and other environments where its antecedent is clearly not restricted to a full specification of c and m features. In other words: the inability of *zich* to have an antecedent receiving an interpretation of a fully specified cluster, is most likely not a property of the SE-anaphor itself or a syntactic restriction, but has independent causes.

Notice that reflexivization of a verb with an external [+c] role and realization of the [+c] role in 1-place MIS-type verbs would effectively lead to a theta role specification as in 150 (possible additional roles left aside).

150 V[+c]

For some reason this specific grid appears not to exist universally. In the literature no verbs are mentioned that are specified as in 150 (Reinhart (2000, 2001, 2002), Reinhart & Siloni (2005), Marelj (2004), Vinokurova (2005)). In addition, basic dictionaries and grammar books do not contain verbs that provide positive evidence either (Van Dale (1999), Vooys (1967), Wal & van Bree (1992), Haesery (1997)). Why this is so, is a mystery to me. Intuitively it should be possible to have a general event with simply an external cause. For instance, it is imaginable that the sentence in 151 is correct and means something like: 'the sun causes laughter'.

151 \*The sun laughs.

It appears that V[+c] verbs do not exist. If this is so then why not build this into the theta system?

152 Rule of Tied Causativity: an external [+c] role cannot be realized as cause if there is no internal role.

Rule 152 captures several facts at once. First of all, it captures the fact that V[+c] verbs apparently do not exist. In theory they might still exist, but they would never surface as such. Secondly, it explains why in the case of lexically and obligatory reflexive environments the subject cannot be realized as [+c]. Since both environments are characterized by the lack of an internal argument, either through reduction or because it is simply not there,

the external [+c] role cannot be realized as such. In addition, it explains partly why lexical reflexivization is restricted to agentive verbs. Of course rule 152 does not rule out all other type of verbs for lexical reflexivization, but it does rule out verbs that have an external [+c] role to realize this external role as such in a possible lexically reflexive form. I deliberately choose to let the rule in 152 only apply to external [+c] arguments. It seems that [+m] external roles are universally allowed without the syntactic realization of an internal role. We find *laugh*, *sleep* and *dream* as candidates for such verbs. Furthermore, obligatory reflexives do appear with external [+m] argument. The verb *verslapen* ('to oversleep') is such a case. One final remark has to be made. Since the rule in 152 makes reference to an external role, the constraint must apply after the marking procedures (and not before).

### 2.5.7 SATISFYING THE RTC

The Rule of Tied Causativity (henceforth RTC) prevents the realization of an external [+c] role if no internal role is present. It does not provide specific means to overcome this problem. Already we can distinguish two different tactics. First, the verb *verslapen* ('to oversleep') has two external roles [+m] and [+c]. To satisfy the RTC the [+c] role simply does not have to be realized. This tactic is also available in V[+c][+c+m] verbs. However, lexically reflexive *ver*-verbs of the BECOME-type cannot revert to the same tactic, there is no second external role. In these cases, as is shown in 2b and repeated in 153, the external role is realized as agent.

153 Bankiers           verrijken           zich   (met   veel   te   hoge   provisies).  
 Bankers           enrich           SE   (with   much   too   high   provisions).  
 'Bankers enrich themselves with provisions that are way too high.'

I hold the realization of another external role (that could otherwise not be realized anyway) to be more economical than forcing the [+c] role to realize as agent. Hence, the first tactic takes precedence over the second mentioned tactic.

Of course there are more conceivable ways to satisfy the RTC. Other possible tactics I should take into account are: addition of an internal role, blocking of lexical procedures as to prevent a V[+c] configuration, realizing the external role as instrument (a compatible construal) and forcing lexical procedures to apply to repair a V[+c] configuration. Realizing another theta role instead is always the most economic. In configurations where there are two roles that cannot be realized together, for independent reasons, it must be so that one of them will indeed not be realized. There is no possible tactic available to prevent this from happening. Not realizing one of the roles, is then an obligatory step in the derivation. It is, of course, very economical to satisfy the RTC by means of an otherwise already obligatory process.

## 2.6 INTERMEDIATE SUMMARY

Thus far I have stated generalizations regarding and various properties of *ver*-verbs. Semantically there are three different types.

- 154
1. BECOME-type: the internal role becomes that what is denoted by the stem.
  2. GO-type: the internal role goes away (possibly metaphorically) through means denoted by the stem.
  3. MIS-type: the internal role is negatively affected by the action denoted by the stem.

I have shown that *ver* is responsible for the addition of a [+c] role and ACC-case (if not present) for both the BECOME-type and the MIS-type. This partly answers our initial research question 1 in 36 repeated in 155.

155 How does the *ver*-prefix affect the theta role specification of a verb?

For 2-place MIS-type *ver*-verbs we have seen that an internal argument is added as well, after prefixation by *ver*. This argument was already implicitly present in the base form and could optionally be realized inside a PP. It appears that more research is required to answer question 1 more completely.

Many *ver*-verbs are obligatory reflexives. These are all 1-place MIS-type verbs. Since they do not have an internal role, but they do have an added ACC-case feature, it follows that *zich* must be inserted in predicates formed by *ver*-verbs of the MIS-type. To explain why the [+c] role cannot be realized, I postulated the rule repeated in 156.

156 Rule of Tied Causativity: an external [+c] role cannot be realized as cause if there is no internal role.

There is independent evidence available for the RTC. Verbs that are specified as V[+c] do not exist and internal reduction can only apply to verbs with an [+c] external role if it is realized as an agent. Together with the earlier argued addition of [+c] and ACC-case by *ver*, the RTC provides an answer to research question 3a repeated in 157.

157 How can we explain the fact that with many *ver*-verbs an SE-anaphor appears for reasons different than lexical reflexivization:

a) as an obligatory reflexive?

Next I will continue discussing the derivation of GO-type *ver*-verbs.

## 2.7 ARGUMENT STRUCTURE OF GO-TYPE *VER*-VERBS

### 2.7.1 ARGUMENT STRUCTURE OF GO-TYPE VERBS (DIRECTIVE MOTION VERBS)

Many *ver*-verbs indicate a movement of the object, either physically or metaphorically. These I have named GO-type verbs. There are many different theta specifications for GO-type verbs. Some are unaccusative, some are 1-place and some are 2 or more place verbs. Their behavior is more erratic than the MIS-type and the BECOME-type. As we will see, they give rise to many problems with regard to our previous analysis.

A special subset of verbs that almost without restriction allow derivation by *ver*, is formed by directive motion verbs like 'to put'. Some examples are given in 158.

158	a)	leggen	-	verleggen
		put	-	move
	b)	plaatsen	-	verplaatsen
		place	-	replace
	c)	zetten	-	verzetten
		put	-	move
	d)	schuiven	-	verschuiven
		shove	-	shove

Typical for these verbs is that they obligatorily realize a PP complement that is interpreted as a goal, as is shown 159 to 161.

159	a)	*Hendrik	legt	het	boek.			
		Hendrik	lays	the	book.			
	b)	Hendrik	legt	het	boek	in	de	kast.
		Hendrik	lays	the	book	in	the	cabinet.
		'Hendrik puts the book on the shelf.'						

- 160 a) \*Hendrik zet het boek.  
Hendrik puts the book.
- b) Hendrik zet het boek in de kast.  
Hendrik puts the book in the cabinet.  
'Hendrik puts the book on the shelf.'
- 161 a) ?Hendrik schuift de kast.  
Hendrik shoves the cabinet.
- b) Hendrik schuift de kast de kamer in.  
Hendrik shoves the cabinet the room in.  
'Hendrik shoves the cabinet into the room.'

The verbs mentioned in 158 have a [-c] (goal) role and are specified in the lexicon as follows:

162 leggen [+c+m][-c-m][-c]

A *ver*-derivate would then, under the current theory, look as in 163.

163 verleggen [+c][+c+m][-c-m][-c]

The addition of a [+c] role seems right. The original verbs typically select an agent role, whereas the *ver*-derivates are compatible with a cause and an instrument (with the exception of *verzetten* ('to move') that somehow only takes an agent role).<sup>5</sup>

- 164 a) \*De wind / Pieter legt het blaadje op de tafel.  
\*The wind / Peter lays the paper on the table.
- b) De wind / Pieter verlegt het blaadje (van de tafel naar de grond).  
The wind / Peter moves the paper (from the table to the ground).  
'The wind / Peter moves the paper (from the table to the ground).'
- 165 a) \*De wind / Pieter plaatst de vaas in de vensterbank.  
\*The wind / Peter places the vase in the window.
- b) De wind / Pieter verplaatst de vaas (naar de vensterbank).  
The wind / Peter moves the vase (to the window).  
'The wind / Peter moves the vase (to the window).'

The addition of ACC-case applies vacuously, since the original verbs already have an ACC-feature. These verbs are compatible with the current analysis. Note that the obligatory goal part of the theta grid of the original verb does not have to be realized in the *ver*-derivate. I will get back to this peculiarity in chapter 3 of this thesis. For now the important observation is that the analysis for MIS-type and BECOME-type *ver*-verbs spreads to the GO-type verbs derived from motion verbs.

---

<sup>5</sup> Though the literal interpretation of *verzetten* ('to move') does not realize a cause role, the metaphorical interpretation does, as is shown below.

1 De film / de gebeurtenis / ik verzet mijn gedachten.  
The movie / the event / I move my thoughts.  
'The movie / the event / I shifted my thoughts.'

### 2.7.2 ARGUMENT STRUCTURE OF GO-TYPE VERBS (OTHER MOTION VERBS)

The movement of GO-type *ver*-verbs is not always a literal movement. In many cases it yields the change of ownership, the disappearance or appearance of an object or a purely metaphorical interpretation of the movement. It is, however, no surprise that many verbs that denote a movement, allow *ver*-prefixation and turn into a GO-type *ver*-verbs with a literal interpretation of the movement. Unlike the directive motion verbs, they do not realize an obligatory goal. Examples of these *ver*-verbs are given in 166.

166	verdraaien, to distort,	verdrijven, to expel,	verspringen, to switch,	vergooien, to throw away,	verdrukken, to suppress,	verduwen, to push away,
	verrollen, to roll away,	versjouwen, to carry away,	verstellen, to configurate,	vervliegen to disperse		

It must be said that many verbs receive a different or an extra metaphorical interpretation after prefixation, such as in 167.

167	a)	Erika	verdraait	de	feiten.
		Erica	distorts	the	facts.
		'Erica is distorting het facts.'			
	b)	*Erika	draait	de	feiten.
		Erica	turns	the	facts.

But the question is: do these verbs follow our generalizations? In general they do, as is shown in 168.

168	a)	Het	onweer	verdrijft de	herten van	de	akker.
		The	thunder storm	drives the	deers of	the	field.
		'The thunderstorms drives away the deers from the field.'					
	b)	De	zware begroeiing	verdrukt	de	orchideeën.	
		The	heavy cultivation	suppresses	the	orchids.	
		'The heavy cultivation is suppressing the orchids.'					
	c)	De	onduidelijke omschrijving	verdraait	de	feiten.	
		The	unclear description	distorts	the	facts.	
		'The unclear description is distorting the facts.'					
	d)	*De	harde wind / * de heftruck	versjouwt	het	hooi.	
		The	strong wind / the truck	lugs away	the	hay.	

There are marginal notes to be mentioned. The verb *draaien* ('to turn'), for instance, has the following theta-specification [+c][-c-m]. The verb *verdraaien* ('to distort') seems to have exactly the same theta-specification. One may be misled that R cannot be paraphrased as the addition of a [+c] role, given that *draaien* is [+c][-c-m] and *verdraaien* as well. However, in this case *verdraaien* relates to the unaccusative alternate of *draaien*, which is [-c-m] and not marked for ACC. Alternatively we can conclude that *verdraaien* is represented as [+c][+c][-c-m]. Since two roles with a +c feature can never be realized together (let alone the fact that they are indistinct), the form as it surfaces in syntax, appears entirely the same. This alternative would clarify why *verdraaien* does not have an unaccusative alternate. Note that *draaien* would not pass as an unaccusative alternate, since the slightly different semantics of *verdraaien* do not pass on to unaccusative *draaien* (as is shown in 167).

In addition, some verbs are obligatory unaccusatives. Again, one may be misled that R cannot be paraphrased as the addition of a [+c] role. However, the lexical procedure expletivization targets an external [+c] role. Though this role is no longer present in *verspringen* ('to shift') and *vervliegen* ('to fade away'), the fact that they are

unaccusatives hints to a former presence of such a role. In section *Argument structure of unaccusative ver-verbs (accusative stem)* I will discuss more of these obligatory unaccusatives.

Though there are exceptions, in general the addition of a [+c] role and ACC-case is a correct paraphrase of the relation between a lexical unit and that same lexical unit prefixed by *ver*.

### 2.7.3 ARGUMENT STRUCTURE OF GO-TYPE VERBS (INTERNAL ROLE GOES AWAY)

The movement of GO-type *ver*-verbs is in most cases interpreted as ‘away’. Typically we can distinguish two types of this. First, we see verbs that allow a goal. Implicitly the movement is going to somewhere else. If an additional PP-phrase is added, the movement is interpreted as going to or from that location. Examples are given in 169.

169	verdrijven, to drive out,	verplaatsen, to move,	verraden, to betray,	verschijnen, to appear,	verspringen, to shift,	verzamelen to gather,
	verbergen, to hide,	verjagen, to scare of,	verkopen, to sell,	verhandelen, to trade		

There are also verbs that do not allow a goal. The movement, then, results in dissolving the internal role.

170	vergassen, to gas,	verslijten, to wear of,	verstoken, to burn fuel away,	verbranden, to burn down,	verspillen, to waste,	
	vergaan, to perish,	veschroeien, to scorch,	verzengen, to singe,	vergiftigen, to poison,	vermoorden, to kill,	verslinden, to devour,
	verscheiden, to die,	verstrooien, to disperse,	verhongereren, to starve,	verdampen to evaporate		

It appears that with regard to the addition of the [+c] role, many do not fit the theory. The verbs *vermoorden* (‘to murder’), *verslinden* (‘to devour’) from 170 only allow an agent as external role.<sup>6</sup>

171	a)	*De kogel / *het gif / *de oproer	vermoordde	de	politieagent.
		The bullet / the poison / the riot	murdered	the	police officer.
	b)	*De honger / *de lepel / *de woede	verslond	het	vlees.
		The hunger / the spoon / the anger	devoured	the	meat.

<sup>6</sup> There are some possible explanations for this behavior. For instance, the verb *vermoorden* (‘to murder’) interferes with the closely related *doden* (‘to kill’). The verb *doden* can realize its external role as a cause, but is apart from that equivalent to *vermoorden*. Since a semantically equal verb that realizes a cause is already present in the lexicon, it is plausible that this use of the verb *vermoorden* disappeared over time. Furthermore, many *ver*- verbs allow a metaphorical use in which the [+c] role can be realized, as is shown in 1.

1	Deze overdreven snelle passage vermoordt de Bach-cantate.
	This exaggerated fast episode murders the Bach cantata.
	‘This way too fast episode is ruining the Bach cantata.’

Other verbs from 170 do allow a [+c] role.

- 172 a) Het vuur / de lucifer / Pieter verbrandt de bladeren.  
The fire / the match / Peter burns the leaves.  
'The fire / match / Peter is burning the leaves away.'
- b) Het project / de vloed / Pieter verspilt geld.  
The project / the flood / Peter wastes money.  
'The project / the flood / Peter costs money.'
- c) Het gif / zijn drugsgebruik / Pieter vergiftigt de man.  
The poison / his drug abuse / Peter poisons the man.  
'The poison / his drug abuse / Peter is poisoning the man.'
- d) De wind / de machine / Pieter verstrooit het as.  
The wind / the machine / Peter disperses the ashes.  
'The wind / the machine / Peter is dispersing the ashes.'

This pattern is similar to the one that has been noted in the previous two sections. Though there are clear exceptions to my analysis, large parts of the data are covered by the addition of [+c] and ACC. Furthermore, we can easily generalize these exceptions. They all consist of verbs that realize an external agent [+c+m] role instead of a [+c] role. Since almost all of these exceptions reside in the category of *ver*-verbs with a GO-semantics, it indicates that the effect of *ver* on the theta grid is more subtle. At the current moment I cannot offer a satisfying explanation for all *ver*-verbs and leave the issue for future research.

#### 2.7.4 ARGUMENT STRUCTURE OF GO-TYPE VERBS (OTHERS)

There are many *ver*-verbs where the movement is of a metaphorical nature. In most cases their semantics do not relate to the original stem. Some examples are given in 173.

- 173 verkopen, verwachten, versperren, verhinderen, vernemen, vertellen,  
to sell, to expect, to block, to hinder, to learn, to tell,  
verrassen, verbazen, verdedigen, versturen, verpatsen, verhandelen,  
to surprise, to amaze, to defend, to send, to sell cheap, to trade,  
verblijven, verschaffen, verslingeren, verzuchten, verzenden  
to stay, to supply, to lose oneself, to sigh, to send

There are important differences to be noted between several types of GO-type *ver*-verbs, which I will discuss in chapter 3 of this thesis. For now I will focus on the question whether these verbs fit the current theory. A large part correlates perfectly.

- 174 a) De omgevallen boom verspert de weg.  
The fallen down tree blocks the road.  
'The tree is blocking the road.'
- b) De extra gracht verdedigt het fort.  
The extra canal defends the fort.  
'The extra canal fortifies the fort.'
- c) Het nieuws verbaast Piet.  
The news amazes Pete.  
'The news amazes Pete.'

Some do not allow a cause role, but are obligatory unaccusative, such as *verschijnen* ('to appear') and *verbloeden* ('bleed to death'). Since the addition of a cause role can easily lead to a configuration of theta roles that can be

targeted by expletivization, this is not much of a surprise. Of course we must wonder why there is no transitive alternate, but they should not be regarded as counterevidence. I will discuss them in the coming sections.

There are also *ver*-verbs that do not allow a cause role to be realized. Examples are given in 175.

175	verkopen, to sell,	verwachten, to expect,	vergoeken, to gamble away,	verwedden, to gamble away,	verlummelen to waste time
-----	-----------------------	---------------------------	-------------------------------	-------------------------------	------------------------------

Almost all verbs that are not captured under [+c] and ACC addition deviate in one respect, namely that the external role must be an agent. A special class, previously discussed, the MIS-type 1-place *ver*-verbs, show the same behavior and are captured through a combination of mechanics, most importantly the RTC. However, the explanations for these verbs hinges on the fact that these verbs are 1-place. None of the exceptional GO-type verbs qualifies for such an explanation.

Though the GO-type verbs show quite some cases that do not pattern with the theory of the addition of a [+c] role and ACC-case, the large part confirms these findings. In the next sections I will try to shed more light on some of the verbs that behave unexpectedly.

## 2.8 EXCEPTIONS TO [+C] ADDITION?

### 2.8.1 ARGUMENT STRUCTURE OF UNACCUSATIVE *VER*-VERBS (ACCUSATIVE STEM)

Some of the GO-type *ver*-verbs are unaccusative without having an accusative counterpart. In the literature it is claimed that unaccusative verbs that do not have an active transitive alternate, have one in another language (Reinhart (2002), Chierchia (1989)). For instance in Hebrew *happen* has a transitive alternate: *xolel / hitxolel* ('bring about' / 'happen') Reinhart (2002). This may be true, but it is somewhat odd that the unaccusative *ver*-verbs do not have an active transitive alternate in Dutch. The evidence that *ver* adds a [+c] role to the grid, accumulated over the previous sections. We must then assume that the lack of a transitive alternate of unaccusative *ver*-verbs, is the lack of an intermediate stage. Then why is it so that verbs after prefixation with *ver* do not have a causative alternate in Dutch? Sadly I cannot satisfactorily answer that question and must indeed assume that the entries are frozen. Luckily the number of frozen unaccusatives among the *ver*-verbs is limited. In addition, I will show that some of them can be correctly predicted.

Some examples of unaccusative *ver*-verbs are given in 176.

176	verlopen, to expire,	verdwijnen, to disappear,	verleppen, to wither,	verstrijken, to elapse,	verdwalen to get lost
177	a)	Het The 'The passport expires.'	paspoort passport expires.	verloopt. expires.	
	b)	De The 'The orchid withers.'	orchidee orchid withers.	verlept. withers.	

#### 2.8.1.1 SOURCE OF THE INTERNAL ROLE

But regardless of the debate whether the verbs in 176 are frozen unaccusatives or the result of forced expletivization, there is a rather different problem. Where do some of the verbs in 177 get their [-c-m] role from? There are different sources for this role depending on the stem. Needless to say, there are many *ver*-verbs that fit each of the single descriptions.

Notice that the verb *lopen* ('to walk') has two meanings.

- 178 a) Het project loopt niet lekker.  
The project walks not nice.  
'The project is not going very well.'
- b) Jaap loopt naar het station.  
Jaap walks to the station.  
'Jaap is walking to the station.'

The version of *lopen* ('to walk') in 176a is clearly a theme unergative. The mental state of the subject is not important for the event and the event itself is clearly not caused by the subject. Indeed the project seems to undergo the event, without any influence or attachment to this event. Its semantics are much like the English verb *run*. This meaning is also much closer to *verlopen* ('to expire'). Hence *verlopen*, then, has the theta grid V[+c][-c-m]. Expletivization can apply to such a verb and the *verlopen* is no exception to the analysis thus far.

The verbs *verdwijnen* ('to disappear') and *verleppen* ('to wither') are derived from a lexical unit that has no independent meaning. Remember that there are many more *ver*-verbs that are derived in such a way. In addition, we have adjectives denoting physical characteristics that form a good host for *ver*. It is time to introduce a derivational process that derives the theta grid of these non verbal units. The theta system as presented in Reinhart (2002) solely applies to verbal concepts. It does not extend (yet) to nouns and adjectives. Therefore, I assume that *ver* either picks up a theta grid or creates a theta grid. The first one occurs when it attaches to a verb, the second occurs when it attaches to anything else. When it attaches to a verb nothing actually happens and the addition of [+c] and ACC is like any other lexical process: it works on the existing theta grid of the verb. When it attaches to something else, before the actual addition of [+c] and ACC can take place, a valid theta grid must be created. All *ver*-verbs derived from something else than a verb have a [-c-m] role (with a few exceptions such as *verblijden* ('to gladden'), *verbazen* ('to amaze'), *verrassen* ('to amaze')). In section *Argument Structure of Ver + A (BECOME-type)* I claimed that they somehow inherit their role from the adjective. Of course such inheritance cannot apply to *leppen*, *dwijnen*, *nachelen*, *kwanselen* and many other stems, simply because they are not recognizable Dutch words. In the latter case the resulting *ver*-verbs always have a theme.

- 179    *verleppen*,        *verwelken*,        *vernachelen*,        *verkwanselen*,        *versloddere*n,        *verslonze*n,  
         to wither,        to wither,        to screw up,        to squander,        to squander,        to neglect,
- verpampen*,        *versjachelen*,        *verorberen*,        *verpatsen*,        *verpieteren*,        *verminke*n,  
         to screw up,        to squander,        to devour,        to sell cheap,        to degenerate,        to mutilate
- verkneukelen*,        *verhaspelen*  
         to gladden,        to squander,

Therefore, it must be so that if no theta grid is available, a separate procedure creates one, namely V[-c-m]. It is conceivable that this is a general verbalizing procedure, which takes part in other verb formations as well.

## 2.8.2 ARGUMENT STRUCTURE OF UNACCUSATIVE VER-VERBS (UNACCUSATIVE STEM)

A small amount of *ver*-verbs is derived from an unaccusative stem. Examples are given in 180.

- 180    *vervallen*,                    *verblijven*,                    *vergaan*,                    *versterven*  
         to elapse, to decay        to remain, to reside        to decay, to perish        to die, to detach

Given the fact that *ver* adds a [+c] feature and ACC-case, we would derive a transitive alternate of the base verb. Of course this transitive alternate may then have its own unaccusative alternate. It appears, though, that all *ver*-verbs derived from an unaccusative, are unaccusatives themselves.

- 181 a) \*De docent vervalt de les.  
The teacher elapses the lesson.
- b) De les vervalt  
The lesson elapses.  
'The lesson is cancelled'
- 182 a) \*De storm vergaat het schip.  
The storm perishes the ship.
- b) Het schip vergaat (in de storm)  
The ship perishes (in the storm).  
'The ship perished in the storm.'

It would be quite a coincidence if this is so because all these unaccusatives are frozen. There must be a reason why all, without exception, *ver*-verbs derived from unaccusatives turn into unaccusatives. The addition of [+c] and ACC by *ver* applies blindly, regardless of the thematic structure of the verb. Hence  $V[-c-m]$  turns into  $V_{ACC}[+c][-c-m]$ . This is clearly a transitive verb.  $Re(V) (\theta 2_{[-c-m]})$  would as well turn into  $V_{ACC} (\theta 1_{[+c]}, \theta 2_{[-c-m]})$ . Or would it not? The latter yields an undoing of the reduction. But given the verbs in 180 this is clearly not what happens. The verbs remain reduced. Thus  $Re(V) (\theta 2_{[-c-m]}) \Rightarrow Re(V) (\theta 1_{[+c]}, \theta 2_{[-c-m]})$  would be better.

The solution is that addition of ACC-case does not apply that blindly as I assumed. It is added when it is not there and if there is already ACC-case, nothing happens. In most verbs this gives exactly the same result. Except verbs that have a 'different' ACC-case, in this case partial ACC-case, the result differs. For unaccusatives this gives us precisely what we expect: all derivations by *ver* from unaccusatives are unaccusatives themselves. An unaccusative verb in Dutch already has an ACC-feature. This is a partial ACC-feature: only structural case is present, the thematic part is lost. However, ACC is only added by *ver*, if there is no ACC-feature at all. Therefore, ACC-case is not added by *ver* and the verb remains a reduced entry, although it does have a [+c] role.

