

# WPFG

---

working papers in functional grammar

wpfg no. 4, August 1985  
prijs: f 6.00

---

Some aspects of derived intransitivity.  
Peter Kahrel  
Lancaster, U.K.

## Working Papers in Functional Grammar (WPFG)

ISSN: 0924-1205

Editor: Lachlan Mackenzie, Executive editor: Peter van Baarle

WPFG publishes papers which are (a) not (yet) ready for official publication, but sufficiently interesting as contributions to ongoing discussions within FG and (b) papers that will be officially published, but whose publication will take at least one year after publication in WPFG. For all information contact the following address:

The editor of WPFG  
IFOTT  
University of Amsterdam  
Spuistraat 210, 1012 VT Amsterdam, Nederland  
INTERNET fg@let.uva.nl, fax +31-20-5253052

*De papers kunnen besteld worden door het verschuldigde bedrag (zie prijslijst op achteromslag) over te maken op Postbank rekening nr. 5515023 t.n.v. UvA FdL IFOTT, Amsterdam, onder vermelding van "WPFG" en de gewenste nummers.*

From abroad, please send your order to the editorial address, and transfer the required amount in Dutch guilders (NLG, see price list on back cover) in one of the following ways:

- (a) Send an international money order or a EURO cheque written out in Dutch guilders to the editorial address (payable to "IFOTT, Fac. der Letteren, Universiteit van Amsterdam").
- (b) Transfer the money directly through "Eurogiro" to Postbank account no. 5515023, in the name of "UvA FdL IFOTT". **Please add NLG 6.50 to cover bank charges.**
- (c) All other cheques or money orders are acceptable ONLY if NLG 20.00 is added to cover the extra bank charges.

**Please specify the required items!!** The papers will be sent to you as soon as we receive your payment.

For standing orders contact the editorial address.

*(Please note that the information given here was correct at the time of printing (December 1995), but may change in the future.)*

Contents

1.0	Introduction	1
1.1	Outline of Functional Grammar	3
1.2	Argument reduction	6
2.	Preliminaries	8
3.	Other analyses	11
3.1	Lexical-Functional Grammar	11
3.2	Generative Grammar	15
4	Derived intransitives in Dutch	18
5	Derived intransitives in English	22
5.1	Manner adverbs	22
5.2	Prepositional phrases	23
5.3	Negative derived intransitives	24
5.4	Discussion	27
6.	Two related constructions	29
6.1	Process verbs	29
6.2	'Progressive' derived intransitive	33
6.3	Discussion	36
7	Selection restrictions	38
8	Conclusions	44
	Notes	46
	References	48

## Abstract

This paper discusses some features of derived intransitive constructions. In the first instance data from English are discussed and a mode of derivation is proposed in the framework of Functional Grammar. Also, some data from Polish, and, more extensively, from Dutch, are discussed in order to give a more principled account of derived intransitivity in general and of the English data in particular. The comparison of English and Dutch also brings to light a parametric difference between the two languages, so far as transitivity is concerned. Finally, the relation between intransitives and transitives is discussed, and a proposal is made about how these predicates should be listed in the lexicon.

## 1. Introduction\*

The term derived intransitive implies a distinction between basic and derived intransitives. Basic intransitives are listed as such in the lexicon; two types may be distinguished, depending on the semantic function associated with the first argument. First there are intransitives with an Agentive Subject,

- (1) a. My father went
- b. The child ran into the garden

These intransitives cannot be used as transitives, except in such examples as the following, with a so-called 'cognate' Object,

- (2) a. He dreamt a beautiful dream
- b. She ran a good race

A second type of basic intransitive has a non-Agentive first argument,

- (3) a. The branch broke
- b. The ship sank
- c. The ice melted

In generative grammar intransitives such as (3a-c) are usually called 'ergatives', and they are analysed as being derived from corresponding transitives,

- (4) a. John broke the branch
- b. The Bismarck sank HMS Hood

In section 6.1 I will argue that the so-called ergatives -- what I will call Process verbs -- should be considered as basic intransitives, and should be listed as such in the lexicon.

Derived intransitives in English come in three types. Examples are the following,

- (5) a. Young people transfer very easily
- b. This surface polishes easily
- c. Bureaucrats bribe very easily
- d. [...] that the fundamental problem submits to solution more easily if syntax is surface-defined and [...]. (Pullum 1983:205).

- (6) a. This section divides into two parts  
 b. The phrase do so may substitute for a VP  
 c. These sentences therefore reconstruct as  $SV_1OV_2$
- (7) a. Some natural language expressions do not distribute to all possible sentence types  
 b. I am at a sentence that will not write  
 c. This material will not iron  
 d. My plays won't act

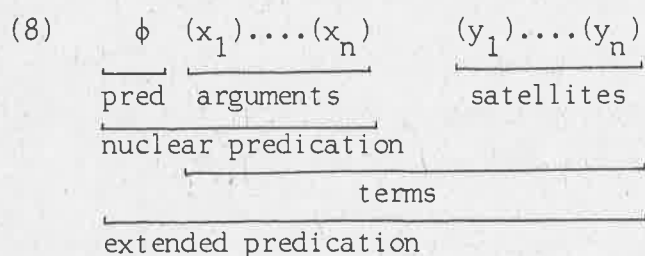
(5) and (6) distinguish on the basis of what I will call here the 'extension', which is obligatory in these types of derived intransitives. In (5) a manner adverb is used, in (6) the extension is a prepositional phrase. Details will be discussed in section 2.

(7) do not contain extensions in the sense of (5) or (6). The claim here, which will be discussed in section 5.3, is that 'unextended' derived intransitives, so to speak, behave like negative polarity items (NPIs). NPIs are elements that are exclusively used in what Klima (1964:313) called 'affective' environments: negation, questions, conditional clauses, comparative constructions, the degree adverb too. Section 5.3 also discusses why 'unextended' derived intransitives are usually found in negative rather than in other affective contexts.

This paper is organised as follows. Section 1 provides an outline of Functional Grammar. Section 2 discusses some observations about the semantic properties of derived intransitives; section 3 outlines some previous approaches, most notably Horn (1983), who works in a Lexical Functional framework, and Keyser and Roeper (1982), who work with the Government and Binding theory. Section 4 discusses some properties of derived intransitives in Dutch. The Dutch derived intransitives have some features that clarify some otherwise mysterious features of the English derived intransitives. Besides there appear to be some parametric differences between English and Dutch, so far as transitivity is concerned. It will be shown that while English derives derived intransitives only from transitive predicates, in Dutch intransitive predicates as well can be used to derive derived intransitives. In this section the observations made in section 2 will be formalised. Section 7, finally, discusses some problems in connection with the selection restrictions imposed on derived intransitives.

### 1.1 Outline of Functional Grammar

The structure of a predication is described as follows (Dik 1978),



' $\phi$ ', the predicate, can be a verbal, a nominal, or an adjectival predicate. Terms are expressions with referential potential, i.e. expressions that can be used to refer to entities in some world; predicates designate properties of or relations between such entities. A nuclear predication is arrived at through the insertion of appropriate terms into the argument slots of some predicate.

A predicate is given in the lexicon together with all the information relevant for the semantic and the syntactic behaviour of linguistic expressions. This information is contained in a 'predicate frame', which specifies the form of the predicate, the syntactic category to which the predicate belongs (i.e. verbal, nominal, etc.), the number of arguments that a predicate requires, selection restrictions that hold for the terms that fill the argument slots (e.g. 'human', 'animate' etc.), and finally the semantic function associated with the argument, indicated by a label on the argument slots. (9) below is an example of how the verbal predicate give is listed in the lexicon,

(9) give<sub>V</sub> (x<sub>1</sub>:human(x<sub>1</sub>)<sub>Ag</sub> (x<sub>2</sub>)<sub>Go</sub> (x<sub>3</sub>:animate(x<sub>3</sub>))<sub>Rec</sub><sup>1</sup>

In (9) V indicates that give is a verbal predicate; the variables  $x_i$  indicate the argument positions, the labels Ag, Go and Rec (Agent, Goal and Recipient, respectively) indicate the semantic functions of the arguments. The expressions 'human ( $x_i$ )' and 'animate ( $x_i$ )' specify the selection restrictions on the Agent and the Recipient argument.

Satellites provide optional additions to the information contained in the nuclear predication. They do not function in the definition of the state of affairs as such, but give further information about the state of affairs as a whole. Thus, (9) could be extended by a satellite that states the Location, or the Time.

The semantic functions are ordered on the Semantic Function Hierarchy (SFH) as follows,

- (10) Ag > Go > Rec > Ben > Instr > Loc > Temp > Manner

Terms are inserted into the argument slots of a predicate frame. Next syntactic functions are assigned ; Subject presents the primary, and Object the secondary vantage point. For instance, in (11a) below the girl is the primary and the book the secondary vantage point,

- (11) a. The girl (AgSubj) gave the book (GoObj) to the boy  
The book (GoSubj) was given by the girl (Ag)

At the same time, (10) is an accessibility hierarchy; a semantic function is accessible to a syntactic function only if each semantic function to the left is also accessible to this syntactic function. Or, conversely, if e.g. Subject assignment is not possible to Rec in a given language, it will not be possible to assign Subject to any of the semantic functions to the right of Rec. When, as in English, Subject cannot be assigned to a term whose semantic function is ordered after Beneficiary on the SFH, one says that for Subject assignment the cut-off point is Ben.

- (12) a. Mary (AgSubj) gave a car (GoObj) to Helen  
b. A car (GoSubj) was given to Helen (Rec) by Mary (Ag)  
c. Helen (RecSubj) was given a car (GoObj) by Mary (Ag)  
d. Helen (BenSubj) was bought a car (GoObj)  
e. \*The knife (InstrSubj) was cut the bread (GoObj)

Next, pragmatic functions are assigned. Topic marks the constituent that the predication predicates something about in the given setting, Focus marks the constituent that presents the most salient information. When the pragmatic functions have been assigned we have a fully specified predication, as in (13),

- (13) Past give<sub>V</sub> (d1x<sub>i</sub>: John<sub>N</sub> (x<sub>i</sub>))<sub>AgSubjTop</sub> (i1x<sub>j</sub>: book<sub>N</sub> (x<sub>j</sub>))<sub>GoObjFoc</sub>  
(d1x<sub>k</sub>: boy<sub>N</sub> (x<sub>k</sub>))<sub>Rec</sub>

In (13) 'Past' stands for the predicate operator for past tense, 'd' for the term operator 'definite', 'i' for indefinite and '1' for 'singular'. A fully



specified predication like (13) is mapped on a linguistic expression like (14) by expression rules.

