

Language & Communication Library
Volume 7

MORPHOLOGICAL MECHANISMS

Lexicalist Analysis of Synthetic Compounding

by
RUDOLF P. BOTHA

Pergamon Press

PERGAMON INTERNATIONAL LIBRARY
of Science, Technology, Engineering and Social Studies

*The 1000-volume original paperback library in aid of education,
industrial training and the enjoyment of leisure*

Publisher: Robert Maxwell, M.C.

Morphological Mechanisms

Lexicalist Analyses of
Synthetic Compounding



THE PERGAMON TEXTBOOK INSPECTION COPY SERVICE

An inspection copy of any book published in the Pergamon International Library will gladly be sent to academic staff without obligation for their consideration for course adoption or recommendation. Copies may be retained for a period of 60 days from receipt and returned if not suitable. When a particular title is adopted or recommended for adoption for class use and the recommendation results in a sale of 12 or more copies, the inspection copy may be retained with our compliments. The Publishers will be pleased to receive suggestions for revised editions and new titles to be published in this important International Library.

U K	Pergamon Press Ltd , Headington Hill Hall, Oxford OX3 0BW, England
U.S A.	Pergamon Press Inc , Maxwell House, Fairview Park, Elmsford, New York 10523, U S A.
CANADA	Pergamon Press Canada Ltd., Suite 104, 150 Consumers Road, Willowdale, Ontario M2J 1P9, Canada
AUSTRALIA	Pergamon Press (Aust.) Pty. Ltd , P O Box 544, Potts Point, N S.W 2011, Australia
FRANCE	Pergamon Press SARL, 24 rue des Ecoles, 75240 Paris, Cedex 05, France
FEDERAL REPUBLIC OF GERMANY	Pergamon Press GmbH, Hammerweg 6, D-6242 Kronberg-Taunus, Federal Republic of Germany

Copyright © 1984 R P Botha

All Rights Reserved No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the publishers

First edition 1984

Library of Congress Cataloging in Publication Data

Botha, Rudolf P
Morphological mechanisms
(Language & communication library, v 7)
Bibliography p
1 Grammar, Comparative and general—Word formation
2 Generative grammar I Title II Series
P245 B6 1984 415 84-1038

British Library Cataloguing in Publication Data

Botha, Rudolf P
Morphological mechanisms —(Language
and communication library, V 7)
1 English language—Morphology
I Title II Series
425 PE1171
ISBN 0-08-031820-7

Printed in Great Britain by A Wheaton & Co. Ltd , Exeter

Morphological Mechanisms

Lexicalist Analyses of Synthetic Compounding

by

RUDOLF P. BOTHA
University of Stellenbosch



PERGAMON PRESS

OXFORD NEW YORK TORONTO SYDNEY PARIS FRANKFURT

Acknowledgements

Without the generous assistance of various people and institutions I would not have been able to complete this volume. Specifically, I would like to acknowledge my indebtedness to

Thereza Botha, Reinette de Villiers, Cecile le Roux, Henk Schultink, and Riny Huybregts for observations, comments and criticisms that have helped me toward a better understanding of the issues discussed in this volume;

Cecile le Roux for her careful editing of the manuscript and many useful suggestions for improving the formulation;

Mrs L Gildenhuys and Frau Helga Brummenbaum for their expert typing of the manuscript;

The University of Stellenbosch for research assistance and study leave without which progress would have been considerably slower,

Wolfson College for a Temporary Fellowship that gave me access to the wealth of scholarly resources of Oxford University;

The Alexander Von Humboldt-Stiftung for a substantial grant that enabled me to complete the final chapters as a guest of the Technische Universitat Berlin whose academic support was most valuable.

The shortcomings of this volume, of course, reflect my own limitations

R P.B.