Since normal arguments cannot check the partial ACC-case, realization of both roles as arguments of the verb is clearly not an option. This means that a reduction operation is required. We have reflexivization and expletivization in our inventory. Lexical reflexivization is out for two reasons. First of all, Reinhart (2002) claims that it only targets agentive verbs. A theta grid of  $V[+c][-c-m]$  clearly does not qualify for that. It is true that in Dutch some *ver*-verbs with such a structure seem to allow lexical reflexivization, but then we would be left with a sole [+c] role, which cannot be realized following the RTC that was argued in section *Occurrence of zich in three different environments*. There is an escape to overcome this problem, namely realizing the [+c] role as an agent. We would expect that next to unaccusative *ver*-verbs derived from unaccusatives we would find unergative agentive verbs as well. This is not the case.

Clearly the other reduction operation, expletivization, has some characteristic that makes it more suitable in this case to overcome the problem of partial ACC-case. Expletivization removes the [+c] role and thematic case. Thematic case is already removed and the just added [+c] role is deleted as well. The result is, as expected, an unaccusative. Expletivization then overcomes the problem of the reduced ACC-feature with a single procedure. I therefore suspect that economy considerations rule out lexical reflexivization as an option. The latter requires two things. First, the reduction operation must apply. Then it must be forced that the [+c] role is realized as a [+c+m] role following the RTC.

In short, the reason that all *ver*-verbs derived from unaccusatives are unaccusatives themselves, is the fact that the ACC-feature is not overwritten. Therefore the *ver*-verb is left with only partial ACC, not enough to be realized as a transitive. This forces an external reduction operation to apply (again). An important consequence of this reasoning is that the *ver*-procedure must apply after lexical marking. If it would apply before that stage there would never be ACC-case (partial of complete).

### 2.8.3 ARGUMENT STRUCTURE OF UNACCUSATIVE VER-VERBS (THEME UNERGATIVE STEM)

Besides the unaccusatives mentioned in the previous two sections, there is a third class of unaccusative *ver*-verbs. All *ver*-verbs derived from theme unergatives turn, without exception, into unaccusatives. See 183 and 184 for examples.

- 183 a) ??De zon verrot de appel.  
The sun rots the apple.
- b) De appel verrot.  
The apple rots.  
'The apple is rotting away.'
- 184 a) \*De spiegel verschijnt Erik.  
The mirror appears Eric.
- b) Erik verschijnt.  
Eric appears.  
'Eric appears.'

Since this pattern is so regular, there must be an underlying generalization. We cannot account for their unaccusativity by assuming a frozen status, we would expect transitive instances as well. The data do not favour the analysis by Neeleman and Schipper (1992) either. This theory does not give any insight in why theme unergatives turn into unaccusatives. The analysis put forward in the previous section also does not hold, since a theme unergative does not have ACC-case. Addition of this case cannot be prevented and is not prevented, given that the verbs receive inflectional marking which belongs to an ACC-case residue. Hence, it must be so that ACC-case is added, but that it is reduced immediately afterwards. There are only two reduction operations at hand that can be responsible for this fact. One of them reduces the internal role, lexical reflexivization, which is clearly not the case here. It must then be concluded that the other is responsible for the observed case reduction. Expletivization targets only verbs with a [+c] role. Therefore, besides the addition of ACC-case, the [+c] role must have also been added. These verbs clearly follow the pattern observed thus far with one exception, why are they obligatory unaccusative?

#### 2.8.3.1 MARKING THEME UNERGATIVES

The lexicon marking procedures introduced in Reinhart (2002) only apply to n-place verb-entries, where n is greater than 1. Theme unergatives are therefore not marked by these procedures and the theme, even though it is a [-] cluster, will not be marked with index 2 (or 1 for that matter). The CS merging instructions, then, dictate that if nothing rules it out, unindexed roles must be merged externally. The theme unergative, therefore, is a 1-place verb where the theme role is merged externally. What happens if we would add a [+c] role to this grid after the marking procedures? The result is exemplified in 185.

185 V([-c-m]) -> V([+c][-c-m])

Both the [+c] and the [-c-m] role are not marked. The first, because it is added after the marking procedures apply and the second, because it didn't take part in the marking procedures, since, at that time, it was still on its own. The unmarked [-c-m] role must merge externally if nothing rules this out. Since there is nothing ruling this out, it can merge externally. The [+c] role, as unattractive as it may seem, then merges internally. I am totally unaware of any verb in any language that realizes a [+c] role internally, which in addition, to make it even more exotic, has an external [-c-m] role. Note that nothing rules out the more natural external merger of the [+c] role together with the internal merger of the [-c-m] role. All we have to achieve, is to rule out the external merger of the [+c] role. We can either assume that the [+c] role is added marked with index one or that [+c] roles cannot merge internally by definition. I will not dwell on this detail and simply assume that *ver* adds a  $\theta_{1[+c]}$ , since there is a bigger problem at hand. Even the more natural external merger of the [+c] role is still an

undesired result. We want to derive an unaccusative rather than a transitive verb with a possible unaccusative alternate.

### 2.8.3.2 COMPETING FOR SUBJECT

The data point towards the suggestion that both the [-c-m] and the [+c] role are competing for the same syntactic position, the external position. If we assume that 1-place entries do take part in the marking procedure and that this procedure straightforwardly assigns the roles in these entries index 1, we get a situation in which the addition of [+c] leads to such a competition. One of the roles cannot be realized. Given that the realization of the [+c] role leads to violation of the RTC and in addition requires *zich* insertion, a single expletivization procedure would be more economical. The [-c-m] role is then merged externally and the ACC-case residue is checked by *zich* or by a different auxiliary selection. Again, we are left with an exotic type of verb, the [-c-m] role is merged externally but yet the verb is unaccusative.

There are many tests for unaccusativity in Dutch (cf. Everaert et. al. (2006), Hale & Keyser (2002)) but none of them specifically and solely test the base-position of the subject. Though other languages, such as German and Russian (cf. Steinbach (1999), Harves (2002), Pesetsky (1995)) show indications of the internal merger, the analysis of *ver* is limited to Dutch (though it may be extended to prefixes, affixes or lexical processes in other languages). I also was unable to find any difference between normal unaccusatives and the types assumed here. If such distinctions cannot be found, the theory presented here is unsatisfying and an alternative explanation will have to be offered for the unaccusativity of *ver*-verbs derived from theme unergatives.

I consider the analysis presented here highly artificial and find it a source of discontent that I cannot offer a better explanation. However, remember that the theme of this chapter is to prove that *ver* adds a [+c] role and ACC-case. The theme unergatives turn into unaccusatives: typically verbs that had ACC-case and had an external [+c] role. Thus, we can find traces of such addition and it must be concluded that the current analysis is correct.

### 2.8.4 **WILL THE UNERGATIVE AND NON-REFLEXIVE 1-PLACE VER-VERB PLEASE STAND UP?**

Given the many different stems and the many different *ver*-verbs, one could wonder which theta grid specification does not exist for these verbs. Given the fact that *ver* adds a [+c] role, all *ver*-verbs should have such a role. As we have seen this is not always the case. The explanation is threefold. First of all, many *ver*-verbs turn into frozen unaccusatives. Given the fact that a [+c] is always present, the application of expletivization is not a coincidence, because it is precisely those verbs with an external [+c] role that allow the procedure to apply. Secondly, the RTC prohibits realization of this [+c] role if there is no internal role. Thirdly, for many *ver*-verbs the [+c] role is opaque, because of the indistinctness constrain or another [+] cluster that must be merged externally. Even though a [+c] role is added, the verbs do not necessarily realize this role.

Since there seems to be no restrictions on the host, this means that a *ver*-verb can virtually have any possible theta grid. There is, however, one theta grid specification that is structurally ruled out as a possible result of a *ver*-prefixation. We know that *ver* adds ACC-case. Since this case must be checked, even if there is no internal argument, the result will be one of the following three: a multi-place predicate, an unaccusative, a *zich*-reflexive. If the verb is 1-place without being unaccusative or obligatory reflexive, the ACC-feature that is on the verb cannot be checked. We should therefore not find unergative, non-reflexive *ver*-verbs (such as *laugh*, *shine*, *sleep* etc.). Scrutiny of all *ver*-verbs in a basic dictionary confirms that indeed such a *ver*-verb does not exist (Van Dale (1999)).

### 2.8.5 **SOME (SEEMINGLY) EXCEPTIONAL VER-VERBS**

Though the theory presented here captures almost every *ver*-derivation correctly, there are still a number of *ver*-verbs that do not fit this theory. This part can be generalized itself as not allowing an external cause role. Instead, they obligatory realize an agent role or a sentient role. We have already seen a special group of these verbs: the obligatory reflexives. These were explained by the independently motivated RTC. There are, however, some *ver*-

verbs that do have an internal role, but still disallow the realization of an external [+c] role. Examples are given in 186.

186	verheugen, to gladden,	vertellen, to tell,	verdragen, to bear,	verorberen, to devour,	vernemen, to learn,	verkopen, to sell,
	versturen, to send,	verpatsen, to sell cheap,	vergeven, to forgive,	verdenken, to suspect,	verwachten, to expect,	verlaten to leave

All of the above verbs do not allow an external [+c] role.

- 187 a) \*De honger verorbert het vlees.  
The hunger devours the meat.  
Intended meaning: "The hunger caused the meat to be devoured."
- b) \*De folder verkoopt schoenen.  
The brochure sells shoes.  
Intended meaning: "The brochure sells shoes."
- c) \*De aflaat vergeeft hem zijn godslastering.  
The payment forgives him his fornication.  
Intended meaning: "The payment makes up for his fornication."
- d) \*De bloedvlek verdenkt hem.  
The blood stain suspects him.  
Intended meaning: "The blood stain makes him suspicious."

#### 2.8.5.1 INDISTINCTNESS

Some of these do not require additional mechanics to be explained. From the list in 186 there are three that precisely fit the theory. These are *verheugen* ('to gladden'), *verdenken* ('to suspect') and *verwachten* ('to expect'). Their stems are *heugen* ('to remember'), *denken* ('to think') and *wachten* ('to wait'). All three have a sentient [+m] external role. Though the subject of these verbs clearly are mentally participating in the event, they do not necessarily cause the event to occur. Remembering, thinking and waiting are typically things that one just does, but that are triggered in most cases by other factors. The intentions of the subject is not a sufficient condition for the event to take place. It follows then, that the three *ver*-derivates also allow a sentient subject. It of course does not follow why they cannot have a [+c] subject. The reason for this is in the objects of the original verbs. All three of them have a [-m] internal role. The object is not the cause of the waiting, thinking or remembering, but it could be. If one waits for someone this might be because the public transport causes that person to be late or because one is really looking forward to seeing that person, but it could also really be that the person one is waiting for, is actively making the other one wait. After prefixation by *ver* these verbs would look as in 188.

188	a)	heugen	$V(\theta_{1[+m]}, \theta_{2[-m]})$	=>	$V_{ACC}(\theta_{1[+c]}, \theta_{1[+m]}, \theta_{2[-m]})$
	b)	wachten	$V(\theta_{1[+m]}, \theta_{2[-m]})$	=>	$V_{ACC}(\theta_{1[+c]}, \theta_{1[+m]}, \theta_{2[-m]})$
	c)	denken	$V(\theta_{1[+m]}, \theta_{2[-m]})$	=>	$V_{ACC}(\theta_{1[+c]}, \theta_{1[+m]}, \theta_{2[-m]})$

The verbs at the right-hand side of the arrow are problematic with regard to the indistinctness constraint. If the [+c] role would be realized, both the [+m] and the [-m] role, both being indistinct from the [+c] role, could not be realized. Next the RTC would not allow the [+c] role to be realized as such. In addition, the ACC-feature requires

*zich* insertion. We do not find agentive and obligatory reflexive counterparts of the verbs in 188. This is probably caused by economy considerations. If we would instead not realize the [+c] role, there are no further problems, whereas the other option requires *zich* insertion and the realization of the [+c] role as an agent. Intuitively, the choice for the first solution is economy driven. Earlier I have claimed that the realization of another external role is more economical than realizing the [+c] role as an agent. This also holds for the verbs in 188 which realize, without exception, the [+m] role.

#### 2.8.5.2 REAL EXCEPTIONS

But of course, the list of problematic cases is longer. Many I must consider exceptions. It might be so that they used to allow an external [+c] role, but that this particular use got out of grace. These verbs subsequently grew over time into forms that did not allow a [+c] role. In the list are also 3-place verbs, namely: *verkopen* ('to sell'), *versturen* ('to send'), *vergeven* ('to forgive'). The stems of these verbs are also three place. It might be the case that a theta grid is limited to three roles at most. Addition of a [+c] role would then fail. I will not dwell on this point and simply consider them exceptions. Maybe future research will shed a different light on their derivation.

## 2.9 SUMMARY AND CONCLUSION

In this chapter I have investigated the relation between lexical units and these lexical units prefixed by *ver*, with regard to the theta grid. In the introduction I posed the research questions in 36, repeated in 189.

189 Research questions:

1. How does the *ver*-prefix affect the theta role specification of a verb?
2. How can we explain the fact that many *ver*-verbs allow lexical reflexivization?
3. How can we explain the fact that with many *ver*-verbs an SE-anaphor appears for reasons different than lexical reflexivization:
  - a) as an obligatory reflexive?
  - b) as an unaccusativity marker?

I have shown that *ver* does the following:

190 *Ver*-prefixation (applies after lexical marking):

1. Add a  $\theta_{1[+c]}$  role to the theta grid.
2. Add an ACC-case feature if no ACC-case feature is present.

If the *ver*-prefix does not attach to a verb, an additional verbalizing procedure applies, stated in 191.

191 Verbalize

1. Create a theta grid.
2. Add a [-c-m] role to the grid.

The two procedures answer question 1 in 189.

In addition, I have shown why all *ver*-verbs derived from unaccusatives are unaccusatives themselves. Since the addition of ACC-case cannot apply when such a feature is already present, even if it is a partial one, expletivization must apply to remove a role that could otherwise not be realized, because of the lack of an obstinate partial ACC-feature. Verbs derived from 1-place agentive verbs turn into obligatory reflexives, because

the ACC-feature is added blindly, even if there is no internal argument. This answers question 3a. Finally, I introduced the Rule of Tied Causativity repeated in 192.

192 Rule of Tied Causativity: an external [+c] role cannot be realized as cause if there is no internal role.

This explains why internal reduction of verbs, that have an external [+c] role, receive an agentive interpretation of that role. Also, it explains why obligatory reflexives receive an agentive interpretation on their external role.

It is now time to investigate question 2 and question 3b.

## CHAPTER 3: *VER-VERBS* AND *ZICH*

In this chapter I intend to provide satisfying answers to the following research questions:

- 36      2. How can we explain the fact that many *ver*-verbs allow lexical reflexivization?
3. How can we explain the fact that with many *ver*-verbs an SE-anaphor appears for reasons different than lexical reflexivization:
- b) as an unaccusativity marker?

Hopefully the answers will give more insight in lexical reflexivization and expletivization in general. I will deal with both questions separately. Therefore, I will start off this chapter by providing precise means to distinguish unaccusatives from reflexives. After that, I will give a possible explanation for the high ratio of lexical reflexives in the domain of *ver*-verbs. Finally, I will turn to the high ratio of unaccusatives, marked by an SE-anaphor, that appear with *ver*-verbs.

### 3.1 DISTINGUISHING REFLEXIVE *ZICH* AND UNACCUSATIVE *ZICH*

In the introduction I mentioned that it is sometimes hard in Dutch to distinguish unaccusative predicates and reflexive predicates when they appear with an SE-anaphor. I posed the guidelines repeated in 193.

- 193      1. A subject of lexical reflexive verb receives the interpretation of both the external and internal role.  
2. A subject of obligatory reflexive verb receives the interpretation of the external role.  
3. A subject of an unaccusative receives the interpretation of the internal role.

The obligatory reflexive verb is easy to recognize. The SE-anaphor in these predicates should not be replaceable by a lexical argument. I realize that this excludes verbs that alternate between a non-obligatory and an obligatory reflexive verb. Theoretically, lexically any reflexive verb falls into this category. Once a verb is internally reduced, the appearance of an SE-anaphor is obligatory. However, for certain verbs the alternate cannot be evidently traced back to an internally reduced verb. An example of such a verb is given in 194.

194 a) Hij bedenkt een alternatieve oplossing.  
 He thinks of a alternative solution.  
 'He thinks of an alternative solution.'

b) Hij bedenkt zich.  
 He thinks SE.  
 'He changes his mind.'

The sentence in 194b appears to feature an entirely different verb, and not one related through internal reduction, than the sentence in 194a. The semantics of 'changing one's mind' are only available for *bedenken* if accompanied by an obligatory reflexive. However, it is possible to have a normal argument instead of an SE-anaphor in object position, as is shown in 194a. In that case the verb does not mean 'to change someone's mind', but 'to think of something'. It is impossible for this version of the verb to mean 'to change someone else's mind'.

It is known that subtle meaning differences might arise with the use of an SE-anaphor (Jackendoff (1992), Safir (1997), Kang (1998), Im (1987)). Then, when do we decide whether these meaning differences are big enough to consider two versions of a single verb that are not related through internal reduction? It is clear that the meaning difference between the two versions of the verb is significant, but their semantics are clearly related. I feel, we cannot go without some judgments: obligatory reflexives are those verbs that do not allow any other argument in object position, without significantly changing the meaning of the verb.

Lexical reflexives and SE-anaphors in unaccusatives are much harder to distinguish. There are however thorough tests for exclusions, for either a reflexive or an unaccusative reading. First of all, if we are dealing with a case of unaccusativity, the verb must have had an external [+c] role. Hence, the transitive alternate (if there is one) must allow a natural cause as subject. Secondly, an unaccusative predicate is known to allow a 'by itself' (*vanzelf* in Dutch) phrase (Perlmutter (1978), Smith (1970), Chierchia (1989)). Thirdly, if a predicate is lexically reflexive, the subject will receive an agentive interpretation and does not allow an inanimate subject, whereas unaccusatives should allow an inanimate subject (unless the internal role is an experiencer instead of a theme). A lexical reflexive predicate should have a syntactic reflexive version as well, one featuring an SELF-anaphor. Finally, a lexical reflexive has a specified cause and the sentence should allow a paraphrase as shown in 195.

195 a) De bankiersverrijken zich.  
 The bankers enrich SE.  
 'The bankers enrich themselves.'

b) De bankiersveroorzaken dat zij verrijkt worden.  
 The bankers cause that they enrich get.  
 'The bankers cause that they are being enriched.'

The tests are summarized in 196. Needless to say, they only apply to predicates featuring an SE-anaphor in object position.

- 196
1. If there is a transitive alternate of the predicate and that transitive alternate does not allow a natural cause as subject, the predicate must be lexically reflexive.
  2. If the predicate does not allow the phrase *vanzelf* ('by itself'), the predicate must be lexically reflexive.
  3. If the predicate does not allow an inanimate subject and the internal role is not an Experience, the predicate must be lexically reflexive.
  4. If the predicate does not allow a SELF-anaphor as object, the predicate must be an unaccusative.
  5. If the predicate can be paraphrased by a passive form with a by-phrase or an auxiliary construction containing the subject, the predicate is lexically reflexive.

### 3.1.1 VERBS THAT ALLOW BOTH INTERNAL AND EXTERNAL REDUCTION

These rules work fine for verbs that allow only internal or only external reduction. But if a verb seems to allow both, we are, sadly enough, back to our judgments. There is no shame in this. Since the verb could be used either as externally or as internally reduced, it depends on the context which of the two is actually used. If the tests are inconclusive, we are most likely dealing with a verb that allows both external reduction (that is marked by an SE-anaphor) and internal reduction. A very good example of such a verb is *verbeteren* ('to improve').

197    Hij        verbetert        zich.  
        He        improves        SE.  
        'He improves.'

Subjecting the sentence in 197 to the tests in 196, will result in inconclusive results. They will be positive for both a lexical reflexive version and an unaccusative version. The conclusion then, is that it may be both.

Also note that some verbs, that appear to allow lexically reflexivization, are in fact unaccusatives with an experiencer internal role.

198    a)        Hij        vermaakt        zich.  
               He        entertains        SE.  
               'He enjoys.'

       b)        Hij        verbaast        zich.  
               He        amazes         SE.  
               'He is amazed.'

The sentences in 199 fall out as lexically reflexive under rule number 5. The paraphrases in 199a and 200a are not the meanings of the sentence in 198a and 198b. In addition, they both allow a *vanzelf* ('by itself') phrase. And more conclusively, they do allow the cause role to be specified in a PP, which is not allowed if we would use a SELF-anaphor.

199    a)        #Hij    veroorzaakt    dat    hij    vermaakt    wordt.  
               He    causes        that    he    entertains    get.  
               'He causes that he gets entertained.'

       b)        Hij        vermaakt        zich    vanzelf.  
               He        entertains        SE    by itself.  
               'He enjoys automatically.'

       c)        Hij        vermaakt        zich    met    het    computerspel.  
               He        entertains        SE    with    the    computer game.  
               'He enjoys himself with the computer game.'

200    a)        #Hij    veroorzaakt    dat    hij    verbaasd    wordt.  
               He    causes        that    he    amazed    get.  
               'He causes that he gets surprised.'

       b)        Hij        verbaast        zich    vanzelf.  
               He        amazes         SE    by itself.  
               'He is automatically surprised.'

       c)        Hij        verbaast        zich    over    het    nieuws.  
               He        amazes         SE    about    the    news.  
               'He is surprised about the news.'

Now that we can distinguish lexical reflexive *ver*-verbs from unaccusative *ver*-verbs, I will answer research question 2 in the next section.

## 3.2 LEXICAL REFLEXIVIZATION IN *VER*-VERBS

### 3.2.1 INDEPENDENT CONSTRAINTS ON REFLEXIVIZATION

It is clearly not the case that a single condition picks out all verbs that may undergo lexical reflexivization and that at the same time excludes all other verbs from undergoing that procedure. Certain verbs cannot undergo lexical reflexivization for reasons that are probably unrelated to their respective verb entries. This is the area in which Reinhart (2002) identifies a condition on lexical reflexivization, namely that they must contain an [+c+m] role. This is also the area where I wish to find additional conditions on lexical reflexivization on *ver*-verbs. Before I do so, it is important to clean the set of *ver*-verbs from those entries that disallow or allow lexical reflexivization for other reasons.

#### 3.2.1.1 PHONOLOGICAL RESTRICTIONS

Note that it is a well known fact that the SE-anaphor may not receive stress (Gast (2006), Vries (1999), Reuland (to appear) etc.). In 201 only (a) is a licit answer to the question.

- 201    Wie    wast    Jan?  
       'Who    wahses John?'
- a)        ZICHZELF        wast    Jan.  
           Himself        washes John.  
           'It is himself John washes.'
- b)        \*ZICH    wast    Jan.  
           SE        washes John.

A phonological restriction prohibits *zich* to appear in environments that enforces stress. One other instance of such an environment is formed by PP arguments. It is impossible to shift stress to the preposition in the sentences in 202.

- 202    a)        Jaap    reKent    op        PIET.  
           Jaap    counts    on        Pete.  
           'Jaap counts on Pete.'
- b)        \*Jaap    reKent    OP        piet.  
           Jaap    counts    on        Pete.

Naturally SE-anaphors are then prohibited in PP arguments. This means that verbs that select, for whatever reason, a PP argument, such as *houden van* ('to love') and *rekenen op* ('to count on') are excluded for lexical reflexivization. Hence, *ver*-verbs that select such an argument are then disqualified from lexical reflexivization by independent reasons that do not reside in the theta system.

#### 3.2.1.2 EXTERNAL ROLE RESTRICTIONS

We know from Reinhart (2002) and from the discussion in chapter 2 that lexical reflexivization requires an agentive interpretation of the antecedent of the SE-anaphor that appears in the result predicate. The role must not necessarily be an agent. We have seen that many *ver*-verbs that allow lexical reflexivization only have an external [+c] role. However, the interpretation is without restriction agentive. This means that lexical reflexivization is naturally ruled out if the external role (or the role which is bundled with the reduced role) does not allow an agentive interpretation. Roles that do not allow such an interpretation are [+c-m], [-c+m] [-c-m] [-c] and [-m]. Since *ver*-verbs undergo addition of a [+c] role and almost every exception to this rule are verbs that

necessarily realize an external agentive role, I do not expect to find any verbs in the set of *ver*-verbs that are banned for lexical reflexivization for this reason. For the sake of completeness I did mention this restriction.

### 3.2.1.3 INTERNAL ROLE RESTRICTIONS

Since the resulting predicate of a lexical reflexivization operation is interpreted reflexive, the internal role and the external role, are semantically speaking, fulfilled by the same entity. This entity must be able to fulfill both the agentive and the theme role. I am not aware of any type of argument that cannot fulfill the theme role and the need to fulfill the agentive role has just been discussed. However, some verbs put restrictions, probably pragmatic or semantic of nature, on the type of argument that will realize the theme role. Sometimes these restrictions entail that the argument realizing this theme role may, for instance, never be animate. Lexical reflexivization is then naturally banned, since this requires the bundling of the external and internal role. An argument must then be able to fulfill both roles at once. If the internal role demands unanimity, this is simply not possible and lexical reflexivization will result in a predicate that is out for semantic reasons. Within the set of *ver*-verbs there are some verbs that precisely put such kind of restrictions on their argument. Examples of such verbs are given in 203.

