ALEKSANDRA KALAGA

Nomina Agentis

in the language of Shakespearean drama

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Aleksandra Kalaga

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Abbreviations and symbols

*	an unattested form
+	root boundary
#	word boundary
adj, a.	adjective
AF	Anglo-French
Ag	Agent; Agentive case
CG	Case Grammar
Du	Dutch
eModE	Early Modern English
Exp	Experiencer; Experiencer case
F	French
f.	from
GS	Generative Semantics
Instr	Instrument; Instrumental case
It	Italian
L	Latin
Loc	Locative
ME	Middle English
N, n.	noun
OALD	Oxford Advanced Learner's Dictionary
Ob	Objective case
obs.	obsolete
OED	Oxford English Dictionary
OF	Old French
pa. ppl	past participle
Pt	Patient; Patientive case
SVO	subject-verb-object
TGG	Transformational-Generative Grammar

V, v.	verb
WFRs	Word-Formation Rules

Abbreviations of the titles of William Shakespeare's plays

All's Well:	*All's Well That Ends Well*
Ant. & Cl.	*Antony and Cleopatra*
A.Y.L.	*As You Like It*
Com. Err.	*The Comedy of Errors*
Cor.	*Coriolanus*
Cymb.	*Cymbeline*
Ham.	*Hamlet*
1 Hen. IV	*King Henry IV Part 1*
Hen. V	*King Henry V*
1 Hen. VI	*King Henry VI Part 1*
Hen. VIII	*King Henry VIII*
Jul. C.	*Julius Caesar*
John	*King John*
Lear	*King Lear*
L.L.L.	*Love's Labour's Lost*
Macb.	*Macbeth*
Meas. for M.	*Measure for Measure*
Merch. V.	*The Merchant of Venice*
Merry W.	*The Merry Wives of Windsor*
Mids. N.	*A Midsummer Night's Dream*
Much Ado	*Much Ado About Nothing*
Oth.	*Othello*
Per.	*Pericles*
Rich. II	*King Richard II*
Rich. III	*King Richard III*
Rom. & Jul.	*Romeo and Juliet*
Tam. Shr.	*The Taming of the Shrew*
Temp.	*The Tempest*
Timon	*Timon of Athens*
Tit. A.	*Titus Andronicus*
Tr. & Cr.	*Troilus and Cressida*
Twel. N.	*Twelfth Night*
Two Gent.	*The Two Gentlemen of Verona*
Wint. T.	*The Winter's Tale*
Two Nobl. K.	*The Two Noble Kinsmen*

Introduction

William Shakespeare is considered to be one of the most fruitful neologists in the history of the English language. Although Shakespearean scholars are at variance in their estimates of the exact number of his neologisms,[1] they are in agreement that he was "a most prolific coiner of words" (Willcock, 1934, p. 12). It seems surprising, therefore, that there are so few systematic, analytic studies of Shakespearean word-formation. Such established books as Evans (1952), Jorgensen (1962), Hulme (1962), Joseph (1947) portray the vocabulary of Shakespeare merely as a tool for achieving stylistic artistry, and they are not truly linguistic in their approach.[2] The most celebrated linguistic accounts of Shakespeare's language either disregard the word-formational component altogether (Abbott, 1883; Blake, 2002), or present only a brief, general discussion of the most productive processes (Brook, 1976; Blake, 1989). The most detailed word-formational accounts are studies by Garner (1982), Dalton-Puffer (1994), and Salmon (1987). These, however, are article-length and thus do not exploit the subject in full.

The present monograph is an attempt at delivering a comprehensive study of one aspect of Shakespearean word-formation, namely the category of Nomina Agentis. The greatest weight is attached to the morphological and semantic aspects of agentive derivation. The formal analysis, which covers the combinatorial properties of the agent-forming suffixes with respect to the etymological and syntactic features of their bases, is supplemented with the study of semantic effects of a given type of nominalisation. Although the approach is primarily synchronic, diachronic information is also provided where it seems beneficial in supplying a wider context, for instance, for the further attestations of a given

[1] Joseph T. Shipley (1977), for instance, estimates that the number of Shakespeare's neologisms is around 1,700.

[2] A comprehensive bibliography of publications on Shakespeare's language has been compiled by Kakietek, Kalaga, and Nykiel (2007).

Shakespearean neologism, or for a contrastive juxtaposition of a Shakespearean agentive formation with the Modern English one.

Conceptually, the monograph falls into two parts: the theoretical-descriptive, whose main aim is to formulate a working definition of an agent, as well as to develop an appropriate model within the frameworks of which the study could be conducted, while the second part is the proper morphosemantic analysis of the sampled data.

Structurally, the work is divided into six chapters. Chapter 1 focuses on the problem of nominalisations in selected linguistic theories, such as, among others, TGG, GS, and Cognitive Linguistics. Attention is drawn both to those aspects of a given grammar which could profitably be employed in the study of nominalisations, as well as to the problems and difficulties stemming from the holistic application of a given model. The selection of the frameworks discussed in the chapter has been made with a view to develop the methodology that could be successfully applied to the analysis of the data sampled in the corpus of Shakespeare's plays.

Chapter 2 discusses the notion of productivity in word-formation. Different modes of the conceptualisation, operationalisation, and evaluation of productivity are surveyed, and a special emphasis is put on the problem of estimating the productivity of a given process in historical language studies.

The following two chapters (3 and 4) relate Nomina Agentis to the theory of categorisation. It is shown how the prototype semantics, developed originally by Eleanor Rosch and subsequently borrowed by cognitive linguists, can be employed to deal with fuzzy boundaries between some linguistic categories, like, for example, Nomina Agentis and Nomina Instrumenti. The theory also proves effective in incorporating denominal performers of actions into the category of agents (the problem is discussed in Chapter 4). Chapter 4 also discusses finer distinctions within subject nominalisations, for example, the notion of an experiencer. A brief survey of Modern English methods of deriving agent nouns can also be found here.

Chapter 5 presents a linguistic and extralinguistic background of Early Modern English. It provides an insight into external and internal factors that shaped the language of the Shakespearean epoch. The chapter focuses on issues directly connected with word-building and word meaning, hence the discussion of internal features of the language has been restricted to word-formation and semantic changes.

Chapter 6 is the empirical part of the study, where Shakespearean agent-forming techniques are presented and analysed. Each suffix is studied from both the formal and the semantic perspective. An attempt at evaluating the productivity of a given process is also made.

Since, as has been shown in Chapter 1, none of the currently available theories is inclusive enough to deal with the complex aspects of nominalisations,

I have adopted a rather eclectic approach, the core of which constitutes the Generative Semantics framework enriched with the prototype theory attitude towards category membership, while the formal analysis is performed in conformity with the basic tenets of TGG.

The corpus has been compiled from *The first folio of Shakespeare: The Norton facsimile* (2nd ed.), and the Arden Edition of Shakespeare's Plays (second, and, where available, third editions). The etymological information, as well as the glosses, are cited after the OED. Line numbering and quotations are from the Arden Shakespeare. The glosses are illustrated with exemplary references. I have not provided references to all the occurrences of a given sense in the corpus, as presenting a complete typological compilation is not the aim of this study.

Chapter 1

Nominalisations in selected linguistic theories

1.1 The place of nominalisations in grammar

Nominalisations are the area of study where the problems of theoretical account of word-formation are perhaps best reflected. The theoretically elusive character of nominalisations is partly connected with the models which aim at language description, and partly with the very nature of nominalisations themselves. Nominalisations, just as the whole word-formational component of grammar, notoriously escape a unitary description within a single theoretical framework, and it will be shown below how linguists of various theoretical persuasions deal with nominalisations within their linguistic models.

One of the chief problems here stems from the "in-between" position of nominalisations in language description.[1] Word-formational phenomena cannot be fully covered by any of the traditional components of grammar; a careful look at nominalisations, for example, will reveal their complex interconnections of syntax and morphology. Those who choose to treat nominalisations as a syntactic phenomenon see them as transforms of kernel sentences; those for whom nominalisation is chiefly a morphological process concentrate on the features of derivatives as complex words. Both stances can be partly justified by the fact that nominalisations exhibit the features of both nouns and verbs. Jędrzejko (1993, p. 34) has noticed that nominalisations can be characterised by nominal features like number or gender, but they also exhibit contrasts typical of verbs, like aspect and tense. This claim is supported by Strang (1968, p. 219), who in her survey of *-er* agent nouns in Swift's works presented *-er* forms which exhibit differences not only in number, but also in aspect, voice,

[1] The problem of interrelations of morphology with other language levels has been discussed in Krámský (1981).

and tense, and she also considers the relevance of mood and person differentiation. The aspectual distinctions between agentive nominalisations are also discussed in Kastovsky (1977). Thus, it seems that nominalisations do not belong in full either to syntax or to morphology. Furthermore, issuing the definition of word-formation as "a set of rules that describe and govern the innovation of lexicon" (Pennannen, 1972, p. 295) puts in the limelight other important aspects without which the complete description of word-formation seems impossible, namely those connected with the relation between word-formation and the lexicon. The view that the products of word-formational operations are stored in the lexicon enforces the need for the inclusion of not only semantic, but also pragmatic aspects into the description of word-formation,[2] and especially of word-formational products (i.e. nominalisations, among others). Moreover, the adoption of de Saussurian idea of a word as a sign presupposes the strong affinity of word-formation and the extralinguistic world, as there is a link between a name (i.e. signifier) and the entity or concept it denotes (i.e. signified).

Yet another difficulty inherently connected with the description of the word-formational component is the practical impossibility of its purely synchronic account. New words are constantly being created, and the ones which exist in a language undergo semantic modifications, while others fall out of use. This dynamics of word-formation places it, again, in-between synchrony and diachrony. Also, the formal account of many complex words is unattainable without taking into consideration the diachronic aspect of their derivation; the loss of transparency, lexicalisation, the change of morpheme status, and other processes can only be explained by employing a historical perspective and tracing the word's development across different points in time. In this way word-formation encroaches on the territory which has traditionally been viewed as standing outside the scope of autonomous, or, to recall de Saussure again, internal linguistics. The general unwillingness of the 20th-century scholars to incorporate extralinguistic factors into the science of linguistics resulted in the incompleteness or even inadequacies of major linguistic models in dealing with word-formation mechanisms and patterns. In the following paragraphs, selected linguistic theories and models will be surveyed with the emphasis placed on their applicability to the treatment and analysis of agentive nominalisations. It should be emphasised that the approach taken here is highly selective, and only such theories have been presented that directly pertain to my developing of a working methodology that guarantees a comprehensive analysis of the data that I have collected.

[2] As Pennannen (1988, p. 124) has pointed out, it is unfortunate that in English the term *word-formation* covers simultaneously the process, the product, and the study of word derivation.

1.2 Nominalisations in Structural Linguistics

A systematic description of nominalisations has become possible only with the rise of fundamental tenets of structuralism. Earlier, traditional frameworks with their strong empirical grounding and primarily analytic approach towards language structures (i.e. from form to meaning), were not able to give a full account of the nature of nominalisations. It was, for instance, not possible to establish the relation between a nominalised form and its underlying sentence, or to report on the synonymy holding between linguistic structures (Jędrzejko, p. 1993). Many linguists (e.g. Apresjan, 1971) have also remonstrated against the imprecision of descriptive grammar nomenclature, as well as its inconsistency and non-systematicity.

Structural Linguistics aimed at such an account of language phenomena that would be comparable in rigorousness and formalism to the scientific methods that are employed in mathematics. Thus it put emphasis on explicitness and accuracy in defining linguistic notions, and called for the formalisation and objectivisation of linguistic inquiry. Structuralists concentrated on modelling as the most general and the most objective representation of linguistic mechanisms. Synchronic description was promoted, and synthetic procedure towards linguistic analysis was opted for, in contradistinction to traditional descriptive grammar, which favoured diachronic perspective and analytic approach to the data in question. Also, the empiricism of descriptive grammar was discredited and substituted with theoretical principles and methods, which brought to the forefront the idea of language as a system.

Among the pre-structuralist ideas and constructs which seem particularly advantageous with respect to the systematic investigation of nominalisations are Jespersen's (1927) theory of two types of syntactic relations, as well as de Saussurian conception of language organisation, both discussed below. Thus Jespersen (1927) postulates that there are two kinds of relationships holding between syntactic elements: *junction*, which is a close attributive relation, and *nexus*, which Jespersen (1927) defines as a free predicative or a semi-predicative relation. Language is equipped with mechanisms that are capable of transforming the nexus relation into the junction one, which makes it feasible to establish and to account for the equivalence between a syntactic unit and a sentence. Allowing for the nexus relation to hold between morphemes opens up the possibility to treat, for example, nominalisations like *blindness* or *writer* as being equivalent to sentences.

Other theories which have provoked a new insight into the mechanisms of language and which facilitated the refinement of the methodology of the description of nominalisations were developed by the most influential representative of structural linguistics, Ferdinand de Saussure. Jędrzejko (1993, pp. 11—12)

argues that the distinction between the plane of langue and the plane of parole was a crucial one for studies over nominalisations, as it enabled to show how one and the same content could be realised by different expressions. Thereafter it became possible to account for the various semantic and functional relations holding between different syntactic or lexical constructions.

Also, as Apresjan (1971, p. 51) has remarked, thanks to the de Saussurian theory of syntagmatic and paradigmatic relations, one could abandon the traditional division of grammar into morphology and syntax which had been a serious hindrance to the progress in the research on nominalisations. It has frequently been observed that nominalisations are in the liminal space between syntax and morphology, and cannot be fully covered by any of the components. Thus, the theory of syntagmatic and paradigmatic axes is a viable alternative to the traditional approach, and a very beneficial one in dealing with nominalisations.

1.3 Nominalisations in Transformational-Generative Grammar (TGG)

Let us now proceed to the model which can be looked upon as the evolution of the structuralist ideology, the Transformational-Generative framework. In its earliest versions, derived nominals were seen as generated from base sentences by means of derivation transformation. The model of grammar postulated by Chomsky in *Syntactic Structures* (1957) consists of three components: phrase structure, transformational structure, and morphophonemics. Although it has not been explicitly mentioned by Chomsky, there are reasons to believe that in this model the majority of morphological operations are taken care of by the transformational structure (Ruszkiewicz, 1997, p. 25).

The view that a morphological syntagm can be treated as a reduced sentence has been also adopted by Lees (1960), whose research is an attempt at a systematic description and analysis of English nominalisations, although the substantial part of his study has been devoted to nominal compounds. Lees (1960, p. 69) thus treats agentive nominals as transforms from sentential sources, and further formulates the mechanisms of deriving agent nouns as follows: "we shall generate Agentive Nominals in two stages, the first a simple transformation to produce an agentivised sentence, the second a generalised transformation to insert the agentive predicate of 'be' for a nominal matching the subject" (Lees, 1960, p. 70). Such a model may allow for every verb of action to develop an *-er* agent noun; it will not be able, however, to explain the mechanisms governing the derivation of denominal agents. A solution provided by Lees (1960, p. 69) is that some *-er* nouns, especially those naming professions, may have

been formed by means of misanalysis of monomorphemic Romance names of professionals in *-er*, as, for example, *carpenter* or *grocer*. In this way, at least some portion of transformationally inexplicable *-er* formations can be seen as a matter of analogy (or, to be precise, misanalogy) rather than rules.

However, other scholars have succeeded to prove that the transformational syntax fails to explain the phenomena connected with the derivation of nominalisations. Ruszkiewicz (1997, pp. 28—30) draws attention to numerous difficulties connected with Lees's (1960) model, such as, for example, the fact that in the case of many derivations there is no appropriate sentential source available, or the frequent overgeneralisation of transformational rules (i.e. some formations are expected but non-occurring, as *?book liker* versus *book lover*, or *?day crawler* versus *night crawler*). The generality of Lees's transformational rules is restricted by numerous exceptions, and the relations between nominals and their underlying sentences are disturbed by unrecoverable deletions.

Matthews (1974, p. 183) has also argued against the transformational approach towards nominalisations. He has called attention to the fact that in the case of some noun phrases with an agent as a head, there is no one-to-one correspondence between deep and surface structures. Hence, while the surface structure

(1) *He is a bad actor.*

can be related to its deep level by the schema

(2) [*'He is a man'* [*'The man acts badly.*]]

no such relation holds for (3) *He is a great actor*, or (4) *He is an important painter*. For one thing, there are no corresponding adverbs for the surface adjectives *great* and *important*; what is more, even if one accepted the sentence

(5) *?Cezanne painted importantly.*

it would not render the meaning of the sentence

(6) *He is an important painter.*

as it does not capture the special relation holding between the adjective and the noun.

Another argument against reducing agentive derivation to mere syntactic transformation is the fact that some agentive syntagms contain semantic features which are not present in their underlying deep structures. Kastovsky (1971,

pp. 301—302) observes that the agent noun *gambler* contains the feature [Habitual], which is not expressed in its deep structure "someone gambles." Similarly, *bricklayer* is additionally equipped with the feature [Professional], which, again, cannot be inferred from its underlying sentence "someone lays bricks." The instrumental noun *nutcracker*, transformed from the deep structure underlying the sentence "someone cracks nuts with something," contains the feature [Purpose]. Consequently, Kastovsky (1971, p. 302) calls for the separation of word-formation rules from syntactic rules: "transformations in word-formation are distinguished from purely syntactic transformations in that they may add semantic features to the underlying syntactic structure, while purely syntactic transformations leave the semantic structure unchanged" (1971, p. 302). The semantic features which should be provided by the derivation transformation are, among others, [Evaluation], [Habitual], [Professional], [Inherent], and [Purpose].

It has also been argued that word-formation does not quite conform to the major aim of linguistics as articulated by TGG, which is that by formulating a finite, limited set of rules one would be capable of explaining an infinite number of new structures. As has already been signalled by the examples of agent nouns above, the systematisation and formalisation is far more difficult in the case of word-formation than in the case of syntax. Some scholars even question the applicability of rules to word-formation, because, as Adams (1973, p. 6) has noticed: "the occasions on which we would have to describe the output of such rules as 'grammatical but non-occurring' are just too numerous."[3]

Furthermore, it seems that rules for forming words differ significantly from those for forming sentences, not only in terms of semantic addition and subtraction discussed above, but also in other aspects. Aronoff (1976, p. 22) stipulates that word-formation rules are "once-only" rules, since they do not necessarily apply every time the language user speaks. They differ in this respect from syntactic and phonological rules, which, must apply anew in the derivation of each sentence.

A slightly revised version of Transformational-Generative model of grammar, in which the grammatical theory was extended so as to incorporate syntactic features, has allowed for other than transformational explanation of the mechanisms governing the derivation of nominalisations. The restricted productivity of derived nouns, the idiosyncratic semantic relations holding between the noun and the associated verb, as well as the fact that nominalisations have the internal structure of a noun phrase have prompted Chomsky (1970, p. 188) to formulate a "lexicalist" hypothesis, which states that derived nominals are not transformationally related to the associated propositions. Rather, they are directly accommodated by the base rules. Such an organisation of grammar would

[3] This problem has been partly solved by Halle (1973), who suggests the distinction between *potential words* and *actual words*.

require for the lexicon to be separated from the categorial component, and for entries in the lexicon to be listed with fixed selectional and subcategorisation features, but with categorial features (N, V, Adj) left unspecified. The semantic features of an entry and the choice of categorial features would be independent of each other (Chomsky, 1970, p. 190). Chomsky thus postulates that derived nominals should have the form of base sentences, in contradistinction to gerundive nominals, which are transforms, that is, they are formed by transformations applied to their underlying sentence-like deep structures.

Chomsky's (1970) lexicalist position has not won support of those scholars who nevertheless see word-formation as rule-governed. Bauer (1983, p. 75) maintains that denying all derivatives any generative power is too strong a proposition, and claims that this could be alleviated by introducing the concept of lexicalisation. According to the lines of his reasoning, those derivatives which are lexicalised would be listed in the lexicon, others being generated by rules. Kastovsky (1977), on the other hand, claims that the whole component of word-formation can be dealt with within the transformational framework. According to him, there is an exact correspondence between the suffix employed in nominalisation and an underlying grammatical category. In the case of agent nouns, for instance, the suffix refers to the underlying subject, and the subject is related to a noun phrase that stands in an agentive relationship with respect to the underlying verb. Such an approach has allowed Kastovsky (1977) to eliminate the irregularities that inclined Chomsky (1970) to relegate derived nominals to the lexicon.

The subsequent elaboration of the lexicalist position conducted by various scholars has resulted in two distinct approaches towards the interconnection between word-formation and the lexicon. The weak version of the Lexicalist Hypothesis differentiates between derivation and inflection; here, derivational morphology is "the domain of pre-lexical insertion process" (Ruszkiewicz, 1997, p. 61). It is thus non-transformational, while inflection belongs to post-lexical insertion phenomena, hence it is a part of the syntactic component. The strong version of the Lexicalist Hypothesis states that both derivation and inflection are pre-lexical.