WEST BERLIN

November 1983

Contents

1. Introduction	1
2. Roeper and Siegel's Lexical Transformation Theory	3
2.1 <i>General</i>	3
2.2 <i>Fundamental assumptions</i>	3
2.3 <i>Formal devices</i>	4
2.4 <i>Shortcomings</i>	8
2.4.1 <i>The notion "verbal compound"</i>	9
2.4.1.1 <i>Verbal compounds vs. root compounds</i>	9
2.4.1.2 <i>Verbal compounds vs. complex derivatives</i>	15
2.4.2 <i>Correspondence between verbal compounds and sentences</i>	16
2.4.3 <i>The two affix rule hypothesis</i>	17
2.4.4 <i>The lexical rules</i>	20
2.4.5 <i>Missing generalizations</i>	28
2.5 <i>Conclusion</i>	29
2.6 <i>Appendix: Kiparsky's modified version of the theory</i>	30
3. Allen's Adjunction Rule Theory	35
3.1 <i>General</i>	35
3.2 <i>The general theory of morphology</i>	35
3.3 <i>The theory of compounding</i>	36
3.4 <i>The theory of synthetic compounding</i>	38
3.5 <i>Shortcomings</i>	39
3.5.1 <i>General</i>	39
3.5.2 <i>"Formal" unrelatedness of synthetic and primary compounds</i>	39
3.5.2.1 <i>Lexicalized meanings</i>	39
3.5.2.2 <i>Well-formedness</i>	41
3.5.2.3 <i>Subcategorization</i>	42
3.5.2.4 <i>Variability in meaning</i>	43
3.5.3 <i>Nonequivalence of analyses of synthetic and primary compounds</i>	43
3.5.3.1 <i>General</i>	43
3.5.3.2 <i>Subcategorization and interpretive filters</i>	44
3.5.3.3 <i>Morphological structure and semantic composition</i>	48
3.5.3.4 <i>Non-N + N compounds and the Adjacency Condition</i>	50
3.6 <i>Conclusion</i>	54
4. Selkirk's Grammatical Function Theory	56
4.1 <i>General</i>	56
4.2 <i>The theories of word structure and compounding</i>	57
4.3 <i>The theory of verbal compounding</i>	58
4.4 <i>Appraisal</i>	62

viii	Contents	
4 4 1	<i>The distinction “verbal” vs ‘nonverbal compound’</i>	62
4 4 2	<i>Formal nondistinctness</i>	63
4 4 3	<i>Categorical status of the head</i>	67
4 4 4	<i>Semantic distinctness and function assignment</i>	69
4 4.5	<i>Semantic interpretation and formal structure</i>	72
4 4 6	<i>Non-verbally based synthetic compounds</i>	74
4 5	<i>Conclusion</i>	76
5.	Lieber’s Argument Linking Theory	78
5 1	<i>General</i>	78
5 2	<i>The lexical structure theory</i>	79
5 3	<i>The theory of compounding</i>	81
5 4	<i>Appraisal</i>	86
5 4 1	<i>The empirical import of the theory</i>	87
5 4 2	<i>The case against word-formation rules</i>	91
5 4 3	<i>The Argument-linking Principle</i>	95
5 4 3 1	<i>Conceptual redundancy and loss of generalization</i>	95
5 4 3 2	<i>A problem of statement</i>	97
5 4 3 3	<i>Predictive failure</i>	99
5 4 4	<i>The distinction between primary and synthetic compounds</i>	100
5 4 4 1	<i>Wrong and bound interpretations</i>	101
5 4 4 2	<i>Impossible free compounds</i>	103
5 4 4 3	<i>Confused reanalyses</i>	105
5 5	<i>Conclusion</i>	107
6.	A Critical Perspective on Lexicalist Morphology	109
6 1	<i>General</i>	109
6 2	<i>Morphological representation and semantic interpretation</i>	110
6.2 1	<i>Compositionality and bracketing</i>	110
6.2 2	<i>Williams’s notion “lexically related”</i>	112
6 2 2 1	<i>General</i>	112
6.2 2 2	<i>The compositional notion “lexically related”</i>	113
6 2 2 3	<i>Relatedness paradoxes</i>	114
6 2 2 4	<i>A noncompositional notion “lexically related”</i>	115
6.2 2 5	<i>A “marked leak”</i>	117
6 2 2 6	<i>An appraisal of the “marked leak” strategy</i>	118
6 2 2 6 1	<i>General</i>	118
6 2 2 6 2	<i>Conceptual problems</i>	118
6 2 2 6 3	<i>Empirical problems</i>	118
6 2 2 7	<i>Recapitulation</i>	128
6 2 3	<i>Selkirk’s rule of function assignment</i>	129
6 2 4	<i>Lieber’s principle of argument-linking</i>	130
6 2 5	<i>Lieber’s autonomy thesis</i>	131
6 2 5 1	<i>General</i>	131
6 2 5 2	<i>Non-isomorphism and autonomy</i>	132
6 2 5 3	<i>Autonomy and the Compositionality Condition</i>	133
6.2 6	<i>Conclusion</i>	134
6 3	<i>The lexicon and syntax</i>	135
6 3 1	<i>General</i>	135
6 3 2	<i>The Extended Lexicalist Position</i>	136