203      verbabbelen,      verpraten,      verdromen,      verlummelen,      versukkelen  
             to chat away,      to talk away,      to dream away,      to wander away,      to sleep away

These verbs require that the argument realizing their theme role is some sort of time unit. Jackendoff (1997) calls this type of predicate a “time-away” construction. Whether this restriction is encoded in the theta-system or is just part of the verbs’ semantics is beyond the scope of this thesis. It is clear that such a verb will never be a licit candidate for lexical reflexivization, or any reflexivization at all. An easy way to recognize such verbs is by the fact that syntactic reflexivization using a SELF-anaphor is just as bad.

### 3.2.1.4 CONFUSEMENT WITH FREE DATIVES

In the literature a construction is identified as free datives, which is particular interesting in the light of reflexives (Hole (2009), Lidz & Williams (2004)). Many verbs in German and in Dutch allow the addition of a benefactor role. In Dutch free datives are somewhat marked, possibly tied to geographical location. My informants originating from the eastern and northern part of the Netherlands did not find any problems with the sentences in 204a and 204c. Others considered them either strange or wrong, insisting on the requirement of a preposition. However, those speakers that accept the free datives in 204a and 204c also accept the sentences in 204b and 204d where the free dative appears as SE-anaphors.

204      a)      Jan      koopt      zijn      vriendin      een      ijsje.  
             John      buys      his      girlfriend      an      icecream.  
             ‘John buys his girlfriend an icecream.’

            b)      Jan      koopt      zich      een      ijsje.  
             John      buys      SE      an      icecream.  
             ‘John buys himself an icecream.’

            c)      Vader      verbindt      Peter      zijn      wond.  
             Father      bands      Peter      his      wound.  
             ‘Father bandages Peter his wound.’

            d)      Vader      verbindt      zich      zijn      wond.  
             Father      bands      SE      his      wound.  
             ‘Father bandages himself his wound.’

The general interpretation of a free dative is that of a benefactor or goal. It may come as no surprise that verbs that select a goal argument can all result in a predicate with an SE-anaphor. Since PP-arguments block SE-anaphors for phonological reasons, such an SE-anaphor is only allowed if the goal argument receives dative case.

In the set of *ver*-verbs there are verbs that select such a goal argument and hence, seem to allow lexical reflexivization. I regard the appearance of an SE-anaphor realizing a goal role as a separate process that is also active in free dative construction, which is interesting by itself but not the subject of this thesis. The cases in 204 are no instances of lexical reflexivization, or at least no instances that I am interested in, and will not be discussed in this chapter.

### 3.2.1.5 OBLIGATORY INTERNAL REDUCTION

It has become clear from chapter 2 that certain *ver*-verbs are obligatory unaccusative and as a result do not have a transitive alternate. I have argued that these *ver*-verbs must be unaccusative for several reasons. They are either simply frozen in this form, they are derived from unaccusatives and have a partial ACC-feature (even after *ver*-prefixation) or they contain two roles that must be merged externally. Regardless of the reasons, I will consider obligatory unaccusative *ver*-verbs as out for lexical reflexivization simply because they are unaccusatives and have no external role. The reasons that these verb must undergo external reduction are most likely independent from the reasons why a *ver*-verb may or may not undergo internal reduction. They are therefore unsuitable to be contained in the data for the current purpose of finding generalizations in verbs that can undergo lexical reflexivization.

### 3.2.1.6 INTERMEDIATE SUMMARY

In this section I have pointed out four reasons why a verb cannot undergo lexical reflexivization. In addition, I have separated the case of free datives from that of lexical reflexivization. These are summarized in 205.

- 205
1. The external role must be interpretable as an agent.
  2. The internal role must not be a PP-argument.
  3. Syntactic reflexivization must be available.
  4. The reduced role must not receive DAT case.
  5. The verbs must have an active transitive alternate.

Any *ver*-verb that is subject to these conditions does not provide any insight in the underlying mechanisms behind reflexivization in *ver*-verbs. These verbs should therefore not be regarded as examples or counterexamples of any reasoning made in this chapter.

## 3.2.2 **VER AS EMBEDDER**

Reinhart & Reuland (1993) and subsequent work show that reflexivity must be marked, either in the lexicon or in syntax. This need for marking proves to be driven by a general property, known as the IDI (Reuland (2005a, 2008)), of the computational system (Reuland (to appear)). The C-I cannot distinguish variables if it cannot derive an order. Therefore, SELF-anaphors must be structured in such a way, that they provide an embedding structure for the variable that would otherwise be “semantically lost” due to the IDI. Since lexical reflexivization reduces a theta role, there is no need to distinguish the variables. Syntactic reflexivization is only licit if the reflexive element can be distinguished.

In short terms, this means that if a variable is embedded, it escapes the IDI. In Dutch an SE-anaphor is, therefore, licit to appear in syntactic structures in which there is no other variable present at the relevant level. We may consider the possibility that the *ver*-verbs are actually no true instances of lexical reflexivization, but are rather instances of syntactic reflexivization where the object variable is protected (directly or indirectly) by *ver*. It may give rise to an extra verbal shell that creates an ‘understandable’ hierarchy for CS. But before we get to the specifics, let us see whether such a theory is likely.

Given the fact that *ver*-verbs show a high ratio of reflexivization with an SE-anaphor and that the resulting predicates do not map onto English lexical reflexive predicates, it may seem attractive to consider that the *ver*-reflexives are somehow triggered at syntax. However, if this would be the case, it is unlikely that the reflexivization is not fully productive, unless there is reason to believe that the syntactic structure of a *ver*-verb

will alternate depending on several factors. Since the MIS-type *ver*-verbs do not, without exception, allow reflexivization with *zich*, we must assume that they have a different syntactic structure.

Though unattractive, it would be too early to dismiss a syntactic explanation, after all we can see different semantics with MIS-type *ver*-verbs in comparison with the other types, which might infer a different structure as well. However we also see compelling variation within a single type of *ver*-verb. Even if these verbs are closely related. Compare the lists in 206, not allowing reflexive *zich*, and the one in 207, allowing reflexive *zich*.

206	verslechteren, to worsen,	vergeten, to forget,	verwachten, to expect,	verarmen, to become poor,	verorberen to devour
207	verbeteren, to improve,	verwonden, to wound,	verdooven, to stun,	verrijken, to enrich,	verwaarlozen to neglect

If the explanation would be syntactic, it is unclear why the verbs in 206 do not allow an SE-anaphor and the verbs 207 do. Of course, any explanation would need to take this fact into account and must have a basis in some unexplored difference between the verbs in 206 and 207. However, the verbs do not give rise to structural differences. Modifiers may appear in both predicates at the same position, theme selection is restricted to DP's (and not different types of CP's or IP's), topicalization of the object is fine for all verbs in 206 and 207, possible differentiation in word orders is not applicable and so forth. At first sight, the verbs are structurally equivalent. A lexical explanation, then, would better suit unexpected or restricted productivity. Verb entries may be frozen or loose productivity. A similar effect can be observed within the domain of unaccusativity. Not every unaccusative has an active transitive alternate in the same language (Reinhart (2002)). Furthermore, *ver* is locked to the verb. No syntactic structure can separate it from the verb, in addition, with its word category transformation capabilities, this hints to a process that is morphological in nature and not syntactic. Of course, the protecting capability of the SELF-part in Dutch SELF-anaphor is just as well a morphological process. Hence, the strength of the latter argument is limited.

Despite the mentioned drawbacks, I will argue that the appearances of *zich* with *ver*-verbs are in fact forms of syntactic reflexivization. I will also argue that lexical constraints prohibit the formation of syntactic structures in some cases that would allow syntactic reflexivization.

### 3.2.3 GOAL AND SOURCE AS LICENSERS

Many verbs allow the addition (or simply the presence) of a goal role to form a so called 'caused motion verb'. Such structures are discussed in Simpson (1983) and Goldberg and Jackendoff (2004). The latter argue that they are the result of an idiomatic syntactic structure where the verbal position is left open. Interesting in the light of this thesis, is that in these predicates the object of the predicate may be an SE-anaphor. This will not say that the verb allows lexical reflexivization. It may very well be the case that the addition of the goal results in a syntactic structure which properly protects the variable the SE-anaphor represents. Some examples are given in 208.

208	a)	Henk slaat zich op de knieën. Hank hits SE on the knees. 'Hank hits himself on the knees.'
	b)	Erik legt zich op bed. Eric lays SE on bed. 'Eric puts himself in bed.'
	c)	De verdediger gooit zich in de baan van het schot. The defender throws SE in the line of the shot. 'The defender throws himself in the line of the shot.'

- d) De expert verhuurt zich aan multinationals.  
 The expert rents SE to multinationals.  
 'The expert rents himself to multinationals.'

Verbs that are 1-place, may also receive such a goal. A theme is introduced along side, which may or must appear with *zich*.

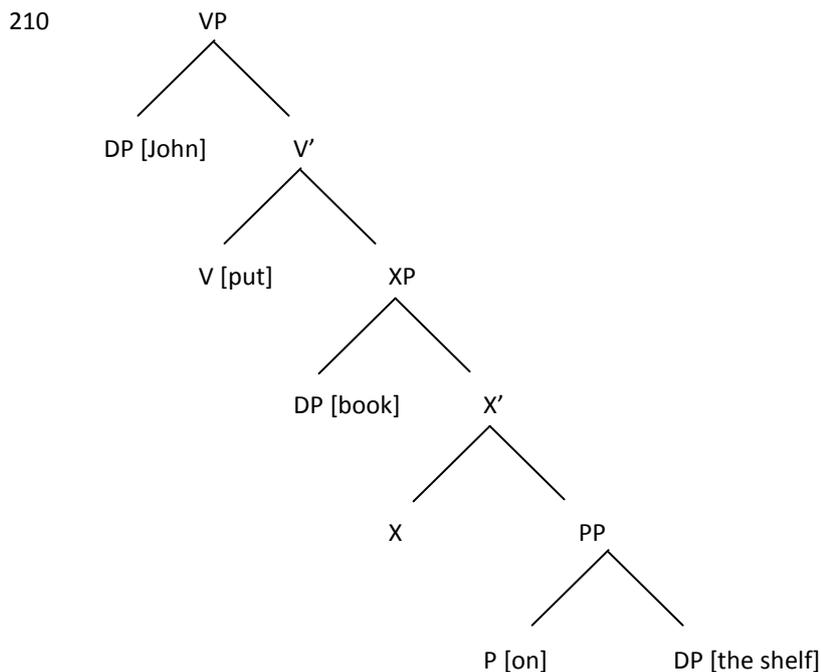
- 209 a) De wespen eten zich door de muur.  
 The wasps eat SE through the wall.  
 'The wasps eat through the wall.'

- b) De jonge bankier werkt zich naar de top.  
 The young banker works SE to the top.  
 'The young banker works himself to the top.'

The appearance of *zich* in these environments should not be mistaken with *zich* in free dative environments. The latter involves the realization of the goal role with an SE-anaphor (or the reduction of that role), whereas these environments probably involve a theme role that is realized as an SE-anaphor or involve no role at all but must have an SE-anaphor for case reasons.

### 3.2.3.1 STRUCTURE OF VP'S WITH A GOAL OR SOURCE

A basic 3-place verb with an obligatory goal PP, such as *put*, is represented as in 210 (Chomsky (1995)).



The XP that is the complement of the VP may be considered a variety of categories. We may either assume a verb shell analysis as for causative verbs (cf. Chomsky (1995), Kratzer (1996), Collins (1997), Bowers (1993)) or a small clause analysis where the P of the goal clause is the head (Chomsky (1995), Stowell (1981)). In any case, we must assume there is an additional layer in the structure. If this layer is not an intermediate projection of the VP, it may then protect the variable. Since the environment of both *x*'s in 211 differs, the IDI can distinguish them and an order can be established.

- 211 [x V [x X y]]

### 3.2.3.2 CORRECT PREDICTIONS WITH REGARD TO BINDING

The structure in 210 predicts some binding facts. The subject and the complement of X cannot be coindexed, unless one of them is protected as well. Furthermore, the goal cannot be an SE-anaphor for phonological reasons mentioned earlier. The SE-anaphor would receive stress in that position and its appearance is therefore prohibited. In 212c the goal does not appear inside a PP and receive DAT-case in a different position, it does not attract stress as a consequence and the use of an SE-anaphor is licit.

- 212 a) \*Jan legt het boek op zich.  
John puts the book on SE.
- b) \*Jan verhuurt de fiets aan zich.  
John rents the bike to SE.
- c) Jan geeft zich de fiets.  
John gives SE the bike.  
'John gives himself the bike.'

Logophoric use of a SELF-anaphor, such as exemplified in 78 in chapter 1, is out because the argument receives case from V and hence, Condition A of reflexivity applies (Reinhart & Reuland (1993)). This means that since the predicate is reflexive marked, it must be reflexive. In short terms, the structure in 213 is compatible with an SE-anaphor and a SELF-anaphor, but not with a logophor.

- 213 a) \*Piet<sub>i</sub> dacht dat Jan hemzelf<sub>i</sub> aan multinationals verhuurde.  
Pete<sub>i</sub> thought that John himself<sub>i</sub> to multinationals rent.
- b) \*Piet<sub>i</sub> dacht dat Jan hemzelf<sub>i</sub> op bed legde.  
Pete<sub>i</sub> thought that John himself<sub>i</sub> on bed put.

### 3.2.3.3 LESS CORRECT PREDICTIONS WITH REGARD TO BINDING

Basically, any verb with a syntactic structure similar to the one in 210 licenses the appearance of an SE-anaphor in object position. This on its turn means that any 3-place verb allows the appearance of *zich* in Dutch. Judgments however differ. Consider the sentences in 214, taken from Reinhart and Reuland (1993).

- 214 a) ?Henk wees zich aan mij toe.  
Hank pointed SE to me to.  
'Hank appointed himself to me.'
- b) ?Henk overreedde zich te zingen.  
Hank persuaded SE to sing.  
'Hank persuaded himself to sing.'
- c) ?Peter vertrouwde zich zijn dochter toe.  
Peter trusted SE his daughter to.  
'Peter entrusted himself his daughter.'

Judgments are very unanimous on sentences that are not inherently 3-place, but which are made 3-place by some syntactic or lexical process or that may leave the goal implicit, such as the sentence in 215.

- 215 a) Henk trok zich uit het moeras.  
Hank pulled SE out the swamp.  
'Hank pulled himself out of the swamp.'
- b) Henk rolde zich naar huis.  
Hank rolled SE to home.  
'Hank rolled himself to home.'

- c) Henk maakte zich uit de voeten.  
 Hank made SE out the feet.  
 'Hank fled.'
- d) Henk at zich in een coma.  
 Hank ate SE in a coma.  
 'Hank ate himself into a coma.'
- e) Henk tenniste zich de top honderd in.  
 Hank tennisedSE the top hundred in.  
 'Hank worked himself into the top hundred of tennis.'

It is hard to assume that all these cases of *zich* are the result of lexical reflexivization. Not all verbs can be targeted by that procedure, it targets agentive verbs, plus, if it is a lexical process, we would expect to find verbs that may introduce a goal, but that are not a target of lexical reflexivization. In addition, since the set of verbs that allows lexical reflexivization is similar across languages (Reinhart (2000)), we would expect that in other languages these verbs are also lexically reflexive. Clearly in English as can be seen from 216, none of them are.

- 216 a) \*Hank pulled out of the swamp.  
 b) \*Hank eat in a coma.

There must be structural differences between the predicates in 215 and 216. In any case, the derived 3-place predicates are unanimously considered fine with an SE-anaphor in object position. I assume for these predicates a structure as in 210 where the XP properly protects the variable.

Remember that it has been argued in various places that the prefix *ver* yields a form of movement, possibly metaphorically (Lieber & Baaien (1993)). I have distinguished among the several types of *ver*-verbs the GO-type verb which yields such a movement. Underlyingly, these verbs result in predicates that are similar to the ones in 208 and 209. I assume that their respective structure is the same as well, entailing that they are compatible with SE-anaphors and SELF-anaphors but not with logophors. The questions then are, how are these predicates formed, how are they different from the ones in 214 and what is the XP in 210?

### 3.2.4 SOME STRUCTURAL DIFFERENCES

Consider again the sentence in 217 and 218

- 217 a) ?Henk wees zich aan mij toe.  
 Hank pointed SE to me to.  
 'Hank appointed himself to me.'
- b) ?Henk overreedde zich te zingen.  
 Hank persuaded SE to sing.  
 'Hank persuaded himself to sing.'
- c) ?Peter vertrouwde zich zijn dochter toe.  
 Peter trusted SE his daughter to.  
 'Peter entrusted himself his daughter.'
- 218 a) Henk trok zich uit het moeras.  
 Hank pulled SE out the swamp.  
 'Hank pulled himself out of the swamp.'
- b) Henk rolde zich naar huis.  
 Hank rolled SE to home.  
 'Hank rolled himself to home.'

- c) Henk maakte zich uit de voeten.  
 Hank made SE out the feet.  
 'Hank fled.'
- d) Henk at zich in een coma.  
 Hank ate SE in a coma.  
 'Hank ate himself into a coma.'
- e) Henk tenniste zich de top honderd in.  
 Hank tennised SE the top hundred in.  
 'Hank worked himself into the top hundred of tennis.'

Immediately it becomes clear that 217b is in fact a different kind of predicate. As a theme it selects not a DP but an IP. Secondly, the semantics of this verb do not entail a movement of the theme towards the goal. The precise syntactic structure of 217b, is not of my concern here. It is, however, clearly different from the structure of the sentences in 218, that all license an SE-anaphor.

The differences between 217a and 217c and the predicates in 218 are not so evident. The verbs in 217a and 217c, however, are particle verbs. The prepositions at the end of the sentence form a lexical unit with the verb. Such separable verb construction can be found in Dutch, German, Hungarian and other languages (Booij (2002)). It follows then, that particle verbs have a different syntactic construction than normal verbs. Hoekstra (1988) and Hoekstra et. al. (1989)) argue for a small clause analysis where the preposition forms a small clause with the object, which is then raised to a verbal position.

### 3.2.4.1 2-PLACE PARTICLE VERBS

From Reuland (2001) we know that the SE-anaphor acquires its phi-features at the Infl. It must move therefore in a checking position with the verb. A possible explanation for the slight ungrammaticality of 217a and 217c is, then, that this movement is somehow prohibited and that the particle, which is clearly left behind by the verb, somehow forces the SE-anaphor to be stranded as well. Though promising, particle verbs tend to license Se-anaphors rather than ban them, as can be seen from the pairs of sentences in 219 to 221<sup>7</sup>.

- 219 a) \*De slang eet zich.  
 The snake eats SE.
- b) ?De slang eet zich op.  
 The snake eats SE up.  
 'The snake eats himself up.'
- 220 a) \*De egel rolt zich.  
 The hedgehog rolls SE.
- b) De egel rolt zich op.  
 The hedgehog rolls SE up.  
 'The hedgehog rolls himself up.'

---

<sup>7</sup> Judgments on these sentences differ from informant to informant. These sentences are clearly considered worse than the sentence in the b-variants, but are better than non-lexically reflexive 2-place predicates with an SE-anaphor in object position, such as "*Henk eet zich*" ("Henk eats SE").

- 221 a) \*Hij maakt zich.  
He makes SE.
- b) Hij maakt zich af.  
He makes SE off.  
'He kills himself.'

Of course, the predicates in 219 to 221 are 2-place. This hints to the possibility that the base position of the theme is different. It must be a position, then, out of which the SE-anaphor can move in 219 to 221 and must remain behind in 217a and 217c.

#### 3.2.4.2 ANALYZING PARTICLE VERBS

Booij (2002) argues that the separable verbs can be analyzed by language users in different ways. He argues that verbs such as the ones in 219 are grammaticalized syntactic constructions (constructional idioms) with an open verbal position, similar to Jackendoff's analysis of "time-away" constructions (Jackendoff (1997)). These constructions previously consisted of a normal verbal construction with a secondary predicate. Most of the particles are prepositions or adverbs that still have a predicative use as well. Sentence 217 may be syntactically similar to *Jan verft zijn fiets wit* ('John paints his bike white'). It depends on the particle, the verb and the speaker, whether the original syntactic structure of that of a secondary predicate is still available. There are clear structural difference between the two analysis. For instance, the particle can be topicalized, if the secondary predicate structure is still available. This is not a possibility when the particle and the verb are fully grammaticalized.

- 222 a) Af maakte hij zijn huiswerk.  
Off made he his homework.  
'He finished his homework.'
- b) \*Op belde hij zijn moeder.  
Up called he his mother.

The structure proposed by Booij (2002) for the constructional idiom is as follows:

- 223 [ [X] v ] v'      Where X = P, Adv, A or N

The structure for the secondary predicate analysis is as follows:

- 224 [ [Y]NP [e]PP<sub>i</sub> ]SC [[X]PP<sub>i</sub> [Z]V ] VP

From these structures, it follows that the theme is semantically and syntactically an argument of the verb when we are dealing with a constructional idiom, and not of the preposition. Both Condition A and Condition B of R&R apply. Using *zich* would then result in a violation of Condition B, which states that reflexive predicates must be marked. Since there is no lexical reflexivization neither a SELF-anaphor, the sentence is out. If we would consider that the analysis in 224 is still available for the sentence in 220b, it follows that in these sentences an SE-anaphor is allowed. Since *zich* is not an argument of the verb, Condition B does not apply.

#### 3.2.4.3 DIFFERENT SPEAKER, DIFFERENT ANALYSIS, DIFFERENT BINDING

The availability of a secondary predicate analysis for separable verbs may deviate from speaker to speaker and from verb to verb. Then, it follows naturally that preferences of the acceptability of an SE-anaphor in object position also deviate from speaker to speaker. It also follows why Dutch language speakers find 219b, though they may consider it ungrammatical, better than 219a. For 219a there is no imaginable possible analysis that would protect the variable. For 219b there is such an analysis, namely the secondary predicate analysis. If we accept an SE-anaphor in object position in these predicates, we are forced to assume this analysis over a

constructional idiom. Even though this analysis may not be rapidly available for everyone, it is better than the case of 219a, which does not have a secondary predicate analysis available at all.

The difference, then, between 217 and 218 is that in 217 we see particle verbs that are analyzed similar to the structure in 224. Yes 224, the one that allows SE-anaphors. This may seem contradictory, but an analysis along the lines of 224 of 217 results in a normal transitive verb accompanied by a secondary predicate and not as a derived caused motion structure as in 210. It is not a surprise then, that the theme of the verb cannot be realized as an SE-anaphor, since this theme is not protected. This is only possible for verbs that allow lexical reflexivization (formally speaking, even in these cases the theme is not realized). Of course, the secondary predicate analysis does predict that the third argument may appear as an SE-anaphor. Though this is indeed so, (225) this does not give additional insight since there is interference with the possibility of a free dative, which means the SE-anaphor possibility was already predicted.

- 225 a) Henk wees mij (aan) zich toe.  
 Hank pointed me me to.  
 'Hank appointed himself to me.'
- b) Peter vertrouwde zijn dochter aan zich toe.  
 Peter trusted his daughter on SE to.  
 'Peter entrusted his daughter to himself.'

#### 3.2.4.4 INTERMEDIATE SUMMARY

Back to the goal and source phrases. Unless there are independent constraints ruling out the SE-anaphor in object position, a goal or source phrase licenses an SE-anaphor in that position. I have argued that a syntactic analysis is most promising. An XP projection is protecting the variable. Two questions remain: how are these predicates formed and what is the XP precisely in this projection? First, I wish to turn to a similar construction, namely those of resultative phrases.

#### 3.2.5 RESULT THEMES

A similar environment that generally licenses (or requires) an SE-anaphor is formed by resultative predicates. Examples are given in 226.

- 226 a) Henk werkt zich te pletter.  
 Hank works SE to crushed.  
 'Hank works his ass off.'
- b) Pieter loopt zich helemaal kapot.  
 Peter walks SE totally broken.  
 'Peter is walking himself to death.'
- c) Jan verfde zich wit.  
 John painted SE white.  
 'John painted himself white.'

Discussion on this type of predicate can be found in Hoekstra (1988), Goldberg and Jackendoff (2004), Goldberg (1992). In accordance with the previous discussed structure, they are argued to be the result of an idiomatic syntactic structure where the verbal position is left open (Goldberg and Jackendoff (2004)). The structure they propose is presented in 227.

- 227 a) Syntax: NP<sub>1</sub> V NP<sub>2</sub> PP<sub>3</sub>
- b) Semantics: X<sub>1</sub> CAUSE [Y<sub>2</sub> GO Path<sub>3</sub>]

As can be seen in 227b the object of the semantic structure is embedded. It is no surprise then, that these environments, as can be seen in 226, allow an SE-anaphor for reflexive purposes. The similarity between resultative phrases and directional phrases is even bigger if we take Jackendoff (1975b) into account. It is noted in this paper that predicates with a change of location, such as *put*, and predicates with a change of state, such as *kill*, are formed with the same semantic primitive GO. They differ in a sub categorization of the semantic primitive. The predicate *put*, that entails a change of location, is positional GO (GO<sub>pos</sub>) and *kill*, that entails a change of state, is identificational GO (GO<sub>ident</sub>).

Besides positional and identificational GO we also find possessive and circumstantial GO, as exemplified in 228.

- 228 a) Mary gave John the book.  
 b) Mary persuaded John to swim.

For some reason these GO-types cannot productively apply to any verb to form three-place predicates. However, they do allow an SE-anaphor for the same reason: they provide an embedding structure for the SE-anaphor.