As Ruszkiewicz (1997, p. 61) observes, in the first half of the 1970s it was the weak version of the Lexicalist Hypothesis that was favoured in morphological studies. One of the advocates of this position was Siegel (1974), who claimed that: "inflectional morphology treats the generation of words by the syntactic component of the grammar. Derivational morphology is the study of word-formation processes which occur in the lexicon" (Siegel, 1974, p. 12).[4]

[4] Similar views have been expressed in Jackendoff (1972), who stipulates that "transformations do not perform derivational morphology," and "the only changes that transformations can make to lexical items is to add inflectional affixes such as number, gender, case, person, and tense" (Jackendoff, 1972, pp. 12—13). Also, Aronoff (1976) adheres to the weak version of the Lexicalist Hypothesis.

In Siegel's model (1974) the lexicon is not just a list of irregularities and idiosyncrasies, but contains stems and affixes structured in a hierarchical order. Siegel suggests the following organisation of the lexicon (1974, p. 153):
a. Level I Affixation;
b. Cyclic Stress Assignment Rules;
c. Level II Affixation;
d. Word Level Rules.

Level I affixes differ from Level II affixes morphologically and phonologically. Thus, Level I affixes are typically Latinate, they can attach both to bound roots and to words, they affect the phonological structure of their bases, and are less productive than Level II affixes. Level II affixes, on the other hand, are typically (but not always) Germanic, they combine with words only, and are less integrated phonologically with their bases (Plag, 2003, p. 168). Level I affixation occurs at root boundary, while Level II affixation occurs at word boundary. Plag (2003, p. 168) provides a list of affixes which, in accordance with Siegel's (1974) criteria, are Level I affixes: *+al*, *+ate*, *+ic*, *+ion*, *+ity*, *+ive*, *+ous*. Level II affixes, according to Plag (2003, p. 168), will be: *#able*, *#er*, *#ful*, *#hood*, *#ist*, *#ize*, *#less*, *#ly*, *#ness*, *#wise*. Although Siegel (1974) does not make reference to the semantic effects of Level I and Level II affixation, it can be seen that Level I affixes are associated with semantic transparency, while Level II affixation generally results in various degrees of semantic idiosyncrasy.

Though in current linguistic studies derivational and inflectional morphology typically receive the same treatment,[5] and in general no sharp distinction is drawn between inflectional and derivational processes, in the early 1970s such approach was in minority. One of the few linguists advocating a unitary treatment of derivation and inflection was Halle (1973). He claims that inflectional morphology should be handled in parallel fashion to derivation: "I know of no reason […] why the rules of word formation should not also include rules for positioning the inflectional affixes appropriately" (Halle, 1973, p. 6).

In all respects, it seems that treating nominalisations in a purely lexical fashion misses significant generalisations about the process. There are considerable differences among different kinds of nominalisations regarding their productivity, degree of semantic and morphological transparency, and regularity in terms of the relations holding between the referent and its base. For instance, the nominalisations in *-(at)ion, -ment*, and *-al*, traditionally categorised as Nomina Actionis, are fully transparent, productive, and regular, and as such are closer to the syntactic component than to the lexicon. Szymanek (1993, p. 120) argues that such derivatives are asemantic: "they have no specifiable semantics apart from the fact that they name as an entity the action/event originally denoted by the verbal stem." Derivation of this kind is often called *transpositional*,

[5] For example, Dressler (1984), Booij (2005).

as opposed to *mutational* (*lexical*) derivation, which is characterised by a high degree of semantic modification, often resulting in the loss of transparency and regularity. The examples of mutational suffixes are agent-forming suffixes.[6]

But this should not be taken to mean that all agentives need to be listed in the lexicon. The counterevidence to such a claim is the fact that neologisms of that category are constantly being created, especially the *-er* suffix is marked for high productivity (the corpus of new words in *-er* denoting persons has been presented and analysed by Bauer, 1979). As one of the prerequisites for productivity is semantic transparency (these issues will be taken up in detail in Chapter 2), one can expect novel derivatives to be regular in terms of form-meaning relationship. Therefore, even within one type of a single category (here: *-er* agent nouns), one can encounter derivatives whose morphosemantic features are reminiscent of a purely syntactic process, as well as, on the other hand, derivatives which semantically have distanced themselves off from their motivating lexemes.

This phenomenon, commented on especially with respect to agentive nominalisations in *-er*, has been epitomised by Barbara Strang (1968, p. 219), who postulates the existence of two clines: a cline of nominalisation and a cline of specialisation. The cline of nominalisation refers to the extent to which *-er* forms preserve the syntactic characteristics of their verb-bases. The nominalisation which is semantically equivalent and transformationally related to its underlying proposition is called *minimal nominalisation* (Strang, 1968, p. 219). The example of a minimal nominalisation is the noun *farmer*[7] in the sentence (7):

(7) *He's a wretched farmer.*

as it is directly related in terms of syntactic structure to the underlying sentence: *He farms wretchedly*. In another sentence:

(8) *He's a prosperous farmer.*

the process of nominalisation has advanced, as the structure must be derived from two sentences: "He is a farmer; he is prosperous."

The cline of specialisation is, in Strang's (1968, p. 220) approach, the degree of semantic transparency of a given derivative. A minimal nominalisation

[6] There is also a third group of derivatives, the so-called *tautological* derivatives; here an application of an affix seems a redundant operation, as both syntactic and semantic differences between a base and its derivative are null, for example, *lunch* (N) — *luncheon* (N), *hate* (N) — *hatred* (N) (Szymanek, 1993, pp. 125—126). They, however, are irrelevant for my argument.

[7] Strang (1968, p. 219) considers *farmer* to be synchronically analysable as an *-er* derivative, even though from the etymological point of view it cannot be regarded as such.

is most typically both syntactically and semantically transparent, therefore such minimal forms can be treated as being generated by regular syntactic rules. Non-minimal structures are deliberately coined, thus they are often idiosyncratic, and have to be listed.

The notion of minimal nominalisation and the claim that minimal forms are generated stands in opposition to Chomsky's (1970) Lexicalist Hypothesis. However, it has been confirmed empirically that the outputs of the most productive processes are never listed (see Chapter 2). It seems that the failure of TGG to provide a comprehensive account of nominalisations stems from the inadequacy of a single component of grammar to deal with word-formation. The evidence presented above suggests that word-formation belongs in full neither to syntax nor to the lexicon, and an integrated conceptual framework needs to be worked out to fully cover word-formational phenomena.

One of the first attempts at formulating a unified and systematic theory of word-formation has been presented by Aronoff (1976), who calls for the separation of morphology and syntax, and grants morphology the status of an independent entity. Aronoff's (1976) theory can be seen as an elaboration and development of Chomsky's (1970) lexicalist view on word-formation. Both scholars postulate for morphology to be taken care of by an expanded lexicon; Aronoff (1976), however, goes a step further and claims that morphology should be dealt with by a separate component of grammar. Moreover, in Aronoff (1976), unlike in Chomsky (1970), the lexicon exhibits a generative power; the outputs of word-formational processes are generated by Word Formation Rules (WFRs). WFRs are rules which operate within the lexicon, and they are "rules for making up new words" (Aronoff, 1976, p. 47). They are separate from and independent of syntactic transformational rules, though they do introduce syntactic (as well as semantic, phonological, and morphological) information. Therefore, WFRs can relate to other components of grammar. Aronoff's (1976) model of word-formation is word-based: within his framework, WFRs "do not operate on anything less than a word, i.e. on morphemes" (1976, p. 22). Such a conclusion is derived from a fundamental assumption that both the input and the output of WFRs must be meaningful. Since, according to Aronoff (1976), not all morphemes are meaningful (e.g. the *cranberry* words), they cannot act as bases for word-formation processes.

In English word-formation system, however, there can be found counter-examples to the Aronoffian word-based model. The so-called *neo-classical* compounds are derived from elements smaller than a word.[8] Also, *-er* nominalisations provide further problems for the word-based hypothesis; as Bauer (1979, pp. 28—29) notices, it is a synchronically productive process to derive personal *-er* nouns from noun phrases, for example, *cold mooner*, *free speecher*, *golden*

[8] I take it that by the term "word" Aronoff (1976) means "lexeme."

ager, *green carder*, *hard liner*.[9] Also, prepositional phrases can motivate *-er* forms: *off-islander*, *on-islander* (examples quoted after Bauer, 1979, p. 29). It follows, then, that some (meaningful) bases are, in fact, larger than a word.

To dispose of the concept of a morpheme, Aronoff (1976) adopts a paradigmatic approach towards morphology. The relationships between morphologically related words are conceptualised by establishing morphological schemas. This formula allows Aronoff (1976) to account not only for affixational processes, but also to formalise word-formational phenomena that are especially difficult to explain within a syntagmatic approach, for example, non-concatenative morphology. It seems, then, that both syntagmatic and paradigmatic approaches offer a workable conceptual framework. Plag (2003, p. 189) suggests that they are in a complementary, rather than conflicting, relationship, and that only the combined procedure towards complex words analysis can hope to reckon with the full range of phenomena in natural language.

As it has been shown, the treatment of nominalisations within the ramifications of the Transformational-Generative school is far from being conclusive. Despite the highly-developed technicalities and fairly complex notation, TGG has failed to render the intricate relationships holding between the base and the referent. This failure is partly due to the nature of the data itself, which eludes formalisation, especially of strictly reductionist character. But, it seems, the inadequacy is rooted in the formal apparatus of the theory, which posits the priority of syntax over semantics in the process of generating language structures. It has been argued that a reverse direction is better suited to an explanation of the mechanisms of a natural language; hence the plane of content is regarded as prior to, and dominant over, the plane of expression. This is the core assumption of Generative Semantics, the new conception of generative grammar.

1.4 Nominalisations in Generative Semantics (GS)

In Generative Semantics, deep structure is understood as a relationship between the predicate and its arguments. This relationship is claimed to be universal, while the actual formal realisation of such a conception of deep structure is dependent on the grammatical resources of individual languages. Different types of nominalisations are considered as possible actualisations of a single deep structure which on a formal-syntactic plane are interrelated by syntactic transformations. The synonymy and homonymy of nominalisations is seen as resultant

[9] Although the motivating NPs are slightly idiomatic, they are not, nevertheless, single lexemes.

from various types of condensation or reduction of elements from the semantic level, which are not formally expressed on the syntactic level (Jędrzejko, 1993, pp. 19—24). The theory which has been frequently and successfully applied in studies on word-formation is Fillmore's (1968) Case Grammar (CG), where *case* is understood as a semantic role of an argument.

Fillmore (1968) argues against the view that cases are merely a surface, lexical realisations signalling syntactic relations, and claims for cases to be a part of the base component of grammar. Hence, deep structure cases need not be overtly realised as affixes or grammatical morphemes. Cases comprise the underlying syntactic-semantic relationships which are universal, or even innate, and allow human beings to make judgements about events in the surrounding world.

Originally, there were six deep cases postulated by Fillmore (1968, p. 24): *Agentive* (A),[10] *Instrumental* (I), *Dative* (D), *Facilitative* (F), *Locative* (L), and *Objective* (O).[11] Emphasis is put on the fact that there does not have to be any correspondence between cases and surface structure relations, such as subject and object. In Fillmore's (1968) grammar, each noun and verb is inserted into strictly specifiable case-frames which identify the relations that this noun or verb can enter into with other elements in the sentence.

One of the advantages of CG over other frameworks (e.g. TGG) is that the theoretical instruments of the former are capable of accounting for the synonymy of words which differ in their formal make-up. For Fillmore (1968, p. 30), the synonymy of words derives from similarities in frame feature specification. Thus, there are instances of synonymy where "there are identical frame features but different subject selection features, and instances of synonymy where there are frame feature differences depending on whether a particular case category was present or absent" (1968, p. 30). The first situation is reflected in verbs *like* and *please*, which have the same frame feature +[__O+D]. The second case of synonymy holds between the verbs *see* and *show*, or *kill* and *die*. The frame of the first verb in each pair does not contain the case Agentive, while this case has to be present in the frame of the second verb in each pair.

Also, Fillmore's (1968) conception of grammar allows for the simplification of semantic description in the sense that the number of semantic entries can be considerably reduced as compared with structural semantics. The differences in meaning between, for example, *hear* and *listen* can be accounted for by

[10] It is worth stressing that by Agentive case Fillmore understands "the case of the typically animate perceived instigator of the action identified by the verb" (1968, p. 24).

[11] This inventory was later complemented by Fillmore with *Experiencer*, *Source*, *Goal*, and *Time*. Various Fillmore's followers suggested different collections of cases necessary for complete description of linguistic data. For example, Laskowski (1973) employs nine cases: *Ag*, *Pt*, *Exp*, *Ben*, *Res*, *Instr*, *Loc*, *Temp*, *Ob*. It is important to stress, however, that the Agentive case is present in all the inventories of deep cases that I am familiar with.

specifying for each verb the case frames it is inserted in. Hence the case frame for *hear* is [__O+D], while for *listen* it is [__O+A]. In this way no further semantic explanation is needed, provided that one considers both A and D as necessarily animate. The correspondence between deep cases and their surface, overt forms is secured by such mechanisms as suppletion, affixation, addition of prepositions, subjectivalisation, objectivalisation, sequential ordering, and nominalisation (Fillmore, 1968, p. 52).

CG has frequently been applied as a model for various word-formation analyses, especially those which focus on nominalisations, since deep cases are believed to underlie derivational categories (e.g. Nawrocka-Fisiak, 1975; Kleszczowa, 1981). Kleszczowa (1981, p. 23) even claims that derivational category status can be verified (and confirmed) on the syntactic-semantic level. For Kleszczowa (1981, p. 23), morphological categories are analogical to, and identical with, semantic roles (cases), and this analogy is evident in the fact that a morphological category is defined on the basis of its categorial value.

A generative grammar with semantic basis has also been used as a descriptive tool in historical word-formation studies. One of the attempts to apply generative semantics to the diachronically-oriented analysis has been taken up by Jędrzejko (1997), who has shown that the analytic model based on generative semantics may prove a useful framework to operate within historical linguistics, resulting in objective and schematised description of word-formation processes, and that such an approach is capable of capturing the general laws of morphological change.

1.5 Nominalisations in Cognitive Linguistics

Let us now proceed to the evaluation of the applicability of non-generative conceptions of grammar to the description of nominalisations, especially those codifying performers of actions. There are two frameworks which seem promising in this respect: Cognitive Linguistics and Natural Morphology. Both are mentalistic in their approach towards language study. Both look upon linguistic competence as a part of general mental competence of human beings, thus denying it the status of an independent entity separated from external phenomena.

Although Cognitive Linguistics originated as an opposition to generative approaches, it need not be perceived as its rival, especially that it shares with Generative Semantics its basic tenet, that is, an interest in meaning as the elementary and most essential feature of language and communication. The novelty of Cognitive Linguistics with respect to defining meaning is that here, unlike

in Generative Semantics, meaning cannot be treated as being independent of other aspects of human perceptive and cognitive faculties. As Lee (2001, p. xi) has put it: "what unites cognitive linguists […] is a commitment to the principle that linguistic expressions code a particular way of perceiving the relevant scene. This means that linguistic coding involves such factors as selectivity, perspective, focus, backgrounding, framing, modes of categorisation, and so on." Since the problem of categorisation and linguistic coding of cognitive categories is especially pressing in the study of agents (see, for instance, the problem of fuzzy borders between such categories as agents and instruments, or the difficulty in delineation between agents and experiencers, both discussed in detail in Chapter 3 and Chapter 4, respectively), some of the hypotheses advanced by cognitivists may facilitate overcoming at least some of these problems.

The theoretical model that investigates morphological techniques within cognitive framework is Natural Morphology, developed by Dressler and Wurzel. Natural Morphology seeks to provide a theory of what constitutes a natural or an unmarked morphological system, and what laws govern deviations from that natural system. Every morphological operation can be positioned on a naturalness scale, ranging from the most to the least natural (Dressler, 1981, p. 1). To establish the degree of naturalness (or unmarkedness) for a given morphological technique, Natural Morphology resorts to extralinguistic entities and semiotic principles. As naturalness is correlated with frequency and cognitive simplicity, data from comparative linguistics and language acquisition studies is also explored. Dressler (1981; 1986) maintains that the most natural word-formational operation is the one which is characterised by high degree of morphosemantic and morphotactic transparency. Transparency in word-formation is associated with diagrammaticity. Affixational processes as reflected in pure agglutination are the most diagrammatic, as "addition of intensional meaning on the level of the signatum is diagrammatically reflected by morphotactic addition of an affix on the level of signans" (Dressler, 1986, p. 528). Suffixed agent nouns are characterised by a high amount of constructional iconicity, since they represent the meaning of a motivating verb and the added agentive meaning. In this way agents are more marked than their verbal bases.

Morphosemantic and morphotactic transparency are in turn correlated with productivity. By establishing naturalness parameters for morphological techniques, Natural Morphology can predict the degree of productivity of a given morphological process. Furthermore, as Dressler (1986) claims, by operationalising the concept of diagrammaticity, Natural Morphology can explain why of all English WFRs only affixation can be fully productive, and why affixational WFRs are acquired first. Diagrammaticity may also provide explanation for the problem of the preference of *-er* affixation over other possible techniques in agent formation. Deverbal agent nouns in *-er* are the most productive in Modern English word-formation as they reflect the highest degree of iconicity:

more of form corresponds to more of meaning. Moreover, the relation of form to meaning is regular and predictable. The least natural of all agent-forming techniques will be, according to Natural Morphology predictions, zero-derived (converted) agents, because this process is non-diagrammatic: the addition of intensional meaning on the level of the *signatum* is not accompanied by formal changes on the level of *signans*. The lesser naturalness of zero-derived agents is reflected in their frequency: in English, there are considerably fewer zero-derived agent types as compared with the suffixal ones.

Natural Morphology also provides support for Aronoff's (1976) hypothesis of word-based morphology. Dressler (1981, pp. 6—7) argues that words are primary signs, and morphemes are only secondary signs. Such a conclusion follows from the observation that complex words are hardly ever motivated by elements larger than words or smaller than words. To explain the preference of WFRs for words as their bases, Dressler (1981, p. 7) refers to the notion of perception: he writes that "words are better-perceivable bases than morphemes for motivating derived words" (1981, p. 7).

To account for the infrequency of phrases as WFRs' bases, Dressler (1981) invokes the semiotic principle of the optimal size of a sign. If the sign is too large, it becomes too difficult to perceive, process, and store. This might explain why the aforementioned phrases which function as bases for *-er* agent derivation listed by Bauer (1979) are all idiomatic — they are already stored as single units in memory. Phrases are less suitable as bases for derivation also for pragmatic reasons: they betoken ideas which are too complex to act as labels.

The above outline shows that the Natural Morphology model has many advantages; although its operating procedures are fairly unsophisticated, and the level of technicality is relatively low, it is nevertheless capable of explaining many phenomena connected with word-formation. Possibly, this is partly because word-formation is seen here as interacting with inflectional morphology, phonology, syntax, and with the lexicon. Another asset of Natural Morphology is its combinability with other frameworks; as Dressler has put it: "descriptive work done in terms of Natural Morphology can use different technical formats and can be combined with various structural and generative approaches" (1981, p. 10).

1.6 Nominalisations in the approaches based on the theory of selectional restrictions

To complete the discussion of theoretical modelling of word-formational phenomena, let us examine one more approach towards morphological analysis pronounced by Fabb (1988) and Plag (1996). Both publications bring into focus

selectional restrictions of affixation and are meant to be a critical reaction against stratificational theory of morphology. An important difference between Fabb's (1988) and Plag's (1996) proposals concerns the basic methodological assumption: while Fabb's approach towards selectional restrictions is affix-driven, Plag claims that the affix-stacking constraints are primarily controlled by the properties of the base.

The central thesis of Fabb's (1988) account of English suffixation is that the model based on level-ordering of morphology (as formulated in Siegel (1974)) is both theoretically and empirically flawed. He points out that the claim about the stratificational organisation of suffixes is considerably weakened by bracketing paradoxes and by evident counterexamples in which there can be observed a different suffix ordering than the one predicted by the theory (e.g. in suffix combinations *-ist* + *-ic*, or *-ment* + *-al* a level II suffix precedes a level I suffix, which runs counter to the theory's assertions). Moreover, as Fabb (1988, p. 528) has shown, Siegel's (1974) approach fails to rule out a large amount of affix combinations that do not exist, which significantly undermines the predictive power of the stratificational framework. Hence Fabb (1988) formulates a new approach to derivational morphology, wherein English suffixes are classified on the basis of their sensitivity towards internal bracketing of words. As a consequence, four classes of suffixes are distinguished (all labels after Fabb, 1988): 1. suffixes which never attach to an already-suffixed word, 2. suffixes which attach outside one other suffix, 3. freely attaching suffixes, and 4. problematic affixes.

The first group of suffixes is the most numerous, as it covers 28 out of 43 formatives investigated by Fabb (1988). These are suffixes which attach only to unsuffixed words. Here belong, among others, agent-forming *-ant* and *-ist*. The next class includes suffixes which combine only with particular affixes. Typical suffix combinations are: *-ionary* (as in *revolutionary*), *-istic* (as in *pessimistic*, *modernistic*), *-ificatory* (as in *modificatory*). Denominal person-forming affix *-er* would also fall under this heading, as it attaches to bases ending in *-ion* (e.g. *vacationer*, *practitioner*).[12] The suffixes which are not subjected to any selectional restrictions (apart from the part-of-speech constraint) are the three suffixes generally considered as the most productive in Modern English, namely *-able*, *-ness*, and deverbal agent-forming *-er*. There are also several affixes (*-al*, *-ion*, *-ity*, *-ism*, *-ist*, *-ize*) which are difficult to handle within Fabb's framework due to their semi-productivity. These suffixes combine with a restricted set of affixes and seem to be sensitive to etymological information ([+Latinate] or [-Latinate]).