	Contents	ix
6 3 3	<i>Violation of compositionality</i>	138
6 3 4	<i>Conceptual redundancy</i>	141
6 3 5	<i>Loss of generalization</i>	142
6 3 6	<i>Conclusion</i>	144
7.	Postscript	145
	Notes	146
	Bibliography	160
	Index	163

1

Introduction

ENGLISH synthetic compounding has, for various reasons, become a focal point of recent work in lexicalist morphology. As a grammatical phenomenon it appears to manifest a highly intricate interaction among a variety of processes, including derivation, stress assignment, compounding or phrase formation, and argument linking. Thus, at a language-specific level, synthetic compounding is viewed as providing a window on English morphology. And at a general-linguistic level, this phenomenon has gained increasing significance. Its unique cluster of features has acquired the status of a testing ground for alternative conceptions of the general theory of lexicalist morphology.

This volume is concerned with synthetic compounding at both of the levels mentioned above. At the language-specific level, it presents a critical appraisal of four recently proposed theories of English synthetic compounding: Roeper and Siegel's (1978) Lexical Transformation Theory (Chapter 2), Allen's (1978) Adjunction Rule Theory (Chapter 3), Selkirk's (1981, 1982) Grammatical Function Theory (Chapter 4), and Lieber's (1983) Argument Linking Theory (Chapter 5). In addition, an appendix to Chapter 2 presents a number of critical comments on Kiparsky's (s.a.) fragmentary theory of synthetic compounding.

At the general-linguistic level, Chapter 6 deals with the significance of the shortcomings of the theories of synthetic compounding discussed in Chapters 2 to 5. Specifically, it attempts to show that some of these shortcomings are symptomatic of two basic weaknesses in the general theory of lexicalist morphology. The first concerns the rather unclear nature of the relation between the morphological representation and semantic interpretation of complex words within the general theory of lexicalist morphology. The second involves the problematic construal of the relation between the lexicon and syntax within this theory.

The general aim of the discussion is to identify and analyze shortcomings both of the theories of synthetic compounding and of the general theory of lexicalist morphology. Apart from the postscript of Chapter 7, no section of the discussion has the aim of highlighting positive or attractive aspects of these theories. This is not a manifestation of a one-sided negativistic attitude towards lexicalistic morphology. Rather, this critical approach

2 Morphological Mechanisms

reflects my conviction that, in its present state of development, lexicalist morphology can only benefit from the identification and elimination of deficiencies in its theories. What should be avoided is a situation in which twenty or more lexicalist morphologists each propounds his/her own special theory as a serious alternative to the theories of the others.^{(1)*} Unrestrained proliferation of alternative theories is symptomatic of insufficient critical appraisal rather than of scientific progress.⁽²⁾

At this point I would like to add a note on the origin of the various chapters of this volume. The chapters presenting the discussion of the individual theories of synthetic compounding—Chapters 2 to 5—were not planned and written as parts of a monograph. Rather, these chapters represent independent, self-contained essays that were written over a period of five years.⁽³⁾ The form in which they appear in this volume does not differ in essential respects from that in which they were originally constructed. Chapter 6, by contrast, has been designed to integrate some of the findings of the other chapters at a general-linguistic level. Thus, given its origin, this volume will, of necessity, be found to be less tightly structured than a monograph.

Before proceeding to the substance of the discussion, a few terminological points require clarification. The term *synthetic compound* is conventionally used to denote complex morphological forms such as the following:

- | | |
|-------------------------|----------------------|
| (1) <i>truck-driver</i> | <i>arms shipment</i> |
| <i>gain-storage</i> | <i>tax evasion</i> |
| <i>mail-delivery</i> | <i>peace-making</i> |

In traditional terms, synthetic compounds are characterized as derivatives or derived words based on word groups or syntactic constructions.⁽⁴⁾ Synthetic compounds of which the second or right-hand constituent is deverbal are called *verbal compounds* or *verbal-nexus compounds*.⁽⁵⁾ Synthetic compounds are conventionally distinguished from *root compounds* or *primary compounds* such as the following:⁽⁶⁾

- | | |
|----------------------|---------------------|
| (2) <i>truck-man</i> | <i>arms factory</i> |
| <i>grain-market</i> | <i>tax-form</i> |
| <i>mail-bag</i> | <i>peace corps</i> |

Synthetic and primary compounds appear to differ from each other in that the second constituent of the former compounds contains an affix,⁽⁷⁾ whereas the second constituent of the latter compounds does not. It will become clear, however, that certain compounds whose second constituent contains an affix have to be analyzed as primary compounds.