- 229 Jan gaf zich over aan Erik.  
 John gave SE over to Erik.  
 'John surrendered to Eric.'

In short, I conclude that a verb with a goal role that is a resultative or caused motion predicate, licenses an SE-anaphor.

### 3.2.6 LEXICAL GOAL AND RESULT OPERATIONS

A question that may rise after reading the previous paragraphs, is why the environments of resultative phrases and directional phrases are interesting for the current research. Remember that Lieber and Baaijen (1993) already argued that the *ver*-prefix entails a certain kind of movement. In this sense, it is similar to the Jackendoff's semantic primitive GO with its various modifications (positional, possessional, circumstantial and identificational). Indeed all *ver*-verbs appear to entail the movement or transition, either physically or metaphorically, to a new state, owner or location.

These underlying semantics are interesting but of course not the topic of this thesis. Far more important is the fact that resultative phrases and directional phrases may give rise to a reflexive predicate featuring *zich*. I have argued that this is possible through the specific syntactic structure that is able to protect the variable from the IDI. What if the structure of *ver*-verbs looks much like the previous environments? If so, the vast number of *zich* appearances finds a general structural explanation. This explanation would not only hold for *ver*-verbs, but for all predicates that are formed through a resultative or directional phrase.

Semantically the similarities are obvious. There is, however, one big difference between *ver*-verbs and sentences such as 218. Even though *ver*-verbs have a GO semantics, any of the Jackendoff flavours of GO, they never obligatory realize the goal, whereas the sentences in 218 are plain ungrammatical without realization of the goal. However, for almost all *ver*-verbs, the goal may optionally be realized as can be seen in 230.

- 230 a) Hij verdeelt zich ?(over de kinderen).  
 He divides SE (over the children).  
 'He divides himself over the children.'
- b) Hij verjaagt de beren (uit het bos).  
 He scares off the bears (out the forest).  
 'He drives the bears out of the forest.'

- c) Hij verdreef de speler (van zijn eerste plaats).  
 He drives out the player (from his first place).  
 'He pushes the player off the first position.'
- d) Hij verpatst zijn verouderde pc (aan een student).  
 He sells cheap his obsolete PC (to a student).  
 'He sells his obsolete computer to a student.'

If the *ver*-verb is of the become type, the result may be specified in almost all cases.

- 231 a) Hij versterkt de burcht (tot een onverwoestbaar slot).  
 He strengthens the citadel (to a indestructible fortress).  
 'He upgrades the citadel to a fortress.'
- b) Hij verbetert zijn trainingspartner (tot klasstennis).  
 He improves his training partner (to top tennis).  
 'He creates a top class tennis player of his training mate.'
- c) Hij verfrommelt het papier (tot een propje).  
 He wrinkles the paper (to a clot).  
 'He wrinkles the paper into a clot.'
- d) Hij verandert het schilderij (in een tekening).  
 He changes the painting (in a drawing).  
 'He changes the painting into a drawing.'

It appears that *ver*-verbs have a similar semantics to caused motion verbs and resultative predicates, but can omit the goal. Omission implies previous presence. That indeed the goal role is or was present in *ver*-verbs, follows from the examples in 231, which show that it may be reintroduced. In addition, if the goal role is not present, the interpretation of the object of a *ver*-verb that implies change of location or ownership is that it goes away. But there are more striking examples. In some cases the stem of a *ver*-verb has an obligatory [-c] role. In these cases this role is rendered optional after *ver*-prefixation, as is shown in 232 to 234.

- 232 a) Hij legt het boek in de kast.  
 He puts the book in the cabinet.  
 'He puts the book on the shelf.'
- b) Hij verlegt het boek (naar de tafel).  
 He puts the book (to the table).  
 'He moves the book (to the table).'
- 233 a) Hij stopt de sleutels in zijn zak.  
 He puts the keys in his pocket.  
 'He puts the keys into his pocket.'
- b) Hij verstopt de sleutels (in zijn zak).  
 He hides the keys (in his pocket).  
 'He hides the keys (in his pocket).'
- 234 a) Hij zet de vaas op tafel.  
 He puts the vase on table.  
 'He puts the vase on the table.'
- b) Hij verzet de vaas (naar de vensterbank).  
 He moves the vase (to the window).  
 'He moves the vase (to the window).'

It must be concluded that the *ver*-prefix indeed reduces a goal role. But of course by far not all stems of *ver*-verbs have a goal role. This forces us to assume that the *ver*-prefix adds a goal and then reduces it. In addition, it is responsible for adding ACC-case and a [+c] role. Such a complicated analysis of *ver* is of course highly unattractive. There is however a more elegant solution.

### 3.2.7 LEXICAL GO-OPERATION

Constructions such as the caused motion verbs gave rise to much debate (cf. Goldberg (1995), Jackendoff (1995), (1997), Goldberg and Jackendoff (2004)). Some defend a partly syntactic account of these constructions (Goldberg (1996), Hoekstra (1988)), others try to find the solutions in the lexicon through constructional idioms (Jackendoff (1995, 1997)). An account in terms of theta grid manipulations is not available. Probably the semantic and syntactic characteristics of these constructions are of a different nature. At least we can detach them and focus on the effects of caused motion and resultative predicates on the verb-entry.

We see that a basic verb, with respect to its resultative or cause motion counterpart, at least differs in the addition of a goal role. In most cases we may also observe the addition of ACC-case as can be seen from the inflectional properties of the perfect tense or the sometimes obligatory nature of the SE-anaphor in this construction.

- 235 a) \*Hij werkt Piet te pletter  
He works Pete to crushed.
- b) Hij werkt zich te pletter  
He works SE to crushed.  
'He works his ass off.'
- 236 a) Hij loopt naar het station  
He walks to the station.  
'He is walking to the station.'
- b) Hij is naar het station gelopen  
He is to the station walked.  
'He has walked to the station.'

If the base verb has a theme, it picks up this theme, sometimes with a different interpretation:

- 237 Jan slaat Piet de kamer uit.  
John hits Pete the room out.  
'John kicks Pete out of the room.'

In other cases a theme is added:

- 238 Hij praat Jan de kamer uit.  
He talks John the room out.  
'He talks John out of the room.'

For some reason the theme is not always created. Goldberg (1996) and Goldberg and Jackendoff (2004) distinguish constructions of the type in 236 from those in 237. But all constructions above are the same in two respects. It is clear that in all constructions a goal role is added. In addition, in all cases ACC-case is present. We can see the latter from the fact that all constructions either have a theme or require a case checker such as *zich*. In 236b we see an inflectional marking which also proves that ACC-case is present. The addition of ACC-case is, of course, arguably part of the *ver*-operation as well. Since the semantics of *ver* and presence of an implicit goal role are also similar to the derived resultative and caused motion predicates, they might be one and the same. However, they do differ in several aspects. First of all, the *ver*-procedure is not limited to verbs. The procedure

underlying the resultative predicate and the caused motion predicate, let's call it the GO-procedure, are restricted to verbs. Secondly, the *ver*-prefix adds a [+c] role. Thirdly, the goal is optional in most *ver*-verbs.

All in all *ver* is doing what the GO-procedure is doing, plus adding a [+c] role and reducing a [-c] role. It seems that the GO-procedure is just a step within the *ver*-procedure. The additional fact that *ver* can apply to non-verbal units, was already discussed in chapter 2 of this thesis and was ascribed to a procedure I named VERBALIZE. Hence, the *ver*-derivation is a three step process which is stated in 239.

239 VER-PROCEDURE (VER)

1. VERBALIZE: if no theta grid is present, create the entry: V[-c-m].
2. GO: add a [-c] role and ACC-case, if not present, to the theta grid.
3. DETACH: reduce a [-c] role if present, and add a  $\theta_1$ [+c] role.

The order is stringent. The GO-procedure only applies to verbal units, hence it is obviously necessary that the VERBALIZE procedure is first in order. In addition, the final step requires a [-c] role to be present and hence it is necessary for the GO-procedure to apply second. Secondly, this three step process is undetachable. Though the GO-procedure and the VERBALIZE procedure may apply separately, the *ver*-procedure as a whole is this three step process. This means that verbs that allow a *ver*-procedure to apply, do not necessarily allow a resultative or a caused motion predicate as well.

An example of a prototypical *ver* derivation is given in 240.

240 VER ( A [sterk] )

1. VERBALIZE ( A ) => V [-c-m]
2. GO ( V [-c-m] ) => V<sub>ACC</sub> [-c][-c-m]
3. DETACH ( V<sub>ACC</sub> [-c][-c-m] ) => V<sub>ACC</sub> (  $\theta_1$ [+c]  $\theta$ [-c-m] (  $\theta$ [-c] )

### 3.2.8 ADVANTAGES OF A GO-SUB-PROCEDURE

In the previous chapter I have distinguished three types of *ver*-verbs. I have shown that even though their semantics are different, they are the same in their theta grid relations to the base verb. Now that we have identified a separate GO-procedure that is part of the *ver*-derivation, the semantic differences can be located in that procedure. Jackendoff (1975) distinguished four different types of GO. It may come as no surprise that *ver*-verbs all have GO-semantics and that their differences resemble the differences between the different GO-types. The class of *ver*-verbs I called BECOME-type maps onto GO<sub>ident</sub> semantics. The class of *ver*-verbs I called the GO-type maps onto GO<sub>poss</sub> and GO<sub>posit</sub>. The MIS-type then, seems to be of a different type, possibly a GO<sub>ident</sub> where the change of state has a fixed goal, namely a 'screw-up'. I do not wish to present a semantic theory in this chapter on possible *ver*-verbs, but I wish to point out the advantages from a semantic point of view to a separate GO-procedure.

Apart from the semantic advantages, there is also a conceptual advantage. We have identified a sub-procedure that is also active in other derivations. This requires fewer building blocks and hence, renders the language system more parsimonious.

Most importantly, the underlying procedure that derives caused motion predicates and resultative predicates, such as the ones in 235 and 237, shows certain similarities. Both of them seem to allow reflexive *zich*, as is shown in 241.

- 241 a) Hij verbetert zich.  
He improves SE.  
'He improves himself.'
- b) Hij praat zich / Piet uit de situatie.  
He talks SE / Pete out the situation.  
'He talks himself / Pete out of the situation.'

Both also generate obligatory *zich*, as is shown in 242.

- 242 a) Hij vergaapt zich aan de dure auto's.  
He flabbergasts SE on the expensive cars.  
'He is flabbergasted by the expensive cars.'
- b) Hij werkt zich te pletter.  
He works SE to crushed.  
'He works his ass off.'

Furthermore, both allow (or require) a goal role as shown in 243.

- 243 a) Hij verandert zich (in een despot).  
He changes SE (in a despot).  
'He changes himself into a despot.'
- b) Hij werkt zich de top honderd in.  
He works SE the top hundred in.  
'He works himself into the top hundred.'

### 3.2.9 DIFFERENCES BETWEEN RESULTATIVE AND CAUSED MOTION PREDICATES AND *VER*-VERBS

In the previous sections I have focused on the similarities between predicates formed by *ver*-verbs and resultative and caused motion predicates. Of course, there are also clear differences. First of all, we have differences that are predicted under the current theory, namely that *ver*-verbs never need to realize the goal role whereas, resultative and caused motion predicates must have a goal role. In addition the *ver*-verbs have a [+c] role in their theta grid, which is not necessarily the case for resultative and caused motion predicates. These predictions are indeed borne out. The addition of the [+c] role has been extensively discussed in the previous chapter. The goal reduction was shown in 232 to 234. Other verbs that pattern nicely with the goal reduction are *versturen* ('to send'), *verzenden* ('to send'), *verwerpen* ('to reject'), *verzakken* ('to sink') etc.

There are however also differences that are not predicted under the current theory.

#### 3.2.9.1 STATUS OF THE THEME

First of all, the *ver*-verbs are regular with regard to the addition of an internal role. Only *ver*-verbs that are derived from non-verbal lexical units and *ver*-verbs that are derived from stems that already have one will have an internal role. The first through the VERBALIZE sub-procedure and the second simply by inheritance of the theta grid properties. There are only few exceptions to this. The resultative and caused motion predicates are more erratic in the presence and status of their internal role. In some cases one is added, in some cases one is picked up from the verb, in some cases the latter mentioned results in an internal role without the original interpretation, and sometimes there is no internal role. It must be so then, that the proposed GO-procedure is also a sub procedure for the derivation of caused motion predicates and resultative predicates. They undergo additional operations leading to the status of the theme and causing the differences and sub-distinctions mentioned in the literature (Goldberg (1996), Goldberg and Jackendoff (2004)).

### 3.2.9.2 DISTRIBUTION OF ZICH

A more important difference is the fact that resultative predicates and caused motion predicates allow *zich* without exception. For *ver*-verbs *zich* is by far not always allowed. Up to a fourth of all *ver*-verbs allow reflexive *zich*. This is by far not all. This discrepancy may render the theory unattractive. However, many *ver*-verbs do not allow reflexive *zich* for independent reasons, that were identified at the start of this section. They include phonological reasons, the lack of an internal role or a semantic restriction on the internal role which prevents an animate argument.

### 3.2.9.3 NO ZICH, NO GOAL

However, the question remains why, for example, the verbs in 244 do not allow reflexive *zich*.

244     verneuken,     verprutsen,     vergooien,     verorberen  
          To screw up,     to screw up,     to waste,     to devour

Note that two of the above verbs are of the MIS-type. It is a fact that MIS-type verbs never allow reflexive *zich*. In addition, they seldomly allow a result phrase to be added, as can be seen from 245a and 245b.

245     a)     ??Hij     verneukt     zijn     studie     tot     een     lijdensweg.  
          He     screws up     his     study     to     a     torment.  
  
          b)     ??Hij     verprutst     het     schilderij     tot     een     kindertekening.  
          He     screws up     the     painting     to     a     child's drawing.

Note that for the verbs in 246a and 246b the addition of a result-phrase or a goal-phrase is also highly artificial.

246     a)     ??Hij     vergooit     zijn     leven     voor     de     leeuwen.  
          He     throws away     his     life     for     the     lions.  
  
          b)     ??Hij     verorbert     de     struisvogel     tot     een     hoopje     botten.  
          He     devours     the     ostrich     to     a     pile     bones.

Closer scrutiny of the *ver*-verbs in the appendix reveals that almost every *ver*-verb that allows *zich*, also allows a result phrase or a goal phrase to be added. The other way around seems to be less so, as is shown in 247.

247     a)     De     wind     versobert     de     straat     tot     een     triest     gebeuren.  
          The     wind     saddens     the     street     till     a     sad     happening.  
          'The wind makes a sad thing of this street.'  
  
          b)     ??Hij     versobert     zich     (tot     een     triest     figuur).  
          He     saddens     SE     (to     a     sad     character).

This observation brings me to the final part of reflexive *zich* in *ver*-verbs.

### 3.2.10 **PARTIAL GOAL-REDUCTION VS FULL GOAL-REDUCTION**

Reinhart (2002) discusses two operations: reduction and saturation. Reduction eliminates a role from the verbal grid, either completely, as is the case in external reduction, or partially, as in internal reduction, where the role is still part of the semantics of the verb. Saturation, which applies e.g. in passive formation, existentially closes one of the arguments, which will then, not be realized syntactically, though it is still present in the semantic interpretation and it may be reintroduced by specific syntactic means. In the case of passive reintroduction, this is done through a by-phrase. Examples of saturation and reduction are shown in 248.

- 248 a) Hij wordt geslagen (door Henk). (Saturation)  
 He gets hit (by Hank).  
 'He gets hit by Henk.'
- b) De vaas breekt \*(door Henk). (Reduction)  
 The vase breaks (by Hank).  
 'The vase breaks by Hank.'

A similar pattern is observed for reduced goal phrases of *ver*-verbs. Some *ver*-verbs do not allow the reintroduction of the goal role as was already shown in 246, though a movement to 'somewhere away' or to a 'screwed up state' is still part of the interpretation. Others do allow the reintroduction of the goal role, as was shown in 243.

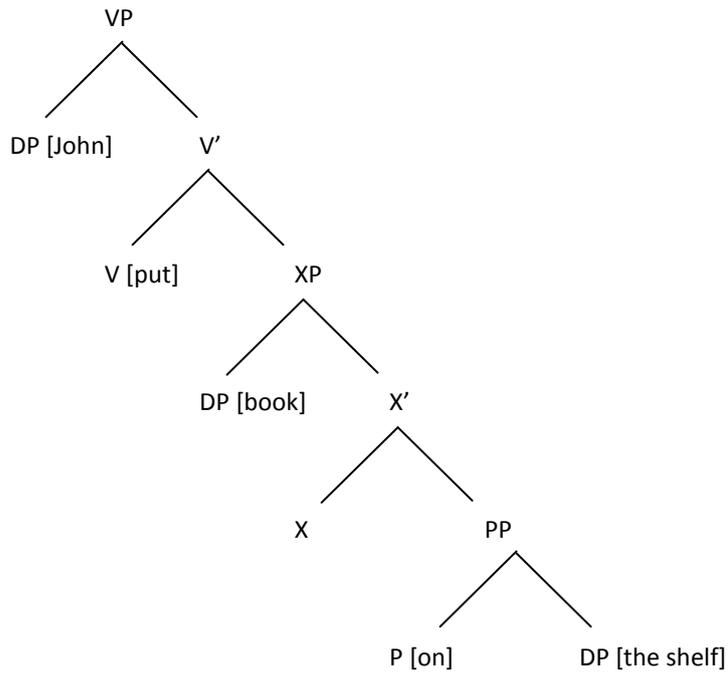
- 249 a) Hij verbetert zich tot een klassespeler.  
 He improves SE into a class player.  
 'He improves himself to a world class player.'
- b) Hij verdrijft de beren uit het bos.  
 He drives the bears out the forest.  
 'He drives the bears out of the forest.'
- 250 a) ??Hij verorbert de struisvogel tot een hoopje botten.  
 He devours the ostrich to a pile bones.
- b) ??De zon verdampst het water de lucht in.  
 The sun evaporates the water the air in.

I assume that the difference resides in the reduction of the [-c] role. It may either be reduced fully (reduction) or partially (saturation). Besides the inability to reintroduce the goal, it is likely that there are also structural differences between a full reduction and a partial reduction. After all, saturation prevents a role to be realized syntactically, while reduction eliminates the role all together. Since the theta grid eventually feeds the syntax through the linking and mapping system, it is likely that the two procedures discussed result in two different structures.

3.2.10.1 SYNTAX AND PARTIAL AND COMPLETE REDUCTION

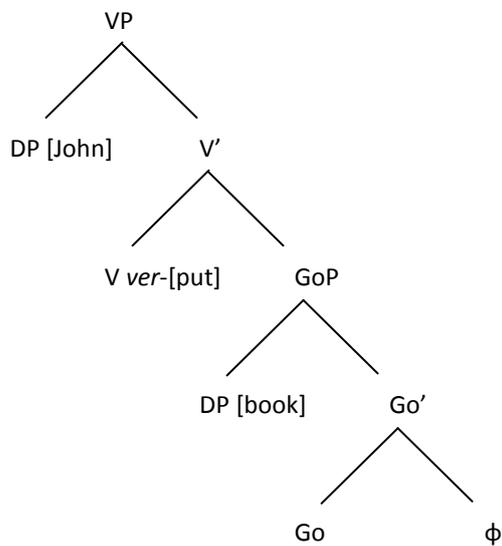
Recall the syntactic structure from the start of this section, repeated in 251.

251



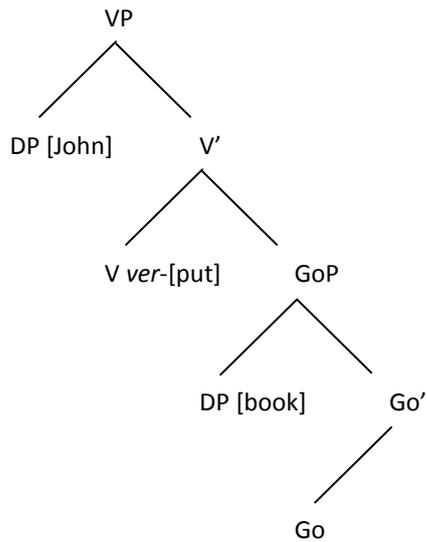
Thus far, I have left implicit what the XP in the above structure is. Let us call it GoP. Partial reduction would then lead to the following structure.

252



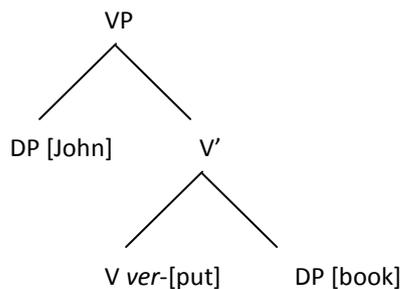
Full reduction would lead to a similar construction.

253



However, the structure above closely resembles that of a normal transitive verb. In analogy with Booij (2002) and Booij (2001) I assume that this structure can be analyzed in two different manners. Either as the one expressed in 251, or as a simple transitive verb-entry expressed in 254.

254



Obviously the structure in 254 no longer possesses the protective feature that came with the GO-projection. Which analysis is preferred, depends on lexical constraints, full reduction must apply, and on individual constraints. For certain verbs and for some speakers the relation between a *ver*-verb and its stem is no longer evident and instead of recognizing a GO-projection inside the structure, that is inherently tied to this relation, the *ver*-verb is analyzed as a simple transitive entry.

### 3.2.10.2 VARYING ANALYSES

Remember from the previous chapter that I deliberately did not express the relation between the stem and the *ver*-verb as an active procedure. In other words, both the stem and the *ver*-verb is present in the lexicon. They are related by the VER-procedure. However since both are separately present and must be separately learned, they may change independently, in such a way that the relation no longer entirely holds. However, for novel *ver*-verbs language has not been given enough time to deteriorate the relation between the two verbs. It is, then, not surprising that especially novel *ver*-verbs are more likely to allow a reflexive *zich*. The syntactic structure containing a GO-projection is easily accessible for language users. This in contrast to older *ver*-verbs in which the relation is no longer a vivid one. The sub-procedure GO, responsible for the generation of the protective syntactic structure, can no longer be recognized by language users.

For illustration of novel *ver*-verbs allowing *zich*, consider 255.

255 a) Het bedrijf veramerikaanst zich om het jonge publiek te  
 The company goes American SE to the young public to  
 bereiken.  
 reach.

‘The company goes American style in order to reach the younger crowd.’

b) Het bedrijf verengelst zich om het oude publiek te  
 The company goes English SE to the old public to  
 bereiken.  
 reach.

‘The company goes English style in order to reach the older people.’

Hence, the reason that so many *ver*-verbs allow reflexive *zich*, resides in a sub-procedure I named GO. This procedure is also active in the derivation of resultative and caused motion predicates. It generates a syntactic structure that can properly protect the variable denoted by the SE-anaphor. The lexical idiosyncrasy we find in the domain of *ver*-verbs in combination with an SE-anaphor, is the difference between a full reduction of the goal phrase and a partial reduction of a goal phrase. A full reduction causes the predicate to be analyzed as a simple transitive verb entry without a GO projection. Partial reduction will cause the predicate to be analyzed as a complex syntactic structure in which the GO-projection can function as an embedder for the SE-anaphor. The analyses of a *ver*-predicate as either one of the two may differ from verb to verb and from speaker to speaker.

### 3.2.11 INTERMEDIATE SUMMARY

I have shown that *ver*-verbs show great similarities to resultative and directional predicates. Both *ver*-verbs and these predicates allow reflexive predicates featuring an SE-anaphor. I have argued that the reason for this possibility is a syntactic structure in which the SE-anaphor is properly protected.

The lexical operation that *ver* resembles, consists of three parts. The first part is a verbalizing procedure argued in section *Argument structure of unaccusative ver-verbs (accusative stem)* of the previous chapter. The second part consists of a GO-operation, which also applies separately to derive predicates such as 226 and is responsible for adding ACC-case and a goal role.

256 a) John paints the house white.

b) John talks Peter out of the room.

The final part then is the addition of a [+c] and the reduction of the [-c] role (which was added in the previous step). Though the [-c] role does not have to be realized syntactically, the structure triggered by the GO-operation remains intact and insertion of an SE-anaphor is possible in object position. The exceptions to SE insertion are numerous but explainable. A large part consists of predicates that require a specific theme, such as a time unit, which then naturally rules out any reflexive predicate. Other exceptions consist of *ver-verbs* that no longer allow the reintroduction of the [-c] role. I assumed that in this case the speakers no longer assume the underlying syntactic structure, which is the result of the GO-operation and assume a simple 2-place verbal structure which lacks the position for the third [-c] role and lacks the GO-projection that would protect the variable represented by the SE-anaphor.

The next and final section will be dedicated to occurrences of *zich* in unaccusative *ver*-verbs.

### 3.3 UNACCUSATIVE ZICH

Next to the appearance of the SE-anaphor in reflexive predicates formed by Dutch *ver*-verbs, it also appears with this type of verb as a marker for unaccusativity. The ability of *ver*-verbs to undergo decausativization is predicted. The *ver*-prefix adds a [+c] role to the grid which, when an experiencer or theme is present, will result in a configuration that is suitable for this lexical operation. Reinhart (2002) claims that such verbs can undergo decausativization without exception. This is also true for *ver*-verbs. This does not mean that all *ver*-verbs have an unaccusative alternate. In some cases an agent or sentient role was present in the stem, resulting in a configuration that is not suitable for decausativization, because after such an operation the agent or sentient role would still be available. Some *ver*-verbs are inherently unaccusative. In the previous chapter I have shown that their base form is in these cases either an unaccusative or a theme unergative. In addition, some *ver*-verbs are obligatory reflexive. Finally there are many *ver*-verbs that do not receive a [+c] role, but are left with an [+c+m] role instead, either from the stem or after prefixation. The question why the addition of a [+c] role does not apply to some verbs remains open. Regardless of the answer, it predicts that these verbs cannot undergo decausativization, since they do not have an external [+c] role. All in all, the reason why most *ver*-verbs can undergo external reduction and some of them cannot, is perfectly explained under the current theory.