(14) John gave a book to the boy

Expression rules determine the form of the predicate, the form of the terms and the order of the constituents. For example, active and passive verb morphology in (11) and (12) will be handled by an appropriate expression rule.

Above it was remarked that nuclear arguments are necessary for the definition of the state of affairs, while satellites are optional additions. Dik (1978:26) notes that some semantic functions that are usually associated with satellites are sometimes associated with arguments, i.e. they are sometimes but not always an essential part of the nuclear predication. Compare the following:

- (15) a. John bought a car in Amsterdam  
 b. John lives in Amsterdam

In each of these sentences in Amsterdam has the semantic function Location. In (15a) this term is an optional addition to the state of affairs defined by John bought a car, while the Location is an essential argument of the predicate live in (15b).

The term 'state of affairs' is used in the wide sense of 'what can be the case in some world' (Dik 1978:32). In Dik's typology of state of affairs two parameters are fundamental, viz. Dynamism and Control. On the basis of these two parameters four possible types of states of affairs can be distinguished:

Action	+control, +dynamic	John (Agent) walked home
Process	-control, +dynamic	The tree (Proc) fell down
Position	+control, -dynamic	John (Pos) stood on the table
State	-control, -dynamic	This substance (Ø) is red

Finally, there is a mechanism with which one predicate may be derived from another: predicate formation. Predicate formation rules are rules that may reduce or increase the number of arguments of a predicate, in other words, rules that affect the valency of a predicate. Causative verb formation for example can be regarded as a rule that adds an Agentive argument to a predicate

frame (see Dik 1980, Ch.3). Derived intransitives, on the other hand, will be shown to be the result of a rule that reduces the number of arguments of a basic predicate frame. Some introductory remarks on argument reduction will be made below; for predicate formation in general see Dik (1980, Ch.2).

## 1.2 Argument reduction

One may distinguish between first and second argument reduction. The interpretation of the derived predicate depends on which argument is reduced, the first or the second. When for instance the second argument of a basically transitive predicate is reduced, the derived predicate may be interpreted as a reflexive.

(16) Input: [wash<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub> (x<sub>2</sub>)<sub>Go</sub>]Action

Output: [wash<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub>]Action

The output of (16) can be interpreted as 'x<sub>1</sub> performs the action defined by the verb on himself'. For further details on second argument reduction see Dik (1983).

Other interpretations are possible when the first argument of a transitive predicate is reduced. When the first argument is associated with the semantic function Agent, it necessarily follows that the output will yield an agentless construction. Such predicates will often be interpreted as impersonals, agentless passives or derived intransitives. Some examples will be discussed below.

There is a difference between reduced and unspecified arguments. We saw above that when the second argument of a transitive predicate like wash is reduced, the derived predicate may be interpreted as a reflexive. Now take examples like the following,

(17) a. He writes

b. He paints

Write and paint are basically transitive verbs. The second argument of such predicates can be expressed in such sentences as 'he writes books/articles'.

Poutsma (1926:58) uses the term 'transitive turned into intransitive', while Lyons (1968:366) refers to (17a-b) as 'pseudo-intransitives', with a deleted Object. I assume that in the underlying predicate frames of (17a-b) the second argument is not reduced, but merely left unspecified. The difference, then, between a reduced and an unspecified argument is that the former cannot but the latter can be expressed. In other words, (17a-b) are open predications in  $x_2$ , while the predication underlying a sentence like he washes is fully specified.

The difference between reduced and unspecified arguments also holds for first arguments. Reduced first arguments cannot be expressed. Contrary to unspecified second arguments, unspecified first arguments must be expressed in some way in most languages. In a number of European languages the indefinite pronoun 'one' is used; one in English, in German man, in French on and in Dutch men,

- (18) a. So etwas macht man nicht  
 such a-thing does one not  
 'One doesn't do a thing like that'
- b. On parle français  
 one speaks French  
 'French spoken'

(18a-b) are not impersonal, since the first argument is expressed by an animate indefinite pronoun. True impersonals are common in languages such as Romance and Slavic. The following examples are from Italian and Serbo-Croatian, respectively.

- (19) a. Si parla italiano  
si speaks Italian  
 'Italian spoken'
- b. Piše se perom  
 writes se pen=Instrument  
 'One writes with a pen'

In (19) si and se can be regarded as markers for reduced transitivity in predicates whose first argument is reduced. The difference between (18) and (19) can be captured in FG as follows. The former, (18), have an unspecified first argument; the indefinite pronoun is inserted by an expression rule. Si

and se in (19) on the other hand are introduced by the predicate formation rule that removes the first argument of the input predicate. See also Dik and Gvozdanović (1980) for a principled account of first-argument reduced predicates in Serbo-Croatian.

## 2. Preliminaries

The three types of derived intransitives that were distinguished in section 1 share some fundamental properties. The relevant features will be discussed below.

(i) it is not possible to express an Agent phrase in derived intransitives. This follows from the observation above that the first argument is reduced, so that there is no argument position available for Agent in the derived predicate.

- (20) a. \*This surface polishes easily by my father  
 b. \*Bureaucrats bribe easily by politicians

- (21) a. \*This section divides into three parts by Mary  
 b. \*S rewrites as NP Aux VP by grammarians

- (22) a. \*My plays won't act by this company  
 b. \*This sentence won't write by me

(ii) the positive derived intransitive must be extended with an extension; if not, the sentence is ungrammatical. Jespersen (1927:351) notes that the derived intransitive -- which he calls 'activo passive' -- is descriptive of something that is felt as characteristic of the Subject, and that therefore the verb generally requires some descriptive adverb,

- (23) a. \*This surface polishes  
 b. \*Bureaucrats bribe

- (24) a. \*This section divides  
 b. \*S rewrites

(iii) the three types may be paraphrased as an adjectival construction (Poutsma 1926:65, Keyser and Roeper 1982:34, Horn 1983:370),

- (25) a. This surface is polishable  
 b. Bureaucrats are bribable  
 c. This section is divisible  
 d. S is rewritable  
 e. My plays are actable  
 f. This sentence is writable

Note that the distinction between the three types is neutralised when paraphrased as adjectival constructions; neither type of extension is required.

(iv) the distinction between the three types is also neutralised when they are paraphrased as modal constructions,

- (26) a. Marines cannot be easily killed  
 b. My plays cannot be acted  
 c. Bureaucrats can be bribed  
 d. This surface can be polished  
 e. This book can be divided into three sections

(v) besides the fact that an Agent cannot be expressed in a derived intransitive, there is a consistent semantic difference between the input and the output predicates. The input predicates define an Action, i.e. a controlled and dynamic state of affairs. The output predicates, on the other hand, define a State, i.e. an uncontrolled non-dynamic state of affairs. They cannot be controlled since the first argument, which, in a transitive predicate, is usually associated with the semantic function Agent, is reduced.

(vi) the Subject of a derived intransitive is a non-Agentive term, but passive verb morphology is lacking. In FG it is assumed that Subject assignment to a Goal term triggers passive verb morphology. Notice that the term in Subject position in a derived intransitive corresponds with the Goal term of the corresponding transitive predicate. In (v) above it was argued that the state of affairs defined by the output predicate is a State; this, together with the fact that the verb appears in an active form, indicates that the semantic function of the first argument of the output predicate has shifted to zero ( $\emptyset$ ). This may be represented in a general schema as follows:

(27) Input: [ $\phi_V$  ( $x_1$ )<sub>Ag</sub> ( $x_2$ )<sub>Go</sub>]Action

Output: [ $\phi_V$  ( $x_1$ ) $\emptyset$ ]State

(vii) the Subject of a derived intransitive is inanimate. Sometimes, apparently, animate Subjects are possible,<sup>2</sup>

- (28) a. Marcus declines regularly  
 b. Jennifer failed to get the part, apparently because he photographed too young  
 c. This man won't kill  
 d. Marines don't kill easily  
 e. He won't knock out so easily

Aronson (1977:215) notes that (28a) is ambiguous between an active and a passive reading, i.e. (a) an unspecified second argument reading, with Agentive Marcus whose referent is a person: 'Marcus regularly declines things' and (b) a derived intransitive reading with inanimate Marcus whose referent is the lexical entry Marcus: 'the noun Marcus has a regular declination'. In (28b) Jennifer corresponds with the Goal of transitive photograph, and it is not Jennifer's animateness that is at stake, but rather his outside features. (28b) merely states that Jennifer is not photogenic. Hatcher (1943:15 n.12) notes that (28c) is used for someone who miraculously escapes from accidents, so that in (28c) -- as in (28d-e) -- it is some inherent property of the Subject that is at stake, where the (in)animateness of the Subject is irrelevant.

(viii) in English only transitive predicates may be used as input for the rule that derives intransitives,

- (29) a. \*This street lives quietly  
 b. \*These shoes walk nicely  
 c. \*This chair sits pleasantly

The closest English seems to come to a derived intransitive whose corresponding input predicate is intransitive, is an example like the following,

(30) This tent sleeps four

Sleep in (30) is used in the sense of 'accommodate', and I assume that since there is no productive rule to form sentences like (30) this use of sleep is listed as such in the lexicon.

### 3. Other analyses

To my knowledge Keyser and Roeper (1982) and Horn (1983) are the only principled accounts of what I call here derived intransitives. Several previous descriptions are available, which, however, exclusively deal with the selection restrictions imposed on the use of derived intransitives. These will be discussed in section 7. I will restrict myself here to the three authors mentioned above.

#### 3.1 Lexical Functional Grammar

Horn (1983) presents some data on first argument reduced predicates in Polish and Italian. Horn's framework is a modified version of the Kaplan-Bresnan Lexical-Functional framework. I will first present a brief outline of Horn's framework.<sup>3</sup>

The general functional structure is as represented in (31).

$$(31) \quad \text{PRED } \underset{\alpha}{\text{NP}}_x \underset{\beta}{\text{NP}}_y \dots (Y) \dots$$

PRED represents all constituents that function as predicates; verbs, adjectives, nominals, prepositions, quantifiers, adverbials.  $\text{NP}_x$  and  $\text{NP}_y$  represent the arguments [Horn's term] of the predicate, identified by grammatical relation. Contrary to FG, where e.g. Subject can be assigned to an argument, in LFG grammatical relations are realised either configurationally -- e.g. Subject is the NP immediately dominated by S (for English) -- or morphologically -- e.g. NP is marked for Nominative case (for Polish). The PRED also assigns semantic relations,  $\alpha$ ,  $\beta$  and  $\gamma$  (Agent, Theme [Goal in FG], Recipient, etc.).