*Superscript numbers refer to Notes at end of book

2

Roeper and Siegel's Lexical Transformation Theory

2.1 GENERAL

Roeper and Siegel (1978) propose their theory of verbal compounding to account for the formation of verbal compounds involving the suffixes *-er*, *-ing*, and *-ed*.

- | | | | |
|-----|---------------------|-------------------------|----------------------|
| (1) | <i>oven-cleaner</i> | <i>checker-playing</i> | <i>expert-tested</i> |
| | <i>jaw-breaker</i> | <i>strange-sounding</i> | <i>well-built</i> |
| | <i>late-bloomer</i> | <i>fast-acting</i> | <i>pan-fried</i> |

In this chapter the fundamental assumptions and formal devices of Roeper and Siegel's (1978) theory of verbal compounding will first be outlined. This will be followed by a fairly detailed analysis of what appears to be the major shortcomings of their theory. Identifying it by its central descriptive device, this theory will be called the "Lexical Transformation Theory (of verbal compounding)". This term will be useful in later sections to distinguish the theory from alternatives. Roeper and Siegel present their theory within the general framework of Aronoff's theory of word formation. Since the general assumptions of the latter theory are well known, they are not repeated below.

2.2 FUNDAMENTAL ASSUMPTIONS

A basic observation underlying Roeper and Siegel's theory (1978: 208) is that permissible and impermissible verbal compounds correspond exactly to grammatical and ungrammatical sentences. The (a) compounds and corresponding (b) sentences in (2) are presented to illustrate this observation.

- | | | | | |
|-----|-----|--------------------------------|-----|---------------------------|
| (2) | (a) | <i>*peace-thinking</i> | (b) | <i>*She thinks peace</i> |
| | | <i>peace-making</i> | | <i>She makes peace</i> |
| | | <i>*quick-making</i> | | <i>*She makes quickly</i> |
| | | <i>quick(ly)-thinking</i> | | <i>She thinks quickly</i> |
| | | <i>*life-falling (snow)</i> | | <i>*It falls life</i> |
| | | <i>fast-falling (snow)</i> | | <i>It falls fast</i> |
| | | <i>*fast-supporting (snow)</i> | | <i>*It supports fast</i> |
| | | <i>life-supporting (trees)</i> | | <i>It supports life</i> |

4 Morphological Mechanisms

A central aim of Roeper and Siegel's theory of verbal compounding is to account for the correspondence illustrated in (2) above. To achieve this aim, they propose two basic hypotheses, of which one is general and the other more specific.

Roeper and Siegel's (1978: 208) general hypothesis is that both sentences and verbal compounds are formed from subcategorization frames associated with verbs. They illustrate this hypothesis with reference to the subcategorization frames associated with *support* and *fall*:

- (3) *support* [_{NP}] ([_{Adv}]), etc.
fall ([_{Adv}]), etc.

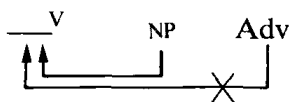
A theory incorporating the general hypothesis under consideration predicts the ungrammaticalness of both the sentence **It falls life* and the corresponding impermissible verbal compound **life-falling*. Both these expressions are derived from an impossible subcategorization frame:

- (4) **fall* [_{NP}]

That is, **life-falling* is impermissible as a verbal compound since the sentential source underlying it cannot be generated.

The second, more specific, hypothesis referred to above is Roeper and Siegel's (1978: 208) First Sister (FS) Principle. This principle states that all verbal compounds are formed by the incorporation of a word in the first sister position (immediately to the right) of the verb. They (1978: 209) in fact call the First Sister Principle "the central claim around which our system is built". Specifically, they propose that nouns, adjectives, adverbs and (perhaps) particles which occur in the FS position can be compounded with the verb (plus affix). The FS Principle provides the basis for their explanation of why, for example, *peace-making*, in contrast to **quick(ly)-making*, is permissible. The basis for their explanation is schematically presented as follows by Roeper and Siegel (1979: 208):

- (5) She makes peace quickly



The NP *peace* occurs in the FS position of *make(s)*, hence the permissible verbal compound *peace-making* can be formed. The adverb *quickly*, by contrast, does not occur in FS position in (5). Consequently, the FS Principle rules out **quickly-making* as an impermissible verbal compound.