The mystery regarding unaccusativity with *ver*-verbs lies in the marking. Many *ver*-verbs show the typical marking of a different auxiliary selection, as is shown in 257.

- 257 a) De trui verbleekt.  
The sweater bleaches.  
'The sweater loses color.'
- b) De trui is verbleekt.  
The sweater is bleached.  
'The sweater lost color.'

Many others allow a less common marking, namely that with an SE-anaphor, as is shown in 258.

- 258 a) Het schip verwijderd zich uit het zicht.  
The ship disappears SE from the sight.  
'The ship disappears from sight.'

As far as I know there are only a few non-*ver*-verbs that show unaccusative marking with an SE-anaphor (*openen* 'to open' is such an example). Of the 660 *ver*-verbs listed in the appendix, 276 can undergo external reduction. Of these 252 are marked by a different auxiliary selection and 84 are marked by an SE-anaphor. Naturally, it follows then, that 60 of them can be marked by either.

In addition, many of the *ver*-verbs that allow an SE-anaphor in a theta role position, and not simply as a case-checker, also allow the SE-anaphor as an unaccusativity marker. Both appearances of the SE-anaphor show a high ratio with *ver*-verbs. Is it a coincidence that *ver*-verbs are suitable for both types of appearances or are they somehow related? We may be tempted to seek a single underlying cause for both appearances. However, their role is clearly different. In the previous section I have shown that the SE-anaphor, that appears in what is (in the introduction) presumed to be a form of lexical reflexivization is, an instance of syntactic reflexivization. The SE-anaphor, hence, receives a theta role. In unaccusative *zich* it is merely a case-checker. Furthermore, we find predicates of *ver*-verbs that allow both instances, none or either one without a clear pattern. Hence, I will be looking for a separate reasoning behind unaccusative *zich* with *ver*-verbs.

#### 3.3.1 OBJECTIONS TO A PURELY LEXICAL ACCOUNT

The pattern involving unaccusative *zich* involves a high degree of seemingly lexical idiosyncrasy. For instance the two antonyms *verrijken* ('to enrich') and *verarmen* ('to make poor') show a different marking, as is shown in 259 and 260.

- 259 a) De nieuwe plannen verrijken louter de top van de  
The new plans enrich only the top of the  
maatschappij.  
society.  
'The new plans only make the rich richer.'
- b) De top van de maatschappij verrijkt zich.  
The top of the society enriches SE.  
'The rich get richer.'
- 260 a) De nieuwe plannen verarmen de onderkant van de  
The new plans make poor the downside of the  
maatschappij.  
society.  
'The new plans make the poor even poorer.'
- b) De onderkant van de maatschappij verarmt.  
The downside of the society gets poor.  
'The poor get poorer.'

Both verbs are derived from an adjective. These adjectives have the same morphological (single morpheme), aspectual (open scale), semantic properties (intersective) and syntactic properties (predicative). For the derived verbs this is much the same. Even though their structural properties and even their meanings are so closely related, they still have a different marking for the unaccusative. This suggests that the marking differences are idiomatic in nature and are somehow tied to the verb entry. In addition, there is *prima facie* no observable pattern in the unaccusativity marking with regard to all the other verbs. Whether a marking by a different auxiliary or a marking by an SE-anaphor is selected, seems totally random.

Though lexical constraints may play a role in marking selection, there are several reasons to conclude that this cannot be the only driving force. First of all, it would be refusing to do research if we would not at least look for underlying patterns, even if this means we have to ascribe the unaccusativity marking to arbitrary and unpredictable properties of a verb-entry. Secondly, the set of *ver*-verbs contains very novel words that were unfamiliar to my informants. Their intuitions regarding possible unaccusativity marking were, however, largely unanimous. For instance, the examples in 261 and 262 allow both types of marking, where 263 only allows a different auxiliary selection.

- 261 a) De maatschappij verwestert.  
The society becomes more western.  
'The society gets more and more western oriented.'
- b) De maatschappij verwestert zich.  
The society becomes more western SE.  
'The society gets more and more western oriented.'
- 262 a) De taal verengelst.  
The language becomes more English.  
'The languages gets more and more English oriented.'
- b) De taal verengelst zich.  
The language becomes more English SE.  
'The languages gets more and more English oriented.'

- 263 a) De gezondheidszorg verachtert door de jaren heen.  
The healthcare gets behind through the years gone.  
'The healthcare is running behind through the years.'
- b) \*De gezondheidszorg verachtert zich door de jaren heen.  
The healthcare gets behind SE through the years gone.

Since these verbs are new in general and especially new to the speakers involved, it is not likely that these marking possibilities come from a property that is somehow frozen on the verb-entry. Since 259 and 260 contain known and frequently used verbs, *verrijken* ('enrich') and *verarmen* ('to make poor'), these are hard to explain in any theory that pursues to predict the specific marking. These two verbs, among many others, cannot be explained from what is argued in the following sections. Hence, there are probably idiosyncratic constraints. However, a purely lexical account is unlikely, given the clear intuitions of language users on novel words. In the following sections I will discuss some generalizations regarding unaccusative *zich* with *ver*-verbs.

### 3.3.2 SEMANTIC DIFFERENCES BETWEEN DIFFERENTLY MARKED PREDICATES

A starting point that will give us some insights is formed by those verbs that allow both types of unaccusativity marking. If we can find any differences between the two types of predicates, we may distill when *zich*-marking appears and when auxiliary alternation appears. Some examples of verbs that allow both types of marking are given in 264 to 267.

- 264 a) Het klimaat verbetert.  
The climate improves.  
'The climate is improving.'
- b) Het klimaat verbetert zich.  
The climate improves SE.  
'The climate is improving.'
- 265 a) Het aantal ict-problemen verdubbelde.  
The number ict problems doubled.  
'The number of ict problems has doubled.'
- b) Het aantal ict-problemen verdubbelde zich.  
The number ict problems doubled SE.  
'The number of ict problems has doubled.'
- 266 a) De deur opent.  
The door opens.  
'The door is opening.'
- b) De deur opent zich.  
The door opens SE.  
'The door is opening.'
- 267 a) Het landschap veranderde.  
The landscape changed.  
'The landscape has changed.'
- b) ?Het landschap veranderde zich.  
The landscape changed SE.  
'The landscape has changed.'

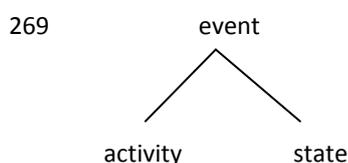
The auxiliary marking only surfaces in the perfect tense.

### 3.3.2.1 STATE VERSUS ACTIVITY

In the form that is marked by a different auxiliary, it shows a clear but subtle meaning difference with the SE-anaphor marking. Imagine some detective that stumbles upon an abandoned house during a murder investigation. While approaching the house, he sees that the door is currently open. In this sense 268a is licit and 268b is not.

- 268 a) De deur was geopend.  
The door was opened.  
'The door was opened.'
- b) #De deur had zich geopend.  
The door had SE opened.  
'The door was opened.'

Grimshaw (1990) shows the following conceptual representation for transitive verbs:



It appears that 268a focuses on the state of the event (the door being open), while 268b focuses on the activity of the event (the door being opened). Since the house was abandoned, it is not appropriate to draw focus on the action (unless at that specific moment the wind had opened the door). This difference surfaces more clearly in complements of verbs of cognition and perception:

- 270 a) Ik zag dat de deur geopend was.  
I saw that the door opened was.  
'I saw that the door was opened.'
- b) Ik zag dat de deur zich geopend had.  
I saw that the door SE opened had.  
'I saw that the door was opened.'
- 271 a) Ik weet dat de deur geopend is.  
I know that the door opened is.  
'I know the door is opened.'
- b) Ik weet dat de deur zich heeft geopend.  
I know that the door SE has opened.  
'I know the door is opened.'

An open door entails that that door has been opened. Likewise, a door that is opened entails that at some point in time that door is open. The meaning differences are very subtle. Knowing that an action of opening a door has taken place, entails knowing that that door was open at some point. Hence, the SE-anaphor marking merely draws focus to the activity, while the inflectional marking puts focus to the state. There is no difference in truth conditions.

### 3.3.2.2 ACCIDENTIAL VERSUS HIDDEN AGENT

Another similar meaning difference is with regard to the way of opening. It seems that the SE-anaphor marking is more suitable for an accidental or automatic opening. Of course this can be explained from the fact that the inflectional marking draws focus on the state. How this state was achieved, is of less importance and is therefore more suitable for a reading that allows a wide range of causes.

272 a) De deur opent alleen als er brand is.  
 The door opens only if there fire is.  
 'The door opens only when there's a fire.'

b) De deur opent zich alleen als er brand is.  
 The door opens SE only if there fire is.  
 'The door opens only when there's a fire.'

The sentence 272a has a preferred reading in which the door only opens or can be opened when there is a fire. The sentence 272b has a preferred reading in which the door only opens automatically during a fire, but if there is no fire people can still open the door non-automatically. But again these are only preferences. It is not the case that 272a means that the door can never be opened at another point in time than during a fire.

### 3.3.2.3 INSTRUMENTAL PHRASES

Another subtle meaning difference regards the reintroduction of the through external reduction deleted cause. The inflectional marked unaccusative is more suitable for an instrumental phrase.

273 a) De deur opent met een sleutel.  
 The door opens with a key.  
 'The door opens with a key.'

b) ?De deur opent zich met een sleutel.  
 The door opens SE with a key.  
 'The door opens with a key.'

Sentence 274 is a paraphrase of sentence 273a however 273b does not allow this paraphrase.

274 Een sleutel opent de deur.  
 A key opens the door.  
 'A key opens the door.'

Sentence 273b seems to have an intermediate cause and seems to be paraphrased as 275.

275 Een sleutel laat deze deur automatisch openen.  
 A key lets this door automatically open.  
 'A key causes this door to open by itself.'

Even though my informants agree that 273b is not as good as 273a and is less suitable for a reading as in 274, none wishes to rule sentence 273b or a paraphrase like 274 for it out. Again we are dealing with preferences rather than strict differences.

### 3.3.2.4 EXTERNAL VERSUS INTERNAL CAUSE

Moreover, predicates that implicate an external cause are far worse with *zich* than those that seem to be really automatic of nature. In sentence 276 there is clearly an external cause, namely the driver, who is speeding up the car. Sentence 277 can really be caused from the inside rather than by an animate or even natural force.

276 a) De auto voor ons versnelt.  
 The car for us accelerates.  
 'The car in front of us is accelerating.'

b) ??De auto voor ons versnelt zich.  
 The car for us accelerates SE.

- 277 a) Het kristaliseringsproces versnelt.  
The crystallizing process accelerates.  
'The crystallizing process accelerates.'
- b) Het kristaliseringsproces versnelt zich.  
The crystallizing process accelerates SE.  
'The crystallizing process accelerates.'

### 3.3.2.5 ZICH AND AUTOMATISCH

Finally, even verbs that do not have an unaccusative alternate can be used in such a manner, as long as they are marked with *zich* and by an adverb entailing an automatically caused event.

- 278 a) De auto repareert zich automatisch.  
The car repairs SE automatically.  
'The car repairs itself automatically.'
- b) ??De auto repareert automatisch.  
The car repairs automatically.

### 3.3.2.6 INTERMEDIATE CONCLUSION

All in all, it seems that marking of an unaccusative with *zich* really suits an automatic or inherently caused process. Though these meaning differences are true and provide us insight when language speakers would choose between the two markings (if they are both available), this fact does not give us any insight in why some verbs allow both markings or only either one of them. It is not clear why many unaccusatives of *ver*-verbs do not allow focus on the activity or cannot be inherently caused. Likewise, the opposite holds for just as many *ver*-verbs. For instance, the verb *breken* ('to break') does not allow an unaccusative form marked by an SE-anaphor. If this would be ruled out by some semantic constraint, we would expect that the verb *breken* ('to break'), would not allow a reading yielding that the breaking is automatically caused. Of course this reading is always available for unaccusatives.

- 279 De vaas brak zomaar.  
The vase broke just but.  
'The vase suddenly broke.'

This means that even though there are slight semantic differences, related to the two different types of unaccusativity marking, these differences cannot predict why and when these markings are available or not. It appears that the difference between the two types is a formal difference, one that involves a high degree of lexical idiosyncrasy, given that certain verbs do not allow either one of the markings without showing semantic or structural differences to verbs that do.

### 3.3.3 **WORD CATEGORY OF THE STEM**

Closer scrutiny of the *ver*-verbs that allow *zich* as an unaccusativity marker reveals a striking similarity. All of these verbs, with only a few exceptions, are derived from adjectives. The exceptions are mostly derived from non-lexical units. Since these do not have a known base category, we cannot include nor exclude them from this generalization. In addition, it must be noted that many of the non-*ver*-verbs that allow *zich* as an unaccusativity marker tend to derive from adjectives as well (*openen* 'to open', *sterken* 'to strengthen' etc.).

The data are, however, not decisive. Of all *ver*-verbs derived from adjectives only about a third allows an unaccusative alternate marked with *zich*. In addition, there clearly are verbs, maybe not so many within the set of *ver*-verbs, that are not derived from adjectives but nonetheless have an unaccusative alternate marked by *zich*. Take for instance the examples in 280.

280     profileren,     manifesteren,     situeren  
           to manifest,     to manifest,     to situate

We must, thus, ask ourselves what is so special about adjectives, and more specifically about the adjectives resulting in *ver*-verbs that have an unaccusative alternate marked by *zich*, that allows this type of marking. The answer must not exclude verbs derived from other categories or over generalize all verbs derived from adjectives.

### 3.3.3.1 ASPECT OF ADJECTIVES

Almost all of the adjectives of which *zich*-unaccusatives can be derived, are open scale adjectives. This may preclude that the *zich* marker is aspect related. The meanings of these *ver*-verbs, though they are all events with endpoints, do not entail a definite endpoint. To make myself clear, the examples in 281a and 281b serve as illustration.

281     a)     \*De     appel     verrotte     meerdere     malen.  
           The     apple     rotted away     multiple     times.

          b)     Het     klimaat     verbeterde     meerdere     malen.  
           The     climate     improved     multiple times.  
           ‘The climate improved multiple times.’

Example 281a is ungrammatical. The process of rotting is completely closed. This would mean that the apple is rotten twice, which is pragmatically odd of course. It cannot mean that the apple was rotting and the degree to which it was rotten, worsened over multiple rotting events. In other words, it does not allow an incremental reading. It does not even allow a repetitive. The latter interpretations are available for those *ver*-verbs that allow *zich*-marking.

282     a)     Het     klimaat     verbeterde     zich     meerdere malen.  
           The     climate     improved     SE     multiple times.  
           ‘The climate improved multiple times.’

          b)     De     bevolking     verdubbelde     zich     meerdere     malen     over     de  
           The     population     doubled     SE     multiple     times     over     the  
           afgelopen     jaren.  
           Past     years.  
           ‘The population doubled multiple times over the past years.’

The suitability for an incremental reading can be tested by a *meer en meer* (‘more and more’) phrase. The suitability for a repetitive meaning can be tested by a *meerdere malen* (‘multiple times’) phrase. However, though tempting at first sight, the incremental or repetitive interpretation is also available for unaccusatives that do not allow marking by the SE-anaphor *zich*. In addition, verbs that allow both types of marking do not show a different auxiliary selection with a non-incremental reading and an SE-anaphor with an incremental reading. Both 283a and 283b are fine.

283     a)     Het     klimaat     verbeterde     meer     en     meer.  
           The     climate     improved     more     and     more.  
           ‘The climate improved more and more.’

          b)     Het     klimaat     verbeterde     zich     meer     en     meer.  
           The     climate     improved     SE     more     and     more.  
           ‘The climate improved more and more.’



*ver*-prefixation. The sub-procedure DETACH, applying after the GO-procedure, must then also necessarily apply after lexical marking. The only option we have to differentiate in the times of application is the VERBALIZE procedure. Of course, this sub-procedure only applies if the base category is not a verb. Remember though that the *ver*-verbs allowing *zich*-unaccusatives were almost all adjectives and idiomatic lexical units. It fits the bill perfectly if the VERBALIZE procedure is somehow responsible for generating *zich*-unaccusatives.

#### 3.3.4.2 APPLYING VERBALIZE AT A DIFFERENT POINT IN TIME

Now, let us see what we get when we apply VERBALIZE before marking (286) and when we apply VERBALIZE after marking (287).

286     A => VERBALIZE => V<sub>[-c-m]</sub> => LEXICAL MARKING => V (  $\theta_{1[-c-m]}$  ) => GO-OPERATION =>  
           => V<sub>ACC</sub> (  $\theta_{1[-c-m]} \theta_{[-c]}$  ) => DETACH => V<sub>ACC</sub> (  $\theta_{1[-c-m]} (\theta_{[-c]}) \theta_{[+c]}$  ) => EXTERNAL REDUCTION =>  
           => Re ( V )<sub>ACC</sub> (  $\theta_{1[-c-m]} (\theta_{[-c]}) (\theta_{[+c]})$  )

287     A => LEXICAL MARKING => A => VERBALIZE => V (  $\theta_{[-c-m]}$  ) => GO-OPERATION =>  
           => V<sub>ACC</sub> (  $\theta_{[-c-m]} \theta_{[-c]}$  ) => DETACH => V<sub>ACC</sub> (  $\theta_{[-c-m]} (\theta_{[-c]}) \theta_{[+c]}$  ) => EXTERNAL REDUCTION =>  
           => Re ( V )<sub>ACC</sub> (  $\theta_{[-c-m]} (\theta_{[-c]}) (\theta_{[+c]})$  )

The result in 286 only differs in one detail from that in 287: the theme role is marked with index 1. The theme role in 287 is unmarked. This may seem insignificant but it is a vital difference. The theme role in 286 must merge externally. The one in 287 must be merged internally if something rules external merger out. In fact, something is ruling it out, namely a cause role. It is true that this cause role is reduced, however does that entail that it cannot rule out external merger of unindexed roles? I assume it can. If there is an index of 1 present in the hierarchy, unindexed roles have to be merged internally. In any case it can merge internally. The crux of my analysis is, however, that in 286 the theme role must merge externally, since it bears the index of 1. An external merger of the theme role allows for alternative ACC-checking in the internal position, namely by an SE-anaphor. If the theme role would have merged internally, the position that would host the SE-anaphor for checking purposes is simply taken and that type of marking would never be available. Hence, only when the theme role must merge externally, *zich* marking is possible. The only way we can get external merger of the theme role through a *ver*-derivation is through 286, when the VERBALIZE procedure is to apply before the lexical marking. This explains why only adjectives and non-independent lexical units can result in *ver*-verbs that allow SE-anaphor marking. A nice effect is that *zich* marking of unaccusatives is seen mostly by inherently caused processes, as was discussed before. Theme-unergatives are also claimed to be inherently caused (Perlmutter (1978), Pesetsky (1995)) and they also merge their theme externally. Needless to say, in these predicates *zich* is not inserted, since there is no ACC-case. The location of the cause of the *zich*-marking is certainly correct.

In which cases the VERBALIZE procedure can apply before lexical marking or after lexical marking, I hold a case of lexical idiosyncrasy.

#### 3.3.4.3 SOME PROBLEMS WITH THE ANALYSIS

Sadly there are two problems with this analysis. First of all, it leans on a number of assumptions for which there is no direct empirical evidence. Namely, that the DETACH procedure adds a marked [+c] role and secondly that this marked [+c] role can prevent external merger of an unindexed theme role. Moreover, the alternative marking procedure applying to 1-place predicates and blindly assigning the single role with index one, is proven by the theme unergatives, that turn into obligatory unaccusatives after *ver*-prefixation. However, these derivations go against the one given above, since we would expect that in these cases marking with *zich* must at least be a possibility, since in these cases the theme role must also merge externally. However, none of the *ver*-

verbs derived from theme unergatives allow marking with *zich*. Hence, the evidence supporting obligatory external merger of the theme role is not compatible with the analysis that is exploiting it.

### 3.3.5 CONCLUSION

Despite the problems, I believe to have given a testable and falsifiable analysis. It predicts that *zich* can only function as an unaccusativity marker in predicates formed by verbs derived from non-verbal units (idiomatic exceptions I regard a possibility). Furthermore, any environments which force external merger of the theme role and where an ACC-feature is present, should be able to allow marking by an SE-anaphor. In any case, though at this point the analysis may not be perfect, at least the source of the unaccusativity marker *zich* is revealed: it resides in a procedure I called VERBALIZE.

## 4. CONCLUSION

### 4.1 SUMMARY

In this thesis I have investigated a particular class of Dutch verbs, formed by the prefix *ver*, that generate many instances of the Dutch SE-anaphor (*zich*). The questions I asked, are shown below:

- 288
1. How does the *ver*-prefix affect the theta role specification of a verb?
  2. How can we explain the fact that many *ver*-verbs allow lexical reflexivization?
  3. How can we explain the fact that with many *ver*-verbs an SE-anaphor appears for reasons different than lexical reflexivization:
    - a) as an obligatory reflexive?
    - b) as an unaccusativity marker?

Question one is answered by a three step procedure, shown below:

289 VER-PROCEDURE (VER)

1. VERBALIZE: If no theta grid is present, create the entry: V[-c-m].
2. GO: Add a [-c] role and ACC-case, if not present, to the theta grid.
3. DETACH: Reduce OR saturate a [-c] role if present, and add a  $\theta_1$ [+c] role.

This straightforwardly explains why so many *ver*-verbs form predicates with obligatory *zich*. If the procedure above applies to an agentive 1-place predicate, it will cause ACC to be added on a verb without an internal role.

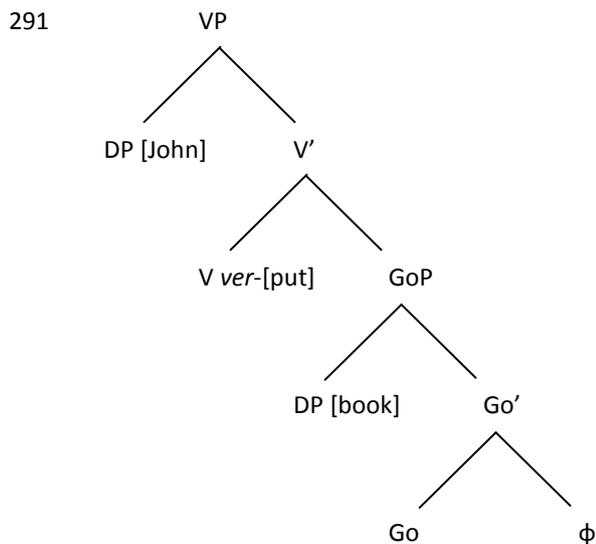
Therefore an element not in need of a theta role, but one that can check case, is required. Such an element is the SE-anaphor.

In addition I have argued for a constraint on the realization of a cause, called the RTC:

290 Rule of Tied Causativity: an external [+c] role cannot be realized as cause if there is no internal role.

This explains a number of facts. First of all, it explains why one place verbs receive an agentive interpretation on their external role after application of the *ver*-procedure. In addition, it explains why there are no V[+c] grids anywhere to be found. Thirdly, it explains why lexical reflexivity demands an agentive interpretation of the internal role.

In chapter three I have proposed the following structure for predicates with a *ver*-verb:



The goal reduction, that is part of the DETACH-procedure, may apply fully (reduction) or partially (saturation). In the second case, the goal role is still implicately present in the interpretation and the syntactic structure remains intact, hence allowing a possible SE-anaphor in the specifier of GoP to escape the IDI. Hence the lexical reflexivization that I thought could be observed with *ver*-verbs, is actually a form of syntactic reflexivity. Whether the goal reduction operation applies fully or partially, is a case of lexical idiosyncrasy.

Finally, the VERBALIZE procedure, only active if *ver* applies to non-verbal elements, can apply before or after the lexical marking procedures. In the first case it will cause the theme role to receive an index of 1. It must then be externally merged and allows for another element to check ACC-case in object position: an SE-anaphor. If it applies after the lexical marking procedure, it remains unindexed and it must merge internally, assuming that the added  $\theta_{1[+c]}$  will prevent external merger. This blocks any element in that position, also a special case checker such as the SE-anaphor. This explains why only *ver*-verbs derived from adjectives and idiomatic units may generate unaccusatives that are marked by an SE-anaphor. Whether the VERBALIZE procedure applies before or after the lexical marking procedures, is again a case of lexical idiosyncrasy.

## 4.2 PREDICTIONS

The theory presented in this thesis, consists of three separate procedures: VERBALIZE, GO and DETACH. The collection of these procedures, the *VER*-procedure, is very specific and probably only supported by Dutch *ver*-verbs. However, I expect the separate sub-procedures to be active in other languages.

The verbalizing procedure is very common and may be part of many procedures that apply to non-verbal units. It makes only one predication, namely that all verbs derived from adjectives or nouns have, or have traces of, a [-c-m] role. In Dutch this seems, at first sight, fairly right.

The GO-procedure has already been shown to be active in other environments. However, the great number of semantic differences and the difference concerning the theme role in caused motion predicates and resultatives, hints to a more sophisticated procedure. It predicts that in other languages we should find derivations that add ACC-case together with a [-c] role. Prima facie this is not an obvious combination. However, in German for instance, verbs or prepositions that denote movement, assign ACC-case to their arguments, which are precisely [-c]. Of course future research is required to prove that this pattern is the result of the GO-procedure.