[12] By classifying the denominal *-er* as a suffix which "attaches outside just one other suffix" Fabb (1988) does not claim that this is the only possible environment for the affix in question, as obviously there are numerous examples where the affix attaches to simplex hosts (e.g. *gardener*). Rather, Fabb (1988) describes the behaviour of the suffixes with respect to complex words.

Fabb (1988) argues that an analytic model which focuses on specifying selectional restrictions (of which the restriction against the attachment to an already suffixed word is the most powerful) is better suited to deal with morphological processes than level-ordering approach, as it proves to be more successful at predicting which pairs of affixes will be accepted and which will be ruled out by the morphological system.

Similar, anti-stratal view of the lexicon has been adopted by Plag (1996), who also invokes the idea of selectional restrictions as a mechanism governing the phenomenon of affix-stacking. Plag (1996), however, refutes Fabb's approach towards restrictions as affix-driven. Instead, he claims that the constraints on the combinatorial potential of derivational affixes are related to specific properties of bases.

Having reconsidered Fabb's (1988) data, Plag (1996) has shown that most of the putative affix-propelled constraints are in fact resultant from the paradigmatic organisation of derivational morphology. For instance, the inability of deverbal suffixes *-age*, *-al*, *-ance*, *-ment*, and *-ly* to combine with already suffixed verbs stems from the general phonological restrictions imposed by the base. There are only four verbal suffixes in English (*-ify*, *-ize*, *-ate*, *-en*), three of which regularly combine with one of the allomorphs of the suffix *-ation*. Thus, according to Plag (1996, p. 776), the suffixes *-age*, *-al*, *-ance*, *-ment*, and *-y* are "just as impossible as the inappropriate phonologically conditioned allomorphs," which implies that the constraint is induced by the base rather than being a specific feature of the suffixes in question.

Morphological constraints, such as the Latinate constraint, might also rule out a given affix combination. For example, as Plag (1996) points out, the suffix *-ive* can only attach to [+Latinate] bases ending in /d/, /t/, or /s/. In this way the combined phonological-morphological restrictions reduce the number of potential suffixed bases to one, namely *-ate*. In conformity with Plag's (1996) predictions, and contrary to Fabb's (1988) assertion, *-ive* does combine with affixed bases, but only with those that end in *-ate*, as in *assimilative, stimulative*.

Also, taking into consideration the pragmatic constraints, such as blocking, allows to correctly predict the non-occurrence of certain morphological formations. Therefore, the inability of the deverbal personal noun-forming suffix *-ant* to combine with already complex bases can be explained by the fact that all of the potential verbs (i.e. those ending in *-ify*, *-ize*, *-ate*, and *-en*) are already occupied by the rival suffix *-er*/*-or*. The fact that *-ant* is practically unproductive, while *-er*/*-or* is considered as the "default" suffix in agent formation process is consequential here.

There are also many counterexamples to Fabb's (1988) categorising of denominal *-er* as the suffix which only attaches outside one other suffix (i.e. *-ion*). As illustrated by Plag (1996, p. 788), denominal *-er* can combine at least with five other suffixes: *-ure* (*adventurer*, *conjecturer*), *-ist* (*allegorister*),

-ance (*conveyancer*, *concordancer*), *-ment* (*complimenter*), and *-age* (*baggager*, *bondager*).[13] Such counterevidence seriously weakens Fabb's (1988) predictions, because, as Plag (1996, p. 794) puts it: "the counterexamples are not exceptions to proposed rules, but violations of lexical requirements as stated in the individual suffix's lexical entry."

To sum up, Plag's (1996) approach towards analysing morphological processes can be seen as an alternative both to stratificational morphology and to Fabb's (1988) framework. Plag (1996) claims that combinatorial properties of derivational suffixes may be fully accounted for by positing base-driven selectional restrictions, paradigmatic morphological processes (e.g. blocking), and general morphological constraints like, for example, the Latinate constraint. Such an approach is more inclusive and superior in its explanatory power, as it is able not only to rule out the impossible combinations, but also to predict the possible ones.

1.7 Conclusion

The above discussion of approaches towards nominalisations in various grammars has been aimed at demonstrating the intricacy of the products of word-formational processes. I have argued against modelling based chiefly on formal properties, as they ignore semantic features which in this case seem critical. The most comprehensive and descriptively accurate are those accounts which operate simultaneously on many language components, and as such encompass not only the grammatical, but also the semantic properties of nominalisations. Moreover, the role of derivatives in discourse organisation as well as their function in speech structuring should be taken into consideration for the sake of completeness. Therefore, the more inclusive a given model is with respect to language components, the greater explanatory power it has with respect to nominalisations.

[13] It has to be noted, though, that the examples quoted by Plag (1996) are either lexicalised, thus do not illustrate the productive, synchronic process, or are derived on bases of questionable status of analysability (e.g. *adventurer*, *complimenter*).

Chapter 2

The problem of productivity in word-formation

2.1 The notion of productivity in linguistics

There can hardly be an analysis of word-formational data that does not make any references to the estimated productivity of the process under inspection. Thus, the notion of productivity is frequently brought up but rarely expatiated upon. One reason for such a state of affairs might be the fact that productivity is an intuitive concept, and as such it is rather evasive when it comes to complete and objective scientific account.[1] The intuitive character of the notion of productivity also results in the multiplication of definitions and approaches towards the problem. One gets an impression that there is hardly a single picture of productivity, because a commonly accepted definition of the concept has not hitherto been developed. Therefore, productivity can be understood in either quantitative or qualitative terms. It is often equated with frequency, or, on the contrary, with the infrequency of a pattern. Some researchers describe productivity in terms of generality, others in terms of potentiality. According to some linguists the productivity is scalar, thus subject to measurement, while others maintain that there is only the binary opposition (productive/unproductive).

As attempts to estimate the productivity of agent-deriving processes in Shakespeare's plays will be taken up in the present work, it seems necessary to look into the problem of productivity from both theoretical and empirical perspectives. Thus, throughout the present chapter, I will discuss various definitions of productivity, and investigate the correlation between different manifestations of productivity of a given process. Different methods of calculating productivity

[1] Other intuitive and hence problematic concepts are, for instance, the cognitive notion of an agent as opposed to the derivational category of Agent, or the concept of a word.

will be presented, and an emphasis will be placed on those measures that are applicable to historical language studies. I will also try to answer the question whether any claims as to the productivity of a given word-formation mechanism can be validated in the analyses of historical word-formation processes.

It is an inherent feature of morphological component of grammar that novel items are constantly being introduced into the language system. Thus, speakers continually expand the vocabulary of their language, and it becomes clear that the mechanisms, reasons, and possible purposes of this activity have to be accounted for if the description of word-formation is to be complete. This emergence of new words is believed to be the evidence that a given pattern (rule, process, or affix) is productive, that is, it can be used synchronically to derive new lexemes. So, it is generally accepted that productivity is manifested in new coinages, but the problem is much bigger than that.

Among the questions which are often asked are the following:

1. What is it that is productive?
2. Does frequency of application of a given affix imply its productivity?
3. Is productivity a matter of degree?
4. How can productivity be measured?
5. What makes a particular process more productive than others?
6. Is productivity a matter of a language system or a matter of language use?
7. How is productivity different from creativity?

The answers to the above queries depend to a large extent upon the theoretical framework of a given scholar, or, in other words, upon his set of beliefs and convictions as to how word-formation processes operate. In some cases the differences are only apparent, as they are merely a matter of terminology. Sometimes, however, one can observe two opposing camps whose standpoints have almost no common ground. Let us start our discussion of productivity with a brief historical sketch, which will demonstrate how the notion has evolved over the last 60 years.

2.2 Productivity as frequency versus productivity as potentiality

It turns out that the very term *productivity* is much more recent than the phenomenon it denotes. As Bauer (2001, p. 11) puts it: “the whole notion of grammar implicit in the work of the Sanskrit grammarians assumes the idea of productivity.” One of the first contemporary linguists who mentions productivity is Jespersen (1927, p. 4), who talks of “living” structures, that is, those which can yield new formations.

However, one of the first attempts at a systematic application of the concept of productivity has been made by Marchand (1969). He writes: "Productivity of a derivative type […] cannot be overlooked in a correct description of a linguistic system, and the linguist who neglects this particular factor will be counting 'dead souls' as live people" (1969, p. 5). Marchand was the first scholar who postulated delimiting the scope of word-formation study in such a way that only composites which can be analysed both formally and semantically have a place in it. Thus, only morphologically complex words can belong to the domain of word-formation study, because they are motivated, and in this way form a part of a larger pattern. This ability of a pattern to give rise to new coinages is what Marchand understands as productivity. Therefore, he sees productivity as the general capability of a pattern to produce new words. His judgements about productivity of a given pattern were made on the basis of actual words, and the high number of attested words coined on a given pattern indicated its productivity.

The emergence of the theory of TGG changed the views on word-formation mechanisms. The TGG, simultaneously with the introduction of the concept of rule-governedness, has made it possible to operationalise the notion of a potential word. The existence of rules presupposes the predictability of language change, and with this predictability the interest of scholars shifted from actual words to potential words.

"Productivity is all about potential," writes Bauer (2001, p. 41). He further concludes that "a process is productive if it has the potential to lead to new coinages" (Bauer, 2001, p. 41). However, not all scholars believe in rule-governed approach to word-formation, which creates the first dichotomy in understanding productivity: productivity as frequency and productivity as potential. Both stances have their own methodological and theoretical shortcomings.

Let us first have a careful look at the frequency sense of productivity. Here, one can encounter two different estimates of productivity. One is based on the number of attested different words with a given affix at a specific point in time. This is called *type frequency* or *lexical frequency*. The other measure focuses on the number of times a particular item occurs in a text. This is called *token-frequency* or *text frequency* (Bauer, 2001, p. 47). Both represent the so-called qualitative approach to productivity, which mainly concentrates on the availability of a given process with respect to a particular base. The type frequency measure has received a lot of criticism, because it is the method which most directly relates frequency to productivity. Such a relation, however, can easily be proved false, as there are instances of affixes which are very common, but which are not used synchronically to produce new words (e.g. *-ment*). On the other hand, there are processes which seem to be productive, in the sense that new words are being derived by means of them, but the derivatives are not very numerous (e.g. the prefix *a-*).

Many scholars (e.g. Aronoff, 1983; Bauer, 2001; Górska, 1982) also point to the fact that the number of derivatives depends on the number of available bases. As Bauer (2001, p. 48) puts it: "if there is a small input class of bases, there can never be many new words." What is more, it has been proved that less productive affixes are attached to more frequent bases, so the frequency of a derivative is the result of the frequency of its base and the frequency of its affix (Anshen & Aronoff, 1989). Therefore, it is often suggested that type frequency is indicative rather of the past productivity of a process under consideration, and it can hardly be used to make valid statements about the present potential of the process.

Measures based directly on token frequency also have to be treated with caution. Here, the productivity of a given process is believed to be inversely proportional to the frequency of that process. Aronoff (1983, p. 168) draws attention to the fact that lexicalised words have higher token frequency than non-lexicalised words, and this view seems to be supported by psycholinguistic evidence concerning lexical storage and retrieval. Lexicalised words are those which have become part of the language norm, and thus are familiar to a large number of speakers. Lexicalisation is characterised by semantic or phonological specialisation, thus items which are lexicalised are usually non-compositional or idiosyncratic, and as such they have to be stored in the mental lexicon. The outputs of synchronically productive processes, on the other hand, need not be stored, as they can be immediately analysed on the basis of rules. It follows, then, that productive processes typically have low token frequency and a high degree of semantic coherence. Therefore, the token frequency measure is perhaps best seen as an indication of unproductivity of a given process rather than a method of establishing productivity.

Both measures mentioned above, that is, type frequency and token frequency, have one more drawback which is inevitable if one tries to establish productivity on the basis of actual words. The problem is that both methods are based on the data collected from a dictionary or a computer corpus, and neither can be viewed as a complete record of the lexical inventory of a language at a given point in time (although it has to be noted that some computer corpora can be very large; the well-known British National Corpus, for example, consists of approximately 100 million word tokens of contemporary British English). Furthermore, synchronic frequency of a process does not tell us much about the potential of that process to coin new words in future. For this reason linguists who incline towards rule-governedness of word-formation postulate that frequency should rather be taken as one of the prerequisites of productivity, and not as directly equating with productivity (i.e. Bauer, 2001; Plag, 2003).

A potential (or a possible) word is a word whose semantic, morphological, and/or phonological structure is in accordance with the rules of the language. Because a possible word is not listed, it cannot be idiosyncratic — its meaning must

be predictable from its structure. Aronoff and Schvaneveldt (1978), whose main interest has been located in possible but non-occurring words, look upon productivity in terms of probability of occurrence. They write: "if a given word-formation rule (i.e. affix) is more productive than another such rule, then words formed by the former are more likely to enter the language than those formed by the latter" (1978, p. 108). This view is also maintained in Aronoff (1980).

Investigating potential words requires a special methodology, which is not provided by traditional descriptive analysis. Thus scholars have borrowed an experimental technique from cognitive psychology, which can be used to make predictions about possible but non-occurring words. This experiment is known as *Lexical Decision Task*. In this technique, native speakers are presented with various structures, and they are asked to decide whether a given structure is an English word or not. In some experiments, the yes/no answer is in itself the object of interest, in others also the time taken to make the decision is calculated. The results of the Lexical Decision Task are believed to provide an insight into how language structures are organised in the mental lexicon, and how the psycholinguistic processes of parsing and retrieval function.

This technique has also been employed to investigate the problem of productivity. One such example is the research conducted by Anshen and Aronoff (1981), in which the scholars presented subjects with three types of constructions: *possible words*, *words*, and *non-words*, and asked them to judge whether a given construction is an English word or not. *Possible words* were non-existent derivatives formed on actual English bases, *words* were attested derivatives, and *non-words* were derivatives formed on non-existing bases. The affixes chosen for the analysis were *-ness* and *-ity*, because they are rival forms which attach to bases of the same syntactic category. The experiment has shown that the subjects, when presented with two types of structures: *Xibleness* and *Xibility*, consistently preferred the *Xibility* form, and it proved that the greater acceptability of the *Xibility* form correlates with greater morphological productivity of the suffix *-ity* with the bases in *-ible*. In their article, Anshen and Aronoff write: "By studying subjects' responses […] we are able to test various hypotheses about morphological patterns without having to deal with most of the problems caused by differences among actually occurring words" (1981, p. 63).

This should not be taken to mean, however, that dealing with possible words is without problems. The most acute conflict within this theory lies between the potential and the actualisation of this potential, or, in other words, between systemic and extra-systemic forces. A possible (potential) word is defined in terms of a linguistic system, but the sheer fact that a word is derived in accordance with the language rules does not guarantee that it will be used by real speakers, and that it will become a part of a language norm. The concept of a possible word cannot account for pragmatic factors which play a very important role in word-formation, and, what follows, also should not be overlooked

in the discussion of productivity. Some scholars (e.g. DiScullio & Williams, 1987; Langacker, 1987) go as far as to exclude productivity from the domain of grammar, seeing it rather as the result of using the grammar by real speakers. Because of this failure of the notion of a possible word to comply with pragmatic factors, some linguists consider it profitable to introduce the term "probable word" to refer to those potential words which are likely to occur. Bauer (2001) even opts for keeping apart the actualisation of a given process (its probability of occurrence) and the productivity of that process.

2.3 Productivity with relation to language levels

The next question which is frequently asked about productivity is what exactly is productive? Here, the answer mainly depends upon the view of a given scholar on how word-formation works in general. Perhaps the most inclusive view attributes productivity to the language system as a whole. Another position, suggested by Bauer (1983, pp. 65—74) links productivity with a complete module of the grammar (i.e. word-formation). Aronoff (1983), with his strong anchoring in generative approach towards word-formation, ascribes productivity to rules. In analogy-oriented theories these are patterns which are productive.

A more restrictive viewpoint is that productivity is a feature of individual affixes, but the problem with such an approach is that it cannot account for techniques which are not affixal, but nevertheless are employed to form new words (e.g. reduplication, as in *chitchat*, *ticktock*, *mishmash*). Still a different opinion has been expressed by Kastovsky (1986), who has argued for attributing productivity to various morphological-semantic types, like, for example, agent nouns, instrumental nouns, or locative nouns in *-er*. Other linguists (e.g. Bauer, 2001) hold a view that productivity is a matter of an individual process (for example, *-er* affixation), or a group of processes. Although multifarious, the terminology does not seem to affect the underlying principles of how productivity works or how it is manifested.

2.4 Degrees of productivity

The problem which to a greater extent affects the understanding of the concept of productivity concerns the degrees of productivity. There are linguists who argue that a morphological process is either productive or not (Booij, 1977).

However, such an absolute vision of productivity is seldom encountered, and most scholars support the view that productivity is a gradual phenomenon, with unproductive processes and fully productive processes at the opposing ends of the scale, and some intermediate stages in between. Some scholars take it that the number of the intermediate stages is infinite, while others argue that there are a few in-between steps. Thus, Matthews (1974) lists three stages of productivity: *fully productive*, *semi-productive*, and *unproductive*, where the term *semi-productive* includes most lexical formations.

The notion of semi-productivity is often seen as the inability of an affix to attach to a seemingly appropriate base (e.g. both *-ness* and *-ity* can be added to adjectival bases in *-able*, but the application is not unconstrained, thus, according to Marchand (1969, p. 55), *serviceableness* is an attested derivative, but **serviceability* is unacceptable). An unproductive process is usually the one whose outputs can be listed, and the process does not yield new derivatives. Full productivity is assigned to those processes which operate on the open class of bases, and whose all possible outputs are acceptable to the speakers. It has to be stressed, though, that the status of full productivity can hardly be assigned to any process, since, as will later be shown, every process is more or less restricted by the interrelations of linguistic and pragmatic factors. Most often, the degrees of productivity are characterised by more or less vague approximations, thus many scholars use such modifiers as *very*, *more*, *marginally*, *immensely*, or *hardly* when they describe the degree of productivity of a given process.

2.5 Restrictions on productivity

It remains a fact that some processes are more successful in coining new words than others, or that speakers prefer to exploit some processes over others. Thus, some scholars see productivity in a profitability perspective, and for them the productivity of a process is inversely proportional to the amount of competence restrictions imposed on that process (e.g. Booij, 1977). In general, the restrictions can be divided into linguistic and extra-linguistic.

2.5.1 Linguistic restrictions

Linguistic restrictions are those constraints which are associated with language structure. In other words, a process cannot operate on a given base because of

certain structural properties of that base. Those properties may be of phonological, morphological, semantic, or syntactic nature.

Phonological constraints are connected not only with the qualities of individual segments, but also with prosodic properties. For example, the suffix *-en* only attaches to bases which end in obstruents. The suffix *-al*, on the other hand, is sensitive to stress pattern, and it only attaches to verbs that end in a stressed syllable. Other affixes can be selective in terms of syllable-structure: the suffix *-en* can only operate on monosyllabic bases.

The morphological make-up of a base can also delimit the number of possible affixes that can be attached to it. It is known, for instance, that Latinate bases behave differently from non-Latinate ones, and there are affixes which specialise in [+Latinate] bases (e.g. *-ity*), while other formatives attach only to [-Latinate] bases (e.g. *-hood*) (Aronoff, 1976).

The meaning of a base can also play a role in word-formation. The examples of derivatives which are unacceptable because of the semantic properties of the input elements are words **unill*, **unsad*, **unsorrowful*, **unpessimistic*. Such formations are believed to be ill-formed because the prefix *un-* (and negative prefixes in general) cannot be used with adjectives whose meaning is negative. Their "positive" (or unmarked, as Bauer (1983, p. 94) prefers to call them) antonyms, however, constitute legitimate bases for *un-* derivation, and, correspondingly, *unwell*, *unhappy*, *uncheerful*, *unoptimistic* are all attested words (Bauer, 1983, p. 94).

The syntactic restrictions are to do with the fact that word-formation rules are constrained to members of a certain syntactic category. For example, the prefix *de-* can only be tucked on to verbs (the possible exceptions are derivatives from nominal bases, such as *debus*, *detrain*, *deplane*, which have the meaning "(cause to) descend from, leave…," quoted in Marchand, 1969, p. 104).

2.5.2 Extralinguistic restrictions on productivity

A comprehensive account of constraints on productivity must reach beyond mere language structure, and provide an insight into the use of language by real speakers, as their judgements and choices might also hinder the formation of a given pattern/derivative. As Riddle (1985, p. 437) has put it: "the productivity of lexical elements cannot be satisfactorily discussed without reference to meaning, context and history." The factors which should be taken under inspection in evaluating productivity are, according to Riddle (1985, p. 446), the preservation of phonological transparency, blocking, the lack of need for a given word, the accidents of borrowing, and perceived linguistic prestige.