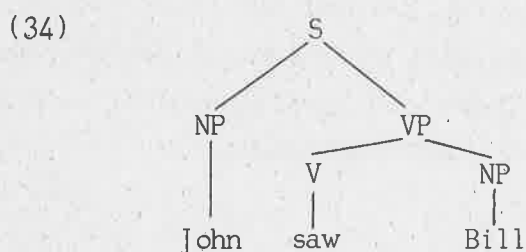
A functional structure for the verb see is as follows,

$$(32) \quad \left[ \begin{array}{l} \text{SEE} \\ +V \\ \dots \\ \text{SEE } \underset{\alpha}{\text{NP}}_1 \underset{\beta}{\text{NP}}_2 \end{array} \right]$$

$NP_1$  and  $NP_2$  represent the grammatical relations Subject and Object, respectively.  $\alpha$  and  $\beta$  represent the semantic relations assigned by see to its NP arguments. Horn gives the following sample derivation,

(33) John saw Bill

The deep structure of (33) is represented in (34).



In (34) John is identified as  $NP_1$ , and indexed as i. Bill is identified as  $NP_2$  and indexed j. These indices are inserted into the functional structure of see, and semantic relations are assigned to produce the structure in (35):

(35) SEE  $NP_1$  [i]  $NP_2$  [j]

In Polish and Italian, first argument reduced predicates can be interpreted as intransitives, whose state of affairs define a Process (in the sense of FG),

(36) a. Okno zbiło się  
 window=Nom break=Past się  
 'The window broke'

b. Il ghiaccio si scioglie  
 the ice si melt=3Sg  
 'The ice is melting'

Another possible interpretation of first argument reduced predicates is 'impersonal passives', which have a generic meaning,

(37) a. Jabłka sprzedaje się w opakowaniu  
 apples=Acc sell się in packages=Loc  
 'Apples are sold in packages'

b. Tu ma się dwa samochody  
 here has się two cars=Acc  
 'Everybody has two cars here'



Finally, there is an interpretation that runs parallel to one of the constructions introduced in section 1, viz. a derived intransitive interpretation,

(38) a. Te bluzki dobrze się piorą  
 those blouses=Nom/Pl well się wash=3Pl  
 'Those blouses wash well'

b. Ta bluzka dobrze się pierze  
 that blouse=Nom/Sg well się wash=3Sg  
 'That blouse washes well'

(39) a. Te bluzki dobrze się pierze  
 those blouses=Acc/Pl well się wash=3Sg  
 'Those blouses wash well'

b. Te bluzkę dobrze się pierze  
 that blouse=Acc/Sg well się wash=3Sg  
 'That blouse washes well'

Note that the Subject in (38) and (39) can appear in the Nominative or the Accusative, and that in (39a-b) there is no number agreement of verb and Subject. Horn accounts for the Nominative-Accusative alternation in the following way. Accusative bluzki is generated in Object position, and then moved to Subject position. Się moves from Subject position to Object position. This switch is needed since in Polish się cannot occupy the first position in the sentence, and to see to it that bluzki receives Accusative case. However, this 'switch' seems to be in conflict with Horn's theorem (ibid:340) that movement rules are virtually eliminated from the grammar.

The different expressions in (38) and (39) can be handled in FG when one assumes that the predicate formation rule in question works in two stages, and that (38a-b) and (39a-b) are expressions of two distinct predicate frames. The underlying predicate frame for wash is something like (40),

(40) [wash<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub> (x<sub>2</sub>)<sub>Go</sub>]Action

(40) can be used as input for a rule that removes the first argument, resulting in (41). Note that due to the removal of the Agentive argument the state of affairs defined by the predicate frame changes from Action to Process.

(41) [wash<sub>V</sub> (x<sub>1</sub>)<sub>Go</sub>]Process

(41) can be mapped onto (39a-b). Subject is assigned to the dummy się, Object is assigned to the Goal, which is expressed in the Accusative. Subject assignment to się accounts for the fact that in (39a-b) the verb does not agree with bluzki 'blouses'.<sup>4</sup>

The second stage of the formation rule is that the semantic function Goal in (41) shifts to zero. Note that the state of affairs defined by the predicate frame shifts from Process to State,

(42) [wash<sub>V</sub> (x<sub>1</sub>)∅]<sub>State</sub>

(42) can be mapped onto (38a-b). Subject is assigned to the term with semantic ∅-function, which is expressed in the Nominative. Subject assignment also triggers verb agreement: in (38a) the plural verb agrees with the plural Subject, in (38b) the singular verb agrees with the singular Subject.

The Polish data, then, are adequately accounted for when two stages in the predicate formation rule are distinguished. Below it will be shown that such a distinction also accounts for several facts in Dutch.

Finally it must be noted that when two distinct predicate frames are distinguished, one expects a semantic difference. Horn (ibid:364) notes that there is a slight semantic difference between (38a-b) and (39a-b), but doesn't say what the difference is. Some speakers of Polish informed me that (38a-b) are derived intransitives 'proper', so that the translations that blouse washes well is adequate. (39a-b) on the other hand, which are expressions of a Process predicate -- compare (41) -- more adequately translate as those blouses are washed well. One speaker provided a bit of context, 'in that laundrette your clothes are washed well'. It seems to me that (39a-b) have more in common with (37a) than with (38a-b); both (37a) and (39a-b) are Process predicates.

Finally Horn (ibid:370) suggests that pairs such as the following in English should be handled by an Argument Reduction Rule that also handles the examples discussed above in Polish. Horn gives the following English examples,

- (43) a. John peeled the oranges  
       b. Those oranges peel easily

- (44) a. Everyone read that book  
 b. That book reads easily

He notes that the Subjects in the b-sentences bear the same semantic relation as the Objects in the a-sentences. In FG this cannot be so since Subject assignment to a term with Goal function would result in a passive construction. This was discussed in section 2 under (vi). It was argued there that the semantic function of the Subjects in the b-sentences shifts to zero.

### 3.2 Keyser and Roeper's analysis

Keyser and Roeper (1982) -- henceforth K&R -- discuss some aspects of what they call Middle and Ergative constructions. The Middle is what I have been calling the derived intransitive and examples of what they call Ergatives are

- (45) a. The ice melted  
 b. The door opened  
 c. The ship sank

The bulk of their paper is devoted to the difference between Middles and Ergatives, and to the justification of their hypothesis that Ergatives are generated in the lexicon, while Middles are derived in the syntax.

K&R present two analyses for the Middle construction. The first is as follows, and is based on the facts represented in (46).

- (46) a. Them he bribed [t]                      (t trace of them)  
 b. They bribe easily  
 c. \*Them bribe [t] easily                      (t trace of them)

In order to account for the fact that the moved NP (they in 46b) receives Nominative case and V no longer assigns Accusative, they set up an argument that, as they note, compares with the analysis of passive. They note that Chomsky and Burzio assume that a lexical entry assigns theta-roles to certain configurations. For transitive verbs Agent is assigned to [NP,S] and Theme to [NP, VP]. Such entries should be changed if Theme is to move to Subject position and receive Nominative case. This change is formalised as follows,

- (47) a. [NP,S] does not receive a theta-role  
 b. [NP, VP] does not receive case within VP, for some choice of NP within VP.

(48) NP bribe bureaucrats easily

(48) is ungrammatical since according to (47a) NP loses its theta-role and (47b) stipulates that bureaucrats receive no case. Since every noun must have case (48) is out.

(47) is more or less based on a constraint formulated by Chomsky (in K&R),

- (49) 'If some NP governed by V is assigned no case, then the VP of which V is the head assigns no theta-role. (K&R *ibid*:28)

This constraint has the consequence that in the case of Middles (and passives) an NP is generated in Object position without Case. This violates the Case filter and therefore the NP must move to a position where it can receive Case, which is the Subject position. It can receive Nominative case in Subject position only if no theta-role is assigned to Subject position by the VP.

Their second proposal is based on a suggestion of Rizzi's, namely that English has an 'invisible' si. K&R point out a similarity between English and Italian Middles.

- (50) a. Le mele si mangiano  
 the apples si eat-3Pl  
 'Apples are eaten'

The similarities noted by K&R are that (a) the English and the Italian Middles are generic in character and (b) that an Agent is not allowed in either language. They also note that Chomsky (following Rizzi) argues that si absorbs Object case and carries the Subject thematic function Agent.

K&R assume that similar to Italian, English has a si that absorbs Case and carries the thematic function Agent. Contrary to Italian, however, English does not express this clitic since there are no clitics in English. They then go into the question (n.30) of why English should have si and no other clitic. They suggest -- again following Rizzi -- that clitics divide into

two types, referring and non-referring. Si for example is a non-referring clitic. They assume that English has only non-referring clitics and that non-referring clitics occur without phonological instantiation. Consequently, since English excludes phonologically instantiated clitics but not all clitics, only si-type clitics are possible.

Notice that the 'invisible' si in a way expresses the first stage of the derivation that was outlined in the above section. The ungrammatical sentence (from K&R 1982:28) below can be regarded as the illegitimate expression of the first stage of the output of the formation rule, i.e. after the first argument of the input is reduced, and before the semantic function has shifted from Goal to zero,

(51) \*It bribes bureaucrats easily

The derivation may be sketched as follows, starting from transitive bribe.

- (52) a. Input: [bribe<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub> (bureaucrats)<sub>Go</sub>]Action  
 b. Output: (i) [bribe<sub>V</sub> (bureaucrats)<sub>Go</sub> (easily)<sub>Man</sub>]Process  
 (ii) [bribe<sub>V</sub> (bureaucrats)<sub>∅</sub> (easily)<sub>Man</sub>]State

The fact that sentences like (51) are unacceptable in English indicates that it is not possible to express (52b i). That is to say that not until the semantic function of bureaucrats has shifted to zero can the derived predication be mapped on an acceptable expression. It seems, then, that while two stages had to be distinguished in the formation rule in Polish, these stages collapse in English. This is a sufficient explanation for the fact that sentences like (51) do not occur in English.