Most interesting is of course the DETACH procedure. If no other language shows traces of a procedure that adds a cause and deletes a goal, we could wonder whether this specific procedure is empirically supported. The prediction is that some languages at least have a procedure that makes use of the DETACH procedure, but that may in total be different from the entire VER-procedure.

Furthermore, the claim that the set of verbs allowing lexical reflexivization is similar across languages is strengthened by the current research. It is shown that not all cases of reflexivity featuring an SE-anaphor, are actual cases of lexical reflexivization. It may be useful to consider complex syntactic structures in other languages and environments as well, to rule out lexical reflexivization in these cases. Most importantly, the claim that a goal role licenses an SE-anaphor in Dutch (not as a goal argument), predicts that other languages may show a similar pattern. To test this prediction the language in question must have an SE-anaphor that is also active in other environments than lexical reflexivization and that may carry a theta role.

Of course additional research is needed to prove that these predictions are correct.

### 4.3 SOME FINAL REMARKS

In the process of writing this thesis I have considered many possibilities and many theories to explain the behaviour of *ver*-verbs. Some of the ideas I have considered unsuccessful, some ideas faced conceptual problems or were blatantly stupid. Others seemed promising, but were nevertheless discarded. One of the possibilities I have considered, I wish to point out though. I could never scientifically dispose nor work out the initial insight. It concerned the ability of instruments to license reflexivity with an SE-anaphor, as shown in 292. Notice that *verdedigen* does not allow a goal role. Hence, that *zich* in sentence 292a is grammatical, must be caused by something other than that.

- 292 a) Hij verdedigt zich (met een zwaard).  
 He defends SE with a sword.  
 'He defends himself with a sword.'
- b) ?Hij slaat zich met een knuppel.  
 He hits SE with a club.  
 'He hits himself with a club.'
- c) Hij verrijkt zich met dure provisies.  
 He enriches SE with expansive provisions.  
 'He enriches himself with expansive provisions.'

It was not as attractive as a goal role licensing reflexivity with an SE-anaphor, since I could not find a specific construction that resembles cases such as the one above. Furthermore, the addition of an instrument to a predicate is a very productive process and it seems completely random when this would result in a predicate that allowed *zich* and when not. Hopefully, future research may take up on this idea and show the reason why instruments may sometimes be licensors of SE-anaphoric reflexivity.

This brings me to the second point I wish to make. As with any research, there is always a tremendous amount of interference from other factors. In this case the reason why a *ver*-verb can or cannot turn into a reflexive predicate with *zich*, may be dependent on a large amount of additional factors. Some of these I have identified in chapters 3. I believe there are many more, which hide in different components. For instance, it may be very well possible that even *ver*-verbs with a fully reduced goal role will still allow reflexive *zich*, simply because they allow lexical reflexivity to apply. This may very well be the case with *verdedigen* ('to defend'), mentioned in the previous paragraph. But also pragmatic or even cultural factors may prohibit or promote a reflexive version with *zich*. Or it may be the case that a version with an SE-anaphor, though ungrammatical according to the theory, may be grammaticalized or may even become an idiom. Research on language learners may reveal overgeneralization or under generalization and provide clues to which verbs are following the offered constraints and which are merely anomalies.

Finally the GO-operation clearly has different semantic effects. I have already mentioned cases of *ver*-verbs that have two different versions, such as *verrekenen*, which means 'to miscalculate' or 'to balance'. Secondly, not all unergative verbs turn into obligatory reflexives after prefixation with *ver*. Some of them turn in to a 'time away' construction instead, such as 'verdoen' which means 'to waste time'. I leave it to future research to reveal these subtle differences, that most likely reside in the GO-operation.

## REFERENCES

- Anderson, Mona. (1979) 'Noun Phrase Structure' (Ph.D. thesis), The University of Connecticut.
- Bach, E. et. al. (1995) 'The variability of impersonal subjects.' *Quantification in natural language*, 107-143, Kluwer.
- Barbiers, Sjeff, and Hans Bennis. (2003) 'Reflexives in dialects of Dutch.' Editor: Henk van Riemsdijk and Jan van Riemsdijk. *Germania et alia. a linguistic webschrift for den besten*.
- Barker, C. (1995) 'Possessive Descriptions' CSLI Press.
- Boeckx, Cedric, Norbert Hornstein, and Jairo Nunes. (2005) 'Overt copies in reflexive and control structures: a movement analysis.'
- Booij, Geert. (1990) 'The boundary between morphology and syntax: Separable complex verbs in Dutch'. Geert Booij and Jaap van Marle (eds.) *Yearbook of Morphology 1990*, 45-63. Dordrecht: Foris.
- Booij, Geert. (2001) 'Prosodic restrictions on affixation in Dutch'. Geert Booij and Jaap van Marle (eds.) *Yearbook of Morphology 2001*, 183-201. Dordrecht: Kluwer.
- Booij, Geert. (2002) 'Constructional idioms, morphology, and the Dutch lexicon'. *Journal of Germanic Linguistics* 14, 301-329.
- Bowers, J. (1993) 'The Syntax of Predication', *Linguistic Inquiry* 24:4.
- Burzio, Luigi. (1986) 'Italian Syntax: A Government-Binding approach.'

- Burzio, Luigi. (1996) 'The role of the antecedent in anaphoric relations.' Editor: Robert Freidin. *Current issues in comparative grammar*, 1-45, Kluwer.
- Burzio, Luigi. (1998) 'Anaphora and soft constraints.' Editor: Plinio Barbosa, Danny Fox, Paul Hagstrom, Martha McGinnis and David Pesetsky. *Is the best good enough?*, 93-113, MIT Press.
- Calude, Andreea. (2004) 'Reflexive - middle and reciprocal - middle continua in Romanian.' *Proceedings of the 2004 conference of the Australian linguistic society*.
- Chierchia, Genarro. (1989) 'A Semantics for Unaccusatives and its Syntactic Consequences.'
- Chomsky, Noam. (1981) 'Lectures on government and binding.' Foris.
- Chomsky, Noam. (1986) 'Barriers' Cambridge, MA: MIT Press.
- Chomsky, Noam. (1995) 'The minimalist program.' MIT Press.
- Chomsky, Noam. (2001) 'Derivation by phase.' Editor: Michael Kenstowicz. *Ken Hale: a life in language*, MIT press.
- Chomsky, Noam. (2005) 'On phases.' MIT press.
- Collins, C. (1997) 'Local Economy', Cambridge: MIT Press.
- Corne, Chris. (1988) 'Mauritian Creole reflexives.' *Journal of Pidgin and Creole Languages* 3, 69-94.
- Everaert, Martin. (1991) 'Contextual determination of the anaphor/pronoun distinction.' Editor: Jan Koster and Eric Reuland. *Long-distance anaphora*, 77-118, Cambridge university press.
- Everaert, M., H. van Riemsdijk and R. Goedemans (eds). (2006) *The Blackwell Companion to Syntax*, Volumes I-V, London: Blackwell.
- Faltz, Leonard. (1977) 'Reflexivization: a study in universal syntax.' (PhD dissertation).
- Fischer, Silke. (2004) 'Optimal binding.' *Natural language & linguistic theory*, nr. 22, 481-526, Kluwer.
- Fox, Daniel (1993). 'Chain and Binding: A Modification of Reinhart and Reuland's "Reflexivity".' ms., MIT Press.
- Gast, Volker. (2006) 'Intensifiers and reflexives in Germanic languages.'
- Gast, Volker, and Florian Haas. (2008) 'Reflexive and reciprocal readings of anaphors in German and other European languages.' Editor: Ekkehard König and Gast Volker. *Reciprocals and reflexives theoretical and typological explorations*, 307-346, Mouton de Gruyter.
- Goldberg, Adele. (1992). 'A Semantic Account of Resultatives.' *Linguistic Analysis* 21, 66-96.
- Goldberg, Adele. (1995). 'Making One's Way Through the Data.' In Alex Alsina, Joan Bresnan and Peter Sells (eds) *Complex Predicates*. Stanford: CSLI Publications. Also in M. Shibatani and S. Thompson (eds) *Grammatical Constructions: Their Form and Meaning*, 29-53, Oxford: Clarendon Press.
- Goldberg, Adele. (1996). "Jackendoff and Construction-Based Grammar." *Cognitive Linguistics* 7:1, 3-20.
- Goldberg, Adele and Ray Jackendoff. (2004) 'The English Resultative as a Family of Constructions.' *Language* 80:3, 532-568.

- Grimshaw, Jane. (1982) 'On the lexical representation of Romance reflexive clitics.' Editor: Joan Bresnan. *The mental representation of grammatical relations*, Cambridge, Massachusetts: MIT Press.
- Grimshaw, Jane. (1990) 'Argument structure' MIT press.
- Haeseryn, Walter. (1997) 'Algemene Nederlandse Spraakkunst' Groningen: Martinus Nijhoff.
- Hale, K. and J. Keyser. (2002) 'Prolegomena to a theory of argument structure' *Linguistic Inquiry Monograph*, 39, Cambridge, Massachusetts: MIT Press.
- Harves, S. (2002). 'Unaccusative syntax in Russian' Princeton University (PhD dissertation).
- Heine, Bernd. (2005) 'On reflexive forms in creoles' *Lingua* 115, nr. 2005, 201-257.
- Hoekstra, Teun. (1988) 'Small clause results' In: *Lingua* 74, 101-39.
- Hoekstra, Teun, Monic Lansu, and Marion Westerduin. (1989) 'Complexe verba.' *GLOT* 10, nr. 1, 1989: 61-78.
- Hole, Daniel. (2009) 'German free datives and Knight Move Binding' Universität Stuttgart.
- Im, H. (1987) 'A study on korean reflexives'.
- Jackendoff, Ray. (1975a) 'Morphological and semantic regularities in the lexicon.' *Language* 51, 639-671.
- Jackendoff, Ray. (1975b) 'A system of semantic primitives'.
- Jackendoff, Ray (1987) 'The status of Thematic relations in linguistic theory', *Linguistic Inquiry* 18.3, 369-411.
- Jackendoff, Ray (1990) 'Semantic Structures', Cambridge, Mass: MIT Press.
- Jackendoff, Ray. (1992) 'Mme Tussaud meets the binding theory.' *Natural language and linguistic theory* nr. 31, 1-31.
- Jackendoff, Ray. (1995) 'Babe Ruth honored his way into the hearts of America' *Syntax and Semantics* 26: Syntax and the Lexicon, 155-178.
- Jackendoff, Ray. (1997) 'Twistin' the night away' *Language* 73, 534-59.
- Jaeggli, Osvaldo (1986) 'Passive' *Linguistic Inquiry* 17:587-622.
- Johnsen, Sverre. (2008) 'Binding in complements of perception verbs.' East coast workshop in syntax.
- Jong, Franciska de, Leonoor Oversteegen, and Henk Verkuyl. (1988) 'Betekenis en taalstructuur: inleiding in de formele semantiek.' Dordrecht: Foris Publications.
- Kaiser, Elsi, and Jeffrey Runner. (2008) 'Intensifiers in German and Dutch anaphor resolution.' Editor: Natasha Abner and Jason Bishop. *Proceedings of the 27th west coast conference on formal*.
- Kang, Beom-mo. (1998) 'Three kinds of Korean reflexives: a corpus linguistic investigation on grammar and usage' *Language, information and computation*, nr. Feb 1998, 10-19.
- Kayne, Richard (1981) 'Ecp extensions' *Linguistic Inquiry*, 12:1, 93-133.
- Kennedy, Christopher, and Louis McNally. (1999) 'From event structure to scale structure: degree modification in deverbal adjectives.' *Proceedings of semantics and linguistic theory*, SALT9.

- Kishida, Maki. (2005) 'Binding and reflexives in English and Japanese'.
- König, Ekkehard, and Peter Siemund. (2000) 'Intensifiers and reflexives: a typological perspective' Editor: Zygmunt Frajzyngier and Traci Curl. *Reflexives: forms and functions*, Benjamins.
- König, Ekkehard, and Volker Gast. (2006) 'Focused assertion of identity' *Linguistic typology* nr. 10.
- Kratzer, Alexandra. (1996) 'Severing the External Argument from its Verb' in: Johan Rooryck and Laurie Zaring (eds.) *Phrase Structure and the Lexicon*, 109-137, Dordrecht: Kluwer.
- Kremers, Joost. (1999) 'Theta role mapping', ms., University of Nijmegen.
- Landau, Idan. (2001). 'Control and Extraposition: The Case of Super-Equi' *Natural Language and Linguistic Theory* 19, 109-152.
- Lasnik, Howard. (1991) 'On the necessity of binding conditions.' Editor: Robert Freidin. *Principles and parameters in comparative grammar*, 7-28, MIT Press.
- Lefebvre, Claire. (1998) 'Creole genesis and the acquisition of grammar: the case of Haitian Creole' Cambridge University Press.
- Lids, Jeffrey and Williams. (2004) 'C-Locality and the interaction of reflexives and ditransitives' *Proceedings of North East linguistic society* 35. Amherst, Ma.
- Lieber, Rochelle and Harald Baayen. (1993) 'Verbal prefixes in Dutch: a study in lexical conceptual structure' *Yearbook of Morphology 1993*, p. 51-78. Kluwer publishing.
- Marelj, Marijana. (2004) 'Middles and argument structure across languages' LOT Dissertation Series 88.
- Maylor, Roger. (2002) 'Lexical template morphology: change of state and the verbal prefixes in German' John Benjamins.
- Menuzzi, Sergio. (1999) 'Binding theory and pronominal anaphora in Brazilian Portuguese' Holland academic graphics.
- Mortensen, David. (2003) 'Two kinds of variable elements in Hmong anaphora' Ms.
- Neeleman, Ad and Joleen Schipper. (1992). Verbal Prefixation in Dutch: Thematic Evidence for Conversion. In: G. Booij and J. van Marle (eds.) *Yearbook of Morphology 1992*, 57-92. Dordrecht: Kluwer.
- Papen, R.A. (1978) 'The French-based creoles of the Indian Ocean: an analysis and comparison' (PhD Dissertation).
- Perlmutter, D. M. (1978) 'Impersonal Passives and the Unaccusative Hypothesis' In: *Proceedings of the Fourth Annual Meeting of the Berkeley Linguistics Society*, 157-189. Berkeley Linguistic Society, University of California, Berkeley.
- Pesetsky, D. (1995) 'Zero Syntax' Cambridge, MA: MIT Press.
- Pica, Pierre. (1991) 'On the interaction between antecedent-government and binding: the case of long-distance reflexivization' Editor: Jan Koster and Eric Reuland. *Long distance anaphora*, 119-135, Cambridge university press.
- Pollard, Carl, and Ivan Sag. (1992) 'Anaphors in English and the scope of binding theory' *Linguistic inquiry*, nr. 23, 261-303.

- Pollard, Carl, and Ivan Sag. (1994) 'Head-driven Phrase Structure Grammar', Chicago: University of Chicago Press.
- Ratliff, Martha. (1992) 'Meaningful tone: a study of tonal morphology in compounds, form classes, and expressive phrases in White Hmong'.
- Reinhart, Tanya. (1976) 'The Syntactic Domain of Anaphora' (Ph. D. dissertation), MIT Press.
- Reinhart, Tanya. (1983) 'Coreference and bound anaphora: a restatement of the anaphora questions.' *Linguistics and Philosophy* 6.
- Reinhart, Tanya, and Eric Reuland. (1991) 'Anaphors and logophors: an argument structure perspective' Long-distance anaphors, Cambridge university press.
- Reinhart, Tanya, and Eric Reuland. (1993) 'Reflexivity' *Linguistic inquiry* 24, 657-720.
- Reinhart, Tanya, and Yosef Grodzinsky. (1993) 'The innateness of binding and of coreference' *Linguistic Inquiry* 24, nr. 1, 69-101.
- Reinhart, Tanya (1996) 'Syntactic Effects of Lexical Operations: Reflexives and Unaccusatives', OTS Working papers in Linguistics, University of Utrecht, available also at <http://www.let.uu.nl/~tanya.reinhart>.
- Reinhart, Tanya. (2000) 'The theta system: syntactic realization of verbal concepts' OTS working papers.
- Reinhart, Tanya. (2001) 'Experiencing derivations'.
- Reinhart, Tanya. (2002) 'The theta system - an overview' *Theoretical Linguistics* 28, nr. 3, 229-290.
- Reinhart, Tanya, and Tal Siloni. (2005) 'The lexicon-syntax parameter: reflexivization and other arity operations' *Linguistic inquiry*, 389-436.
- Reuland, Eric. (2001) 'Primitives of binding' *Linguistic inquiry* 32, nr. 3, 439-492.
- Reuland, Eric. (2005a) 'Binding Conditions: How are they Derived?' In: *Proceedings of the HPSG05 Conference Department of Informatics*, University of Lisbon, ed. Stefan Müller. Stanford: CSLI Publications <http://csli-publications.stanford.edu/>
- Reuland, Eric. (2005b). 'Agreeing to Bind' In: *Organizing Grammar: Linguistic Studies in Honor of Henk van Riemsdijk*, ed., Hans Broekhuis, Norbert Corver, Riny Huybregts, Ursula Kleinhenz, and Jan Koster. Berlin: Walter de Gruyter
- Reuland, Eric. (2008) 'Anaphoric dependencies: How are they encoded? Towards a derivation-based typology' In *Reciprocals and Reflexives – Cross-linguistic and theoretical explorations*, ed. Ekkehard König and Volker Gast. 502-559, Berlin: Mouton de Gruyter.
- Reuland, Eric. (to appear in 2011) 'Anaphora and Language Design.' Cambridge, MA: MIT Press.
- Rivero, María Luisa. (2001) 'On impersonal reflexives in Romance and Slavic and semantic variation' Editor: J. Camps and C. R. Wiltshire. *Romance syntax, semantics and L2 acquisition*, 169-195, Benjamins.
- Runner, J.T., R.S. Sussman, & M.K. Tanenhaus. (2003) 'Assignment of reference to reflexives and pronouns in picture noun phrases: Evidence from Eye Movements', *Cognition* 89, B1-B13.
- Safir, Ken. (1997) 'Symmetry and unity in the theory of anaphora' Editor: Hans Bennis, Pierre Pica and Johan Rooryck. *Atomism and binding*, 341-379, Foris.

- Safir, Ken. (2004) 'The syntax of anaphora' Oxford university press.
- Schladt, Mathias. (2000) 'The typology and grammaticalization of reflexives' Editor: Zygmunt Frajzyngier and Traci Curl. *Reflexives: forms and functions*, Benjamins.
- Simpson, J. (1983) 'Resultatives' In Levin L., M. Rappaport, and A. Zaenen (eds.), *Papers in Lexical-Functional Grammar*, 143-57. Bloomington, Ind.: Indiana University Linguistics Club.
- Smith, C. S. (1970) 'Jespersen's 'Move and Change' Class and Causative Verbs in English' In: Jazayery, M. A., E. C. Polom, and W. Winter (eds), *Linguistic and Literaty Studies in Honor of Archibald A. Hill*. Vol. 2: Descriptive Linguistics, 101-9. The Hague: Mouton.
- Steinbach, Markus. (1998) 'Middles in German' Berlin.
- Steinbach, Markus. (1999) 'Unaccusatives and anticausatives in German' Ms. University of Mainz.
- Stowell, T.A. (1981) 'Origins of Phrase Structure' (Phd Dissertation).
- Uchiumi, Tohru. (2005) 'Two subtypes of so-called picture NP's' *Proceedings of the 2004 annual conference of the Canadian Linguistic Association*. McGill University.
- Van Dale. (1999) *Groot Woordenboek der Nederlandse Taal*. 13.
- Vinokurova, Nadezhda. (2005) 'Lexical categories and argument structure: a study with reference to Sakha' Utrecht: LOT.
- Vooy, C.G.N, de. (1967) 'Nederlandse spraakkunst' 7<sup>th</sup> edition. Editor: M. Schönfeld. Groningen: J.B. Wolters, 1947.
- Vries, Mark de. (1999) 'Het schemergebied tussen pronomina en anaforen' *Nederlandse Taalkunde*, nr. 4: 125-160.
- Wal, M., and C. van Bree. (1992) 'Geschiedenis van het Nederlands' Het Spectrum, 3rd edition.
- Wehrli, Eric. (1986) 'On some properties of French clitic se' Editor: Hagit Borer. *Grammar of pronominal clitics* New York: Academic Press: 263–283.
- Williams, Edwin (1981) 'Argument structure and morphology', *The Linguistic Review* 1, 81-114.
- Williams, Edwin (1982). 'The NP Cycle.' *Linguistic Inquiry* 13, 277-295.
- Zribi-Hertz, Anne. (2004) 'On the nonexistence of reflexive anaphors: some implications for syntactic theory' Paper presented at the workshop on reciprocity and reflexivity, description, typology and theory.

## APPENDIX A: LIST OF MOST COMMON VER-VERBS

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Veraangename	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make agreeable
Veraanschouwelijk	B	V[+c][-c-m]	A	-	O-zich	Demonstrate
Verabsoluteren	B	V[+c][-c-m]	A	O-infl / O-zich	-	Explicitize
Veraccorderen	B	V[+c][-c-m]	N	-	-	Agree
Verachten	G	V[+c][+m][-c-m]	V[+m][-c-m]	-	O-zich	Dismay
Verachteren	B	V[+c][-c-m]	P	O-infl	-	Get behind
Verademen	G	V[+c][-c-m]	V[+m]	O-infl	-	Relieve
Verafgoden	B	V[+c][-c-m]	N	-	O-zich	Idolize
Verafschuwen	G	V[+c+m][-c-m]	N	-	O-zich	Loathe
Veralgemeenen	B	V[+c][-c-m]	A	O-infl / O-zich	-	Generalize
Veramerikaansen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make American
Veranderen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Change
Verankeren	G	V[+c][-c-m]	N	O-zich	-	Anchor
Verantwoorden	G	V[+c+m][-c-m][-c]	V[+c+m][-c]	-	O-zich	Justify
Verarmen	B	V[+c][-c-m]	A	O-infl	-	Pauperize
Verassen	B	V[+c][-c-m]	N	O-zich	O-zich	Burn
Verbabbelen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Talk away
Verbannen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Expel
Verbasteren	G	V[+c][-c-m]	I	O-infl / O-zich	-	Degenerate
Verbazen	G	V[+c][-c-m]	I	O-zich	O-zich	Amaze
Verbeelden	B	V[+c][-c-m]	N	-	O-zich	Portray
Verbeiden	G	V[+c+m][-c-m]	I	-	O-zich	Await
Verbenen	B	V[+c][-c-m]	N	O-infl	-	Make bone
Verbergen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	O-zich	O-zich	Hide
Verbeteren	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Improve
Verbeuren	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	O-infl	-	Lose
Verbeuzelen	G	V[+c+m][-c-m]	I	-	-	Waste
Verbieden	G	V[+c][+c][-c][-c-m]	V[+c][-c][-c-m]	-	O-zich	Ban
Verbijstere	B	V[+c][-c+m]	A	O-zich	O-zich	Astonish
Verbijten	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Bite away
Verbijzonderen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make special
Verbinden	G	V[+c][+c+m][+c-m][-c-m]	V[+c+m][+c-m][-c-m]	O-zich	O-zich	Band
Verbitteren	B	V[+c][-c-m]	A	O-infl / O-zich	-	Embitter
Verbleken	B	V[+c][-c-m]	A	O-infl	-	Bleach
Verblijden	B	V[+c][-c+m]	A	O-zich	O-zich	Gladden
Verblijven	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Reside
Verblikken	G	V[+c][-c+m]	V	R-infl	-	Blush
Verblinden	B	V[+c][-c-m]	A	-	O-zich	Blind
Verbloeden	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Bleed to death
Verbloemen	G	V[+c][-c-m]	N	-	-	Cover up
Verblozen	G	V[+c][+m][-c+m]	V[+m]	O-infl	O-zich	Blush
Verbluffen	G	V[+c][-c+m]	V[+c+m]	-	O-zich	Astonish
Verboemelen	G	V[+c+m][-c-m]	N	-	-	Waste time
Verbouwen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Reconstruct