Apart from what language structure disallows, there is also what language use disallows, or, in other words, the extralinguistic constraints. A derivative may be possible on structural grounds, and still not be actualised, because it has been ruled out by pragmatic factors. The basic pragmatic restriction, the so-called *global restriction*, is that a word will not be coined unless there is a need for it. Also, lexemes must denote something which is nameable.

The restriction which is often treated as a special type of constraint, because it is not rule-specific, is blocking. Blocking is the term introduced by Aronoff (1976, p. 43) to cover the cases where a word is non-existent because of the simple existence of another, synonymous (or, in some cases, homonymous) form. Thus, an actual word (usually a simplex) blocks the derivation of another word with the same meaning.[2] It seems, though, that blocking can be seen as a subtype of pragmatic restrictions; the words which have been excluded by means of the blocking mechanism are in a sense unnecessary, because there already exist lexemes which carry the same meanings.

Pragmatic factors reduce the productivity of what Kastovsky (1986a, p. 410) calls *labelling* function of word-formation. *Labels* are lexical items whose task is to designate segments of extralinguistic reality. If designation is not required, labelling function will not be activated. On the contrary, *syntactic recategorisation*, which is the second function of word-formation recognised by Kastovsky (1986a, p. 411), is characterised by a considerably greater degree of productivity. Kastovsky (1986a, p. 411) illustrates this function with the following examples:

(9) *He made* fists..... *He* defisted *to gesture.*
(10) *If that's not* civil*,* civilise *it and tell me.*
(11) *Solarians did not bud, they* birthed*; and the female was always the* birther. *She remained female for life, no matter how many times she* birthed.

Kastovsky argues that in the case of syntactic recategorisation neologisms are more readily accepted, as their use is to some extent motivated by the context and triggered by grammar. Syntactic recategorisations help to maintain text cohesion and to achieve stylistic variation. Thus, the pragmatic factors are of lesser importance here.

Both formal (linguistic) and extrasystemic constraints hinder the derivation of new formations, and in this way reduce the number of new types in a language. Thus, restrictions affect type frequency of derivatives. How exactly restrictions function proves hard to determine. Theoretically, it is difficult to state whether the non-existence of a given word is due to competence

[2] Some scholars are of the opinion that blocking does not in fact restrict the actualisation of a given rule. Rather, it might prevent a structure from being accepted by speech community in general. Such a view is expressed by Romaine, who writes that "blocking does not prevent coining; it acts only as a brake on institutionalization" (1985, p. 30).

restrictions or performance restrictions. A possible solution, suggested by Plag (2003, p. 61), is that pragmatic restrictions should be seen as operating only on those derivatives which are formally possible. So, there are two filters through which potential words are passed. The first-level sieve is a formal one: words which do not conform to current rules of the language are rejected. The words which are in accordance with the rules proceed to the next stage, which is the pragmatic filter.

It is also unclear to what extent the restrictions actually reduce type-frequency. As Bauer (2001) notices, type frequency can be low irrespectively of constraints. Therefore, he puts forward the distinction between two sources of low type frequency, which he calls *constraint-restricted type frequency* and *usage-restricted type frequency*. A similar line of reasoning can be traced in Kastovsky (1986, p. 594), who writes: "we should […] consistently distinguish between the scope of a given rule and its actual application rate mirrored by the number of formations listed in dictionaries or occurring in texts." By *rule-scope* Kastovsky means the number and the type of constraints imposed on the rule, while the application rate is the frequency of the application of the rule in performance. We can thus equate the application rate with type frequency. Although couched in different terminology, both views reach the same conclusion, and they confirm the separation of quantitative and qualitative factors in productivity.

2.6 Measuring productivity

Evaluating the productivity of a given process by taking account of restrictions presupposes the concept of productivity as a gradual rather than a binary phenomenon. Heavily constrained processes will be less productive than those where only few restrictions are operative. This, in turn, implies that productivity is open to measurement. Different approaches towards calculating productivity have been put forward in linguistic literature. Some scholars have made attempts at measuring the frequency of a given pattern, others have suggested the calculations of the potentiality of a rule.

2.6.1 Measures based on type frequency

It has already been shown that estimates of productivity based on the frequency of a given process are not in line with the current view on productivity as

a potential to form new words. Grzegorczykowa and Puzynina (1979) measure the rate of additions of some Polish affixes by calculating the ratio of words recorded in the most recent dictionary to words recorded in an earlier dictionary. Such a method is referred to as *the index of productivity*, and it is burdened with the same inaccuracies as the type frequency method — it tells us nothing about the potential of a process to coin new formations. Also, any research based on dictionaries cannot be seen as reliable because every dictionary contains fewer words than are known in the language community.

A slightly modified version of the index of productivity has been suggested by Aronoff (1976). His measure is centred on potential words, and here the index of productivity is the ratio of actual words produced by a word-formation rule to potential words produced by that rule. Aronoff has formulated an exact instruction as to how such a ratio can be computed:

> We count up the number of words which we feel could occur as the output of a given word-formation rule (which we can do by counting the number of possible bases for the rule), count up the number of actually occurring words formed by that rule, take the ratio of the two and compare this with the same ratio for another word-formation rule. (Aronoff, 1976, p. 36)

There are several problems with Aronoff's measure. Firstly, as has already been noted, calculating an exact number of actual words is hardly feasible, since dictionaries and corpora are necessarily deficient, partly because a full record of the words used in a society is impossible, and partly because the outputs of the most productive processes are never listed. Secondly, the complex interrelations of various constraints on potential bases make it difficult to estimate the number of consequent derivatives.

2.6.2 Measures based on token frequency

A different approach to measuring productivity takes into account token frequency. Baayen (1989) has suggested a new method of computing productivity, which is sometimes referred to as *productivity in the strict sense* or *productivity in the narrow sense*. Thus, productivity in the strict sense is the quotient of hapax legomena (n^1) formed by a given process to the total number of tokens (N) of all words formed by that process in a given corpus. It has to be remembered that a productive process is characterised by low token frequency, so the higher the number of tokens N in the denominator, the lower the productivity of the process in question.

Hapax legomena (or hapaxes) are words which appear only once in a corpus. Their significance in evaluating the degree of productivity stems from the assumption that the number of possible words derived by a very productive process is very large. Thus, it is unlikely to observe all of such types in a single corpus, and some of the types are likely to occur only once. It is expected, therefore, that most hapax legomena will be neologisms (although they could as well be rare words). Baayen's formula is thus considered to measure a probability of encountering a neologism formed by an appropriate process, and it is frequently used in corpus-based analyses of productivity (e.g. Plag, Dalton-Puffer, & Baayen, 1999). It has to be borne in mind, however, that *productivity in the strict sense* is defined with respect to a given corpus, and its reliability depends on the size of the corpus — the larger the corpus, the more accurate the results. Besides, the status of hapaxes as a measure of productivity is questionable, as it is difficult to see the exact relationship between the possibility of a given rule to create new words and the resultant frequency of this word. It has also been proved that too often hapaxes are not in fact neologisms, even if the corpus in which they are sampled is large.

The aforementioned measures by no means exhaust the list of methods which are used in estimating the degree of productivity. However, each method that I am familiar with exploits the concepts of type-frequency, token-frequency, or hapaxes, so the criticism presented above will be relevant to other formulas based on these concepts. There is not a single procedure of estimating productivity which would be acknowledged by all scholars, and which could be taken as a reliable technique measuring the right thing. We can conclude from this that productivity is an intuitive notion which is difficult to account for in exact statistical terms. This seems to strengthen the position of those linguists who argue that one should not talk about productivity of a process or an affix in general terms, but rather about productivity of the process or the affix under systematically defined circumstances.

What makes matters even more complicated is that the degree of productivity of a given affix is susceptible to register type. Plag et al. (1999) have conducted a research based on data extracted from the British National Corpus, in which they have analysed the productivity of 15 English derivational suffixes across three types of discourse: written language, context governed spoken language, and every-day conversation. They have estimated the probability of encountering a neologism with a given affix (which they call *productivity*) by employing Baayen's *productivity in the strict sense* formula. The results obtained have made it possible to reach a conclusion that a given suffix may display noticeable differences in productivity across the three registers. The suffixes *-type*, *-like*, and *-free* have been reported to be very frequent in written corpus (with the suffix *-like* being the most productive), but very infrequent in spoken registers. The suffix *-ish* has been found more frequent in everyday

conversations than in context-governed speech. The suffix *-wise*, on the other hand, does not show considerable differences in productivity across registers. In general, Plag et al. (1999, p. 224) conclude that: "the suffixes yield more types in the written than in the spoken registers," which takes us back to the significance of pragmatic factors in morphology, and Kastovsky's (1986) claim of the typically higher degrees of productivity of *syntactic recategorisations* when compared to *labels*.

2.7 Productivity versus creativity

I have touched upon the problem of neologisms in investigating productivity. It is generally agreed that productivity presupposes innovation — a process is productive if it gives rise to new words. But does each new formation of a given process indicate that the process is productive? To answer this question we have to draw a distinction between *productivity* and *creativity*.

Both terms are used to account for the ability of native speakers to produce novel words. Thus Bauer (2001, p. 64) suggests that creativity and productivity should be viewed upon as hyponyms of *innovation*. The main distinguishing factor between the two is, according to Bauer, rule-governedness. Therefore, creativity is not rule-governed, and as such it is characterised by irregularity and unpredictability. Creative coinages change the rules of the language system. Most scholars follow Aronoff's view (1976, p. 20) that creativity covers such word-formation techniques as blending, acronymisation, clipping, and backderivation, hence it is characteristic of word-manufacturing rather than of word-formation. Also, the manufacturing of simplex words is the domain of creativity.

Productivity, on the contrary, is usually seen as applying to complex words only, and is always rule-governed. Thus, a productive process, by exploiting the rules of the language, changes the language norm, but it does not change the rules.

2.8 Prerequisites for productivity

It has been shown that productivity is not synonymous with frequency, although frequency is taken to be one of the prerequisites of productivity. Another such prerequisite is the ability to coin new formations. Thus, the difference between an unproductive process and a productive one is that the former is

no longer used to form new words, while the latter does give rise to new derivatives. Here, we touch upon the qualitative view on productivity, which investigates the availability of the process in question. It has to be noted, though, that not every new word derived by a given process necessarily indicates that the process is productive. Thus, we have to distinguish between productivity and creativity, that is, between rule-governed and rule-changing coinages.

What is more, consciously formed words are ignored in the estimates of productivity. So, nonce-formations derived to achieve a special effect on the reader or listener are considered as "marked" and not counted as productive. Also, to be considered productive an innovation must be repetitive. A single actualisation of a process does not prove productivity, and is rather seen as a matter of analogy, not rule-governedness.

Another prerequisite of productivity is transparency. Cutler (1980) has shown that while encountering or forming a neologism, speakers consistently prefer phonologically transparent words over the opaque ones. The results of her Lexical Decision experiments suggest that the generally greater productivity of word-boundary affixes over formative-boundary ones stems from the fact that the former tend to leave the phonological make-up of the base intact. Speakers' preference for word-boundary affixes is also reflected in speech errors resulting from memory lapses. Cutler (1980, p. 49) has demonstrated that speakers tend to make errors that lead to more transparent words than the ones intended (e.g. **derival* for *derivation*, **dispution* for *disputation*). Cutler concludes that speakers prefer derivatives in which the base is more visible. There seem to be three possible reasons for such a preference. First, the transparency of a neologism enhances the comprehension, because the origin of the new word is clear to the hearer. Secondly, word-boundary derivation is technically easier, as no further changes need to be applied to the base word (e.g. stress shift, truncation, vowel modification, etc.). The third reason provided by Cutler (1980, p. 49) is that the preference for word-boundary affixation can possibly be connected with the organisation of the mental lexicon, in which transparent words might be listed together with their bases, whereas opaque words are given separate entries. Such an arrangement promotes a more rapid retrieval of transparent formations because they are activated by their bases. A lesser similarity of opaque formations to their bases results in a prolonged lexical search.

However, it is not only the phonological regularity which Cutler (1980) concentrates on that is important; also, semantic coherence plays a significant role in neologism formation. A speaker, on encountering a novel formation which is not yet stored in his mental lexicon, must be able to understand it. The only way in which he can do it is by inferring the meaning of the whole word on the basis of the meaning of constituent elements.

2.9 The problem of estimating productivity in historical language studies

Let us now look at the problem of productivity in historical language studies. In the light of the above-discussed problems, one may negate the possibility of evaluating productivity of a given process in a corpus language. If productivity is understood as potentiality, then, indeed, the idea of estimating it in the language no longer spoken has to be abandoned, as there are no means of testing our hypotheses. Thus, techniques that draw on native speakers' evaluation or elicitation of neologisms are, obviously, not available in corpus language studies. Nor can other methods based on external evidence be applied. A historical linguist cannot resort to psycholinguistic evidence, like, for example, language acquisition or disturbed performance (slips of the tongue) data.

In my opinion, however, the fact that there are no native speakers does not preclude productivity judgements. I subscribe to the view expressed by Panagl (1987, p. 137), whereby

> by a combination of empirical methods […] with deductive suppositions and typological arguments, at least indirect insight can, however, be gained, and reasonable conclusions arrived at. In place of overhasty resignation, we have a road, long indeed and often torturous, to pursue, which would seem to bring us, nevertheless, at least close to the desired goal.

The "empirical methods" mentioned by Panagl (1987) are inevitably limited to internal linguistic methods. This fact, however, does not diminish the theoretical ability to make judgements about productivity of a given word-formation process. There are several indicators of productivity that a historical linguist has at his disposal.

Thus, one possible implication of the productivity of a given pattern is its frequency. Especially valuable is the frequent occurrence of the pattern in novel formations. If a given word-formation process yields many neologisms within a specified period of time, one may deem the process productive. Also, the fact that in the corpus there are hapax legomena of a given process is indicative of its productivity. This is how Panagl (1987, p. 133) accounts for the importance of hapaxes: "the notable fact that numerous instances of new word formation have remained hapax legomena, not used a second time by the author himself, confirms their ad hoc function, their origin in an acute need of a naming word, and, with it, the productivity of the type."

Another indication of productivity is phonological and semantic transparency. If a process gives rise to derivatives whose meaning is the outcome of the meaning of the base and the effect of the type of derivation applied, then

such a word-formation process is characterised by regularity and predictability, which are, in turn, symptoms of productivity.

A frequent occurrence of a type in a deictic function is yet another proof of productivity. It seems to be connected with the transparency prerequisite, for in the anaphoric reference the proximity of a derivative to its base is significant. Kastovsky (1986) calls the deictic use "the syntactic function of word-formation," and points out to the generally greater degree of productivity of such syntactic recategorisations as compared with labelling function. In other words, only the derivatives of productive processes can stand in an anaphoric relation to other elements in a text.

2.10 Conclusion

The internal methods presented above will be employed to evaluate the productivity of agent types in the corpus that I have compiled. The aforementioned indicators of productivity supported by the survey of the status of agentive processes following Shakespeare's age and accompanied by the results of research conducted by other linguists may, I believe, give an insight into the problem of preference for some agent-forming techniques over others.

There are, however, other productivity-related problems which are the consequence of the quantitative and the qualitative aspects of my corpus. The reliability of any measures applied diminishes with the decreasing size of the corpus. In an effort to maintain the credibility of my judgements, I have maximally increased the corpus size — all Shakespeare's plays have been inspected for agentive derivatives — but the corpus size is predetermined by the necessarily finite number of sampled items. In such a situation, no exact productivity values can be given, and the estimates must rather be approximate and tentative.

The problem with the quality of my corpus is connected with attestation. It can be aptly illustrated with Bauer's (2001, p. 56) statement that: "it is apparently necessary to draw a distinction between what the individual does and what the speech community does." Therefore, the fact that a pattern has been heavily exploited by an individual is not tantamount to the general (i.e. societal) productivity of that pattern. Bauer (2001, p. 58) claims that "words or morphological processes which occur only in the speech/writing of a single individual are suspect," that is, they cannot be taken as indicating productivity.

In order to mitigate such predicaments, several procedures have been adopted. First, every neologism sampled in a Shakespeare's play has been checked against the OED data to see whether the pattern has been adopted in more general use. Also, other research on derivational processes in Middle English,

Early Modern English, and Modern English has been consulted. It should also be emphasised that the sources selected for attestation are drama works, which as a genre do not constitute "high literary style." Also, if characters in a play are to be perceived as natural, they need to mimic the behaviour, reactions, and the language of real people. Therefore, one can assume that the language patterns used in a play at least partly resemble the patterns employed by the then society. In this way the features of the genre itself reduce the presented difficulties, although they do not eliminate them completely.

Therefore, a provision needs to be made, such that the results of productivity estimates provided by my corpus analysis do not entitle me to make strong assertions concerning the general productivity of the processes under consideration. Rather, I would prefer that the term *productivity* as used in the subsequent, empirical chapters of my dissertation be understood in individual terms. It should be remembered, then, that my judgements concern what I would like to call *parole productivity*, though there are reasons to believe that the parole productivity at least partly reflects the general, societal productivity here.

Chapter 3

Nomina Agentis versus Nomina Instrumenti The fuzziness of categorial borders

3.1 Formal and semantic correspondence between agents and instruments

A frequently voiced and much-discussed observation is that the differences between Nomina Agentis and Nomina Instrumenti in many contexts are neutralised, both on the formal and semantic levels. The two categories cannot be differentiated on structural grounds, as their morphological make-up is the same: both English and Polish morphological systems do not possess purely instrumental suffixes, and the formative is shared with the agent-forming one.[1] The polysemy of affixes can be observed in other languages as well; Dressler (1986) has shown that apart from Polish and English, also German, Hungarian, and Ancient Greek reveal the same ambiguity of derivational formatives. This, naturally, leads to a potential ambiguity of a given derivative. When in isolation, it is frequently not possible to interpret a derivative with a multifunctional suffix, particularly because, as Grzegorczykowa et al. (1998) have noticed, almost every name of an instrument can be extended to include a human agent, so, in other words, for every instrumental noun an agentive reading is possible.

Another formal parallel between agents and instruments is that both can occupy the subject position in a sentence, a linguistic fact that has instigated

[1] As far as Polish word-formation is concerned, the issue is debatable. Grzegorczykowa, Kallas, Puzynina, & Wróbel (1998, pp. 75—76) claim that *-dło* and *-arka* are typically instrumental affixes. Kleszczowa (1981, p. 22), however, convincingly argues against this view; according to her, the suffix *-dło* has considerably extended its denotation (i.e. *straszydło*, *widziadło* are not instrumental nouns), and *-arka* can be employed to derive female agents (*cewiarka*, *skręcarka*).

many models of categorisation of the two types of nominalisations. It has to be remembered, however, that the semantic make-up of some verbs does not allow for instruments to act as their subjects. Levin and Rappaport (1988, p. 1071) have noted that "verbs that do allow instrumental subjects denote actions where the instrument can function as an *intermediary* and is able to perform the action in some sense autonomously." They illustrate this by comparing the behaviour of two pairs of verbs: *open* and *sand* versus *eat* and *see*. The former do allow for the subjectivisation of the instrument, while the latter do not:

(12) a) *Doug opened the can with the new gadget.*
b) *The new gadget opened the can.*
(13) a) *Julia sanded the floors with the old machine.*
b) *The old machine sanded the floors.*
(14) a) *Bill ate the meat with a fork.*
b) **The fork ate the meat.*
(15) a) *Mira saw the crack with the magnifying glass.*
b) **The magnifying glass saw the crack.*
(Levin & Rappaport, 1988, pp. 1071—1072)

The instruments which can occupy the subject position are called *intermediary instruments*, those that cannot be subjectivised are termed *facilitating instruments*. Levin and Rappaport (1988, p. 1072) further observe that some verbs can appear with both types of instruments, but only the intermediary ones can occupy the subject position:

(16) *The crane loaded the truck.* (intermediary instrument)
(17) **The pitchfork loaded the truck.* (facilitating instrument)
(Levin & Rappaport, 1988, p. 1072)

No such restrictions are applicable to personal agents, which suggests that the formal proximity should not be taken for formal identity.

3.2 Attempts at isolating the categorial features for agents and instruments

Another question that has often been asked is which semantic features are to be considered as categorial for these nominalisations. Neither [Human/Animate] nor [Volitional], nor [in Control] have received an unquestionable categorial status among scholars. Complex machines of high degree of automatisation are se-

mantically close to human agents, being able to perform an action on their own, without human intervention in the course of their action. Thus, many scholars (e.g. Schlesinger, 1989; Lyons, 1968; Kleszczowa, 1981; Cruse, 1973) incorporate inanimate performers of actions into the category of agents. Schlesinger (1989, p. 194) also points to the fact that in some contexts an instrument can actually be [+Animate], as in (18) or (19) below:

(18) *They used fraternity boys to get the building painted.*
(19) *Nixon used Agnew to promote his own views.*

where *fraternity boys* and *Agnew* are treated by Schlesinger (1989, p. 194) as instruments.