Notice further that an analysis like (52) need not make reference to clitics. The facts can be easily explained by the semantic function shift. An analysis based on 'invisible' clitics strikes me as rather artificial, and based too much on a comparison with Italian.

The next section discusses some facts about Dutch derived intransitives, where we do find an element that compares in a sense with K&R's clitics.

#### 4. Derived intransitives in Dutch

Derived intransitivity in Dutch is somewhat more complex than in English. In the first place, when the input predicate is transitive, the output is expressed by a variety of expressions, depending on the nature of the extension. I will not go into detail here, since the main purpose of this section is to illustrate the fact that Dutch, contrary to English, may derive intransitives from intransitive input predicates, and that the two stages of the formation rule that were discussed above should also be distinguished in Dutch.

When the extension is a manner adverb, and when the input predicate is transitive, the Dutch derived intransitives parallel those in English. A few examples may illustrate the point.<sup>5</sup>

- (53) a. Hout verft beter dan aluminium  
 wood paints better than aluminium  
 'Wood paints better than aluminium'
- b. Multiplex zaagt heel makkelijk  
 plywood saws very easily  
 'Plywood is very easy to saw'
- c. Deze knipsels lezen als een detective  
 these clippings read like a detective novel  
 'These clippings read like a detective novel'

The second type is somewhat restricted in Dutch, cf. (54a), and very often a construction like (54b) is used.

- (54) a. ?Dit boek verdeelt (zich) in drie delen  
 this book divides (itself) into three parts  
 'This book divides into three parts'
- b. Dit boek laat zich in drie delen verdelen  
 this book lets itself into three parts divide  
 'This book divides into three parts'

The third type that was distinguished in section 1, derived intransitive as a negative polarity item, seems hardly possible in Dutch -- if it is possible at all. Rather than (55a), an adjectival construction is used as in (55b), or an altogether different construction, as in (55c).

- (55) a. ??Mijn toneelstukken spelen niet  
 my plays act not  
 'My plays won't act'
- b. Mijn stukken zijn niet speelbaar  
 my plays are not actable  
 'My plays aren't actable'
- c. Mijn stukken zijn niet te spelen  
 my plays are not to act  
 'My plays cannot be acted/ my plays won't act'

It was noted above that in Dutch derived intransitives can be formed when the input predicate is intransitive. But before going into details recall the difference between arguments and satellites. In (15a-b), repeated here as (56a-b), this difference comes out:

- (56) a. John bought a car in Amsterdam  
 b. John lives in Amsterdam

The observation was that in Amsterdam is an optional addition in (56a); a satellite to the nuclear predication. In (56b), on the other hand, in Amsterdam is an essential argument of the nuclear predication.

It seems now that only when a term is an argument, i.e. is included in the nuclear predication, can it turn up as the Subject of a derived intransitive.

- (57) a. Dit bed slaapt lekker  
 this bed sleeps nicely  
 'This is a comfortable bed'
- b. Zulke lakens slapen heel lekker  
 such sheets sleep very nicely  
 'Such sheets are very pleasant'
- c. De Beethovenstraat woont erg rustig  
 the Beethoven-street lives very quietly  
 'The Beethovenstraat is residentially very quiet'

In Dutch, the two stages of the output of the formation rule may be expressed. Take an intransitive predicate like wonen 'live'. The underlying predicate frame of wonen may be represented informally as in (58).

- (58) [wonen<sub>V</sub> (x<sub>1</sub>)<sub>PO</sub> (x<sub>2</sub>)<sub>LOC</sub>]<sub>Position</sub>

The first stage of the formation rule is represented in (59): reduction of the first argument and introduction into the nuclear predication of a manner adverb,

(59)  $[\text{wonen}_V (x_1)_{\text{Loc}} (x_2)_{\text{Man}}]_{\text{Position}}$

Term insertion gives (60),

(60)  $[\text{wonen}_V (\text{Beethovenstraat})_{\text{Loc}} (\text{prettig})_{\text{Man}}]_{\text{Position}}$

Subject or Object cannot be assigned to the Locative term, since Loc is ordered after the cut-off point for Subject and Object assignment on the semantic function hierarchy. The Subject position thus remains empty, so that the dummy het 'it' is inserted in Subject position (see Dik 1980:157f). Expression and placement rules will map (60) on (61),

(61) Het woont prettig in de Beethovenstraat  
it lives quietly in the Beethovenstraat  
'Beethovenstraat is residentially quiet'

(60) may also be used as input for a rule that reduces the semantic function of the first argument of the derived predicate to zero. This output, i.e. what I have called the second stage of the rule, has the following form,

(62)  $[\text{wonen}_V (x_1)_{\emptyset} (x_2)_{\text{Man}}]_{\text{State}}$

In (62), Subject can be assigned to the first argument. Expression and placement rules will map (62) onto an expression like (57c).

Only when the input predicate is intransitive, and when there is a 'satellite with argument status' in the nuclear predication is it possible to express the two stages of the formation rule. Compare the following examples,

(63) a. Het koopt niet echt makkelijk op Zondag  
it buys not really easily on Sunday  
'It's not really easy to buy something on a Sunday'

b. \*Zondagen kopen niet echt makkelijk



(64) a. Het eet niet rustig naast dit lawaai  
 it eats not quietly next-to this noise  
 'It's not pleasant to have dinner next to this noise'

b. \*Dit lawaai eet niet prettig

In (63a) op Zondag 'on Sundays' is a satellite, outside the nuclear predication. Therefore its semantic function (Temp) cannot shift to zero, so that Subject cannot be assigned to it: Temp is ordered after the cut off point for Subject assignment on the SFH. This rules out (63b), that could only be taken to mean that it is not easy to buy a Sunday. The same holds for (64a-b). In (64a) naast dit lawaai is a satellite with Locative function, outside the nuclear predication, so that Locative cannot shift to zero. (64b) could only be taken to mean that it is not pleasant to eat the noise.

Notice that the input of the rule that derives e.g. (64a) is intransitive eten 'eten', which can be shown by (65). In (65) the Goal of eten is expressed -- here patat 'chips' --, which results in an ungrammatical sentence,

(65) \*Het eet niet rustig patat naast dit lawaai  
 it eats not quietly chips next-to this noise

On the assumption that eten is a transitive predicate, and in view of the fact that the Goal of eten cannot be expressed in (64a), we must assume that first the second argument of transitive eten is reduced. The result will be an intransitive Action predicate, which can be used as input for a rule that reduces the first argument of the derived predicate. The successive application of rules can be represented as follows,

(66) a. Input:  $[[\text{eten}_V (x_1)_{\text{Ag}} (x_2)_{\text{Go}}] (y_1)_{\text{Loc}}]_{\text{Action}}$

b. Output:  $[[\text{eten}_V (x_1)_{\text{Ag}}] (y_1)_{\text{Loc}}]_{\text{Action}}$

Output:  $[[\text{eten}_V (x_1)_{\text{Man}}] (y_1)_{\text{Loc}}]_{\text{State}}$

The latter output predicate frame represents the underlying frame of (64a); after term insertion -- rustig 'quietly' into the  $x_1$  slot, and lawaaai 'noise' into the  $y_1$  slot -- Subject assignment to a term fails, so that this function is assigned to dummy het. Expression rules will then map (66b) onto (64a).

These data from Dutch, and the data from Polish discussed in section 3.1, show that for these languages two stages must be distinguished in the output of the formation rule. In the first stage the first argument is removed, and an extension is introduced in the derived nuclear predication. In the second stage the first argument of the derived predicate shifts to zero.<sup>6</sup>

## 5. Derived intransitives in English

In the previous sections it has been taken for granted that a Manner satellite was introduced into the nuclear predication of the derived predicate. It has, however, not been made clear 'where this extension comes from'. Consider the following. Dik (1975) argued that the state of affairs defined by a nuclear predication implies that this predication applies in a certain manner. The argument reduction rule may then be seen as explicating this implicit manner. In other words, when the first argument, which is usually associated with the semantic function Agent is removed, the manner in which a predicate can apply must be explicated.

The three types of derived intransitives in English that were distinguished in section 1 can be seen as representing a scale of three possibilities in which a predicate can apply.

- (67) a. Royal Blue washable ink washes out easily  
 b. This couch pulls out into a bed  
 c. This material won't iron

(67a) states that the corresponding action (wash out) is possible in a general manner, expressed by easily; (67b) states that the corresponding action (pull out) applies in a particular manner (into a bed), while (67c) states that the corresponding action (iron) is not possible at all (i.e. applies in no manner). Below the three types will be discussed separately.

### 5.1 Manner adverbs

A few examples of this type are the following,

- (68) a. This book reads easily  
 b. Cotton garments iron easily

- c. These seeds transplant easily
- d. This surface polishes easily

The derivation of a predicate like iron may be sketched as follows,

- (69) a. Input:  $[\text{iron}_V (x_1)_{\text{Ag}} (x_2)_{\text{Go}}]_{\text{Action}}$   
 b. Output: (i)  $[\text{iron}_V (x_1)_{\text{Go}} (x_2)_{\text{Man}}]_{\text{Process}}$   
 (ii)  $[\text{iron}_V (x_1)_{\emptyset} (x_2)_{\text{Man}}]_{\text{State}}$

(69b i) cannot be expressed in English. The only conceivable expressions appear to be the following,

- (70) a. \*It irons these garments easily
- b. ?Cotton garments are ironed easily

(70a) is not possible since, as Keyser and Roeper (1982:49) argue, English has no non-referring clitics, such as Dutch het 'it' (see section 4) and e.g.

Italian si. (70b) would be the result of Subject assignment to the Goal term in (69b i). (69b ii) on the other hand can be mapped on (68b).

## 5.2 Prepositional phrases

The semantic function of the extension of this type of derived intransitive is somewhat restricted. It usually designates Result, occasionally Location.

- (71) a. This book divides into three sections (Result)
- b. S rewrites as NP Aux VP (Result)
- c. These sentences therefore reconstruct as  $SV_1OV_2$  (Result)
- d. The phrase do so may substitute for a VP (Result)
- e. This couch pulls out into a bed (Result)
- f. The difference between English and Eskimo reduces to the relatively minor fact that [...] (Result)
- g. Does your program split up easily into sub-programs? (Result)
- h. This clock winds up at the back (Location)
- i. This coat buttons at the back (Location)
- j. Case suffixes attach to the rightmost constituent of the NP (Location)

As was shown in section 2, (71a-j) are characterised by the fact that (i) an Agent cannot be expressed, (ii) they are interpreted as habitual/generic, (iii) the extension cannot be left out and (iv) the underlying predication defines a State.