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Verbouwen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Cultivate
Verbranden	G	V[+c][-c-m]	V[-c-m]	O-infl	O-zich	Burn away
Verbrassen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Spend
Verbreiden	B	V[+c][-c-m]	A	O-infl, O-zich	-	Broaden
Verbreiden	B	V[+c][-c-m]	A	O-zich	-	Spread
Verbreken	G	V[+c][-c-m]	V[+c][-c-m]	O-infl	-	Disband
Verbrijzelen	G	V[+c][-c-m]	I	O-infl	-	Shatter
Verbroddelen	M	V[+c][-c-m]	V[+c+m]	-	-	Screw up
Verbroederen	B	V[+c][-c-m]	N	O-infl / O-zich	-	Conciliate
Verbrokkelen	B	V[+c][-c-m]	V[-c-m]	O-infl / O-zich	-	Crumble
Verbruien	M	V[+c][+c+m][-c-m]	I	-	-	Spoil
Verbruiken	G	V[+c][-c-m]	I	-	O-zich	Use up
Verbuigen	G	V[+c][-c-m]	V[+c][-c-m]	O-infl / O-zich	O-zich	Bend
Verburgelijken	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make ordinary
Verchromen	B	V[+c][-c-m]	N	O-zich	O-zich	Chrome
Vercommercialiseren	B	V[+c][-c-m]	V[+c][-c-m]	O-infl / O-zich	O-zich	Commercialize
Verdagen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m][-c]	-	-	Adjourn
Verdampen	G	V[+c][-c-m]	V[-c-m]	O-infl	-	Evaporate
Verdedigen	G	V[+c][-c-m]	I	-	O-zich	Defend
Verdeken	G	V[+c][-c-m]	V[+c+m][-c-m]	-	O-zich	Cover
Verdelen	B	V[+c][-c-m]	A	O-zich	O-zich	Divide
Verdelgen	G	V[+c][-c-m]	I	-	O-zich	Exterminate
Verdenken	G	V[+c+m][+m][-m]	V[+m][-m]	-	O-zich	Suspect
Verderven	G	V[+c][+m][-c-m]	V[+m][-c-m]	-	-	Deprave
Verdichten	B	V[+c][-c-m]	A	O-infl / O-zich	-	Condense
Verdichten	G	V[+c+m][-c-m]	V[+c+m]	-	O-zich	Contrive
Verdienen	G	V[+c+m][-c-m]	V[+c][-c+m]	-	-	Earn
Verdiepen	G	V[+c][-c-m]	A	-	R-zich	Get into
Verdiepen	B	V[+c][-c-m]	A	O-infl / O-zich	-	Deepen
Verdikken	B	V[+c][-c-m]	A	O-zich	-	Thicken
Verdoeken	B	V[+c+m][-c-m]	N	-	-	Repaint
Verdoemen	B	V[+c][-c+m]	A	-	O-zich	Condemn
Verdoen	G	V[+c][-c-m]	V[+c+m][-c-m]	-	-	Waste
Verdoezelen	G	V[+c][-c-m]	I	-	-	Cover up
Verdolen	G	V[+c][-c-m]	V[+c+m]	R-infl	-	Get lost
Verdommen	G	V[+c][-c-m]	A	-	-	Stupify
Verdommen	B	V[+c+m][-c-m]	A	O-infl	O-zich	Stubbornly refuse
Verdopen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Rebaptise
Verdorren	B	V[+c][-c-m]	A	O-infl	-	Wither
Verdoven	B	V[+c][-c-m]	A	-	O-zich	Anaesthetize
Verdraaien	G	V[+c][-c-m]	V[+c][-c-m]	O-zich	-	Distort
Verdragen	G	V[-c+m][-c-m]	V[+c+m][-c-m]	-	-	Bear
Verdriedubbelen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Triple
Verdrieten	B	V[+c][-c+m]	I	-	O-zich	Sadden
Verdrijven	G	V[+c][-c-m]	V[+c][-c-m][-c]	-	O-zich	Drive out
Verdringen	G	V[+c][-c-m]	V[+c+m][-c-m][-c]	-	O-zich	Suppress
Verdrinken	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	O-infl	O-zich	Drown
Verdrogen	B	V[+c][-c-m]	A	O-infl	-	Dry out

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Verdromen	G	V[+m][-c-m]	V[+m]	-	-	Dream away
Verdrukken	G	V[+c][-c-m]	V[+c+m][-c]	-	-	Suppress
Verdubbelen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Double
Verduidelijken	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Clarify
Verduisteren	B	V[+c][-c-m]	A	O-infl / O-zich	-	Darken
Verduitsen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make German
Verdunnen	B	V[+c][-c-m]	A	O-zich	-	Dilute
Verduren	G	V[-c+m][-c-m]	V[-c-m]	-	-	Endure
Verduurzamen	B	V[+c][-c-m]	A	O-infl / O-zich	-	Make durable
Verduwen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Push away
Verdwalen	G	V[+c][-c-m]	V[+c+m]	R-infl	-	Get lost
Verdwazen	B	V[+c][-c-m]	A	O-infl	-	Stupify
Verdwijnen	G	V[+c][-c-m]	I	R-infl	-	Disappear
Veredelen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Refine
Vereelten	B	V[+c][-c-m]	N	O-infl	-	Make callous
Vereenvoudigen	B	V[+c][-c-m]	A	O-infl / O-zich	-	Simplify
Vereenzamen	B	V[+c][-c+m]	A	O-infl	-	Make lonely
Vereenzelvigen	G	V[+c+m][-c-m]	A	-	R-zich	Identify
Vereeuwigen	B	V[+c][-c-m]	A	O-infl	O-zich	Immortalize
Vereffenen	G	V[+c][-c-m]	A	O-infl	-	Settle
Vereisen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Require
Verenen	B	V[+c][-c-m]	A	-	O-zich	Combine
Verengelsen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make English
Verengen	B	V[+c][-c-m]	A	O-infl / O-zich	-	Narrow
Verenigen	B	V[+c][-c-m]	A	-	O-zich	Unite
Vereren	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Honour
Verergeren	B	V[+c][-c-m]	A	O-infl / O-zich	-	Worsen
Vererven	G	V[+c][-c+m][-c-m]	V[-c+m][-c-m]	O-infl	-	Inherit
Veretteren	B	V[+c][-c-m]	N	O-infl	-	Suppurate
Verevenen	B	V[+c][-c-m]	A	O-infl	-	Settle
Verfijnen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Refine
Verfilmen	B	V[+c+m][-c-m]	N	-	-	Adapt to screen
Verflauwen	B	V[+c][-c-m]	A	O-infl / O-zich	-	Fade
Verflensen	M	V[+c][-c-m]	I	-	-	Screw up
Verfoeien	G	V[+c+m][-c]	I	-	O-zich	Denounce
Verfomfaaien	M	V[+c][-c-m]	I	-	-	Screw up
Verfraaien	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Beautify
Verfransen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make French
Verfriesen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make Frisian
Verfrissen	B	V[+c][-c-m]	A	-	O-zich	Refresh
Verfrommelen	G	V[+c][-c-m]	I	-	-	Wrinkle
Vergaan	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Perish
Vergaderen	G	V[+c][-c-m]	I	O-zich	O-zich	Gather
Vergallen	M	V[+c][-c-m]	N	-	-	Spoil
Vergalopperen	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Put one's foot in
Vergapen	M	V[+c][+m]	V[+m]	-	R-zich	Infatuate
Vergaren	G	V[+c][-c][-c-m]	I	-	-	Gain
Vergassen	G	V[+c][-c-m]	N	-	O-zich	Gas

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Vergassen	B	V[+c][-c-m]	N	O-infl	-	Turn into gas
Vergasten	G	V[+c+m][-c-m]	N	-	-	Welcome
Vergeestelijken	B	V[+c][-c-m]	A	O-infl	-	Immaterialize
Vergelden	G	V[+c][-c-m]	V[-c-m]	-	-	Retribute
Vergelen	B	V[+c][-c-m]	A	O-infl	-	Yellow
Vergelijken	G	V[+c+m][-c-m][-c]	V[-c-m][-m]	-	O-zich	Compare
Vergemakkelijken	B	V[+c][-c-m]	A	O-infl	-	Ease
Vergenoegen	B	V[+c][-c+m]	A	-	O-zich	Please
Vergeeten	G	V[+m][-c-m]	I	-	O-zich	Forget
Vergeven	G	V[+c+m][-c][-c-m]	V[+c+m][-c][-c-m]	-	O-zich	Forgive
Vergewissen	G	V[+c][-c][-c-m]	I	-	O-zich	Inform
Vergezellen	G	V[+c][-c-m][-c]	N	O-zich	O-zich	Accompany
Vergieten	G	V[+c][-c-m]	V[+c+m][-c-m][-c]	-	-	Pour away
Vergiftigen	G	V[+c][-c-m]	A	-	O-zich	Poison
Vergiftigen	B	V[+c][-c-m]	A	O-infl	-	Poison
Vergissen	M	V[+c][+c+m]	V[+c+m][-c-m]	-	R-zich	Mistake
Vergisten	B	V[+c][-c-m]	V[-c-m]	O-infl	-	Ferment away
Vergoddelijken	B	V[+c][-c-m]	A	O-infl	-	Deify
Vergoeden	G	V[+c][-c][-c-m]	A	-	O-zich	Repay
Vergokken	G	V[+c+m][-c-m]	V[+c+m]	-	-	Gamble away
Vergooien	G	V[+c][-c-m]	V[+c+m][-c-m][-c]	-	-	Throw away
Vergrassen	B	V[+c][-c-m]	N	O-infl / O-zich	-	Make into grass
Vergraven	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Redig
Vergrendelen	G	V[+c][-c-m]	N	-	-	Lock
Vergrijpen	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Assault
Vergrijzen	B	V[+c][-c-m]	A	O-infl / O-zich	-	Gray
Vergroeien	M	V[+c][-c-m]	V[-c-m]	R-infl	-	Deform
Vergroten	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Enlarge
Vergroven	B	V[+c][-c-m]	A	O-infl	-	Make coarse
Vergruizelen	G	V[+c][-c-m]	N	O-infl / O-zich	O-zich	Grind
Verguizen	G	V[+c+m][-c-m]	I	-	O-zich	Malign
Vergulden	B	V[+c][-c-m]	N	-	-	Engild
Vergunnen	G	V[+c][+m][-c+m][-c-m]	V[+m][-c+m][-c-m]	-	O-zich	Admit
Verhalen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Tell
Verhalen	G	V[+c+m][-c-m][-c]	V[+c+m][-c-m]	-	-	Redress
Verhandelen	G	V[+c+m][-c-m]	V[+c+m]	-	O-zich	Trade
Verhangen	G	V[+c][-c-m]	V[-c-m]	-	-	Hang elsewhere
Verhangen	G	V[+c][-c-m]	V[-c-m]	-	R-zich	Hang
Verharden	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Harden
Verharen	G	V[+c][-c-m]	N	R-infl	-	Moult
Verhaspelen	M	V[+c][-c-m]	I	-	-	Screw up
Verheerlijken	B	V[+c][-c-m]	A	-	O-zich	Glorify
Verheffen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Venerate
Verheimelijken	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Veil
Verhelderen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Clarify
Verhelen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Conceal
Verhelpen	G	V[+c][+c][-c-m]	V[+c][-c-m]	-	-	Remedy
Verheugen	G	V[+c][-c+m][-m]	V[-c+m][-m]	-	O-zich	Gladden

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Verheviggen	B	V[+c][-c-m]	A	O-infl / O-zich	-	Intensify
Verhinderen	G	V[+c][+c][-c-m]	V[+c][-c-m]	-	O-zich	Prevent
Verhippen	G	V[+c+m][-c-m]	I	-	-	Refuse
Verhitten	B	V[+c][-c-m]	A	-	O-zich	Heat
Verhoeden	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Avoid
Verhogen	B	V[+c][-c-m]	A	O-zich	O-zich	Lift
Verhongerren	G	V[+c][-c-m]	N	O-infl	O-zich	Starve
Verhoornen	B	V[+c][-c-m]	N	O-infl	-	Make into bone
Verhopen	G	V[+m][-c-m]	V[+m][-c-m]	-	-	Hope
Verhoren	G	V[+c+m][-c-m]	V[+m][-m]	-	-	Interrogate
Verhouden	G	V[+c][-c-m][-c]	V[+c+m][-c-m]	-	R-zich	Relate
Verhouten	B	V[+c][-c-m]	N	O-infl	-	Make wooden
Verhuizen	G	V[+c][-c-m][-c]	V[+c][-c-m]	O-infl / O-zich	O-zich	Relocate
Verhullen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	O-zich	O-zich	Cover up
Verhuren	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Rent
Verijdeln	G	V[+c][-c-m]	A	-	-	Prevent
Verinnerlijken	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Introvert
Verinnigen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Introvert
Verjagen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Scare of
Verjaren	G	V[+c][-c-m]	N	R-infl	-	Age
Verjeugdigen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Rejuvenate
Verjongen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Rejuvenate
Verjubelen	G	V[+c][-c-m]	V[+c+m]	-	O-zich	Glorify
Verkalken	B	V[+c][-c-m]	N	O-infl / O-zich	-	Make chalk
Verkankeren	M	V[+c][-c-m]	N	O-infl	-	Screw up
Verkappen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Conceal
Verkassen	G	V[+c][-c-m]	N	O-infl / O-zich	O-zich	Relocate
Verkavelen	B	V[+c][-c-m]	N	O-infl	-	Split land
Verkazen	B	V[+c][-c-m]	N	O-infl	-	Make into cheese
Verkennen	G	V[+c+m][-c-m]	V[+m][-c-m]	-	-	Explore
Verkeren	G	V[+c+m][-m]	V[+c][-c-m]	-	-	Be somewhere
Verkerven	M	V[+c][+c-m][-c-m]	V[+c+m][-c-m][+c-m]	-	-	Screw up
Verketteren	G	V[+c+m][-c-m]	N	O-infl / O-zich	O-zich	Castigate
Verkiezen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Prefer
Verkijken	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Overlook
Verkillen	B	V[+c][-c-m]	A	O-infl	-	Chill
Verkindsen	B	V[+c][-c-m]	A	R-infl	-	Make childish
Verklanken	B	V[+c][-c-m]	N	-	O-zich	Express in sound
Verklappen	G	V[+c][+c+m][-c-m][-c]	V[+c+m]	-	O-zich	Tell
Verklaren	B	V[+c][-c-m]	A	-	O-zich	Clarify
Verkleeden	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Change cloths
Verkleinen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Shrink
Verkleumen	B	V[+c][-c-m]	N	O-infl	-	Make numb
Verkleuren	G	V[+c][-c-m]	N	O-infl / O-zich	-	Colour
Verkleven	G	V[+c][-c-m]	V[-c-m]	-	-	Solve
Verklikken	G	V[+c+m][-c-m]	V[+c+m]	-	-	Tell
Verklungelen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Waste
Verknallen	M	V[+c][-c-m]	V[-c-m]	-	-	Screw up

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Verkneukelen	G	V[+c][-c+m]	I	-	O-zich	Gladden
Verknippen	G	V[+c+m][-c-m][+c-m]	V[+c+m][-c-m][+c-m]	-	-	Cut to pieces
Verknoeien	M	V[+c][+c+m][-c-m]	V[+c+m]	-	-	Screw up
Verknollen	M	V[+c][-c-m]	N	-	-	Screw up
Verkoelen	B	V[+c][-c-m]	A	-	O-zich	Cool
Verkoeveren	G	V[+c][-c+m]	I	R-infl	-	Recover
Verkoken	G	V[+c][-c-m]	V[-c-m]	O-infl	-	Boil away
Verkokeren	B	V[+c][-c-m]	N	O-infl / O-zich	-	Make into shells
Verkolen	B	V[+c][-c-m]	N	O-infl	-	Scorch
Verkommeren	B	V[+c][-c+m]	N	O-infl	O-zich	Decay
Verkondigen	G	V[+c+m][-c-m]	I	-	O-zich	Announce
Verkopen	G	V[+c+m][-c-m][-c]	V[+c+m][-c-m][-c]	-	O-zich	Sell
Verkorten	B	V[+c][-c-m]	A	O-infl / O-zich	-	Shorten
Verkrachten	M	V[+c][-c-m]	N	-	-	Screw up
Verkrampen	B	V[+c][-c-m]	N	O-infl	-	Freeze
Verkreukelen	G	V[+c][-c-m]	V[-c-m]	O-infl	O-zich	Wrinkle
Verkrimpen	G	V[+c][-c-m]	V[-c-m]	O-infl	-	Shrink
Verkroppen	G	V[+c+m][-c-m]	I	-	-	Digest
Verkrotten	B	V[+c][-c-m]	N	O-infl	-	Decay
Verkrummen	B	V[+c][-c-m]	N	O-infl	O-zich	Crumble
Verkwanselen	G	V[+c][-c-m]	I	-	-	Waste
Verkwijnen	G	V[+c][-c-m]	V[-c+m]	O-infl	-	Decay
Verkwikken	B	V[+c][-c-m]	A	O-infl	O-zich	Revive
Verkwisten	G	V[+c][-c-m]	I	-	-	Waste
Verladen	G	V[+c][+c+m][-c-m][-c]	V[+c+m][-c-m][+c-m]	-	-	Reload
Verlagen	B	V[+c][-c-m]	A	O-zich	-	Lower
Verlakken	G	V[+c+m][-c-m]	I	-	-	Refuse
Verlammen	B	V[+c][-c-m]	A	-	O-zich	Paralyze
Verlanden	B	V[+c][-c-m]	N	O-infl	-	Make into land
Verlangen	G	V[+m][-c-m]	I	-	-	Long
Verlaten	G	V[+c][-c-m]	V[+c+m][-c-m]	-	O-zich	Leave
Verlaten	B	V[+c][-c-m]	V[+c+m][-c-m]	O-infl / O-zich	O-zich	Postpone
Verleggen	G	V[+c][-c-m][-c]	V[+c+m][-c-m][-c]	-	O-zich	Relay
Verleiden	G	V[+c][-c+m][-c-m]	V[+c][-c-m][-c]	-	O-zich	Seduce
Verlekkeren	B	V[+c][-c-m]	A	-	O-zich	Enjoy
Verlenen	G	V[+c][-c-m][-c]	V[+c+m][-c-m]	-	O-zich	Lend
Verlengen	B	V[+c][-c-m]	A	O-zich	O-zich	Lengthen
Verleppen	G	V[+c][-c-m]	I	R-infl	-	Wither
Verleren	G	V[+c][-c][-c-m]	V[+c][-c-m][-c]	-	O-zich	Forget
Verleuteren	G	V[+c+m][-c-m]	V[+c+m]	-	-	Chat away
Verlevendigen	B	V[+c][-c-m]	A	O-infl	-	Revive
Verlezen	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Misread
Verlichten	B	V[+c][-c-m]	A	O-infl	-	Enlighten
Verlichten	B	V[+c][-c-m]	A	O-infl	-	Relieve
Verliederlijken	B	V[+c][-c-m]	A	O-infl	-	Glorify
Verliezen	G	V[-c+m][-c-m]	I	-	O-zich	Lose
Verliggen	G	V[+c+m][-c-m]	V[+c+m][-c]	-	O-zich	Move
Verlijden	G	V[+c+m][-c-m]	V[-c+m]	-	-	Formulate

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Verlinken	G	V[+c][-c-m]	I	-	O-zich	Betray
Verlinksen	B	V[+c][-c-m]	A	O-infl	-	Make left winged
Verloederen	G	V[+c][-c-m]	N	R-infl	-	Neglect
Verlokken	G	V[+c][-c+m]	V[+c][-c]	-	O-zich	Lure
Verlonen	G	V[+c][-c-m]	N	-	-	Award
Verloochenen	G	V[+c][-c-m]	V[+c+m][-c-m]	-	O-zich	Denounce
Verlopen	G	V[+c][-c-m]	V[+c+m]	R-infl	-	Expire / Run
Verlossen	G	V[+c][-c-m]	V[+c+m]	-	O-zich	Release
Verloten	G	V[+c+m][-c-m]	V[+c+m]	-	O-zich	Raffle
Verloven	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	R-zich	Engage
Verluchten	B	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	O-infl	-	Vent
Verluiden	G	V[+c][-c-m]	V[+c+m][-c-m]	O-infl	O-zich	Repute
Verluieren	G	V[+c+m][-c-m]	V[+c+m]	-	-	Lounge away
Verlummelen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Lounge away
Verlustigen	B	V[+c][-c-m]	A	O-infl	-	Entertain
Vermageren	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Emaciate
Vermaken	G	V[+c+m][+c][-c+m]	V[+c+m][-c-m]	-	O-zich	Amuse
Vermaledijen	G	V[+c][-c-m]	I	-	O-zich	Curse
Vermalen	G	V[+c+m][-c-m][+c-m]	V[+c+m][-c-m][+c-m]	-	-	Grind
Vermanen	G	V[+c+m][-c-m]	V[+c+m][-c][-c-m]	-	-	Scold
Vermannen	B	V[+c][-c+m]	N	R-infl / R-zich	-	Man
Vermeerderen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Increase
Vermeesteren	G	V[+c+m][-c-m]	N	-	-	Conquer
Vermeien	G	V[+c]	I	-	R-zich	Enjoy
Vermenen	G	V[+c][+m][-c-m]	V[+m][-c-m]	-	-	Mean
Vermengen	G	V[+c][-c-m]	V[+c+m][-c-m]	O-infl / O-zich	O-zich	Mix
Vermenigvuldigen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Multiply
Vermenselijken	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make human
Vermeten	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Mismeasure
Vermijden	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Avoid
Verminderen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Decrease
Verminken	G	V[+c][-c-m]	I	-	O-zich	Mutilate
Vermoeien	B	V[+c][-c+m]	A	-	O-zich	Tire
Vermogen	G	V[+c][-c+m][-c-m]	V[+m][-c-m]	-	-	Allow
Vermolmen	B	V[+c][-c-m]	N	R-infl	-	Make into mould
Vermommen	B	V[+c][-c-m]	N	-	O-zich	Disguise
Vermoorden	G	V[+c+m][-c-m]	V[+c+m]	-	-	Murder
Vermorsen	G	V[+c][-c-m]	V[+c+m][-c-m]	-	-	Waste
Vermorzelen	G	V[+c][-c-m]	I	-	-	Crush
Vermurwen	B	V[+c][-c-m]	A	-	O-zich	Soften
Vernachelen	M	V[+c+m][-c-m]	I	-	-	Screw up
Vernagelen	B	V[+c+m][-c-m]	N	O-infl	-	Nail
Vernauwen	B	V[+c][-c-m]	A	O-zich	-	Tighten
Vernederen	B	V[+c][-c-m]	A	-	O-zich	Humiliate
Verneuken	M	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Screw up
Vernevelen	G	V[+c][-c-m]	N	O-infl	-	Shroud
Vernielen	G	V[+c][-c-m]	I	-	-	Demolish
Vernietigen	B	V[+c][-c-m]	A	O-zich	O-zich	Destroy

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Vernieuwen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Renew
Vernikkelen	B	V[+c][-c-m]	N	O-infl	-	Make into nickel
Vernikkelen	B	V[+c][-c-m]	N	R-infl	-	Freeze
Vernissen	G	V[+c+m][-c-m]	I	-	-	Pretend
Vernoemen	G	V[+c+m][-c-m][-c]	V[+c+m][-c-m][-c]	-	O-zich	Rename
Vernoemen	G	V[+c+m][-c-m][-c]	V[+c+m][-c-m][-c]	-	O-zich	Name after
Vernummeren	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Renumber
Veronaangenamen	B	V[+c][-c-m]	A	O-infl / O-zich	-	Make
Veronachtzamen	B	V[+c][-c+m]	A	-	O-zich	Disregard
Veronderstellen	G	V[+c][-c-m]	I	-	-	Presume
Verongelijken	B	V[+c][-c+m]	A	-	O-zich	Treat unfair
Verongelukken	G	V[+c][-c-m]	N	R-infl	-	Die in accident
Verontreinigen	B	V[+c][-c-m]	V[+c][-c-m]	-	O-zich	Contaminate
Verontrusten	B	V[+c][-c+m]	N	-	O-zich	Disturb
Verontschuldigen	B	V[+c+m][-c+m]	N	-	O-zich	Apologize
Verontwaardigen	B	V[+c][-c+m]	N	-	O-zich	Disappoint
Veroordelen	G	V[+c][-c-m]	V[+c+m][-c-m]	-	O-zich	Condemn
Veroorloven	G	V[+c][-c+m]	I	-	O-zich	Permit
Veroorzaken	G	V[+c][-c-m]	N	-	-	Cause
Verorberen	G	V[+c+m][-c-m]	I	-	-	Devour
Verordenen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Command
Verouderen	B	V[+c][-c-m]	A	O-infl / O-infl	-	Age
Verouwelijken	B	V[+c][-c-m]	A	O-infl	-	Look older
Veroveren	G	V[+c+m][-c-m]	I	-	-	Conquer
Verpachten	G	V[+c+m][-c-m][-c]	N	-	O-zich	Pledge
Verpakken	B	V[+c][-c-m]	N	-	O-zich	Wrap up
Verpanden	G	V[+c+m][-c-m][-c]	N	-	O-zich	Pledge
Verpatsen	G	V[+c+m][-c-m][-c]	I	-	O-zich	Sell cheap
Verpauperen	B	V[+c][-c-m]	N	O-infl	-	Pauperize
Verpersoonlijken	B	V[+c][-c-m]	A	O-infl	-	Personalize
Verpesten	M	V[+c][+c+m][-c-m]	V[+c+m][-c+m]	-	-	Screw up
Verpieteren	G	V[+c][-c-m]	I	O-infl	-	Decay
Verplaatsen	G	V[+c][-c-m]	V[+c+m][-c-m][-c]	O-infl, O-zich	O-zich	Move
Verplanten	G	V[+c+m][-c-m]	V[+c+m][-c-m][-c]	-	-	Replant
Verplegen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Nurse
Verpletteren	G	V[+c][-c-m]	I	-	-	Crush
Verplichten	G	V[+c][-c][-c-m]	N	-	O-zich	Oblige
Verpolitieken	B	V[+c][-c-m]	N	O-infl	-	Make political
Verpoppen	B	V[+c][-c-m]	N	O-zich	-	Pupate
Verpoten	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Transplant
Verpotten	G	V[+c+m][-c-m]	N	-	-	Transplant
Verpozen	G	V[-c+m]	N	-	-	Reside
Verpraten	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Talk away
Verprutsen	M	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Screw up
Verpulveren	G	V[+c][-c-m]	I	-	O-zich	Obliterate
Verraden	G	V[+c][+c+m][-c-m][-c]	V[+c+m][-c-m]	-	O-zich	Betray
Verramponeren	G	V[+c][-c-m]	I	-	O-zich	Fail
Verramsjen	B	V[+c][-c-m]	N	-	-	Turn into cheap