This formal and semantic overlap between Nomina Agentis and Nomina Instrumenti has led some scholars to believe that the similarities are not coincidental, and in consequence to postulate some kind of common plane for the two categories. The unitary syntactic behaviour of the two categories has prompted some linguists to introduce a superordinate category which would serve as a common denominator in the deep semantic roles of the arguments implied by a base. Thus, Bauer (1983, p. 286) sees agents (*baker*, *examiner*, *killer*), instruments (*curler*, *opener*, *synthesiser*), and patients (*lover*) as different semantic effects of *-er* derivation, and subsumes the three classes under the common heading *subject nominalisations*, because such derivatives function as subjects for their verb-bases.

In like manner, Beard (1981, p. 187) sees the "grammatical coincidences" between agents and instruments as resultant from their underlying semantic identity. He observes that, irrespective of the presence of the feature [Animate] in the semantic make-up of a given derivative, both categories represent the means by which an action is carried out. Consequently, Beard (1981) regards agents and instruments as variants of the same deep-case node, which he labels *Instrument of Action*. A similar procedure, although couched in different terminology, has been adopted by Booij (1986), who relates the semantic nearness between agents and instruments to the underlying role of Theme.

A different approach is reflected in the works of scholars who adopt the Aronoffian "one-affix-a-rule" principle; thus Nawrocka-Fisiak (1975, p. 63) in her generative-semantics oriented study of *-er* derivatives chooses to treat different semantic effects of *-er* suffixation as operations of two distinct, accidentally homophonous affixes, rather than as a result of form/meaning asymmetry in morphology. Nawrocka-Fisiak (1975, p. 63) finds support for her hypothesis in the fact that semantically different nominalised forms may occur in the same sentence, for example:

(20) *The chopper cut the meat with a chopper.*

What follows from such an employment of the semiotic principle of bi-uniqueness is that in English word-formational system one should distinguish several distinct *-er* suffixes, each deriving a different sense-group, such as agent, instrument, experiencer, source, location. Though elegant and seemingly able to solve many problems connected with the analysis of otherwise polysemous formatives, the theory does nevertheless miss significant generalisations concerning *-er* application, as, for instance, the similar morphotactic behaviour and related meaning of the consequent derivatives. And it definitely cannot account for the fact that such a polysemy can be observed in many different languages.

A direct consequence of the lack of sufficient linguistic evidence for delimiting the lexico-semantic class of agents, and also the lack of commonly accepted inventory of theta-roles (or, in a different terminology, deep cases) in linguistic research is the arbitrariness in placing the borderline between agents and instruments. Grzegorczykowa et al. (1998, p. 398) adopt a narrow definition of agents, keeping [-Human] performers of action outside this category, despite the fact that complex machines are able to act "on their own." Kleszczowa (1981, p. 34), on the other hand, sees mechanical devices as closer to agents than to instruments, and considers the feature [-Animate] as insufficient for the exclusion of machines from the category of Nomina Agentis. To account for the animacy/inanimacy distinction, Kleszczowa (1981, p. 34) decides to introduce a subclassification of the semantic role of agent into *Instigator of Action*, for [+Human] subjects, and *Performer of Action*, which includes [+Animate] agents as well as machines and forces of nature. Booij (1986) also deems the classic Fillmorian inventory of deep cases inadequate for dealing with such borderline nominalisations, and establishes the transitory class of Impersonal Agents.

A still different solution is presented in Levin and Rappaport (1988), who, instead of re-arranging or modifying the system of semantic roles, turn their attention to argument-structure configurations. Thus, they distinguish between *event* -er *nominals* (i.e. those that inherit the argument structure of their base-verb), and *non-event* -er *nominals* (i.e. those that do not inherit the argument structure of their base-verb), and point to regular syntactic and semantic differences between the two types. They show that the event *-er* nominals typically receive agentive interpretation, while the non-event *-er* nominals are usually instruments. Levin and Rappaport (1988, p. 1069) illustrate this distinction with the noun *destroyer*. The event interpretation, as in *the destroyer of the city*, presupposes that the action named by the verb-base has actually taken place. The noun *destroyer,* which does not inherit the argument structure and consequently receives a non-event reading, refers to something intended to be used for the purpose of destroying (e.g. *a warship*). Here the presupposition of the action having occurred is not present. Levin and Rappaport (1988, p. 1070) write that "non-event *-er* nominals usually take on instrumental rather than agentive

interpretations because of the non-linguistic (or perhaps non-grammatical) fact that it is usually instruments and not people that are defined as 'intended to do' a particular action." However, some non-event *-er* nominals can be agents, for example *fire-fighter* or *lifesaver* — here the idea of "intended to do" is as plausible as in the case of instruments. Obviously, the framework based on argument-structure configurations can make judgements only about deverbal formations, while denominal *-er* derivatives are beyond its explanatory power.

3.3 Agents and instruments in the light of the theory of categorisation

The aforementioned difficulties notoriously accompanying the discussion of Nomina Agentis and Nomina Instrumenti can be seen as a somewhat hyperbolic reflection of a wider problem connected in general with categorisation in language. It seems that purely formal analysis without references to the non-linguistic reality quickly runs into trouble, as it offers nothing but explanations based on a personal, arbitrary system of beliefs of a given scholar. Also, the structural linguistics approach to semantic analysis based on binary features proves inconclusive, at least as far as the differences between agents and instruments are concerned. An alternative view on categorisation, which, in my opinion, seems to be better suited to deal with the class of agent nouns, has been adopted in recent studies from the field of Natural Morphology and cognitive sciences. The most fundamental difference between the structural and the cognitive framework is that the latter allows for a category membership to be a matter of degree rather than a non-gradable binary opposition of presence/absence.

Dressler (1986, p. 524), one of the most prominent representatives of Natural Morphology, argues that the conceptual basis for the polysemy of agentive suffixes lies in metonymy. He stipulates that the meanings of agentive suffixes have hierarchical structure, with agentive meaning being the primary one, followed by instrumental and then locative/source as the least dominant reading. This hierarchy is also of implicational nature: every instrument implies an agent, but not vice versa. The evidence for the primacy of agents can be provided by data from language acquisition study, which proves that the category of agent is an earlier acquisition than the category of instrument, and is further supported by the frequency of occurrence. Diachronic studies can also confirm the dominant role of agents in the hierarchy.[2]

[2] In the corpus of Old English derivatives in *-er(e)* collected and analysed by Kastovsky (1971) the overwhelming majority constituted personal agent nouns. This suggests that the instru-

Dressler (1986) adopts a view that morphological categories are conceptually based. The conceptual basis of the agent hierarchy is rooted in the prototypical human interpretation of events. Dressler notices that "most central events of human life prototypically have a human agent; next come animal agents; then plants which produce fruit; then impersonal agents; then instruments; and finally local conditions of events or states, be it locative relations or relations of origin/source" (1986, p. 527). Dressler thus shows how extragrammatical reality belonging to the domain of cognitive psychology can be related to morphological issues.

The animacy hierarchy explored in Dressler (1986) is also exploited in Ryder (1999), where it serves as a starting point for the explanations of referent ambiguity of *-er* nominalisations. Ryder (1999, p. 285) maintains that *-er* derivatives are at least partly disambiguated by *salience*, a term which refers to the perceived noticeability of an item in an event schema as compared to the item's surroundings. Agents, in general, are characterised by a high degree of salience, as they are the most active participants in an event. The salience hierarchy is resultant from the animacy hierarchy, and is formalised as follows:

Agent > Patient > Instrument > Other cases[3]

(Ryder, 1999, p. 285)

To account for the semantic closeness of various *-er* nouns, Ryder (1999) borrows another term from cognitive psychology: *casual chain*. A *casual chain* is defined as "the series of cause-and-effect links that define the prototypical event" (Ryder, 1999, p. 287, after Croft, 1991, p. 169). Although in a prototypical casual chain it is the agent which acts as the head of a section of the chain, in some contexts it is possible for an instrument to occupy this position:

(21) *The terrorist blew up a large section of Manchester.*
(22) *The bomb blew up a large section of Manchester.*

(Ryder, 1999, p. 287)

Once again the underlying syntactic and functional similarity has been called to attention, this time, however, from a perception-language-encoding angle.

The ability of instruments to act as logical and grammatical subjects of their verbal bases has become the core of the argument presented in yet another study

mental meaning extension of the suffix *-er* was a later development. In Dalton-Puffer's (1996) study of Middle English derivational morphology there is also a marked scarcity of typically instrumental nouns in *-er*. A morphosemantic analysis of Old Polish derivational system conducted by Kleszczowa (1998) reveals the same behaviour of now polysemous suffix *-acz*. In the corpus the ratio of human agents to instruments is 90:2 (Kleszczowa, 1998, p. 34).

[3] The claim about the strong salience of agents is supported by Booij's (1986) claim about the primacy of agents in text mental analysis.

devoted to agent/instrument distinction, namely that of Schlesinger's (1989). The main claim that has been put forward in his article is that an instrument may be regarded as an agent in contexts where no agent is verbally expressed or where attention is drawn away from it. Such a recategorisation is possible for instruments in a subject position provided that several conditions are fulfilled. Firstly, the membership in a derivational category has to be seen as a matter of degree, which would allow to treat [-Animate] causes of action as agents, although not prototypical ones. Secondly, a gradual approach towards category membership would also enable to differentiate between "better" and "worse" candidates for agentivity; mechanisms are considered as closer to prototypical agents than other inanimate objects, and, consequently, the more complex and autonomous the mechanism is, the greater its degree of membership in the agent category. Thus, according to Schlesinger (1989), the very feature [Cause] shared by prototypical agents and inanimate objects is sufficient for the latter to be regarded as agents when the [+Animate] instigator of the action is not on the scene. Schlesinger (1989, p. 194) also notices that not all instruments can be agentivised. Such a constraint is partly connected with the semantic characteristics of predicate verbs, for example, *The bullet killed the president.* versus **The bullet murdered the president*. Schlesinger ascribes the ungrammaticality of the second sentence to the high degree of intentionality and deliberation on the part of the verb. Such a *Deliberation Constraint*, as Schlesinger terms it, is also reflected in the unacceptability of the first sentences in the following pairs:

(23) **The pen writes a letter — The pen makes lines on paper.*
(24) **The chess pieces play a short game. — The black king moves to H4.*
(Schlesinger, 1989, p. 194)

Another significant difference between prototypical agents and inanimate objects in a subject position is that the former can perform an action using another object as an instrument, while the latter cannot occur in such contexts:

(25) **The wind broke the window with a twig.*
(26) **The rifle wounded the president with two bullets.*
(Schlesinger, 1989, p. 197)

Schlesinger calls this restriction *Mediation Constraint*, and uses it as an argument that inanimate objects can be allowed only a low degree of membership in the agent category.

A solution to the aforementioned problems that has been offered by Schlesinger (1989, p. 206) is a parallel application of two kinds of roles to a noun phrase in a subject position; thus, apart from the thematic role, the actional role of Actor would also be applied to such instruments. Alternatively, Schlesinger

suggests that "when the Instrument is subjectivized it may be regarded as both Agent and Instrument" (Schlesinger, 1989, p. 206). In my opinion, however, such a move may result in an unnecessary terminological insecurity of the notions, and instead of the required delimitation it could in consequence bring about further amalgamation of the two categories.

3.4 Categories and categorisation in Cognitive Linguistics

Schlesinger's claim of prototypical, and thus gradable in nature, category membership is correlated with a cognitive approach towards categorisation, which refutes the classical, Aristotelian theory of categories. Thus, while for Aristotle categories are:
1. defined by necessary and sufficient features,
2. the features are of binary character,
3. categories have discrete boundaries,
4. all the elements belonging to a category are of equal status,
the advocates of the prototype theory claim the opposite. Cognitivists owe much of their tenets to Wittgenstein (1972, pp. 60—68), who in the structure of the category *Spiel* (*game*) saw empirical evidence against the Aristotelian theory of categorisation.

The prototype theory of cognitive psychology has been developed by Rosch (1973; 1975; 1977a; 1977b; 1978). It has been found valuable especially by linguists dealing with derivational categories and linguistic typology. An attempt to integrate Rosch's model into the study of word-formation has been made by Szymanek (1988), whose dissertation on categorisation is an attempt at relating cognitive and morphological categories. Szymanek puts forward a hypothesis, which he calls *Cognitive Grounding Condition*, that lexical derivational categories are rooted in the fundamental concepts of cognition. Thus the derivational system of language is a reflection of the language-user's perception and segmentation of the extralinguistic reality. Derivational categories, then, just like cognitive ones, will be characterised by indeterminate categorial membership and a hierarchical multilevel structure. Some members are better exemplars of a category than others. Both agents and instruments enjoy an unquestionable categorial status, as they are fundamental categories on the cognitive level. Szymanek thus treats agents and instruments as basic categories, that is, those that "are related to our perceptions of the outside world" (1988, p. 90).

Zbierska-Sawala (1993) proposes a different structuring of categorial levels, and her hypothesis is reminiscent of that of Jackendoff (1987). She

therefore distinguishes between fundamental categories, which are: Action, Entity, Property, and Circumstance, and which are said to lay the foundations of human perception,[4] and relational categories, which "arise from the intercrossing of basic categories from different levels" (Zbierska-Sawala, 1993, p. 11). Agent is an example of a relational category, being a combination of two basic categories: Person and Action, while an instrument involves the fusion of Thing and Action. Thus, unlike Szymanek (1988), Zbierska-Sawala claims that agents and instruments are not primitive cognitive concepts. Within this approach, the formal and functional proximity of agents and instruments could be accounted for by the fact of their sharing a base-level feature. Thus, the derivational categories of agents and instruments are interrelated as a consequence of their unitary character in the more fundamental, underlying cognitive reality.

Although at variance in their views of the overall organisation and exact member inventory of the cognitive categorial component, cognitive-oriented linguists are usually in agreement about the universality of the cognitive concepts and categories. However, although it seems intuitively plausible to call for the universal character of fundamental cognitive concepts, the universality of derivational categories should not be taken for granted. Derivational categories are a subset of linguistic categories, and these in turn are seen as the actualisations of cognitive categories. This should not be taken to mean, though, that there exists a direct parallel between our perception and fragmentation of the outside world and the way these are filtered through and coded by our linguistic structures. Categorisation in linguistics is not a matter of mere phenomenology, and thus different languages can arrive at different linguistic categorisation of the same cognitive notions. The view that linguistic categories are not universal, but are language-dependent,[5] stands in opposition to Fillmore (1968) and his followers in Case Grammar, who maintain that cases are universal, hence language-independent, and form a part of our elementary judgements about the outside world (Fillmore, 1968, p. 24). That this is not necessarily the position taken by all linguists can be seen, for example, in Schlesinger (1989), who writes that "cognitive notions like Agent, Patient, Instrument, and Experiencer can of course be expressed in all languages, but the way these notions are categorised may differ from language to language" (1989, p. 205). As an example of such cross-linguistic differences Schlesinger

[4] These categories roughly correspond to the syntactic categories of verb, noun, adjective, and adverb, so they also seem to underlie the human ability to code linguistically and express via language the information obtained by the cognitive/mental apparatus.

[5] A similar claim has been expressed in Dalton-Puffer (1996, p. 71), who questions the supposedly direct connection between cognitive concepts and derivational categories. Instead, she suggests the insertion of a semantic category, which would act as a mediating level between cognitive concepts and derivational categories.

gives the subjectivisation of instruments, which is not possible in Japanese and rare in Ozark English.

The problem of universality and relationship between categories as cognitive concepts and categories in linguistic, derivational sense has been brought up to signal that the relation between cognition and verbal behaviour may not be as straightforward as some cognitive linguists would like it to be. Nevertheless, cognitive approach towards linguistics seems valuable, especially in the domain of word-formation, which notoriously resists an accurate description based on purely formal analysis. This, possibly, is connected with the close relation of word-formation with ontology, as one of the main objectives of deriving new lexemes is giving names to entities perceived as new. Cognitive Linguistics, with its strong grounding in the extralinguistic reality, together with its permissive approach towards various analytic and descriptive techniques, and its general combinatorial capacity seems a promising theory to deal with word-formation. It has been shown above how it can be applied to account for the fuzziness of categorial distinction between agents and instruments.

3.5 Conclusion

It has been demonstrated that the difficulties with differentiation between agents and instruments are not restricted to their formal similarity; semantic analysis reveals that their meanings partially overlap as well. The semantic analogies have increased with the onset of automation — the 20th-century ubiquity of complex, self-acting machines raised the problems of relations between the concept of agency and such features as animacy, volition, and control. It seems that in many cases the proper interpretation of a derivative is impossible without resorting to both linguistic and extralinguistic context. Hence discourse analysis and/or pragmatic factors sometimes prove the only available tools in disambiguating the given lexeme.

Obviously, the corpus of Shakespeare's nouns does not contain derivatives that signify complex machines. This does not mean, however, that the issues discussed in Chapter 3 are irrelevant to my study. On the contrary: I have sampled many inanimate objects with agent-like characteristics both on the formal and semantic plane, and a decision has been needed whether to include them into or exclude them from the collected corpus of agent nouns. Most frequently, such problematic examples have comprised metaphorical extensions, in which an inanimate object gains agentive meaning through personification. The cognitive approach towards category membership, the prototype theory, as well as Schlesinger's (1989) idea of context-motivated agentivity of a given

noun have provided a theoretical justification for my treating such instances as agents, despite their apparent inanimacy. Thus, all personified inanimate objects and forces of nature that perform an action are treated as agent nouns, although not prototypical ones.

Chapter 4

Semantic, syntactic, and morphological properties of agent nouns

4.1 Agents versus locatives

It has been demonstrated that the shared morphological and syntactic features of agents and instruments make these two categories difficult to distinguish from each other. Similar morphosyntactic identity holds between agentives and locatives. For example, the derivatives *kneeler*, *diner*, *jotter*, *sleeper*, *cooker*, *locker*, *cooler*, *counter* can all function as names of places, although in some cases (*cooler*, *cooker*) the idea of instrumentality is also recognisable. Some names of locations in *-er* (e.g. *smoker*) can only be disambiguated by the context and when in isolation they can receive both agentive and locative interpretation.[1] According to Dalton-Puffer (1994, pp. 50—51), the status of many lone-standing derivatives is inconclusive and they can be given all three readings, that is, agentive, instrumental, and locative. The factors which contribute to our interpretation of such derivatives are the implicational scale discussed in the preceding section, the immediate linguistic context, as well as extralinguistic and linguistic (semantic) knowledge.

The proximity of agents and locatives is established on purely formal grounds, and from the semantic point of view it is fairly easy to keep the two categories apart. Unlike instrumentals, locatives cannot obtain temporary agentivity even if the context is provided, because the meanings of agents and places do not overlap. More problematic in this respect is yet another class of derivatives sometimes admitted a status of a separate category, namely *experiencers*.

[1] Although, as it has already been pointed out, the Agentive reading is the "default" one according to the implicational hierarchy.

4.2 Agents versus experiencers

Depending on a theoretical persuasion of a given scholar, experiencers, which can be defined as subjects of mental or state verbs, can either constitute a separate derivational category (or a case, or a theta-role), or can be included into the category of agent nouns. The chief reason for keeping agents and experiencers apart is their different semantic constitution: if an agent noun is defined as (necessarily) [+Volitional] and/or [+in Control], then, consequently, subjects of verbs that express mental activities or states cannot be deemed agents, as they lack these defining features. Such a position has been assumed by Nawrocka-Fisiak (1975, p. 56), who assigns the experiencer case to such derivatives as *griever, worrier*, *thinker*, *weeper*, *giggler*, *sufferer*, *hearer*, *believer*, *loser*, *deserver*, *winner*, *receiver*, *imaginer*, *dreamer*, and *gainer.* Similar attitude is expressed in Kleszczowa (1981), Laskowski (1973), and also in Bauer (1983), for whom experiencers, along with agents and instruments, form a subcategory of Subject Nominalisations.

Although the experiencer has not been included in the original Fillmorian Case Grammar framework of 1968, it follows from the definition provided for agentive case that subjects of verbs expressing mental or sensorial processes or states cannot be considered agents. Thus Fillmore (1968, p. 24) defines agentive case as "the case of the typically animate perceived instigator of the action identified by the verb," in this way establishing for agents the requirement of exhibiting a high degree of causation, a criterion which experiencer nouns do not satisfy.

A different approach towards derivatives motivated by mental or state verbs is adopted in the research grounded on the principles of Cognitive Linguistics. As the cognitive framework allows for the members of derivational categories to have a gradable categorial status, it is possible to distinguish between more and less prototypical exemplars of a given category. Consequently, derivatives from mental and state verbs labelled elsewhere as experiencers might be looked upon as a kind of agents, since they share with prototypical agents both morphosyntactic properties as well as some aspects of their semantic characteristis.

The claim that a subject of a mental verb can function as an agent has been put forward by Schlesinger (1992). He has provided empirical evidence which seems to support the thesis whereby the experiencer in a subject position is perceived as an agent. Defining an agent in terms of a cluster concept, in which no features are necessary and jointly sufficient, has made it possible for Schlesinger (1992, p. 316) to formulate a proposition that "in sentences where the subject noun phrase does not fulfil the role of a prototypical agent, it will often have one or more of […] agentive features." In this way the subject NP can have agent-like properties, without being an agent in the strict sense.