(71a-j) distinguish from the type discussed in the previous section in that the extension is already present in the input predicate; it is not introduced by the predicate formation rule. The rule, then, has the effect of removing the first argument of the input predicate, and the semantic function Goal shifts to zero. This can be illustrated by the following derivation.

- (72) a. Input:  $[\text{divide}_V (x_1)_{\text{Ag}} (x_2)_{\text{Go}} (x_3)_{\text{Result}}]_{\text{Action}}$   
 b. Output: (i)  $[\text{divide}_V (x_1)_{\text{Go}} (x_2)_{\text{Result}}]_{\text{Process}}$   
 (ii)  $[\text{divide}_V (x_1)_{\emptyset} (x_2)_{\text{Result}}]_{\text{State}}$

After term insertion and the assignment of syntactic functions (72b ii) will be mapped onto (71a).

### 5.3 Negative derived intransitives

In section 1 it was noted that 'unextended' derived intransitives behave like negative polarity items (NPIs). NPIs are items that can only be used in what Klima (1966:313) called affective contexts: negative sentences, questions, conditionals, the degree adverb too and comparative constructions. The 'class' of NPIs is rather heterogeneous: it includes among others adverbs (until, ever) and verbs (budge). Furthermore, it is not the case that each NPI can be used in each affective context. Edmundson (1981:38) demonstrated this for the adverbs until and ever:

- (73) a. \*John ever imagined this outcome  
 b. John didn't ever imagine this outcome  
 c. Did John ever imagine this outcome?  
 d. If John ever imagined this outcome, he would have told us  
 e. This outcome is more serious than John ever imagined
- (74) a. \*The train arrived until midnight  
 b. The train didn't arrive until midnight

- c. \*Did the train arrive until midnight?
- d. \*If the train arrives until midnight, ...

Edmundson generalises these and other observations in a hierarchy of affective environments,

(75) negative → interrogative → conditional → comparative → positive

This hierarchy reads as follows. NPIs can be most easily used in negative contexts, less easily in interrogative contexts, still less easily in conditionals, etc.

The hierarchy may account for the following observation. It is my impression, which I cannot substantiate, that 'unextended' derived intransitives are usually found in negative contexts. The majority of my examples are of this type. (76) below lists some examples of derived intransitives in affective contexts.

- (76) a. Since the S of the subordinate clause dominates neg as well as NP and VP, it will not prune when NP is erased by Equi-NP deletion (Jackendoff 1969:233)
  - b. Some natural language expressions do not distribute to all possible sentence types (Edmundson 1981:38)
  - c. I am at a sentence that will not write
  - d. This material will not iron
  - d. My plays won't act
  - e. A poem so full of meaning that it would not rhyme
  - f. [...] in that particular line, which otherwise would not have scanned.
  - g. In contrast to the small set of 'transitive' verb + noun combinations which do not passivise, there are [...]
  - h. The figures made her cry, they would not add up
  - i. The matches refused to strike
  - j. This floor just refuses to clean
- (77) a. If, however, ever fronts, it will absorb the S negation (Jackendoff 1969:240)
  - b. Yes, but will it sell?
  - c. Does this dress wash, or does it have to be dry-cleaned?

The examples in (76) are all in the context of negation. (76i-j) are interesting in that they appear in the complement of an inherently negative verb, refuse. Van Oosten (1977:469, n.4) was somewhat at a loss about (76j), since it has no extension. Under the analysis that 'unextended' derived intransitives are NPIs, (76i-j) are readily accounted for.

(77) shows that there aren't many examples of 'unextended' derived intransitives other than in negative contexts. However, they construct very easily, so to speak. Compare the following.

- (78) a. This surface will not polish  
 b. This surface seems all right, but will it polish?  
 c. If this surface polishes, I suppose it will suit our purposes

In general, then, a derived intransitive need not be extended when there is a predicate operator neg or Q -- for negation and Question, respectively -- in the derived predication. A derivation can be sketched for a verb like polish as follows,

- (79) a. Input: [polish<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub> (x<sub>2</sub>)<sub>Go</sub>]Action  
 b. Output: (i) [  $\left\{ \begin{array}{c} Q \\ \text{neg} \\ \text{cond} \end{array} \right\}$  polish<sub>V</sub> (x<sub>1</sub>)<sub>Go</sub>]Process  
 (ii) [  $\left\{ \begin{array}{c} Q \\ \text{neg} \\ \text{cond} \end{array} \right\}$  polish<sub>V</sub> (x<sub>1</sub>)<sub>∅</sub>]State

Until now I have used the term 'unextended' derived intransitive for the type discussed in this section. However, in a way the obligatory presence of one of the 'irrealis' predicate operators -- neg, Q, or cond -- may be seen as an extension, although it does not compare with the other types that were distinguished above, the Manner satellite and the Result/Locative satellites. Nevertheless, it can be maintained that the predicate operators in (79b) are a prerequisite and as such may be seen as an extension of a nuclear predication.

The first stage of the output of the formation rule cannot be expressed, as was the case with the other types of derived intransitives in English:

- (80) a. \*It doesn't polish this surface  
 b. \*It doesn't write this sentence  
 c. \*It doesn't act my plays

As far as the English derived intransitives are concerned, then, the two stages of the formation rule may be collapsed into one. A revised version of (79) is given in (81) below,

- (81) a. Input: [polish<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub> (x<sub>2</sub>)<sub>Go</sub>]Action  
 b. Output: [  $\left\{ \begin{array}{l} Q \\ \text{neg} \\ \text{cond} \end{array} \right\}$  polish<sub>V</sub> (x<sub>1</sub>) $\emptyset$ ]State

Similar revisions can be made for the two other types: it only takes the elimination of the first stage of the formation rule. Revised versions of (69) and (72) are given in (82) and (83), respectively.

- (82) a. Input: [iron<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub> (x<sub>2</sub>)<sub>Go</sub>]Action  
 b. Output: [iron<sub>V</sub> (x<sub>1</sub>) $\emptyset$  (x<sub>2</sub>)<sub>Man</sub>]State
- (83) a. Input: [divide<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub> (x<sub>2</sub>)<sub>Go</sub> (x<sub>3</sub>)<sub>Res</sub>]Action  
 b. Output: [divide<sub>V</sub> (x<sub>1</sub>) $\emptyset$  (x<sub>2</sub>)<sub>Res</sub>]Action

#### 5.4 Discussion

Despite the surface differences between the three types of derived intransitives that were discussed above, the similarities will be evident by now. It was also mentioned that the three types may be paraphrased by an adjectival construction, which I will briefly discuss here.

Take for example a sentence like (84a) below, which is synonymous with (84b),

- (84) a. These seeds transplant easily  
 b. These seeds are (easily) transplantable

Note that the manner adverb easily is obligatory in (84a) but optional in (84b). The derivation of (84b) may be given as in (85), starting from a basic underlying predicate frame as follows.

- (85) a. Input: [transplant<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub> (these seeds)<sub>Go</sub>]Action  
 b. Output: [transplant-able<sub>A</sub> (these seeds)<sub>∅</sub>]State

Expression rules will take care of the form of the adjective and the introduction of a form of be; the output of (85) will be mapped on (84b).

It might be argued that (84a) should be derived in a similar way, i.e. that a compound verb is produced by incorporation of an adverb,

- (86) a. Input: [transplant<sub>V</sub> (x<sub>1</sub>)<sub>Ag</sub> (these seeds)<sub>Go</sub>]Action  
 b. Output: [transplant-easily<sub>V</sub> (these seeds)<sub>∅</sub>]State

There are some objections to this analysis. In the first place, with a rule such as (86) one would like to see that only one option is possible. This is the case in e.g. (85), where only -able is possible. In (84a) on the other hand, besides easily also well is possible. In the second place the adverb easily can be modified by another adverb, as e.g. in (87) below,

- (87) a. This book reads fairly well  
 b. This surface polishes fairly easily  
 c. This ink wipes off rather easily

Thirdly, one would assume that a rule like (86) really incorporates the 'element' that is added to a predicate by some rule, as is the case in (85), where -able is 'incorporated' in the verb stem -- in this case suffixed to the verb stem -- to form one constituent. The examples in (87) show that this is not the case; the extension has the formal properties of a Manner satellite.

Finally, comparison is possible,

- (88) His last book reads much better than his earlier work

It is hard to see how an incorporated element, such as easily in (86), can be subject to comparison. Under an analysis adopted in this paper, comparatives like (88) can be readily accounted for.



## 6. Two related constructions

There are two constructions that are related to the derived intransitive that was discussed so far. Section 6.1 discusses the so-called ergatives, which are also discussed in Keyser and Roeper (1983). In section 6.2 a construction will be discussed that I will call here the 'progressive' derived intransitive.

### 6.1 Process verbs

Below are some examples of what are usually called ergative verbs. On the basis of the semantic function of the first argument, which is Processed, I will use the term Process verbs.

- (89) a. The boat sank  
 b. The ice melted  
 c. The branch broke

Keyser and Roeper (1982:27) argue that there is a rule move  $\alpha$  that derives middle verbs (i.e. derived intransitives) in the syntax, and Process verbs in the lexicon. They assume, then, that Process verbs are generated with an empty Subject position, and the only argument is generated in Object position. Ergative verbs assign no case, so that the argument, which has the  $\theta$ -role Theme, is obligatorily moved into Subject position, where it can receive Nominative case. One of their arguments is based on facts from Italian; in Italian derived intransitives and Process predicates are formally identical in that both are marked by si. An example of an Italian Process predicate is the following,

- (90) Il ghiaccio si scioglie  
 the ice si melt-3SgPres  
 'The ice is melting'

This formal identity is also present in some other Romance and Slavic languages. In itself this seems no motivation for the claim that in English, and in Dutch, Process verbs are basically transitive, from which an intransitive predicate is derived. In Dutch for example, transitive predicates that are derived from Process predicates are formally identical with causatives derived from Agentive intransitives,

- (91) a. Het schip (Proc) zonk  
 the ship sank  
 'The ship sank'
- b. \*De raket zonk het schip  
 the rocket sank the ship
- c. De raket deed het schip zinken  
 the rocket made the ship sink  
 'The rocket sank the ship'

Besides there are, in English, some differences between Process verbs and derived intransitives:

(i) process verbs always define an actual state of affairs, viz. a Process. Derived intransitives, on the other hand, being generic, always define a 'deactualised' state of affairs.