2.3 FORMAL DEVICES

This brings us to the formal devices Roeper and Siegel use to express the two hypotheses under consideration and to generate English verbal

compounds. Central among these formal devices are four lexical rules: Affixation, Subcategorization Insertion, Variable Deletion, and the Compound Rule. The Compound Rule is claimed to "reflect" the FS Principle and constitutes the crucial device in Roeper and Siegel's theory. It will be shown below that this rule is a movement rule and is considered to be a "lexical transformation" by Roeper and Siegel. The first three rules are so-called "adjustment rules" which jointly create the structures to which the Compound Rule applies. For *-ed* compounds an additional obligatory rule, Subcategorization Adjustment/Deletion, is required. But let us briefly consider these rules separately in the order in which they apply in the derivation of *-ed* compounds.

Affixation, also called "the Affix Rule" by Roeper and Siegel (1978: 210), is the first rule that applies in order to create structures to which the Compound Rule ultimately applies. The function of the Affix Rule is to "supply" an affix to the right and an empty frame to the left of the verb which constitutes the core of the verbal compound. Roeper and Siegel (1978: 210), in fact, postulate three affix rules, one for each of the suffixes *-ed*, *-ing* and *-er*. With reference to the Affix Rule for *-ed*, the function and form of Affixation may be illustrated as follows:

(6) *Affixation*

[verb] W $\Rightarrow$ [[empty] + verb + ed] _{Adj} W
 where W ranges over subcategorization frames.

An important feature of Roeper and Siegel's theory is that it draws a distinction between "compound" affix rules and "simple" or "non-compound" affix rules. Thus, their theory provides for two rules of *-ed* affixation: for the compound *ed* rule (6) which plays a role in the formation of verbal compounds such as *expert-tested*, *well-built*, and *pan-fried*, and for a separate noncompound *-ed* rule required for the generation of simple derivatives such as *tested*, *built*, and *fried*. In §2.4.3 below, Roeper and Siegel's motivation for drawing this distinction between compound and noncompound affix rules will be subjected to critical scrutiny.

In Roeper and Siegel's analysis of *-ed* compounds, the Affix Rule (6) is obligatorily followed by the rule of Subcategorization Adjustment/Deletion. They (1978: 210) represent this rule as follows:

(7) *Subcategorization Adjustment/Deletion*

$$\text{verb} + \text{ed} \quad \begin{matrix} \text{[NP]} \\ \left\{ \begin{matrix} \text{[Adj]} \\ \text{[NP]} \end{matrix} \right\} \\ \text{Y} \end{matrix} \Rightarrow \text{verb} + \text{ed} \quad \text{Y}$$

1 2 3 4 1 $\emptyset$ $\emptyset$ 4

where Y ranges over subcategorization frames.

6 Morphological Mechanisms

The function of this rule is to delete the two subcategorization frames adjacent to the verb: the direct object frame and the frame for adjectival and nominal complements. Thereby Subcategorization Adjustment/Deletion makes it impossible for direct object NPs, adjectival complements and predicate nominals to occur in the FS position. Consequently, the FS Principle correctly predicts the impermissibility of such forms as **car-driven* (in a non-agent reading), **green-grown*, and **president-elected* (on any reading except “elected by a president”) as verbal compounds. If Subcategorization Adjustment/Deletion had not deleted the three above-mentioned frames, the FS Principle would have incorrectly predicted these forms to be permissible verbal compounds. Subcategorization Adjustment/Deletion apparently plays no role in the derivation of *-er* and *-ing* compounds.

All three affix rules—for *-ed*, *-er* and *-ing*—however, must be followed by Roeper and Siegel’s (1978: 210) rule of Subcategorization Insertion. This rule inserts a lexical item from the lexical core for each obligatory frame, and it may insert items into optional frames. (1) Roeper and Siegel (1978: 211) give the following abstract representation of the function and form of this rule:

- (8) *Subcategorization Insertion*

$$\underset{x}{[\text{ = empty}]} \Rightarrow [\] \underset{x}{+ \text{ word}]}$$

This rule is formulated in accordance with the condition that WFRs do not “involve” phrases. Thus, by convention, the rule eliminates the phrase brackets from the subcategorization frames. As a result NP becomes N, AdjP becomes Adj, and AdvP becomes Adv.