An experiencer seems to share with the prototypical agent the feature [+Control], as it is assumed that people do have some degree of control over

their feelings. Such an assumption can be supported with the following examples (after Schlesinger, 1992, p. 317):

(27) *Don't expect too much of him!*
(28) *You shouldn't hate him.*

The results of experiments conducted by Schlesinger (1992) suggest that subjects of mental verbs are perceived as having the feature [Control] and [Intention].[2] Since both are treated by Schlesinger (1992) as agentive features, subjects of mental verbs can be classifed as agents.[3]

It is, however, by no means uncontroversial that intention (or, in other terms, volition) equals agentivity. Cruse (1973, p. 19) is of the opinion that "although agentivity and volitivity frequently co-occur, they are nevertheless independent features." Although both are semantically congruous with the verb *do* (hence the "do-test" can be used to detect both volitivity and agentivity), the feature [Volitive] is present in sentences containing a verb of action, state, and process, while agents in Cruse (1973) are subjects of exclusively verbs of action. It follows, then, that "doing" does not only refer to action verbs; states and processes can also be paraphrased by the verb "do" on condition that the feature [Volitive] is present. Hence the sentence (29)[4]:

(29) *Christ died in order to save us from our sins.*

has a do-interpretation (30):

(30) *What Christ did was die in order to save us from our sins.*

What makes the "do" paraphrase possible for the state verb *die* in sentence (29) is the act of will detectable on the part of the subject. In the sentence (31) below, the feature [Volitive] is absent, and, consequently, the meaning of the verb *die* cannot be rendered by the verb "do" (sentence 32). Instead, in the paraphrase the verb "happen" seems more felicitous, which is illustrated in the paraphrase in the sentence (33):

(31) *John died in a car accident.*
(32) *?What John did was die in a car accident.*
(33) *What happened to John was that he died in a car accident.*

[2] This feature is also called Volition or Volitivity in other studies (e.g. Cruse, 1973).

[3] Similar approach towards subjects of mental verbs has been taken by Lyons (1968, p. 387), who assigns agentivity to the subject of the verb *see*.

[4] Examples after Cruse (1973, p. 19).

Keeping the features [Volitive] and [Agentive] apart has made it possible for Cruse (1973) to treat the subjects in the sentences (34) and (35) below as containing the feature [Agentive]:

(34) *John kicked the bucket over.*
(35) *John accidentally kicked the bucket over.*

In (34), the subject is at the same time [+Agentive] and [+Volitive], whereas in (35) the [Volitive] feature is absent.

Another consequence of the approach that does not require of Agents to act volitionally is that the feature can be attributed to forces of nature (natural agents) and certain kinds of machines. Therefore Cruse (1973, p. 21) claims that agentive feature is "present in any sentence referring to an action performed by an object which is regarded as using its own energy in carrying out the action."

4.3 Agentivity and Causality

Although it is not explicitly stated, it seems that the feature [Agentive] as defined by Cruse (1973) is grounded in the notion of causality. It seems that the NP regarded by Cruse (1973) as [+Agentive] must be identifiable as the ultimate cause of an event. Such an understanding of agentivity coincides with the view expressed in Delancey (1984, p. 182), who states that "it is clear that the fundamental sense of agentivity involves causation of an event." Delancey, whose account of the interrelations between agentivity and causation is modelled on the prototype semantics, claims that direct causes are more agentive than the non-direct, mediating ones. Support for such a thesis can be derived from the fact that in some languages (e.g. Hare, Newari) deviations from canonical agentivity are directly reflected on the morphosyntactic level. Thus for Delancey (1984, p. 185) the canonical, or prototypical, agent is a volitional causer, a proximate and ultimate cause in a direct causation schema.[5] The results of the analysis of linguistic data presented in the article have allowed the scholar to arrive at the legitimate conclusion that "deviations from this semantic prototype are coded by deviations from prototypical transitive morphosyntax" (Delancey, 1984, p. 185), that is, if an event deviates from the prototypical transitive schema, the cause of the event is not marked as an agent. Delancey (1984, p. 204) postulates that similar semantic restrictions hold in English: "the most normal

[5] A non-volitional agent is a mediating cause, as she/he/it cannot be considered the instigator of the event in which she/he/it participates.

interpretation of a transitive subject is as a prototypical agent" (Delancey, 1984, p. 204). However, unlike in Hare and Newari, the deviations from the prototypical event schema are not echoed on the structural level. Hence, although English allows for instruments to function as transitive subjects, as, for example, in the sentence (36) below (after Delancey, 1984, p. 203):

(36) *The axe broke the window.*

such sentences are acceptable only as long as the subject is not interpreted as a true agent (i.e. volitional causer). On encountering such a construction, the listener will typically place it in a wider context which would provide an explanation for the temporary agent-like characteristics of an object that is normally incapable of an independent action, for example:

(37) *As I was swinging the axe over my head, it hit the window and broke it.*

Here, the chain of causation has been extended so as to reveal the ultimate causer of the event. Despite the lack of morphosyntactic marking, pragmatic and semantic knowledge enforces on listeners a proper interpretation of a simple transitive clause with a non-volitional, non-agentive entity occupying a subject position.

4.4 Other semantic features of agents

Apart from these much-discussed agent-related features that have been presented so far (i.e. [Volition/Intention], [Cause], [Control]), there can be distinguished several other semantic characteristics attributed to agency, which are, however, rather infrequently mentioned in linguistic literature. These are [Characteristic Responsible],[6] [Motion], [Change of State],[7] and [Responsibility].[8] It has to be emphasised, though, that none of the semantic features generally attributed to agents can be considered criterial and sufficient for a noun phrase to receive an agentive interpretation. It has been pointed out that agents do not have to

[6] Characteristic Responsible is defined by Schlesinger (1992, p. 316) as "a feature of a noun phrase referring to an entity whose characteristics are responsible for a state of affairs." The feature is present in the NP *the tent* in the sentence: *The tent puts up in ten minutes.* According to Schlesinger (1992), the fact that the tent can be put up in such a short time is inherently connected with an aspect of its nature.

[7] Motion and Change of State have been suggested as agentive features by Schlesinger (1992).

[8] Responsibility is considered as one of the agentive features by Lakoff (1977), and Schlesinger (1992).

act volitionally, and the features [Cause] and [Control] are common to both agents and instruments. Therefore, more and more widespread in linguistics is an approach towards agency whereby agents are considered as "cluster concepts" (Schlesinger, 1992, p. 326), with prototypical exemplars being characterised by most of the semantic features, and a residue of less typical representatives of the category in which only few characterising attributes can be identified. Hence the terms *quasi-agents*, *kind of agent*, *sort of agent* often encountered in linguistic studies to cover non-prototypical occurrences of agents.

4.5 Semantic relations between an agent noun and its motivating verbal base: *Habitual* versus *actual* agents

Still further ambiguities within the category of agentive nouns stem from the irregular semantic relations holding between a derivative and its base. Derived agent nouns tend to exhibit semantic properties which are not evident in their verbal bases. Many derivatives display aspectual differences: some are interpreted as actual performers of actions, others express habituality.

The derivatives that denote agents who act habitually are usually lexicalised, not fully transparent formations with additional semantic features attached to their deep structures. For example, *writer* in the sentence *He's a writer* will receive only a habitual, occupational reading. Similarly, *baker*, *teacher*, *publisher* all contain an additional semantic feature [+Professional]. Due to the fact that they exhibit a deviation from a transparent, generic agentive sense "one who V-es," habitual performers of actions are not considered pure nominalisations by some linguists (e.g. Kastovsky, 1971; Strang, 1968).

Among habitual agents one can identify derivatives which contain an additional feature [+Characteristic].[9] These are nominalisations that refer to persons who are characterised by, or have inclination towards the action specified by the verb, for example, *gambler*, *reader*, *fighter*, *dreamer*.

Although the feature [+Habitual] is correlated with the feature [+Repeated], and the habitual, characterising interpretation usually requires from the agent to have performed the action specified by the base verb many a time, the repetition is not always obligatory. In some cases, a single performance of the action is sufficient to characterise the agent: *killer* is somebody who has killed once or many times. Similarly *liar*, *signer*, *founder*, *deserter* do not require repetitive performance of the action specified by the verbal base. "Professional" agents need not have performed the action expressed by the verb at all — one can be

[9] A term used by Kastovsky (1971).

called a *teacher* even if she or he has not formally started giving lessons, but has the necessary qualifications.

According to Kleszczowa (1998, p. 49), habitual agents fulfil a predicative function within a sentence, and therefore refer to types rather than tokens. Since their reference does not depend on the immediate context, they typically do not occur with the complement of the base verb (hence the structural peculiarity of phrases like **baker of bread*, **singer of songs*, **drinker of alcohol*). Nawrocka-Fisiak (1975, p. 61) suggests that in such cases as exemplified above, the internal argument of the verb has been incorporated by the predicate as the result of the object-incorporation transformation.

Quite different in this respect are agentive nominalisations that are subclassified as actual performers of the action specified by the base verb. Such Nomina Agentis can be paraphrased as "somebody who is V-ing at the moment," and the act of V-ing is concurrent with the point of reference supplied by the context. Wierzbicka (1969, p. 54) has pointed out that the context-dependence of actual doers makes them unable to occupy the predicative position within a sentence, as in such a position they cannot receive a point of reference. Hence the unacceptability of the sentences quoted below:

(38) **When I first saw him, he was a diner.*
(40) **He was a caller.*

Agentive nominalisations used in the actual sense typically occur with a fully expressed complement structure of the motivating verb, that is, the nominalised transitive verb must remain transitive. This feature is best seen by comparing the sentences (41a) and (41b) below, where the Nomen Agentis *writer* has a non-habitual reading in (41a), and receives a habitual sense in (41b):

(41) a) *He is the writer of that letter.*
b) *He is a great writer.*

Actual agents also differ from habitual ones in terms of the function they fulfil in a discourse. While the latter type of derivatives are labels, actual agentive formations seem to act as deictic devices which serve to establish a kind of anaphoric reference to the preceding context. Kastovsky (1986a, pp. 410—411) refers to this function as "syntactic recategorisation," and illustrates it with the following examples:

(42) *One of them was faking.* […] *Could the faker keep up free association?* […] *The faker, whichever he was, had practised or had natural talents.*
(43) […] *and I patted her shoulder. Patting a shoulder can be anything from an apology to a promise, and only the patter can say which.*

In the examples (42) and (43), the actual agents have been designated by the direct reference to another, co-referential activity. This characteristic has prompted Kleszczowa (1998) to formulate a thesis that the actual nominalisations are tokens rather than types, as they fulfil the role of arguments in a sentence. From the transformational point of view, actual derivatives are closer to what Strang (1968, p. 220) calls *minimal nominalisations*: regular, transparent, generated forms whose derivation resembles a purely syntactic process.

According to Strang (1969), the two senses of the derivatives with the suffix *-er* (i.e. *actual* versus *habitual*) can be attributed to two distinct origins of the formative. The type referred to as *specialised -er*, which corresponds to the habitual meaning of the suffix, was well-established and very productive as early as in the Old English period. The occasional/actual type (*minimal*, in Strang's terminology) was first introduced into English in the 14th century, developed considerable productivity in the 16th century, and became fully established as late as in the 18th century.

Strang (1969, p. 10) suggests that the use of the minimal type was directly stimulated by, and modelled on, Latin. Unlike the specialised *-er*, which has been the indigenous part of the English word-formational system from its very beginning, the minimal type has always been a somewhat alien pattern for English native speakers. It started to be employed by translators of the biblical passages, who had difficulty in exact rendering of Old English adjective phrases due to the loss of case, number, and gender inflections in the Middle English period. Two rivalling ways of expression emerged to make up for this loss: the syntactic structure *those who/he who/that which*, and so forth, and the actual use of *-er*. This new technique, however, was felt to be of "markedly un-English character" (Strang, 1969, p. 13), therefore it did not seem to catch on until the 16th century, when the influx of Latinate verbs allowed for the "less jarringly inappropriate," as Strang (1969, p. 13) has put it, combinations with the Latin-based, minimal *-er* type.

4.6 Denominal Nomina Agentis

Relatively little has been written so far on Nomina Agentis formed on nominal bases. The problem has been generally neglected by the Generative-Transformational school (e.g. Chomsky, 1970; Lees, 1960). Also, recent accounts based on the theory of argument structure (Rappaport Hovav & Levin, 1992) are methodologically incapable of explaining the mechanism of denominal agent formation.

Brekle (1968, p. 23) claims that there exists no general rule that would incorporate the generation of denominal agents, and sees their place in a lexicon

component of grammar. The fact that there seems to be no transformational relationship between a derivative and its nominal base has prompted Brekle (1968) to exclude desubstantival formations from the class of "regular" (i.e. deverbal, transformationally explicable) agents. Therefore, denominal derivatives are referred to as "quasi-agents" in his article.

Such a position is criticised in Szymanek (1993, p. 186), for whom both deverbal and denominal agent nouns express the same underlying idea "one who has some active role in a relationship." Szymanek (1993) argues against the separation of the verbally and nominally motivated agents, as for him their general semantic identity is indicative of their morphological unity. To prove his case, Szymanek (1993, p. 186) provides examples which show that despite the distinct derivational history, the different types of motivation do yield semantically similar results (e.g. deverbal *writer* versus denominal *novelist* versus underived *poet*, or, in Polish, *śpiewak* versus *piosenkarz*). Derivatives with double (or indefinite)[10] motivation, for example, *miner* — "one who mines" or "one who works in a mine," *sinner* — "one who sins" or "one who has sins," lend additional support for such an inclusive approach towards the category of agent nouns. A similar line of reasoning can be found in Walczak-Mikołajczakowa (2000).

In pre-generative grammars one can encounter similar postulates to the one put forward by Szymanek (1993). In 1915, Karre already called attention to the fact that besides, as he put it, "deverbative words," there are also desubstantival agents, which are, nevertheless, closely related to, and connected with, deverbal ones both morphologically and semologically. This uniformity is an argument for a unitary treatment of both types of derivatives:

> The desubstantive formations in question […] nevertheless suggest the performer of an action, viz. the performer of that very action which consists in, is performed by means of, aims at, or in any way whatever is connected with the idea expressed by the primitive word. The sense-relation between the activity (which is only conceived, not expressed) and the sb. from which the nom. ag. in question is derived may thus be of a most varied character, and there is no linguistic means of expression for it, […] but the quality of the word of expressing the performer of an action, of being, consequently, a nom. ag. is indisputable.
>
> (Karre, 1915, pp. 10—11)

[10] In some cases, it is difficult to estimate the primary, original motivation of a derivative. For example, Szymanek (1993, p. 185) treats the noun *farmer* as denominal, while for Sapir (1921, p. 83) it is founded on the verb: "the word *farmer* has an 'agentive' suffix *-er* that performs the function of indicating the one that carries out a given activity, in this case that of farming. It transforms the verb 'to farm' into an agentive noun precisely as it transforms the verbs 'to sign', 'to paint', 'to teach' into the corresponding agentive nouns 'signer', 'painter', 'teacher'." Marchand (1969, p. 217), on the other hand, claims that from an etymological point of view the noun *farmer* is a simplex word, as it is one of the lexemes that are originally loans of French words in *-(i)er, -our*.

The notion of denominal agents is frequently taken up by Polish scholars (e.g. Wełna, 1976; Grzegorczykowa et al., 1998). Grzegorczykowa et al. (1998, p. 433) make a structural connection between deverbal and denominal mutational derivatives by stipulating that both are based on predicate-argument structure, albeit in the case of the denominal type the predicate has been superficially deleted (as in *rybak* from *(łowić) ryby*).

Denominal agent nouns usually perform the role of labels, and they tend to express habituality. Consequently, such nominalisations typically do not occur in a deictic function. Marchand (1969, p. 215) suggests that the original idea underlying denominal derivatives is "one professionally connected with." However, it seems that their semantic variation is much greater than that, as the potential sense-relations between the nominal base and the referent of the derivative are numerous and irregular. Ryder (1999, p. 271) compares this aspect of denominal derivatives with noun-noun compounds.

Apart from the suffix *-ist*, which, as well as *-ician* (*logic — logician*) has specialised in forming denominal agents, there is also *-er*, which can be suffixed to syntactically disjunctive bases. Although it is sometimes claimed (e.g. in the OED) that the denominal function is the original, primary one, it is not confirmed by the quantitative analyses of Old English derivatives conducted by Kastovsky (1971). Only 50 out of over 300 derivatives in *-er* collected and presented by Kastovsky (1971) are desubstantival, which might be indicative of the lesser productivity of the denominal type. Grzebieniowski (1995, p. 137) maintains that the process of forming denominal agents in *-er* is less productive than the corresponding deverbal pattern, and Marchand (1969, p. 218) claims that "*-er* has long become unproductive for the derivation of agent nouns from substantives." Contrary to that, Bauer (1979, p. 29) asserts that "the formation of semantically agentive nouns in *-er* on a substantival base continues to be productive," as in his corpus of *-er* neologisms he has identified evident counterexamples to Marchand's claim: *biker* an *juicer*.

It has to be noted, though, that in Bauer's (1979) corpus the ratio of deverbal to denominal *-er* neologisms does nevertheless connote a lesser availability of the latter type. Moreover, the derivative *biker* might as well be considered to have been formed on the verbal base,[11] and there is no information provided by Bauer (1979) as to how the motivation was established. It is a well-known and oft-cited fact that in English the number of denominal agents is smaller than that of deverbal ones, and this cannot be attributed to the smaller input class of bases.

Ryder (1999, p. 290) has adopted the gestalt psychologists' notions of *figure* and *ground* to provide the conditions which seem to be operative for denominal agent formation. *Figure* is the salient, perceptually significant element of

[11] OALD glosses *bike*, *v.* as a zero-derivative from *bike*, *n.*

a given event schema, while *ground* refers to the irrelevant parts. It follows, then, that the derivative, being the figure, should be more salient than its base, which is the ground. Unlike verbs, nouns are participants in event schemas, thus the nominal base of an agentive noun may refer to any other element in the schema. This feature of denominal agents, therefore, violates the pragmatic constraint on *-er* formation formulated by Ryder (1999, p. 291) which reads: "the referent of the base should constrain as much as possible the number of schemas in which the *-er* nominal's referent could participate." To put it in semantic terms, it seems that the number of possible relations between the deleted predicate and one of its arguments is too numerous for the denominal agent to have a predictable, readily identifiable meaning. This, in turn, might reduce the productivity of the process.

4.7 Methods of deriving Nomina Agentis in Modern English

In this section, I will survey the Modern English techniques employed in agent formation. These will be contrasted with Shakespearean methods of agent derivation in the subsequent sections of the present volume. Since the discussion of semantic and pragmatic aspects of agentive formation has been presented in detail in the previous sections, I will concentrate mainly on the formal, morphosyntactic features of a given pattern, its productivity and restrictions on its application. The affixes discussed will be presented in the alphabetical order.

4.7.1 The suffix *-ant*/*-ent*

The suffix *-ant*/*-ent* (the variant *-ent* being rather infrequent) derives agent nouns mostly on Latinate bases. Many words were borrowed from French (e.g. *defendant*, *accountant*, *inhabitant*, *complainant*) or Latin (e.g. *opponent*, *participant*, *occupant*, *applicant*), and then assimilated to the English word-formational system. On this pattern some native-based coinages were modelled, for example, *informant*, *affirmant*, *contestant*, *attestant*, *claimant* (Marchand, 1969, p. 195).

Most *-ant*/*-ent* personal agents come from technical or legal discourse. The suffix shows preference for verb-bases terminating in the suffix *-ate*, which undergoes truncation if *-ant*/*-ent* is attached (Aronoff, 1976, p. 90):

celebrate — *celebrant*
emigrate — *emigrant*
evacuate — *evacuant*
participate — *participant*

However, as Szymanek (1993, p. 181) has illustrated, there can also be found *-ant*/*-ent* nouns coined on unsuffixed verbs:

aspire — *aspirant*
assist — *assistant*
attend — *attendant*
consult — *consultant*
discuss — *discussant*
serve — *servant*

4.7.2 The suffix *-ar*

The suffix *-ar* is glossed in the OED and in Marchand (1969) as a casual, orthographic variant of *-er*/*-or*. Contemporary *-ar* forms are the result of the 16th/17th century attempt to elevate the English language by introducing learned (or pseudo-learned) elements. Most agent names in *-ar* came into use as Latinising refashionings of an earlier *-er* form, for example, *beggar* (*-ar* since the 17th century), *liar* (*-ar* since the 17th century), *pedlar* (*-ar* since the 16th century) (Marchand, 1969, p. 221). The OED points out that especially susceptible to a change of this kind were *-er* derivatives modelled on French forms in *-ier*:

bursar	ME *burser*	F *boursier*
medlar	ME *medler*	F *meslier*
mortar	ME *morter*	F *mortier*

Finally, a few words must be said about the cases where *-er*/*-or*/*-ar* are not, in the strict sense, suffixes, but rather terminations. Such words are, from the etymological perspective, unanalysable, since they are not resultant from the activation of productive word-formation rules, but originated as whole-word loans from French (or from Latin via French). Most frequently, as a consequence of misanalysis or "folk etymology," such forms are considered by native speakers as derivatives, which is evidenced in backformations. Examples of such misanalysed words provided by Marchand (1969, p. 222) are *farmer*, *gardener*, *jeweller*, *miner*, *commander*, *dresser*, *counter*. Although historically the *-er* in the examples above is not a suffix, it is regarded as such by many Modern English

word-formation analysts, owing to the existence of related words that from the morphological and the semantic viewpoints are good candidates for bases. An approach towards such words as exemplified above seems to depend on whether the analysis is diachronically or synchronically oriented. Adopting Pilch's point of view on morphological analysis whereby "only members of productive paradigms are morphologically analysable in the synchronic domain" (1984, p. 426) and taking as an operating principle his recommendation to discriminate between a synchronic and a diachronic perspective, allows us to conclude that the words in question contain the suffix *-er* synchronically, but not etymologically.