(ii) Process verbs always allow a transitive counterpart with a causative reading; derived intransitives do not (O'Grady 1980:59),

- (92) a. Mary melted the ice  
 b. Mary made the ice melt/caused the ice to melt

- (93) a. This surface polishes easily  
 b. \*John caused the surface to polish

(iii) derived intransitives always require some kind of extension, contrary to Process verbs (O'Grady 1980:58, Keyser and Roeper 1982:8). (93a) is ungrammatical when easily is left out, (89a-c) are all right.

(iv) the set of verbs that allow a derived intransitive is not identical with the set of verbs that can be classified as Process verbs,

- (94) a. Pine saws easily  
 b. \*The pine sawed

I assume, then, that a verbal predicate like sink is listed in the lexicon as an intransitive. The predicate frame for sink can be represented as in (95) below,

- (95) [sink<sub>V</sub> (x<sub>1</sub>)<sub>Proc</sub>]<sub>Process</sub>

A predicate frame like (95) can be used as input for a causative rule, which introduces an argument with the semantic function Agent into the predicate frame,

- (96) a. Input: (95)  
 b. Output:  $[\text{sink}_V (x_1)_{\text{Ag}} (x_2)_{\text{Go}}]_{\text{Action}}$

Notice that the output of (96) can be used for a detransitivisation rule. The output of such a rule would be something like (97b),

- (97) a. Input: (96b)  
 b. Output:  $[\text{sink}_V (x_1)_{\emptyset} (x_2)_{\text{Man}}]_{\text{State}}$

The output of (97b) is an underlying predicate frame for a derived intransitive. However, although (95) and (97b) are different predicate frames, they can be mapped on one expression, as in (98),

- (98) This ship sinks easily

The ambiguity of (98) can be more readily shown with the aid of the following underlying predications,

- (99) a.  $[[\text{sink}_V (\text{psx}_1: \text{ship}_N (x_1))_{\text{Proc}}] (y_1: \text{easily}_A (y_1))_{\text{Man}}]_{\text{Process}}$   
 b.  $[\text{sink}_V (\text{psx}_1: \text{ship}_N (x_1))_{\emptyset} (x_2: \text{easily}_A (x_2))_{\text{Man}}]_{\text{State}}$

Both (99a) and (99b) can be mapped onto (98). (99a) corresponds with a reading that because of some inherent properties -- for example poor form stability, overrigging -- this ship will sink very easily. (99b) on the other hand, corresponds with a reading that it is very easy to make this ship sink, e.g. because its armour is of inferior quality. This ambiguity comes out only when two different predications are distinguished.<sup>7</sup>

The burden of explicating the several uses of a predicate like sink is placed on predicate formation rules; at the same time the lexicon is relieved of undue entries. This can be shown with an entry like open. In terms of cost in connection with the lexicon it would be cheapest to list open only as an Adjective; the verbal applications of open can be derived with predicate formation rules.

This can be shown as follows,

- (100) a. Input:  $[\text{open}_A (x_1) \emptyset]_{\text{State}}$
- b. Output: (i)  $[\text{open}_V (x_1)_{\text{Proc}}]_{\text{Process}}$
- (ii)  $[\text{open}_V (x_1)_{\text{Ag}} (x_2)_{\text{Go}}]_{\text{Action}}$
- (iii)  $[\text{open}_V (x_1) \emptyset (x_2)_{\text{Man}}]_{\text{State}}$

The rules in (100) read as follows. (100b) (i) is the output of a verbalising rule that takes (100a) as input. This output can be used as input for a causative rule that introduces an Agentive argument, producing (ii). Again, (ii) can be used as input for a detransitivising rule that reduces the first argument of (ii), resulting in (iii).

In (100), the rule that changes the category of open ( $\text{open}_A \rightarrow \text{open}_V$ ) does not mark the predicate morphologically. Such a rule is, however, rather general, and often the change of category is morphologically marked:

- (101) a.  $\text{black}_A \rightarrow \text{blacken}_V$
- b.  $\text{large}_A \rightarrow \text{enlarge}_V$
- c.  $\text{modern}_A \rightarrow \text{modernise}_V$

Such a set of rules can also be demonstrated for Nouns, apparently even proper names, such as Reagan.<sup>8</sup>

- (102) a. Input:  $[\text{Reagan}_N (x_1) \emptyset]$
- b. Output: (i)  $[\text{Reaganise}_V (x_1)_{\text{Proc}}]_{\text{Process}}$
- (ii)  $[\text{Reaganise}_V (x_1)_{\text{Ag}} (x_2)_{\text{Go}}]_{\text{Action}}$
- (iii)  $[\text{Reaganise}_V (x_1) \emptyset (x_2)_{\text{Man}}]_{\text{State}}$

The outputs of (102b) can be mapped on (103a-c), respectively,

- (103) a. The country Reaganised in no time
- b. The Republicans wanted to Reaganise the country
- c. The country as it is today Reaganises very easily

Notice by the way that (102b) (ii) can also be input for a rule whose effect is the derivation of a negative polarity item,

(104) The country refused to Reaganise

Verbs derived from Nouns are always morphologically marked by the suffix -ise; some examples are listed below,

- (105) a. capital<sub>N</sub> → capitalise<sub>V</sub>  
 b. standard<sub>N</sub> → standardise<sub>V</sub>  
 c. channel<sub>N</sub> → channelise<sub>V</sub>  
 d. scandal<sub>N</sub> → scandalise<sub>V</sub>

The rules outlined in (100) and (102) are productive, which is one of the reasons to consider them predicate formation rules to begin with. They are not fully productive, though; they cannot apply to each adjective, or to each noun, respectively. I'm not sure what the precise selection restrictions are for such rules, nor what determines the affix in a rule like (100). Recall that verbs derived from adjectives may be  $\emptyset$ -marked, or marked with en-, -en or -ise. I'll not go into details here, since that would lead us too far away from the central issue of this paper.

## 6.2 'Progressive' derived intransitives

The second construction that is related to the derived intransitive is what I will call here the 'progressive' derived intransitive, in the absence of a more suitable term. A few examples are the following,

- (106) a. The house is building<sup>9</sup>  
 b. The book is reprinting  
 c. Harriet only wanted drawing out and receiving some hints.

The constructions exemplified in (106) compare with the derived intransitive in that they derive from basically transitive predicates, whose first argument is reduced. Notice however that (106a-c) are not generic, but designate a Process. Finally, in constructions like (106) the predicate is always expressed as a present participle and a form of the verb be.

Lyons (1968:366) notes that more normal versions of (106a-b) are the following,

- (107) a. The house is being built  
 b. The book is being reprinted

The 'progressive' derived intransitive was used more frequently, especially in the 19th century, than it is nowadays (Visser 1970, Lightfoot 1979). Furthermore, Lightfoot (ibid:275) says that the construction only survives in isolated expressions:

- (108) a. £5 is owing  
 b. The book is binding

Lightfoot (loc.cit.) claims that the construction may have died out because it was ambiguous between an active and a passive reading,

- (109) She is shooting  
 a. 'She is being shot'  
 b. 'She is shooting at something'

Notice that in this respect the 'progressive' derived intransitive is ambiguous in the same way as the derived intransitive that was discussed above. A few relevant examples are repeated here,

- (110) a. Jennifer failed to get the part, apparently because he didn't photograph well.  
 b. The man simply won't kill  
 c. Mr Howard amuses easily

Christophersen (1952:140) notes that the construction was still used very frequently in Sheffield and surroundings. Nowadays it can be found in the complement of verbs like need, want and see (see Oxford Advanced Learners Dictionary, p. xxiii, verb pattern 6A),

- (111) a. His shoes want mending  
 b. His life needs organising

Some recent examples I have come across are the following,

- (112) a. I heard an engine starting  
 b. There was a picture of an ambulance unloading at the hospital  
 c. It's a pity to see so much talent wasting  
 d. But then again, Guys and Dolls is playing maybe two nights a week  
 (Punch 29/12/1982)  
 e. [...] because it [i.e. a sign] looks like a book opening (Klima &  
 Bellugi, The Signs of Language, 1980, p.14)  
 f. 'I thought back to May 2nd -- that all that had been preparing,  
 even then. (John Fowles, The Magus 1983, p. 329)

Jespersen (1927:351) notes that the fact that constructions like (106a-c) are ambiguous between an active and a passive reading may have resulted in a construction like the derived intransitive. For example, (113a) may 'have assisted in making people say' (113b),

- (113) a. The book is selling well  
 b. The book sells well

Hatcher (1943:11) objects that such a transition never took place, and that to prove his point Jespersen should have shown that the house is building has developed into the house builds (well), which is not the case. I.e. where is building meant 'on the build', is selling supposedly meant 'is on sale'.<sup>10</sup>

Jespersen's explanation may be wrong; it is not at all clear whether there is a relation between the derived intransitive and the 'progressive' derived intransitive -- Visser (1970) and Lightfoot (1979) mention both constructions, but do not discuss any relation between the two.

As was noted, Lyons (1968:366) thinks (114a) below a more normal version of (114b),

- (114) a. The ambulance is being unloaded  
 b. The ambulance is unloading

The two most distinctive features of (114a) and (114b) are (i) an Agent phrase can be expressed in the former, but not in the latter,

- (115) a. The ambulance is being unloaded by the driver  
 b. \*The ambulance is unloading by the driver

(ii) in (114a) but not in (114b) the verb has passive morphology. In other words, in (114a) Subject is assigned to a Goal term, while in (114b) Subject is assigned to a term whose semantic function is probably Processed. The following underlying predications illustrate the difference.

- (114)' a. [Pres unload<sub>V</sub> (driver)<sub>Ag</sub> (ambulance)<sub>GoSubj</sub>] Action  
 b. [Pres unload<sub>V</sub> (ambulance)<sub>ProcSubj</sub>] Process

I assume, then, that unload is basically a transitive predicate, as in (114'a). (114'b), on the other hand, derives from transitive unload through first argument reduction.