After Subcategorization Insertion, a further “adjustment rule” has to apply: Variable Deletion. In general terms, the function of the latter rule is to guarantee that the right subcategorization frames appear in the FS position. Schematically, this rule is represented as follows by Roeper and Siegel (1978: 212):

- (9) *Variable Deletion*

$$\begin{array}{ccccccc} \text{verb} & X & [+ \text{ word}] & Y & \Rightarrow & \text{verb} & [+ \text{ word}] & Y \\ 1 & 2 & 3 & 4 & & 1 & \emptyset & 3 & 4 \end{array}$$

where X and Y range over empty subcategorization frames.

The function of Variable Deletion can be illustrated with respect to the verb *build*. To Roeper and Siegel (1978: 212) “the facts” of (10) “indicate that the verb *build* allows at least four different subcategorization frames to be involved in compound formation: *adverb*, *agent*, *instrument*, *locative*.”

- (10) *well-built* *hand-built*
slave-built *factory-built*

well-built by slaves hand-built in a factory
**slave-built well *factory-built by hand*

The permissibility of *well-built by slaves*, as opposed to the impermissibility of **slave-built well*, indicates to Roeper and Siegel “that the FS Principle is followed”. To illustrate the role of Variable Deletion in the derivation of the compounds of (10), they (1978: 212) ask their readers to make three assumptions: (a) that the *-ed* affix rule has applied, (b) that redundancy rules supply the frames in (1) to *build*, and (c) that Subcategorization Insertion has filled the Adv frame.

(11) $[[\underset{\uparrow}{\text{empty}}] \text{ built}] \text{ [Adv well]} \text{ [Inst]} \text{ [Agent]} \text{ [Loc]}$

The expression *well-built by slaves* is formed “directly” by applying the Compound Rule which effects the movement indicated by the arrow in (11) and by “allowing the subsequent frames after (Adv) to be inherited and filled in the syntactic component”. The impossibility of **slave-built well* indicates to Roeper and Siegel that if the Compound Rule “operates on” [Inst], the Adv frame cannot be inherited. Therefore, they require a rule which eliminates [Adv]. This rule has the effect of putting [Inst] in the FS position, which makes it possible to derive compounds such as *hand-built (in a factory)*. The function of Variable Deletion, now, is to delete whatever lies between the verb and [+ word] (what falls to the right of [+ word] may be inherited). The function of Variable Deletion is illustrated as follows by Roeper and Siegel (1978: 212):

(12) [build] $\underbrace{[\text{Adv}] [\text{Inst}]}$ [+ word] [Loc] W $\Rightarrow$ build [+ word] [Loc] W
 1 2 3 4 5 1 $\emptyset$ 3 4 5

The operation of Affixation, Subcategorization Adjustment/Deletion (in the case of *-ed* compounds), Subcategorization Insertion, and Variable Deletion creates an “acceptable input” to Roeper and Siegel’s core rule: the Compound Rule. This rule is a “lexical transformation” which moves the word inserted by Subcategorization Insertion into the empty frame supplied by Affixation (given, of course, that Variable Deletion has ensured that this word occurs in the FS position). Roeper and Siegel (1978: 209) give the following schematic representation of the Compound Rule:

(13) *Compound Rule*

$$[[\text{empty}]_1 + \text{verb}_2 + \text{affix}_3][_X + \text{N}_4 + \text{word}_5] \text{ W} \Rightarrow [[+_4 \text{ word}] + \text{verb}_2 + \text{affix}]_3 \text{ W}$$

where W ranges over subcategorization frames and X_{+N} stands for lexical categories N, A, Adv.

8 Morphological Mechanisms

It is pointed out by Roeper and Siegel (1978: 213) that the Compound Rule could be stated as three separate rules, one for each of the affixes *-ed*, *-ing* and *-er*. They have collapsed these three rules since they accept an evaluation metric which “requires that we state rules with maximal formal economy”.

This completes the outline of Roeper and Siegel’s theory of verbal compounding, an outline from which many details have been omitted. In conclusion, a sample derivation—Roeper and Siegel’s (1978: 244) derivation for the verbal compound *government-initiated*—may elucidate many of the points presented rather abstractly above.

(14) initiate $\{_{NP}\}(\{_{Adv}\})(\{_{Inst}\})$ (by $\{_{NP}\}$)
Agent

(a) initiate $\xrightarrow{\text{Affix}}$ $\{[\text{empty}] + \text{initiate} + \text{ed}\}\{_{NP}\}(\{_{Adv}\})$ etc.