On the other hand, in Modern English there are words terminating in *-er*/*-or*/*-ar* in which the termination is not treated as an affix; these are the cases when there is no corresponding word available which might be (mis)taken for a base, as in *ancestor* (from Old French *ancestre*), *bachelor* (from Old French *bacheler*), *officer* (from Old French *officier*) (examples after Grzebieniowski, 1995, p. 138).

4.7.3 The suffix *-ee*

The suffix *-ee* is of French origin. Its primary function was to signal the patientive relation of the person designated by the *-ee* derivative with respect to the action expressed by the base. The suffix, thus, derives objects of verbs it combines with, usually in contrast to the Subject Nominalisations in *-er*/*-or*, which can be evidenced in the following examples: *examiner* (active role, subject) — *examinee* (passive role, object), *interviewer* (active role, subject) — *interviewee* (passive role, object).

However, the suffix under consideration can also be found in derivatives where the idea of "patientivity" cannot be traced. Rather, their meaning is paraphrasable as "one who V-es," which, according to Szymanek (1993, p. 182), is an argument sufficient for considering such *-ee* nouns as belonging to the category of Nomina Agentis. Examples of agent nouns in *-ee* are: *adaptee*, *attendee*, *charteree*, *dilutee*, *embarkee*, *escapee*, *knockee*, *meetee*, *mergee*, *resignee*, *retiree*, *returnee*, *standee*, *waitee* (listed by Bauer, 1983, p. 287).

Since the suffix does not seem to show any sensitivity to the origin and constitution of the bases with which it combines, some scholars (e.g. Bauer, 1983; Szymanek, 1993) have attempted to find an explanation for its employment instead of the "default" agentive *-er*. As is believed by Bauer (1983, p. 289), "*-er* should be used unless there is a reason not to use it." A variety of reasons might, according to the aforementioned scholars, play a role here. In the case of *meetee*, *adaptee*, *mergee*, and *waitee* it might be blocking which prevents *-er* attachment. The formations *resignee* and *returnee* seem to have

been created by analogy with *designee* and *internee*, respectively. *Charteree*, as Bauer (1983, p. 290) explains, might be preferred over **charterer* due to phonological restrictions. In some cases, *-ee* is a part of integral loanwords from French (e.g. *escapee*, *refugee*).

Such explanations are, as their authors themselves admit, tentative and far from comprehensive. Perhaps the reasons for *-ee* (instead of *-er*) application are of semantic nature: it seems that the suffix derives agent nominalisations with a slightly different sense than its main rival, *-er*. Formations in *-ee* frequently convey an idea of passiveness of the person denoted by the derivative towards the action expressed by the verb, as in *attendee*, which is glossed in the OED as "one who (merely) attends a meeting, conference, etc." Agents formed with this suffix are often non-volitional participants of events, witness *standee* — "one who is compelled to stand" (OED), or are driven by external circumstances rather than acting deliberately and of their own free will, witness *returnee* — "one who returns or is returned from abroad to his native land, esp. from war service or exile" (OED) and *escapee* — "one who has escaped, esp. an escaped convict from a penal settlement, or an escaped military or political prisoner" (OED). Still, some derivatives cannot be explained in this way, for example, *resignee*, which the OED glosses as "resigner," or *retiree*, which is synonymous to *pensioner* — in these examples there is no question of semantic differentiation between *-ee* and *-er*.

Finally, it should be noted that the suffix *-ee* has gained popularity mostly in the American variety of English. Many agents in *-ee* have originated and prevail in American English — the OED lists, for instance, *retiree*, *attendee*, *standee*, and *escapee*.

4.7.4 The suffix *-er*

The etymology of the suffix raises many questions. The OED links the suffix to the OE *-ere*, which, in its original use, was "added to ns., forming derivative ns. with the general sense 'a man who has to do with (the thing denotated by the primary n.)', and hence chiefly serving to designate persons according to their profession or occupation," for example, OE *bócere* "scribe", *sangere* "singer". This pattern is continued in the derivatives *hatter*, *slater*, *tinner*. By analogy with early Teutonic agentive derivatives in *-<amacbreve>rjo-z*, the suffix came to be associated with forming agent nouns, and with this function it began to be added to verbal bases both of the weak and strong conjugation. On the other hand, Marchand (1969) points out to a different possible source of the suffix, namely the Latin *-ārius*, whose chief function was to form denominal nouns with the sense "a person connected with." After subsequent phonetic reductions,

the suffix came to be formally identical with the native *-er*. This etymology can be traced in the derivatives *butler*, *carpenter*, *grocer*, *mariner*.

In Modern English, the suffix functions as the chief agentive nominaliser. According to Szymanek (1993, p. 177), the suffix is most frequent with native, monosyllabic verbs, although bisyllabic and Latinate bases are also possible. The suffix shows a slight preference for transitive verb-bases, though, as Randall (1984, p. 317, in Szymanek, 1993, p. 176) has pointed out, the obligatorily transitive verbs can form an *-er* derivative only on condition that the obligatory object is formally expressed, either as a prepositional phrase in the post-verbal position, or as a modifier in a compound, for example:

(a) *maker of coffee*	(b) *coffee-maker*	(c) **maker*
(a) *doer of deeds*	(b) *deed-doer*	(c) **doer*

There are also restrictions as to the application of the suffix to intransitive verbs. Randall (1984, p. 317, in Szymanek, 1993, p. 177) attributes the non-existence of **dier*, **faller*, **disappearer* to their semantic constitution. According to him, only those intransitive verbs which signify protracted or repeated actions can form *-er* nouns. The constraint is differently interpreted in the studies on argument structure of verbs (e.g. Levin & Rappaport, 1988). They have revealed that intransitive verbs fall into two types: *unergative* (whose only argument is the external argument, that is, it refers to the underlying subject of the verb), and *unaccusative*[12] (whose only argument refers to the underlying direct object). Since it is assumed (Levin & Rappaport, 1988; Rappaport Hovav & Levin, 1992; Ryder, 1999; Fabb, 1984) that *-er* nouns are formed only on verbs that have an external argument, and that *-er* agent nouns always refer to the external argument (i.e. deep structure subject), it naturally follows that among intransitive verbs, only the unergative types can take the *-er* suffix. Unaccusative verbs (e.g. *disappear, appear, die, last, end, transpire, wane, exist, happen*, *occur, collapse*, etc.), not having the external argument, cannot function as bases for *-er* agent formation. Still, Randall's (1984) argument seems to hold, as unaccusative verbs in general are verbs denoting a change of state, as well as appearance/existence, thus they cannot signify protracted or repeated actions.

Another constraint on *-er* agent formation is connected with middle verbs, albeit in this case linguists seem to be of two minds. Kastovsky (1982, p. 194) claims that the process "has a scope of more or less the whole word-class V, including middle verbs like 'resemble'." In contrast, there is Lees's (1960, p. 69) assertion that "no copulative or middle verbs appear as agentives at all." This is supported by Szymanek's (1993, p. 175) confirmation of the restriction formulated by Marchand (1969, p. 274), whereby no *-er* agents can be derived from

[12] Also called *absolutive* or *ergative* in other frameworks.

verbs that cannot undergo passivisation. Szymanek (1993, p. 175) uses this as an explanation of the nonexistence of agentives from verbs like *belong*, *cost*, *weigh*.

A rather indeterminate position on middle verbs as the input for *-er* agent derivation has been assumed by Rappaport Hovav and Levin (1992, pp. 149—151), who argue against the view that middle verbs can only be interpreted as associated with an internal argument, and put forward a suggestion that in an appropriate context the internal argument may be externalised, which would make an agentive reading possible. However, they admit that *-er* derivatives based on middle verbs are remarkably infrequent; moreover, among the examples they offer (i.e. *baker* (potato), *broiler* (chicken), *roaster* (chicken), *dunker* (type of doughnut), *sipper* (type of drink), *dipper* (vegetable or fruit to be used with dips)) none can be considered to be of agentive meaning.

The current system of English word-formation also blocks agent formation from copula and quasi-copula verbs like *be*, *seem*, *become*, *turn*, from the lexical verb *have*, and from non-lexical categories including modal verbs (Szymanek, 1993, p. 175).

As with the whole word-formational component, pragmatic factors play a crucial role in limitations on *-er* agent derivation. It is difficult to account for pragmatic restrictions, as it is only the negative evidence that a linguist has at his disposal, that is, the non-occurrence of a given form despite its apparent structural well-formedness. Such a non-occurrence (or a status of not being attested) of a form may have its roots in the non-linguistic fact that the form is not needed. Word-formation rules are optional, and in many situations they are not activated because the meanings they yield can be rendered by purely syntactic expressions (e.g. *those who*, *one who*, *that which*, etc.).

Perhaps the most conspicuous manifestation of pragmatic suppression of the actualisation of a word-formation rule is *blocking*. According to Kastovsky (1982, p. 195), the existence of simple words such as, for example, *doctor*, *fool* blocks the derivation of structurally possible agentives **doctorer*, **fooler*.

Despite the limitations surveyed above, the suffix *-er* is sometimes admitted the status of full productivity. Quirk and Greenbaum (1980, p. 436) claim that the *-er* agent derivation is fully productive, because "although not all verbs have a corresponding institutionalised (or 'permanent') agential noun (*trick* — **tricker*, *flout* — **flouter*), it is always possible to create an ad hoc or 'temporary' agential noun in a frame such as a (regular) ….*-er* of N," for example:

(44) *John flouts authority.* — **John is a flouter.*
(45) *John is a regular flouter of authority.*

It seems that such assessments are the outcome of equating productivity with potentiality rather than with frequency. Emphasis is put on the fact that *-er* is frequently employed in nonce-formations, in ad hoc structures created

on the spur of the moment. Such nonce-words are notorious for their general disregard for both structural and non-structural restrictions, which may justify the postulates of the full productivity of *-er* agent formation.

Another manifestation of the high degree of potentiality of agentive derivation by means of *-er* is the fact that the suffix is frequently attached to newly coined verbs. Akmajian, Demers, and Harnish (1979, p. 117) illustrate this with the following example: "suppose that a new verb enters the English language, such as the verb 'to xerox'. Native speakers of English will automatically know that this verb can be converted into an agentive noun, 'xeroxer'." This property of the suffix in question is related to its semantic transparency and phonological regularity — the interpretation of new *-er* forms is fairly straightforward, which increases the chances of successful communication between the speaker (who is the coiner of the new *-er* form) and the listener (whose task is to decode the meaning of the new form on the basis of his linguistic knowledge and the context of the utterance). The fact that *-er*, being a word-boundary affix, does not affect the segmental and suprasegmental structure of the base is also conducive to its frequent application in nonce-formations (cf. the results of Cutler's (1980) investigation of speakers' preference for derivatives with higher visibility of the base).

Although a typical *-er* agent noun is deverbal, the suffix is also productive with nominal bases.[13] Moreover, the morphosyntactic analysis of new agentives in *-er* conducted by Bauer (1979) reveals that in Modern English the suffix is more productive with compound bases than with simplex forms. As far as the compound bases are considered, two patterns must be taken into account. The first case are the examples in which *-er* is added to the compound word as a whole. The instances of new agent nouns derived in this manner provided by Bauer (1979, p. 27) are *blockbuster*, *carnapper*, *moon-walker*, *skateboarder*, *hard edger*, *skibobber*, *wildlifer*, *skyjacker*.[14] It is noteworthy that the compound bases of the agentives quoted above include both verbs (as in *moon-walker*, *blockbuster*) and nouns (as in *hard edger*, *skateboarder*, *skibobber*).[15] In Bauer's (1979) corpus, *-er* derivatives based on compound nouns are more numerous than those formed on compound verbs, though in the case of the non-compound (i.e. simplex) bases the opposite is true.

The second pattern involves *-er* suffixing not to the compound as a whole, but to the second element of the compound. In this group, all derivatives quoted by Bauer (1979, pp. 27—28) are motivated by a verb, for example, *end-consumer*, *impulse buyer*, *street worker*, *sun-seeker*, *weight watcher*, *whistle blower*, *bodybuilder*. In each case, the *-er* form is lexicalised to some extent.

The suffix in question can also be attached to phrases. The majority of *-er* derivatives formed on a unit larger than a word are motivated by noun phrases.

[13] The problems connected with denominal agents have been discussed in section 4.6.

[14] It is regrettable that Bauer (1979) does not provide glosses for his examples.

[15] In some cases it is impossible to decide whether a derivative is verb- or noun-motivated (e.g. *skyjacker*).

Examples are: *big banger*, *cold mooner*, *free speecher*, *steady-stater* (Bauer, 1979, p. 29).[16] Occasionally, other types of phrases may be encountered: *do-it-yourselfer*, *free-for-aller*, *nine-to-fiver* (Bauer, 1979, p. 27). According to Bauer (1979), the phrase-motivated agent formation is fairly productive.

4.7.5 The suffix *-ess*

The suffix first appeared in OF loan words denoting feminine personal nouns, such as *duchess*, *hostess*, *countess*, *princess*. Since the 14th century it has functioned as an independent formative, suffixing not only to words of Romance origin, but also to native bases, with which it has formed feminine nouns parallel to masculine nouns. The suffix enjoyed great productivity in the Middle English period, when many coinages on native nominal bases were formed, for example, *friendess*, *teacheress*, *dwelleress*, *huntress* (OED). This high productivity continued in the 16th, 17th, and 18th centuries, evidenced in such neologisms as *priestess*, *authoress*, *tailoress*, *poetess*, *giantess*. In this period the suffix is even found with verbal bases, for example, *vowess*, *procuress*, *instructess*, *entertainess*, although the pattern is rather infrequent (Marchand, 1969, p. 227).

Most of these coinages have not survived into Modern English period. Currently, the suffix has a limited scope, both in terms of structural properties and denotation. It occurs with nominal bases and forms chiefly the names of female agent nouns, such as *countess*, *actress*, *hostess*, *waitress* or the wives of male agent nouns, as in *farmeress*, *presidentess*, *sultaness*. This drop in the productivity of the suffix *-ess* is attributed to the Modern English preference for common gender and, in cases where indicating the sex of the referent is considered necessary, for analytic constructions with the elements *woman*, *lady*, *girl*, and so forth (*woman-doctor*, *girlfriend*, *woman driver*).

4.7.6 The suffix *-ic*/*-ician*

According to Marchand (1969, p. 204), this suffix is a modification of the French *-icien*. It specialises in deriving denominal agents from names of sciences, for

[16] Although Bauer (1979) treats these as phrases rather than compounds due to the fact that the stress pattern is more typical of the former, it has to be noted that the phrases are to some extent idiomatic.

example, *phonetics — phonetician*, *music — musician*, *mathematics — mathematician*.

In some cases two derivatives are formed on the same nominal base, but there is a semantic distinction among them, for example, *theoretician* ("a person who knows much about a theory") versus *theorist* ("a person forming theories"). In some examples, however, suffixal differentiation does not lead to a distinct semantic variation. In such cases we deal with pure doublets, as in the following examples provided by Wełna (1976, p. 92): *mechanic — mechanician*, *metaphysicist — metaphysician*.

4.7.7 The suffix *-ist*

The suffix *-ist* is, according to Adams (2001, p. 53), "genuinely productive." It is considered to be one of the most frequently employed suffixes forming names of individuals.

The suffix operates chiefly on nominal and adjectival bases of Latin, Greek, and native origin (Marchand, 1969, p. 197). Many bases are suffixed, frequently by *-al*, *-ation*, *-er*, *-ion*, or *-ive*. The earliest English nouns with *-ist* are, as Adams (2001, p. 53) observes, medieval loans from French which have to do specifically with Christian concerns (e.g. *baptist*, *evangelist*, *psalmist*). Since then, however, the suffix has considerably extended its denotation. Synchronically, some of the basic meanings of *-ist* derivatives, according to Wełna (1976, p. 86) are:

a) an adherent of a theory: *Marxist*, *Darwinist*, *Buddhist*, *Marrist*
b) persons exercising a scientific profession: *biologist*
c) persons supporting a political party, an ideology, and so forth: *militarist*, *communist*, *deist, hedonist*
d) instrumentalists: *flutist*, *harpist*, *guitarist*, *pianist*
e) men dealing with culture: *caricaturist*, *novelist.*

4.7.8 The suffix *-or*

The suffix *-or* enjoys a rather debatable status in studies on Modern English word-formation system. It is most frequently classified as an allomorph, or an orthographic variant, of the suffix *-er*. Such an approach is usually adopted in synchronic accounts of present-day English word-formation (Plag, 2003; Bauer,

1983; Marchand, 1969; Nawrocka-Fisiak, 1975), in which the phonetic and functional identity of the two elements outweighs the fact that they are not etymologically related. It is stressed that the distinction between the suffixes *-er* and *-or* is purely orthographic and historical, and so immaterial for the synchronic description of Modern English suffixation.

A somewhat less common, but not illegitimate, view is to grant *-or* the status of an independent formative. Such a method of classification can be found in Chomsky and Halle (1968), as well as in Szymanek (1993), a perspective justifiable on both etymological and morphological grounds. Etymological because, historically speaking, *-er* and *-or* are two different suffixes, the former being of Germanic, and the latter of Latin origin. According to the OED, *-or* (formerly often spelled *-our*) represents Latin *-or*, *-orem* of agent nouns. However, in the course of language development, the two suffixes, Germanic *-er* and Latinate *-or*, would curiously intermingle, which is especially visible in the language of Shakespeare's plays (see Chapter 6). According to the OED, in Middle English there was a tendency to confuse the endings *-er* and *-or* (*-our*), hence the words *butcher*, *dicer*, *fletcher*, *jailer*, *jester*, *juggler*, *porter* co-occurred with the forms in *-or* (*-our*). At the same time, many derivatives which originally had the *-or* (*-our*) form have been substituted with *-er* forms; such are *barber*, *broker*, *chanter*, *diviner*, *labourer*, *pleader*, *preacher*, *robber*, *rimer*. The 16th-/17th-century bias in favour of classical languages and literature brought about a propensity to substitute native *-er* with Latinising, "learned-sounding" *-or*. Examples of such "refashioned" former *-er* words are *sailor*, *vendor*, *editor*, *conqueror*, *visitor*, *operator*, *survivor* (after Marchand, 1969, p. 221).

Morphology-related facts which might to some extent legitimise the separation of *-er* and *-or* are connected with slightly different preferences exhibited by the distribution of the suffixes. Szymanek (1993, p. 179) thus points out that "with the exception of the noun *sailor*, virtually all the base verbs that are found in combination with *-or* represent the non-native, Latinate stock of the lexicon." Examples are: *act — actor*, *contribute — contributor*, *conquer — conqueror*, *inherit — inheritor*, *inspect — inspector*, *invest — investor*. The suffix in question is especially frequent with Latinate base-verbs ending in *-ate*: *agitate — agitator*, *collaborate — collaborator*, *create — creator*, *demonstrate — demonstrator*, *operate — operator*, and so forth.

As is indicated in the OED, there is also a slight semantic difference between *-er* and *-or* agent forms, the latter having a tinge of professional or technical character, while the former being more frequently used in a purely agential, generic sense, for example, *sailor* (professional sense) versus *sailer* (purely agential sense), *acceptor* (technical sense) versus *accepter* (agential sense), *saviour* (special sense) versus *saver* (agential sense). There can also be found rare doublets where no sense distinction can be detected, for example, *asserter — assertor*, *conjurer — conjuror*. Some pairs, as Grzebieniowski (1995, pp. 138) has noticed,

differentiate between British English and American English spelling, for example, *conqueror* (British English) — *conquerer* (American English).

4.7.9 The suffix *-ster*

The etymology of the suffix goes back to OE *-estre*, and the original function, as claimed by the OED, was to derive deverbal and denominal feminine agent nouns, as in *hoppestre* "female dancer" and — formed on a noun — *sangestre* "female dancer." The claim that the suffix is originally deverbal is, however, questioned by Marchand (1969), who argues that *-ster* derivatives have always been chiefly denominal.

The original feminine denotation of the suffix is still retained in some 14th-century formations, but is gradually being replaced with the French formative *-eresse*. From the 16th century onwards, the words that survived have been regarded as masculine, and several of them have given rise to feminine forms in *-ess*: *backstress*, *seamstress*, *songstress*, *huckstress*. Marchand (1969, p. 284) points out that many of the 16th-century coinages had a depreciative tinge, and this sense continued in the 18th and 19th centuries, for example, *punster*, *trickster*, *rhymester*.

In Modern English the suffix *-ster* operates on nominal bases to derive male persons. Marchand (1969, p. 284) observes that new formations in *-ster* are characterised by, as he calls it, "shadiness," which is visible especially in novel American English words, as *crimester* "organized perpetrator of crimes."