### 6.3 Discussion

'Progressive' derived intransitives and Process predicates look very much alike, both the underlying predicates and their expressions. Compare two relevant examples,

- (116) a. The ambulance is unloading  
 b. The ambulance unloaded in fifteen minutes

- (117) a. The ice is melting  
 b. The ice melted in ten minutes

It seems, then, that there are hardly any formal differences between (116) and (117). The only difference seems to be that (117b) allows a satellite that has the semantic function Circumstance, while such a satellite is utterly impossible in (116a):

- (118) a. \*The ambulance unloaded by X/through X/because of X  
 b. The ice melted because of the heat

The reason, then, for listing unload as a transitive predicate in the lexicon, and melt as an intransitive, is that the state of affairs defined by the former can be brought about only by the intervention of an Agent. Process verbs like melt, on the other hand, are listed as intransitives since the state of affairs designated by melt and similar predicates (sink, break, move, etc.) can come about because of some inherent property of its argument, or be



brought about by an Agent, or a Force, such as the sun as in (119) below,

- (119) a. The sun melted the ice  
 b. The sun made the ice melt

In other words, melt as an intransitive is 'more basic' than melt as a transitive; by the same token, unload as a transitive is more basic than unload as an intransitive.

So far, it has been taken for granted that in the derivation of the 'progressive' derived intransitive the semantic function of the Goal argument shifts to Processed. Recall that the rule that derives derived intransitives shifts the semantic function of the Goal argument to zero -- besides introducing a manner satellite. One might argue that, for the sake of descriptive consistency, both rules should be formulated in two stages, to the effect that in the first stage the first argument is reduced, and in the second stage the semantic function of the remaining argument shifts. This may be illustrated as follows,

(120) derived intransitives

- a. Input:  $[\text{polish}_V (x_1)_{\text{Ag}} (x_2)_{\text{Go}}]_{\text{Action}}$   
 b. Output: (i)  $[\text{polish}_V (x_1)_{\text{Go}}]_{\text{Process}}$   
 (ii)  $[\text{polish}_V (x_1)_{\emptyset} (x_2)_{\text{Man}}]_{\text{State}}$   

$$\left[ \begin{array}{l} \text{Q} \\ \text{neg} \\ \text{cond} \end{array} \right] \text{polish}_V (x_1)_{\emptyset} ]_{\text{State}}$$

(121) 'progressive' derived intransitives

- a. Input:  $[\text{unload}_V (x_1)_{\text{Ag}} (x_2)_{\text{Go}}]_{\text{Action}}$   
 b. Output: (i)  $[\text{unload}_V (x_1)_{\text{Go}}]_{\text{Process}}$   
 (ii)  $[\text{unload}_V (x_1)_{\text{Proc}}]_{\text{Process}}$

Recall that in section 5.3 it was argued that the first stage in the output of (120) could be left out, since such a predicate frame cannot be expressed in English. This also holds for the first stage of the output of (121). It

was also shown in section 3.1 that the first stage of rules like the ones outlined in (120) and (121) can be expressed in some Slavic languages. So from a typological point of view, these 'first stages' should be maintained. However, as far as English is concerned, these 'first stages' are a theoretical abstract whose elimination will simplify the grammar. In the final version of the rules that derive 'progressive' derived intransitives and derived intransitives, the first stage is to be omitted.

Finally, notice that the selection restrictions that are imposed on the predicates that are used as input for the rules discussed here are not the same for each type. Consider the following,

- (122) a. This surface polishes easily  
       b. ?The surface is polishing

- (123) a. ?This house builds easily  
       b. The house is building

The derived intransitive construction allows only a certain class of verbs. The next section discusses the selection restrictions that this class of verbs is subject to. Selection restrictions in connection with the 'progressive' derived intransitive will not be discussed: in the first place, native speakers are somewhat hesitant about the construction. Secondly, this construction is not the central issue of this paper.

## 7. Selection restrictions

Not all verbs can be used in a derived intransitive construction. Jespersen (1927:349) observes the following,

'How are we to account for this phenomenon? Sweet [...] calls such verbs passival and says that "Their grammatical Subject is logically their Direct Object, the Subject not being expressed because of its indefiniteness", but this is neither a good description nor an explanation of the phenomenon: how is it that Subject and Object seem confused, while it is utterly impossible to say, e.g. his words believe meaning 'they believe his words', no matter how indefinite their Subject is? [...] Our concern is not with a special class of verbs [...], but with a special use of a great many verbs under special conditions'.

The conditions under which the derived intransitive is used are not discussed by Jespersen. Halliday (1967:49) notes that 'here we are not dealing with absolute restrictions such that certain verbs cannot occur [as a derived intransitive] but with restrictions in the sense that the verb will only occur [in a derived intransitive] in highly specific contexts'. He goes on to say that 'at best we can say that certain verbs are highly unlikely to occur in certain constructions'. Lyons (1968:367) remarks that the analysis of derived intransitives 'is somewhat problematical' and that 'the limits imposed on such sentences are far from clear'. Anderson (1971:69) notes that 'the derivation of such clauses remains something of a mystery, as does the characterisation of the range of verbs that permit such a use'.

What is suggested by the above observations is that it is difficult -- if possible at all -- to outline a class of verbs, in the syntax, which can be used in a derived intransitive construction. Below two authors will be discussed who argue that discourse factors play a crucial role in the use of the construction; finally an attempt will be made to show that syntactic features do to a certain extent determine the 'class' of verbs.

Van Oosten (1977:462f) sets out to make some inferences about the semantic structure of the verbs in question. Consider e.g. the verbs eat and digest,

- (124) a. This applesauce will digest rapidly  
 b. \*This applesauce will eat rapidly

Van Oosten notes that the derived intransitive -- which she calls 'Patient-Subject construction' -- allows digest since within our knowledge system is the fact that the Goal of digest has, to a certain extent, responsibility for its occurring easily. Eat on the other hand is not very dependent on the nature of its Goal for its easy occurrence. Next consider chew,

- (125) a. \*Bread eats more easily than shoe leather  
 b. Bread chews more easily than shoe leather

All that seems central about the meaning of eat is put things in your mouth and get them into your stomach. Van Oosten remarks that the same holds for drink,

- (126) This wine drinks like it was water

although here a property of the wine makes (126) possible; the good taste makes one want to drink a lot of it. In this way eat may also be used:

- (127) Keep these pills away from the baby. They're powerful, but they eat like they were candy.

Furthermore eat may be used with an adverb like rapidly when completion is implied, as in (128) below,

- (128) A: What shall I have for lunch, an apple or a grapefruit?  
B: Since you only have five minutes, take an apple. It eats more rapidly than a grapefruit.

Next Van Oosten considers buy and sell and remarks that 'since buy and sell are opposite sides of the transaction, presumably whatever it is in the Goal that enables it to be sold also enables it to be bought'. Nevertheless sell allows a derived intransitive, while buy does not (but see note 9);

- (129) a. These books are selling like they were hot cakes  
b. \*This book is buying like it was going out of style

Van Oosten points out that buy focusses attention exclusively on the activity of the purchaser and unlike sell tends to ignore the contribution of the Goal to the transaction.

The above observations fit Van Oosten's definition of the derived intransitive, that 'when the construction is allowed, it is because properties of the Subject of the construction are asserted to be responsible for the occurrence of the predicate'. This definition accounts for the facts about buy and sell, although it allows ungrammatical sentences with other reciprocal verb pairs like say/hear and convince/believe.

Notice however that Van Oosten's examples, (125) - (129), are comparative constructions, which are considered 'affective' contexts (Klima 1964, Edmundson 1981). So the syntax of (126) makes it possible in the first place, although it does not explain the felicitous use of this particular verb in this construction.

O'Grady (1980:61) assumes that Subjecthood involves 'a special relationship between the referent of a nominal and the development or actualisation of the

event denoted by the verb'. The referent of the Subject Noun functions as the actualiser in that it enters into a do-relation with the verb:

- (130) a. Harry suffered a great deal during Jane's absence  
 b. Sam left before the train started  
 c. Max debated the issue with his opponents

O'Grady notes that the term 'actualiser' is indifferent to the semantic relation between the actualiser and the verb, as is shown by the above examples, in which Harry is Experiencer, and Sam and Max are Agent. He goes on to say that there are many transitive verbs that cannot be used in a derived intransitive construction because the actualisation they denote could not be significantly facilitated or hindered by properties inherent in the Goal. Many of these verbs denote cognitive or emotive states;

- (131) a. \*The answer realises easily  
 b. \*A new car prides easily

However, O'Grady notes that verbs like forget, learn, remember are at least marginally possible since the Goal of such verbs may very well influence the actualisation of the event,

- (132) ?These numbers remember/forget/learn easily

Note, however, that learn seems marginally possible due to the fact that this verb has an Agentive first argument in the corresponding transitive. By the same token, (132) is only possible with remember in the sense of 'recall', and not in the sense of 'enter one's mind by accident/coincidence'. So besides the nature of the Goal, the degree of Agentivity in the basically transitive predicate seems a determining factor. I will return to this below.

Hopper and Thompson (1980:251f) distinguish between 'high' and 'low' transitivity. It must be noted that H&T use the notion 'transitivity' in a purely semantic way, viz. the degree to which an action is transferred from one argument to another, rather than the usual use of the term transitivity, i.e. the number of arguments that are associated with a verb. So, usually transitivity is used as an absolute term, while H&T take it as a relative notion: one predicate may be more 'transitive' than another. They state the following features to define the notion 'transitivity':

(133)

transitivity

	HIGH	LOW
participants	2 or more participants, Agent and Object	1 participant
aspect	action	non-action
punctuality	punctual	non-punctual
volitionality	volitional	non-volitional
affirmation	affirmative	negative
mode	realis	irrealis
agency	Ag high in potency	Ag low in potency
affectedness of Object	Obj totally affected	Obj not affected
individuation of Object	highly individuated	non-individuated

The more features a predicate has from the 'high' column, the more 'transitive' will that predicate be. A drawback of this approach, as H&T note, is that in some cases an intransitive predicate may be more 'transitive' than a transitive one, as in (134) below,

- (134) a. Susan left  
 b. Jerry likes beer

(134a), the intransitive, has more 'transitivity' features than (134b) has. It seems that the semantic function of the first argument is decisive in (134); (134a) has an Agentive first argument, contrary to (134b).

Compare now Dik's typology of states of affairs. The two parameters that Dik (1978:32f) distinguishes, and which can be combined so as to result in four possible states of affairs, may be ordered in terms of 'transitivity' -- in Hopper and Thompson's sense -- as follows, from 'high' to 'low': [+contr,+dyn], [+contr,-dyn], [-contr,+dyn], [-contr,-dyn].