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Verrassen	G	V[+c][-c-m]	I	-	O-zich	Surprise
Verrechtsen	B	V[+c][-c-m]	A	O-infl	-	Turn right-wingend
Verregenen	G	V[+c][-c-m]	V	R-infl	-	Rain out
Verreizen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Travel away
Verrekenen	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Miscalculate
Verrekenen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Balance
Verrekken	M	V[+c][+c+m]	V[+c+m]	-	R-zich / R-poss	Strain
Verrekken	G	V[+c][-c-m]	V[+c+m][-c-m]	-	-	Refuse
Verrichten	G	V[+c][-c-m]	V[+c+m][-c]	-	-	Accomplish
Verrijden	G	V[+c+m][-c-m]	V[+c+m]	-	-	Drive away
Verrijden	M	V[+c+m][+c+m]	V[+c+m]	-	R-zich	Misdrive
Verrijden	G	V[+c+m][-c-m]	V[+c+m]	-	-	Drive a course
Verrijken	B	V[+c][-c-m]	A	-	O-zich	Enrich
Verrijzen	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Rize
Verrimpelen	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Wrinkle
Verrinneweren	G	V[+c][-c-m]	I	-	-	Ruin
Verroeren	G	V[+c][-c-m]	V[+c+m][-c-m]	-	R-zich	Move
Verroesten	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Rust away
Verrollen	G	V[+c][+c][-c-m]	V[+c][-c-m][-c]	-	-	Reroll
Verrotten	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Rot away
Verruilen	G	V[+c+m][-c-m]	V[+c+m]	-	O-zich	Trade
Verruimen	B	V[+c][-c-m]	A	O-zich	-	Broaden
Verruïneren	G	V[+c][-c-m]	N	-	O-zich	Ruin
Verrukken	G	V[+c][+c+m][-c+m]	V[+c+m][-c-m]	-	O-zich	Fascinate
Verruwen	B	V[+c][-c-m]	A	O-infl / O-infl	-	Roughen
Verschaffen	G	V[+c][-c-m][-c]	I	-	O-zich	Provide
Verschalen	B	V[+c][-c-m]	N	R-infl	-	Make into shelves
Verschansen	G	V[+c][-c-m]	I	-	R-zich	Entrench
Verscheiden	G	V[+c][-c-m]	V[+c][-c-m]	R-infl	-	Die
Verschepen	G	V[+c+m][-c-m][+c-m]	N	-	-	Ship
Verscherpen	B	V[+c][-c-m]	A	O-infl / O-infl	-	Sharpen
Verscheuren	G	V[+c][-c-m][+c-m]	V[+c][-c-m][+c-m]	O-infl	-	Tear
Verschieten	G	V[+c][-c-m]	V[+c+m][-c-m]	R-infl	-	Go away
Verschijnen	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Appear
Verschikken	G	V[+c+m][-c-m]	V[-c-m]	-	-	Rearrange
Verschillen	G	V[-c-m][-c]	I	-	-	Differ
Verscholen	G	V[+c][-c-m]	I	-	O-zich	Reeducate
Verschonen	B	V[+c][-c-m]	A	-	O-zich	Clean
Verschoppen	G	V[+c+m][-c-m]	V[+c+m][-c-m][-c]	-	-	Denounce
Verschralen	B	V[+c][-c-m]	A	O-infl	-	Attenuate
Verschrijven	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Miswrite
Verschrikken	G	V[+c][-c+m]	V[-c+m]	-	O-zich	Scare
Verschroeien	G	V[+c][-c-m]	V[-c-m]	O-infl	-	Scourge
Verschrompelen	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Crumble
Verschuilen	G	V[+c][+c+m]	V[+c+m]	-	R-zich	Shelter
Verschuiven	G	V[+c][-c-m][-c]	V[+c][-c-m][-c]	O-infl / O-zich	O-zich	Shove away
Versieren	B	V[+c][-c-m]	V[+c][-c-m]	-	-	Gain / conquer
Versieren	G	V[+c][-c-m]	V[+c][-c-m]	-	-	Decorate

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Versimpelen	B	V[+c][-c-m]	A	O-infl	-	Clarify
Versjacheren	M	V[+c][-c-m]	I	-	-	Screw up
Versjouwen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Lug away
Versjteren	M	V[+c][-c-m]	I	-	-	Screw up
Verslaan	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Defeat
Verslaan	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Report
Verslampampen	M	V[+c][-c-m]	I	-	-	Screw up
Verslapen	M	V[+c][+m]	V[+m]	-	R-zich	Oversleep
Verslappen	B	V[+c][-c-m]	A	O-infl	-	Slacken
Verslaven	G	V[+c][-c-m]	N	-	O-zich	Addict to
Verslechteren	B	V[+c][-c-m]	A	O-infl	-	Worsen
Verslepen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Drag away
Versleutelen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Scramble
Verslijten	G	V[+c][-c-m]	V[+c][-c-m]	O-infl	-	Wear of
Verslikken	M	V[+c][+m]	V[+m]	-	R-zich	Choke
Verslinden	G	V[+c+m][-c-m]	I	-	-	Devour
Verslingeren	G	V[+c][-c-m][-c]	V[+c+m][-c-m][-c]	-	R-zich	Lose
Verslodderen	G	V[+c][-c-m]	I	O-infl	-	Neglect
Versloffen	B	V[+c][-c-m]	A	O-infl	-	Neglect
Verslonzen	G	V[+c][-c-m]	I	O-infl	-	Neglect
Versluieren	G	V[+c][-c-m]	N	-	O-zich	Shroud
Versmachten	G	V[+c][+m][-m]	V[+m][-m]	-	O-zich	Long
Versmaden	G	V[+c+m][-c-m]	I	-	O-zich	Scorn
Versmallen	B	V[+c][-c-m]	A	O-infl	-	Tighten
Versmelten	G	V[+c][-c-m]	V[+c][-c-m]	O-infl / O-zich	O-zich	Merge
Versmoren	G	V[+c][-c-m]	V[+c][-c-m]	-	-	Silence
Versnellen	G	V[+c][-c-m]	A	O-infl	O-zich	Accelerate
Versnijden	G	V[+c+m][-c-m][+c-m]	V[+c+m][-c-m][+c-m]	-	-	Cut
Versnipperen	G	V[+c][+c+m][-c-m][+c-m]	V[+c+m][-c-m][+c-m]	O-infl	-	Snip
Versnoepen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Eat away
Versoberen	B	V[+c][-c-m]	A	O-infl	-	Moderate
Versoepelen	B	V[+c][-c-m]	A	O-infl	-	Ease
Versomberen	B	V[+c][-c-m]	A	O-infl	-	Depress
Verspannen	G	V[+c+m][-c-m][+c-m]	V[+c+m][-c-m][+c-m]	-	-	Make into chalks
Verspelen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Blow
Verspenen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Breed plants
Versperren	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Block
Verspieden	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Spy
Verspijkeren	G	V[+c+m][-c-m]	N	-	-	Nail away
Verspillen	G	V[+c][-c-m]	I	-	-	Waste
Versplinteren	B	V[+c][-c-m]	N	O-zich	-	Shatter
Verspreken	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Misspeak
Verspringen	G	V[+c][-c-m]	V[-c-m][-c]	R-infl	-	Shift
Verstaan	G	V[+c+m][-c-m]	V[+c+m]	-	-	Understand
Verstappen	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Misstep
Verstarren	B	V[+c][-c-m]	A	O-infl	-	Freeze
Versteken	G	V[+c+m][-c-m][+c-m]	V[+c+m][-c-m][+c-m]	-	-	Hide
Verstellen	G	V[+c+m][-c-m][+c-m]	V[+c+m][-c-m]	-	O-zich	Rearrange

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Verstenen	B	V[+c][-c-m]	N	O-infl	-	Freeze
Versterken	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Strengthen
Versterven	G	V[+c][-c+m]	V[-c+m]	R-infl	-	Die
Verstevigen	B	V[+c][-c-m]	A	-	O-zich	Consolidate
Verstijven	B	V[+c][-c-m]	A	O-infl	-	Freeze
Verstikken	G	V[+c][-c+m]	V[-c+m]	-	O-zich	Suffocate
Verstillen	B	V[+c][-c-m]	A	O-infl	-	Silence
Verstoffelijken	B	V[+c][-c-m]	A	O-infl	-	Materialize
Verstoken	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Burn fuel away
Verstokken	B	V[+c][-c+m]	N	O-infl	-	Freeze
Verstommen	B	V[+c][-c+m]	A	O-infl	-	Stupefy
Verstoppen	G	V[+c+m][-c-m]	V[+c+m][-c-m][-c]	-	O-zich	Hide
Verstoren	G	V[+c][-c-m]	V[+c][-c-m]	-	-	Disturb
Verstouten	G	V[+c][-c+m]	N	-	R-zich	Dear
Verstouwen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m][-c]	-	-	Process
Verstrakken	B	V[+c][-c-m]	A	O-infl	-	Tighten
Verstrekken	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Provide
Verstrengelen	G	V[+c][-c-m]	I	-	-	Intertwine
Verstrijken	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	R-infl	-	Expire
Verstrikken	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Tie
Verstrooien	G	V[+c][+c+m][-c-m][-c]	V[+c+m][-c-m][-c]	-	-	Dissipate
Verstuiken	M	V[+c][-c+m]	V[-c+m]	-	R-poss	Sprain
Verstuiven	G	V[+c][-c-m]	V[-c-m]	-	-	Dispense
Versturen	G	V[+c+m][-c][-c-m]	V[+c+m][-c][-c-m]	-	O-zich	Send
Verstuwen	G	V[+c][+c][-c-m][-c]	V[+c][-c-m][-c]	-	-	Push away
Versuffen	B	V[+c][-c+m]	A	O-infl	-	Make dull
Versuikeren	B	V[+c][-c-m]	N	O-infl	-	Sweeten
Versukkelen	G	V[+c+m][-c-m]	N	-	-	Decay
Vertakken	G	V[+c][-c-m]	N	O-infl / O-zich	-	Branch
Vertalen	G	V[+c][-c-m]	N	-	O-zich	Translate
Vertederen	B	V[+c][-c+m]	A	-	O-zich	Touch
Vertegenwoordigen	G	V[+c][-c-m]	A	-	O-zich	Represent
Vertekenen	M	V[+c][+c+m]	V[+c+m]	-	R-zich	Misdraw
Vertekenen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	O-infl / O-zich	-	Distort
Vertellen	G	V[+c+m][-c-m]	I	-	R-zich	Miscount
Vertellen	M	V[+c][+c+m]	V[+c+m]	-	O-zich	Tell
Verteren	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	O-infl	-	Digest
Verteuten	G	V[+c+m][-c-m]	V[+c+m]	-	-	Chat away
Vertikken	G	V[+c+m][-c-m]	V[-c-m]	-	-	Refuse
Vertillen	M	V[+c][+c+m][-c]	V[+c+m][-c]	-	R-zich	Lift over
Vertimmeren	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Hammer away
Vertinnen	B	V[+c][-c-m]	N	-	-	Make into tin
Vertoeven	G	V[-c+m]	V[-c+m]	-	-	Reside
Vertolken	G	V[+c][+c+m][-c-m]	V[+c+m]	-	-	Translate
Vertonen	G	V[+c][+c][-c][c-m]	V[+c][-c][-c-m]	-	O-zich	Present
Vertoornen	B	V[+c][-c+m]	A	O-infl	-	Anger
Vertragen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Slow down
Vertrappen	G	V[+c][+c+m][c-m]	V[+c+m][-c][-c-m]	-	-	Trod down

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Vertreden	G	V[+c][+c+m][ -c-m]	V[+c+m]	-	-	Suppress
Vertrekken	G	V[+c][-c-m]	V[+c+m]	R-infl	-	Leave
Vertroebelen	B	V[+c][-c-m]	A	O-infl	-	Blur
Vertroetelen	G	V[+c][-c-m]	I	-	O-zich	Pamper
Vertrouwen	B	V[+c][-c-m]	N	-	O-zich	Comfort
Vertrossen	B	V[+c][-c-m]	N	O-infl	-	Globalize
Vertrouwen	G	V[+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Trust
Vertrutten	B	V[+c][-c-m]	N	O-infl	-	Make ordinary
Vertwijfelen	G	V[+c][-c-m]	N	O-infl	-	Cause doubt
Vervaardigen	G	V[+c+m][-c-m]	A	-	-	Create
Vervagen	B	V[+c][-c-m]	A	O-infl	-	Fade
Vervallen	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Deteriorate
Vervallen	G	V[+c][-c-m]	V[-c-m]	R-infl	-	Drop
Vervalsen	B	V[+c+m][-c-m]	A	-	-	Forge
Vervangen	G	V[+c][+c+m][-c-m][+c-m]	V[+c+m][-c-m][+c-m]	-	O-zich	Substitute
Vervatten	G	V[+c][+m][-c-m]	V[+m][-c-m]	-	-	Formulate
Vervelen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Bore
Vervellen	G	V[+c][-c-m]	N	R-infl	-	Peel
Vervenen	B	V[+c][-c-m]	N	O-infl	-	Make into peat
Verversen	B	V[+c][-c-m]	A	O-zich	-	Refresh
Vervetten	B	V[+c][-c-m]	A	O-infl	-	Make fat
Vervilten	B	V[+c][-c-m]	N	-	-	Make into felt
Vervlakken	B	V[+c][-c-m]	A	O-infl	-	Make dull
Vervlechten	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Intertwine
Vervliegen	G	V[+c][+c+m]	V[+c+m]	R-infl	-	Fade
Vervlieten	G	V[+c][+c+m][-c-m]	V[+c+m]	-	-	Flee
Vervloeiën	G	V[+c][-c-m]	V[-c-m]	O-infl	-	Flow away
Vervloeken	G	V[+c+m][-c-m]	V[+c+m]	-	O-zich	Curse
Vervluchtigen	B	V[+c][-c-m]	A	O-infl	-	Fade
Vervoegen	G	V[+c][+c+m][-c-m][-c]	V[+c+m][-c-m][-c]	-	O-zich	Conjugate
Vervoeren	G	V[+c][+c+m][-c][+c-m]	V[+c+m][-c][+c-m]	-	-	Transport
Vervolgen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Follow
Vervolgen	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Prosecute
Vervolmaken	B	V[+c][-c-m]	A	O-zich	O-zich	Complete
Vervormen	G	V[+c][-c-m]	V[+c][-c-m]	O-infl / O-zich	O-zich	Distort
Vervrachten	G	V[+c+m][-c-m][+c-m]	N	-	-	Freight
Vervreemden	B	V[+c][-c-m]	A	-	-	Steal
Vervreemden	G	V[+c][-c-m]	A	O-infl	O-zich	Alienate
Vervroegen	B	V[+c][-c-m]	A	O-zich	-	Advance
Vervuilen	B	V[+c][-c-m]	A	-	O-zich	Pollute
Vervullen	G	V[+c][-c-m][+c-m]	V[+c][-c-m][+c-m]	O-zich	O-zich	Fulfill
Verwaaien	G	V[+c][-c-m]	V	R-infl	-	Blow away
Verwaardigen	B	V[+c][-c-m]	A	O-infl	-	Vouchsafe
Verwaarlozen	G	V[+c][-c-m]	A	-	O-zich	Neglect
Verwachten	G	V[+c][+m][-m]	V[+m][-m]	-	-	Expect
Verwarmen	B	V[+c][-c-m]	A	-	O-zich	Warm
Verwarren	B	V[+c][-c-m]	N	-	-	Confuse
Verwateren	B	V[+c][-c-m]	N	O-infl / O-zich	-	Adulterate

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Verweden	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Bet away
Verwegen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Move
Verweiden	G	V[+c+m][-c-m]	N	-	-	Move cattle
Verwekelijken	B	V[+c][-c-m]	V	-	-	Schedule every
Verweken	B	V[+c][-c-m]	A	O-infl	-	Soak
Verwekken	G	V[+c][-c-m]	V[+c][-c+m]	-	-	Produce
Verweldigen	G	V[+c][-c-m]	A	-	-	Astonish
Verwelken	G	V[+c][-c-m]	I	-	-	Whither
Verwelven	B	V[+c][-c-m]	N	-	-	Provide with arched vaults
Verwennen	G	V[+c][+m][-m]	V[+m][-m]	-	O-zich	Spoil
Verwensen	G	V[+c][+m][-c-m]	V[+m][-c-m]	-	O-zich	Renounce
Verwereldlijken	B	V[+c][-c-m]	A	O-infl	-	Make global
Verweren	G	V[+c][-c-m]	N	-	R-zich	Resist
Verweren	G	V[+c][-c-m]	N	R-infl	-	Decay
Verwerkelijkken	B	V[+c][-c-m]	A	O-zich	-	Realize
Verwerken	G	V[+c][+c+m][-c-m]	V[+c+m]	-	-	Process
Verwerpen	G	V[+c][+c+m][-c-m]	V[+c+m][-c][-c-m]	-	O-zich	Reject
Verwerven	G	V[+c+m][-c-m]	V[+c+m][-c-m]	-	-	Learn
Verwesternen	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Make western
Verweven	G	V[+c][-c-m]	V[+c+m][-c-m][+c-m]	O-zich	-	Intertwine
Verwezen	B	V[+c][-c-m]	N	-	-	Make orphan
Verwijden	B	V[+c][-c-m]	A	O-zich	-	Widen
Verwijderen	G	V[+c][-c-m]	A	O-zich	-	Remove
Verwijlen	G	V[+c][-c-m]	N	R-infl	-	Die
Verwijten	G	V[+m][-m][-c-m]	V[+m][-m][-c-m]	-	O-zich	Blame
Verwijven	B	V[+c][-c-m]	N	R-infl	-	Become girly
Verwijzen	G	V[+c][+c+m][-c]	V[+c+m][-c]	-	O-zich	Direct
Verwikkelen	G	V[+c][+c+m] [-c-m][+c-m]	V[+c+m][-c-m][+c-m]	-	O-zich	Mix up
Verwikken	G	V[+c+m][-c-m]	V[+m]	-	-	Consider
Verwilderen	B	V[+c][-c-m]	A	O-infl	O-zich	Bewilder
Verwinnen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Overcome
Verwinteren	G	V[+c][-c-m]	N	R-infl	-	Winter
Verwisselen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	O-zich	Swap
Verwittigen	G	V[+c+m][-c+m]	I	-	O-zich	Summon
Verwoesten	B	V[+c][-c-m]	A	-	-	Destroy
Verwonden	G	V[+c][-c-m]	N	-	O-zich	Wound
Verwonderen	G	V[+c][-c+m]	N	-	O-zich	Amaze
Verwonen	G	V[+c+m][-c-m]	V[+c+m][-c]	-	-	Relocate
Verwoorden	B	V[+c][-c-m]	N	-	O-zich	Express
Verworden	G	V[+c] [-c-m]	V[-c-m][-c]	R-infl	-	Become
Verworden	G	V[+c] [-c-m]	V[-c-m][-c]	R-infl	-	Deprave
Verworgen	G	V[+c] [+c+m][-c-m]	V[+c+m][-c-m][+c-m]	-	-	Strangle
Verwortelen	G	V[+c][-c-m]	N	O-infl / O-zich	O-zich	Root with
Verwrikken	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Wrench
Verwringen	G	V[+c][+c+m][-c-m]	V[+c+m]	-	R-Poss	Wriggle
Verzachten	B	V[+c][-c-m]	A	O-infl	-	Soften
Verzagen	G	V[+c+m][-c-m][+c-m]	V[+c+m][-c-m][+c-m]	-	-	Saw away

Verb	Type	Theta grid	Theta grid stem	Expletivization	Lexical reflexive	Meaning
Verzaken	G	V[+c+m][-c-m]	I	-	-	Disavow
Verzakken	G	V[+c][-c-m]	V[-c-m][-c]	R-infl	-	Prolapse
Verzamelen	G	V[+c][-c-m]	I	O-zich	O-zich	Collect
Verzanden	G	V[+c][-c-m]	N	R-infl	-	Strand
Verzegelen	G	V[+c][-c-m]	N	-	-	Sign
Verzeilen	G	V[+c][-c-m]	V[+c+m]	R-infl	-	End up
Verzekeren	B	V[+c][-c+m]	A	-	O-zich	Insure
Verzelfstandigen	B	V[+c][-c-m]	A	O-zich	O-zich	Privatize
Verzenden	G	V[+c+m][-c][-c-m]	V[+c+m][-c][-c-m]	-	O-zich	Send
Verzengen	G	V[+c][-c-m]	V[-c-m]	-	-	Scourge
Verzeppen	B	V[+c][-c-m]	N	O-infl	-	Make into soap
Verzetten	G	V[+c+m][-c-m]	V[+c+m][-c][-c-m]	-	R-zich	Resist
Verzetten	G	V[+c+m][-c-m]	V[+c+m][-c][-c-m]	-	O-zich	Move
Verzieken	M	V[+c][-c-m]	A	-	-	Screw up
Verzieken	B	V[+c][-c-m]	A	O-infl	-	Sicken
Verzien	M	V[+c][+c+m]	V[+c+m][-c]	-	R-zich	Overlook
Verziltten	B	V[+c][-c-m]	A	O-infl	-	Make salty
Verzilveren	G	V[+c][-c-m]	N	-	-	Make into silver
Verzilveren	B	V[+c+m][-c-m]	N	O-infl	-	Cash
Verzinken	G	V[+c][-c-m][-c]	V[-c-m][-c]	R-infl	-	Sink
Verzinken	B	V[+c][-c-m]	V[-c-m][-c]	R-infl	-	Galvanize
Verzinnen	G	V[+c+m][-c-m]	V[+m][-c-m]	-	-	Make up
Verzitten	G	V[+c+m]	V[+c+m]	-	-	Move
Verzoeken	G	V[+c+m][-c][-c-m]	V[+c+m][-c-m]	-	O-zich	Request
Verzoenen	G	V[+c][-c-m]	V[+c+m][-c+m]	-	O-zich	Reconcile
Verzoeten	B	V[+c][-c-m]	A	O-infl	-	Sweeten
Verzolen	G	V[+c+m][-c-m]	N	-	-	Resole
Verzorgen	G	V[+c][-c-m]	V[+c][-c]	-	O-zich	Take care
Verzouten	B	V[+c][-c-m]	A	O-infl	-	Make salty
Verzuchten	G	V[+c+m][_c_m]	V[+c+m]	-	-	Sigh
Verzuiilen	B	V[+c][-c-m]	N	O-infl / O-zich	-	Isolate
Verzuimen	G	V[+c+m][-c-m]	I	-	-	Fail
Verzuipen	G	V[+c][-c-m]	V[+c+m][-c-m]	O-infl	O-zich	Drown
Verzuren	B	V[+c][-c-m]	A	O-infl	-	Sour
Verzusteren	G	V[+c][-c-m]	N	O-infl	-	Conciliate
Verzwakken	B	V[+c][-c-m]	A	O-infl / O-zich	O-zich	Weaken
Verzwaren	B	V[+c][-c-m]	A	-	O-zich	Load
Verzwelgen	G	V[+c][+c+m][-c-m]	V[+c+m][-c-m]	-	-	Devour
Verzweren	B	V[+c][-c-m]	V[-c-m]	O-infl	-	Inflame
Verzwijgen	G	V[+c+m][-c-m]	V[+c+m]	-	-	Conceal
Verzwicken	M	V[+c][+c+m]	I	-	R-Poss	Sprain

### Legenda

- |                        |  |   |
|------------------------|--|---|
| 1. B = BECOME-TYPE     | 7. I = idiomatic stem                                  | 11. zich = Expletivization / reflexivization marked by SE-anaphor |
| 2. G = GO-TYPE         | 8. O = optional  | 12. Poss = Inalienable construction with a possessive pronoun     |
| 3. M = MIS-type        | 9. R = required  |   |
| 4. V = verbal stem     | 10. Infl = Expletivization marked by infl modification |   |
| 5. A = adjectival stem |  |   |
| 6. N = nominal stem    |  |   |

## Some remarks to Appendix A

### Realization of this list

This appendix consists of a list of most common *ver*-verbs. The Dutch language consists of many more *ver*-verbs. However some of my informants were already unfamiliar with some of the items in this list. Furthermore the theta grid specifications and the ability to form an unaccusative or a lexically reflexive alternate of this many verbs is an enormous endeavor. Especially the possibility of an external [+c] role is hard to determine. At first sight some verbs do not allow such a subject. Take for instance 1.

1            ??Zijn    diefstal    verbande    hem        naar        de        bergen.  
              His        theft        expelled    him        to        the        mountains.

However if we pick our cause carefully such an interpretation is available.

2            Het        verlies    verbande    de        voetbalclub    naar    een        lagere    divisie.  
              The        loss        expelled    the        football club    to        a        lower    division.  
              'The football club relegated due to the loss.'

To completely and perfectly determine the properties of *ver*-verbs, careful scrutiny is required. All of them should be subjected to various tests of which the judgments should be left to a group of Dutch speakers. The list presented here is not more than an exploration, solely made by me. Though roughly correct, it may contain mistakes or may give rise to debate.

### Some choices

I have made some important choices that are important to know while reading the list.

1. When a *ver*-verb is unaccusative and does not have a transitive alternate, the [+c] role is given anyway in its theta grid specification. The expletivization column then reads R-infl.
2. Likewise, when the original verb has a [+c+m] role, the theta grid specification includes this role next to the [+c] role, even though a [+c] role could be realized as an agent and there is no, other than theory internal evidence, of the presence of a [+c+m] role.
3. Finally optional roles in either the theta grid specification of the original or the derived version, are only given if they appear as obligatory in either the original or derived version.