(b) $\{[\text{empty} + \text{initiated}]\}_{NP}(\{_{Adv}\}) \xrightarrow{\text{Delete}} \{[\text{empty}] \text{initiated}\}(\{_{Adv}\})$

(c) $\{[\text{empty}] \text{initiated}\}(\{_{Adv}\})(\{_{Inst}\})$ (by $\{_{NP}\}$)
Agent

$\xrightarrow{\text{Insert}}$ $\{[\text{empty}] \text{initiated}\}(\{_{Adv}\})(\{_{Inst}\})$ by $\{_N \text{government}\}$

(d) $\{[\text{empty}] \text{initiated}\}(\{_{Adv}\})(\{_{Inst}\})$ by $\{_N \text{government}\}$

$\xrightarrow{\text{Delete}}$ $\{[\text{empty}] \text{initiated}\}\{_N \text{government}\}$

(e) $\{[\text{empty}] \text{initiated}\}\{_N \text{government}\} \xrightarrow{\text{Compound}} \{[\text{government}] \text{initiated}\}_{Adj}$

The rules applying in this derivation are: Affixation in (a), Subcategorization Adjustment/Deletion in (b), Subcategorization Insertion in (c), Variable Deletion in (d), and the Compound Rule in (e). It is clear that these rules are intrinsically ordered and that a derivation is initiated by Affixation, since it supplies the empty frame ultimately to be filled by the Compound Rule.

2.4 SHORTCOMINGS

This section focuses on major defects of Roeper and Siegel’s theory of verbal compounding. Some of the most obvious of these shortcomings have been indicated in an informal paper by myself (Botha 1979) and have also been discussed independently and in greater depth by Allen (1978) in her unpublished dissertation.⁽²⁾ Since Allen’s work is undoubtedly the better known, I will refer to it where possible, and will use it as a source of illustrative material. The discussion below, however, will materially elaborate on some of the criticisms presented in the two sources mentioned above. Moreover, it will present detailed additional criticisms of a nontrivial nature which are considered in neither of these sources.

2.4.1 The notion “verbal compound”

It will be argued below that a first major shortcoming of Roeper and Siegel's theory of verbal compounding is that its core notion “verbal compound” is ill defined in more than one respect. This theory lacks a principled basis for distinguishing verbal compounds from root compounds on the one hand and certain complex derivatives on the other hand. As a consequence, it will be shown that Roeper and Siegel's analysis of verbal compounds is arbitrary in an important respect.

2.4.1.1 Verbal compounds vs. root compounds

As regards the distinction between verbal and root compounds, Roeper and Siegel clearly realize that it cannot be based solely on the fact that verbal compounds, as opposed to root compounds, are morphologically marked by the presence of an affix. Consequently, they (1978: 206) invoke the notions “predictability and compositionality in meaning” and “productivity” to provide a more adequate basis for this distinction: “In contrast [to root compounds—R.P.B.], verbal compounds are (a) predictable and compositional in meaning and (b) extremely productive.”

The meaning criterion alluded to in the (a) part of this quote fails in both directions. Thus, on the one hand, Levi (1978: 44ff.) has recently shown that numerous root compounds have predictable, compositional, non-specialized/lexicalized meanings. The following compounds, traditionally considered to be root compounds, illustrate this point:

(15) <i>N + N</i>	<i>Adj + N</i>
<i>home-life</i>	<i>marginal note</i>
<i>salt water</i>	<i>urban transportation</i>
<i>lemon peel</i>	<i>axial stress</i>
<i>sugar cube</i>	<i>national exports</i>
<i>auto mechanic</i>	<i>avian sanctuary</i>

Allen (1978: 52), moreover, has argued that “primary compounds are completely specifiable in terms of interacting feature hierarchies, given some general principles of meaning formation of compounds”.⁽³⁾

On the other hand, many verbal compounds have lexicalized meanings and are consequently nonpredictable and noncompositional in meaning. Allen (1978: 152) provides examples such as the following:

(16) <i>windbreaker</i>	<i>life-saver</i>
<i>jawbreaker</i>	<i>care-taker</i>
<i>sky-scraper</i>	<i>coffee-maker</i>

Even more telling is the fact that Roeper and Siegel (1978: 216) have to point out, in a later section of their paper, that there are verbal