Note that some of Van Oosten's observations can be explained in terms of H&T's division of high and low transitivity. In (127), repeated below as (135a), the Subject is highly individuated by the use of these, while a derived intransitive with a less 'highly individuated' Subject, as in (135b), seems more difficult to use,

- (135) a. These pills eat like they were candy  
 b. ??Pills eat like they are candy

However, the well-formedness of (135a) is also influenced by the extension, since (124b), repeated as (136) below, is rejected although this applesauce is highly individuated,

- (136) a. \*This applesauce will eat rapidly  
 b. This applesauce will digest rapidly

On the other hand, (136b) seems better due to the fact that the Subject has a 'totally affected' value, under the assumption that food is never partially digested. These facts may be explained by stating that eat has a 'transitivity' that does not readily permit its use in a derived intransitive construction, but when 'high transitivity' aspects are introduced through the context, the use of eat in a derived intransitive becomes more acceptable.

In summary, the following observations can be made. The degree of acceptability of a derived intransitive construction is determined by the semantics of the corresponding input predicate, which must at least be an Action predicate. This proviso excludes predicates like see, hear, feel, realise, etc., which have a non-agentive first argument.

Also excluded are verbs that have a punctual aspect, such as kick, hit,

- (137) a. \*That ball kicks easily  
 b. \*This target hits easily

The referent of the Subject term of a derived intransitive must be highly individuated, as is demonstrated by demonstratives like this, that, these. Alternatively, the referent of the Subject may denote a class of referents, to give a generic reading, as in (138) below,

- (138) Marines do not kill easily

The above restrictions are necessarily informal. Another problem is e.g. under what circumstances derived intransitives in Dutch may be used. Recall that in Dutch, contrary to English, the input of the formation rule is intransitive. The problem can be illustrated with the following examples.

- (139) a. Deze stoel zit prettig  
 this chair sits comfortably  
 'This is a comfortable chair'
- b. \*Dit tapijt staat prettig  
 this carpet stands comfortably  
 'This carpet is pleasant to stand on'

Zitten 'sit' and staan 'stand' have identical predicate frames, whose first argument has the semantic function Positioner,

- (140) a. [zitten<sub>V</sub> (x<sub>1</sub>)<sub>Pos</sub> (x<sub>2</sub>)<sub>Loc</sub>]<sub>Position</sub>
- b. [staan<sub>V</sub> (x<sub>1</sub>)<sub>Pos</sub> (x<sub>2</sub>)<sub>Loc</sub>]<sub>Position</sub>

(140a-b) show that there is no formal difference between the input predicates that derive (139a-b). So why is (139a) acceptable, but (139b) not? An informal explanation can of course be given, namely that the object that one sits in plays a larger role in the degree of comfort than the object that one stands on, if the latter can begin to exert any such influence to begin with. However, I see no way to formalise these and similar observations in the grammar.

### 8. Conclusions and remaining problems

It has been demonstrated that the rule discussed here, which comprises the reduction of the first argument from a predicate frame and the shift of semantic function of the first argument of the derived predicate accounts for some data in Dutch and English. Comparing these two languages it was shown that (a) in English, the input for the detransitivising rule must be an Agentive transitive predicate frame, and the semantic function Goal of the second argument shifts to zero; (b) in Dutch the input can be a transitive Agentive predicate frame, in which case the Goal function of the second argument shifts to zero; or the input may be an intransitive predicate, in which case the semantic function of the second argument, which is not Goal, may shift to zero or remain unaffected.

It was also shown that the selection restrictions are not so much determined in the lexicon; rather, these restrictions seem to be determined by discourse factors. It was argued that the more 'transitive' a predicate is, the more



easily can it be used in a derived intransitive construction. The lower limit seems to be a transitive action predicate. Contextual factors may then increase or decrease the acceptability of derived intransitives.

A typology of transitivity features like the one proposed by Hopper and Thompson may, if worked out in detail, give some satisfactory results. Such a typology will depart from Hopper and Thompson's in several important respects: for example, H&T show that punctual predicates are 'more transitive' than non-punctual ones, while above it was shown that the former cannot, but the latter can be used in derived intransitive constructions. By the same token, H&T argue that positive predicates are more transitive than negative predicates, while it seems that positive and negative derived intransitives have more or less the same distribution.

The precise characterisation of which predicates may be used in derived intransitive constructions, then, cannot be given in this paper; such a characterisation seems not possible within the framework of Functional Grammar, although this framework is able to describe the syntax of the several uses of the derived intransitive.

Notes

\*I am indebted to Simon Dik for several discussions on the subject of this paper, and to Simon van de Kerke. I would also like to thank Mervyn Alleyne for reading a preliminary version.

I have used three main sources for the English example sentences: Jespersen (1927), Hatcher (1943) and Visser (1970); as far as the example sentences go, no references are given to these works. Examples are taken from these works, unless stated otherwise.

1. Throughout this paper irrelevant details will be left out from predicate frames and representations of predications. The following abbreviations will be used: Ag=Agent, Go=Goal, Proc=Processed, Rec=Recipient, Ben=Beneficiary, Loc=Location, Man=Manner, Sg=Singular, Pl=Plural.

2. Mervyn Alleyne informs me that 'inanimateness' is a prerequisite in what he calls 'pseudo-passives' in Carribean. For example,

- (i) The food cook
- (ii) The book lost
- (iii) The egg sell

In my analysis (i)-(iii) are derived intransitives.

3. Horn's discussion of the transitive/intransitive relation compares with O'Grady (1980); his three-page footnote on Turkish compares with Babby (1981); his Argument Reduction Relation, especially in connection with Polish, compares with Dik and Gvozdanović (1980). No references to these authors are given by Horn.

4. (39a-b) are what are usually called 'impersonal passives'. More adequate translations would then be 'those blouses are being washed well'. Compare also Bubenik (1983) and Frajzyngier (1982).

5. See also Paardekoper (1983).

6. Section 5.4 discusses whether the rule distinguishes two stages, or whether two distinct rules, viz. argument reduction and semantic function shift, should be distinguished.

7. This kind of ambiguity is also mentioned in Bowers (1981:84) and Partee (1965).
8. (103a) and (104) are taken from Keyser and Roeper (1982:31)
9. Some speakers reject (106a), but accept (iv) below,  
 (iv) That house has already been five years building.
10. Jespersen's example with sell is somewhat unfortunate. In the first place Visser (1970:158) has found no examples of derived intransitives in Old English, except an example with sell. Secondly, examples of so-called derived intransitives with sell are not modal constructions; for example, (vi) below is not an adequate paraphrase of (v),

(v) This book sells well

(vi) This book can be sold in large quantities

Contrary to all other derived intransitives, (v) refers to fact, not to potential. Compare also Hatcher (1943:10, n.5), who notes that sell has grammaticalised as an intransitive, meaning 'to find purchasers, to fetch a price'. Finally, in section 2 it was noted that derived intransitives can be paraphrased as adjectival constructions. -able adjectives derive from verbs, but saleable is derived from the substantive sale.

## References

- Anderson, J. (1971), The grammar of case. Cambridge: Cambridge University Press.
- Aronson, H. (1977), 'English as an active language'. In: Lingua 41, 201-216.
- Babby, L. (1981), 'A compositional analysis of voice in Turkish: Passive, Derived Intransitive, Impersonal and Causative'. In: Cornell Working Papers in Linguistics 2, 1-31.
- Bowers, J.S. (1981), The theory of grammatical relations. Ithaca, NY: Cornell University Press.
- Bubenik, V. (1983), 'Impersonal constructions in Functional Grammar'. In: S.C.Dik (ed.), 183-204.
- Christophersen, P. (1952), untitled. In: English Studies XXXIII 3, 140-141.
- Dik, S.C. (1975), 'The semantic representation of manner adverbials'. In: A.Kraak (ed.), Linguistics in the Netherlands 1972-1973. Assen. 96-121
- (1978), Functional Grammar. Amsterdam: North Holland.
- (1980), Studies in Functional Grammar. London: Academic Press.
- (1983), 'On the status of verbal reflexives'. In: Communication and Cognition 16, 37-81.
- Dik, S.C. (ed.) (1983), Advances in Functional Grammar. Dordrecht: Foris.
- Dik, S.C. and J.Gvozdanović (1980), 'Subject and Object in Serbo-Croatian'. In: T.Hoekstra (ed.), Perspectives on Functional Grammar, GLOT 3/4, 21-40.
- Edmondson, J.A. (1981), 'Affectivity and gradient scope'. In CLS 17, 38-44.
- Frajzyngier, Zymunt (1982), 'Indefinite Agent, Passive and impersonal passive: a functional approach'. In: Lingua 58, 267-290.
- Halliday, M.A.K. (1967), 'Notes on transitivity and theme in English'. In: Journal of Linguistics 3, 37-81.
- Hatcher, A.G. (1943), 'Mr Howard amuses easily'. In: Modern Language Notes 85, 8-17.
- Hopper, P. and S.A.Thompson (1982), 'Transitivity in grammar and discourse'. In: Language 56, 251-299.
- Horn, G.M. (1983), 'Argument reduction'. In: Linguistic Analysis 12, 339-378.
- Jespersen, O. (1927), A modern English grammar. London: George Allen.
- Keyser, S.J. and T.Roeper (1982), On middle and ergative verbs in English. MIT mimeo.
- Klima, E.S. (1964), 'Negation in English'. In: J.J.Fodor and J.A.Katz (eds), The structure of language. Englewood Cliffs, NJ: Prentice Hall.
- Lightfoot, D.W. (1979), Principles of diachronic syntax. Cambridge: Cambridge University Press.

- Lyons, J. (1968), Introduction to theoretical linguistics. Cambridge: Cambridge University Press.
- O'Grady, W. (1980), 'The derived intransitive construction in English'. In: Lingua 52, 57-72.
- Oosten, J. van (1977), 'Subject and Agenthood in English'. In: CLS 13, 459-471.
- Partee, B. (1965), Subject and Object in Modern English. MIT dissertation.
- Paardekooper, P.C. (1983), 'Dat boek leest erg vlot'. In: De Nieuwe Taalgids 76, 193-200.
- Poutsma, H. (1926); A grammar of late modern English, II, part 2. Groningen: Noordhoff.
- Visser, F.Th. (1970), An historical syntax of the English language, part 2. Leiden: Brill.