4.7.10 The suffix *-Ø* (conversion)

Conversion, also termed *zero-derivation*,[17] is a fairly productive technique of agent formation. Marchand (1969, p. 304) has determined that all deverbal

[17] The abundance of different terms that are used in linguistics for the process under consideration (e.g. *conversion*, *zero-derivation*, *functional shift*, *zero-affixation*) derives from differences in looking upon interrelations within the morphological system. Some scholars have reservations about the concept of zero forms as such (e.g. Bauer, 1983; Beard, 1984). Others make claims to delimit the scope of zero-morphology — Sanders (1988, pp. 160—161), for example, suggests that a zero form is operative only when a corresponding (in terms of meaning and/or function) overt form exists in the language. There are also linguists who totally reject the term "conversion," since it is not in line with their vision of word-formation. Here belong Adams (1973),

zero-derived personal agents are of Modern English origin, dating from the 16th century onwards.

The input constitute mainly native verbs, both transitive (e.g. *bootblack*, *cheat*, *spy*, *chimney sweep*) and intransitive (*flirt*, *sneak*, *go-between*, *lay-about*, *look-out*) (cited from Adams, 1973, p. 52). As is evidenced in the examples above, the bases can be both simplex and compound words.

Most frequently, zero-derived agent nouns contain additional semantic features. Many derivatives denote professional agents: *coach*, *cook*, *guide*, *judge*, *sweep*, *pilot*. A large number of types are depreciative terms, mostly used in everyday, colloquial speech (cf. Szymanek, 1993, p. 183; Marchand, 1969, p. 304): *bore*, *flirt*, *cheat*, *sneak*, *show-off*, *sponge.*

4.8 Conclusion

As can be seen, determining the structural properties of derived agent nouns is a fairly straightforward task, in contradistinction to defining their semantic features, which, as has been presented, is a highly disputable issue. Possibly, one reason for such a state of affairs is that agentivity is an intuitive rather than a scientific concept, and as such it evades a rigorous linguistic description. Also, it seems that agentivity is a "cluster concept," in which both linguistic and extralinguistic information plays a role. Therefore, it is practically impossible to identify a single, defining feature of agents. Moreover, even the most intricate linguistic model of agency proves insufficient without taking into account pragmatic, cognitive, and cultural aspects. Agentivity is frequently context-determined — one must consider the whole event-schema to be able to identify the interrelations between the entities that are involved in the event. Agentivity is always defined with respect to the relevant situation. The idea that agents are basic cognitive notions might also lead to some discrepancies between the concept as perceived and encoded by language users and the concept as a linguistic construct. Cultural differences may also result in the differences in perceiving or determining agentivity. What is encoded linguistically as an agent in one culture, will not necessarily be regarded so in another.

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and also Marchand (1969), who explains that "nothing is converted, but certain stems are used for the derivation of lexical syntagms with the determinatum assuming a zero form" (1969, p. 294). A detailed discussion of theoretical assumptions behind the terminology connected with the process is beyond the scope of the present thesis. An interested reader is referred to Plag (2003, pp. 111—114), where the problem is scrutinised. Also, Kastovsky (2005) deals with different theoretical approaches towards conversion. An extensive and illuminating investigation of conversion has been conducted by Cetnarowska (1993).

Chapter 5

Early Modern English — linguistic and cultural background

5.1 External history and its influence on language

Since linguistic developments can never be fully dissociated from extralinguistic factors, it is important to mention the circumstances which shaped the language of the period. According to Fisiak (2004), one of the most critical events in this respect was the Protestant Reformation; its indirect consequence was the gradual diminution of the importance of Latin, which eventually enhanced the translation of the Bible in 1611. This, in turn, stimulated the expansion of the English vocabulary and helped to increase the prestige of the vernacular.

The advent of the Renaissance in the 16th century prompted the revival of the interest in classical literature and languages, which to a large extent affected the structure and lexicon of English. There were two developments that radically increased the number of written texts. The printing press was introduced into England in 1476, paving the way for subsequent genre diversification and popular writing, as well as being one of the chief impulses for the standardisation of spelling. The expansion and secularisation of education promoted literacy, which together with greater political stability and prosperity led to a flowering of lasting literature and contributed to further spread of the written standard throughout the country. The war with France nourished the growing national identity and positively affected the attitude towards the native language. The increasing urbanisation resulted in the improved standard of living. This in turn led to the political, cultural, and educational dominance of London, which to a large extent ironed out the dialectal differences.

5.2 Attitudes to language

At the outset of the Early Modern period, the English language was perceived by educated English people as inadequate to deal with the intricacies of sophisticated literary style. The impression was that English lacked order, structural rigour, stylistic elegance, and appropriate vocabulary, and thus was deemed unsuitable as a means of expression for works of literature and scholarship. The vernacular was expected to follow the well-defined patterns of Latin, which it replaced in many fields.

According to Barber (1997, p. 42), by the end of the 16th century the unfavourable evaluations of the English language as compared to other languages had to a large extent faded away. Among the reasons which are likely to have brought about this change in attitude, Barber (1997, p. 42) cites the emergence of great works of literature, the expansion of vocabulary, the increasing use of rhetorical devices which helped to refine the language and make it more eloquent, as well as partially successful attempts to regulate the spelling and grammar. Fisiak (2004) in addition ascribes the growth of prestige of the vernacular to external circumstances, the most important ones being the growth of patriotism and nationalism, the aforementioned spread of education, and the Protestant Reformation.

5.3 Vocabulary and word-formation

The Early Modern period witnessed a large-scale lexical growth through extensive borrowing and the expansion of word-formation patterns. The major source language was Latin, but loans from other languages (e.g. French) were also frequent. The extension of English into all areas of life, including science, and the broadening spectrum of genres, styles, and registers created a demand for new and more varied vocabulary, which was satisfed by borrowings and native coinages.

The intake of Latinate vocabulary reduced the transparency of the English lexicon, which was the direct stimulus for the compilation of first English monolingual dictionaries (R. Cawdrey's *Table Alphabeticall* published in 1604). Not everybody was comfortable with the tremendous increase in Latinate words — there were many voices against the excessive use of learned borrowings. Dictionary evidence shows that many of these loanwords were short-lived.

Word-formation techniques which were applied the most frequently at that time were derivation and compounding. In contradistinction to Latin loanwords,

which typically were formal, literary or specialised terms, the products of native word-formation mechanisms usually belonged to the field of common, everyday language. According to Barber (1997, p. 183), the two most productive suffixes were *-ness* and *-er*, the latter replacing older occupational terms with the names of "doers." Görlach (1993, p. 175) also mentions verbal nouns (V+*-ing*) as one of the most productive derivational patterns in Early Modern English.

The third native word-forming technique which became more and more conspicuous in the period was conversion. The increased productivity of conversion was of qualitative rather than quantitative nature — it was the greater semantic and syntactic freedom rather than higher frequency of zero-derived words which was a novelty. The three most common types of conversion were verbs from nouns (*to gossip*), nouns from adjectives (*an ancient*), and nouns from verbs (*a laugh*) (Barber, 1997, p. 183).

The native word-formation techniques came to be regarded as alternatives to borrowing, and since the 16th century they had been employed more and more readily in filling up lexical gaps. Nevalainen (1999) attributes the growth in the productivity of word-formation processes to weak constraints on their input ranges and synonymy on the one hand, and the eagerness to form hybrid formations on the other. At the same time, the increased derivational freedom and the lack of norm led to the existence of many doublets. As Nevalainen (1999, p. 356) points out, multiple derivations were characteristic of the period. As an illustration, he shows five different morphological variants of privative verb: *disthronize* (1583), *disthrone* (1591), *dethrone* (1609), *unthrone* (1611), and *dethronize* (1611/1656). Also, the tendency to avoid hybrid constructions brought about many redundant coinages, because frequently there were two competing patterns: native and foreign. Obviously, few of these doublets survived beyond the Early Modern English period, and those which did pass on to Modern English became semantically differentiated, as, for example, *light/lighten/enlighten* (Nevalainen, 1999, p. 356).

5.4 Semantic changes

The apparent surface similarity between the English of the 1600s and Modern English can often lure us into misreading, and on numerous occasions we are blissfully unaware of our misinterpretation. As de Grazia (2002, p. 51) observes, we tend to overlook the fact that four centuries separate Shakespeare's English from our own, because we generally read his works in modernised editions, where both spelling and punctuation have been emended. The fact that in many respects the English of Elizabethan period has not changed — that is, the spelling

and pronunciation of many words have remained the same, and so has the basic organisation of phrases and sentences — can make us oblivious to those aspects of language which did undergo some alterations. It seems that among the least noticeable, and thus the most dangerous — because leading to misanalysis — are the semantic changes of words. They are dangerous because they are obscured by the continuity of form. Changes in syntax are less confusing in this respect, as here any deviation from what constitutes a norm in Modern English is in most cases instantaneously recognised by a reader. Quirk (1971, p. 11) warns us against such, as he puts it, "words which disguise their strangeness": "we meet a large number of words more or less familiar in their graphic substance, but with different meanings we can easily ignore, to our loss, since very frequently the modern meaning will make some kind of sense in the Shakespearean context." This sense, however, might not be the one that the author intended. Thus one can be interpolating meanings which are operative in contemporary language, but not in the language of the 16th/17th century. A comprehensive and thorough analysis of semantic shift in diachronic perspective has been presented by Lewis in his book *Studies in Words* (1994). Here, one can find a detailed discussion of origins and semantic development of those English words which, according to the author, are very often misinterpreted in literary works.

One such example is the word *sensible*, which has a contemporary meaning: "having ordinary intelligence, the opposite of silly or foolish" (Lewis, 1994, p. 161). However, when Theseus in *A Midsummer Night's Dream,* upon hearing the wall cursed by Pyramus and Thisbe, says: *The wall, methinks, being sensible, should curse again* (Mids. N. 5.1.181), he certainly does not claim the wall intelligent. The meaning of *sensible* here is: "able to feel, able to be aware."

Let us consider another instance of a word whose intended meaning is likely to be overlooked by a modern reader. The word is *grave* (adj.). In Modern English it is synonymous with "serious, solemn in manner" (OALD). However, when Othello says: *Most potent, grave, and reverend Seniors* (Oth. 1.3.76), the sense of *grave* is "venerable, authoritative, or august" (Lewis, 1994, p. 76). The same meaning can be found in a different passage from *The Tempest*, when Ariel salutes Prospero as *grave Sir* (Temp. 1.2.189).

If one takes a careful look at another Shakespearean quotation: *Speak you this with a sad brow?* (Much Ado 1.1.183), it will become clear that the adjective *sad* also used to have a different sense. Apparently, *sad* is here equivalent to "serious," "not joking" (Lewis, 1994, p. 83).

Actually, the number of words whose meanings are frequently taken for granted is very large. Even those terms which are among the most common in Modern English used to have a different denotation in the 17th century. In some examples this difference is not a big one, and a reader can discern some kind of semantic relationship between the Elizabethan sense and the modern one. This is the case of the aforementioned meaning shift of the word *sad*. Similarly, the

adjective *gentle*, which nowadays is synonymous with "kind, mild, not rough" (OALD), in Shakespeare's plays typically signified somebody well-born, noble:

(46) GUI.: *I could not stir him:*
He said he was gentle, but unfortunate,
Dishonestly afflicted, but yet honest.
(Cymb. 4.2.39)

Many a time, however, a reader cannot rely on his knowledge of Modern English meanings, as the sense of many words has altered to such an extent that it is uninferrable from the present-day usage. Examples include such nowadays common words as *still*, which typically meant "always, for ever" at Elizabethan date:

(47) ALON.: *Give me your hands:*
Let grief and sorrow still embrace his heart
That doth not wish you joy!
(Temp. 5.1.214)

Fond meant "foolish":

(48) HAMLET: *I'll wipe away all trivial fond records*.
(Ham. 1.5.99)

The usual Elizabethan sense of the word *luxury* was "lust":

(49) HAMLET: *Let not the royal bed of Denmark be*
A couch for luxury and damned incest.
(Ham. 1.5.83)

The verb *doubt* typically denoted "fear, suspect":

(50) HAMLET: *I doubt some foul play.*
(Ham. 1.3.256)

Several was often used with the meaning "separate":

(51) LEAR: *We have this hour a constant will to publish*
Our daughters' several dowers, that future strife
May be prevented now.
(Lear 1.1.43)

It is also worth mentioning that while reading the works of Shakespeare, one can encounter words whose sense is not only different, but in fact almost

opposite to the contemporary one. In the following passage from *Cymbeline*, the apparently familiar word *mere* has been used. Its meaning, however, can hardly be considered akin to the present-day sense:

(52) CLO.: *To thy mere confusion, thou shalt know*
I am son to th' Queen.

(Cymb. 4.2.92)

Mere here has the meaning "absolute, complete." Thus it seems that the modern *mere* and the Elizabethan *mere* are nearly antonymous.

I believe that the examples presented above have proven the fact that frequently the similarity between Early Modern English and Modern English is only illusory. A careless reader is likely to be led astray by the deceptive familiarity of surface structures. Not paying sufficient attention to deep structures is often detrimental, because we miss much of the original meaning of a passage. This loss, however, is even greater in the case of another important facet of Shakespeare's language: punning.

A pun occurs when at least two deep structures are realised by means of a single surface structure. It is often the case, however, that one of the intended meanings is dead, and hence the word-play is not available for us. Thus we cannot fully appreciate much of Shakespeare's wit. Many modern readers, for example, will overlook the play on words in *The Merchant of Venice*, when Gratiano says that he will "mar the yong Clarks pen" (Merch. V. 5.1.237) if Marissa marries him. Here, Shakespeare plays on the second, lost today, meaning of the word *pen*: "penis."

Obscene meanings are often employed as puns, but at the same time they are the least evident for us, because each age develops its own bawdy vocabulary. But there are also numerous instances of word-play with no carnal associations, as in the following passage from *Cymbeline*:

(53) FIRST LORD: *Stand you? You have land enough of your own, but he added to your having, gave you some ground.*
SECOND LORD: *(aside) As many inches as you have oceans.*

(Cymb. 1.3.19)

Inch here additionally signifies a small island.

In some cases more than two senses of a word are employed, as in this fragment from *The Tempest*:

(54) PROS.: *What wert thou, if the King of Naples heard thee?*
FERD.: *A single thing, as I am now, that wonders.*
To hear thee speak of Naples.

(Temp. 1.2.435)

The following four different senses of the word *single* can be identified in the passage (54) above:
1. "left alone, solitary"
2. "one, sole"
3. "sincere, single-minded"
4. "weak, helpless."

The examples above illustrate the type of wordplay which is referred to as "semantic" (Blake, 1989, p. 26). Other puns are homophonic, and in this type of wordplay a dramatic effect is achieved through the sameness of pronunciation. Such a pun based on homophony is employed in *Hamlet* (1.2.66—67):

(55) KING: *How is it that the clouds still hang on you?*
HAM.: *Not so, my Lord, I am too much in the sun.*

In this famous passage, Shakespeare plays on the phonetic likeness of currently two distinct lexemes: *sun* and *son*. In this way, as Margreta de Grazia notes (2002: 58), "one shared sound triggers two senses at once." Homophonic relation also forms the basis of a pun on *deer/dear* in the following fragment from *Love's Labour's Lost* (L.L.L. 4.1.113):

(56) ROSALINE: *Well, then, I am the Shooter.*
BOYET: *And who is your dear.*

Homophonic puns, similarly as semantic ones, are often disguised, for in the process of language development the original pronunciation of many words has changed. Thus it is often the case that a word no longer evokes two different readings, and Shakespeare's witty play on words is today difficult to grasp. Blake (1989, p. 26) illustrates this problem with the clause *let me be boyl'd to death with Melancholy* (Twel. N. 2.5.3). Only when one is aware of the fact that in the 17th century words *boil* and *bile* were homophonous, can the joke be appreciated (melancholy was the cold humour, and so was bile, hence the play on the phonetically similar *boil — bile*). Sound changes, then, just as semantic ones, contribute to our misinterpretation, or, at least, a deficient interpretation of Shakespeare's use of language.

However, it is not only the problem of sound change which makes it difficult for us to respond properly to Shakespeare's puns. It is also the basic priority difference between Elizabethan and modern audience. It has often been emphasised (Blake, 1989, p. 27) that for Shakespeare's contemporaries sound was more important than sense. Thus sound effects, rhythm, and general drift of a passage were held in higher esteem than semantic coherence. To meet the demands of the public, Shakespeare in some cases sacrificed surface structure logic for the sake of a witty sound effect. One should bear

in mind that Elizabethan drama was written to be staged, not to be read silently, as it is often now. The 17th-century audience experienced the plays by listening to them, so they valued sound more than any other aspect of language. Modern readers would rather seek meaning and logic in every sentence of a play, and this preference could actually pose an obstacle to the comprehension of Shakespeare's use of language. The apparent surface ungrammaticality of the phrase *in the son* in the aforementioned pun on *sun*/*son* in *Hamlet* (Ham. 1.2.67) did not bother the Elizabethan audience, but it might, however, prevent today's readers from noticing that a play on words is involved.

The extent to which we are disturbed by surface ungrammaticality in Shakespeare's works is well reflected in various emendations. Editors often decide to alter a line which from the point of view of modern syntactic rules seems unacceptable. This, for example, happened to the line 4 of Sonnet 12 in Quarto:

(57) *And sable curls or siluer'd ore with white.*

For a modern reader, this line is ill-formed in terms of grammatical structure. To put more sense into it, most editors have chosen to emend *or* to *all* or *and*. After such a modification, the line surely gains grammatical clarity, but inevitably loses the homophony based on *or*/*ore*. Blake (1989, p. 27) notes that the phonetic likeness between *or* and *ore* might have been intended as a pun by Shakespeare. This example shows that today we seek meaning most of all, which was not necessarily the case in the 16th/17th century.

The Shakespearean focus on sound rather than sense has its origin in yet another important aspect of the language in the Elizabethan day. Namely, the English in the 16th century was not standardised. There were no explicit grammars which would regulate the principles of sentence formation, no dictionaries that could provide regulative norms concerning meaning and function of words. This is not to say that post-Renaissance scholars were not interested in grammar as such — they were, only the objects of their interest were foreign and classical languages, mainly Latin. Latin was held in particularly high esteem and its grammatical refinement and expressive range were considered unattainable for the English tongue, which in turn was regarded as rudimentary and even primitive. With inflectional affixes in decline and syntactic rules not yet fixed, the English of 1600 was full of irregularities, innovations, and experiments. It readily accepted lexical inventions and loan words; especially Latinate elements were welcome. Since the standards of grammatical and lexical correctness did not evolve, it was rhetoric that regulated the patterns of textual coherence. Thus very often the unity of a passage was achieved by simple reiteration of a sound:

(58) *To die, to sleep*
To sleep, perchance to dream.

(Ham. 3.1.66—67)

In the fragment above, one can observe how a rhetorical figure based on sound repetition is used to conjoin two ideas. Another example where two sentences are linked in a similar fashion are the following lines from *Othello*:

(59) *I kissed thee ere I killed thee. No way but this:*
Killing myself, to die upon a kiss.

(Oth. 5.2.368—369)

Here, the echo of *kiss* and *kill* in the second line creates such a powerful effect that it compensates for the lack of subject in the second sentence (de Grazia, 2002, p. 62). Perhaps the most striking evidence of how sound effects can substitute syntactic links is the famous line from *King Lear*, where Lear despairs over the loss of Cordelia:

(60) LEAR: *Never, never, never, never, never!*

(Lear 5.3.307)

Although there are no grammatical relations in this line, it does nevertheless form a complete syntactic unit. It follows from the examples quoted above that at the time when fixed grammatical rules were not available, rhetorical figures based on sound repetition constituted a principal cohesive mechanism.

But it was not only the lack of normalised syntactic rules which promoted rhetoric, but also the uncertain lexical status and meaning of many words. There were no dictionaries which would regulate and codify the meanings, etymology, spelling, and usage of words at that time. The first dictionary of the English language was compiled by Robert Cawdrey in 1604, and it was published under the title *A Table Alphabeticall, containing and teaching the true writing and understanding of hard usual words borrowed from the Hebrew, Greeke, Latine, or French*. This pioneer work dealt only with a small section of English vocabulary — learned words of classical origin — and could not serve as an exhaustive reference book.

Thus, Shakespeare's contemporaries would find it difficult to notice that in a play a new meaning has been assigned to an already existing word, or a new word altogether has been coined. Because there were no standards against which such neologisms and neosemanticisms could be verified, the Elizabethan audience was not able to fully appreciate the semantic subtleties of Shakespearean wording. In such a situation they would turn their attention to properties other

than meaning — sound, rhythm, pronunciation. Also, it has to be remembered that the post-Renaissance period was the age of rapid lexical development of English. As Quirk (1971, p. 12) points out, "in Shakespeare's time there were special preoccupations — the post-Renaissance experimentation with language, a fluidity of linguistic fashion and a new literary self-consciousness on the part of writers in the vernacular." This experimentation with language, so characteristic of the 16th century, has its origin in the main objective of the Reformation, which desired for England to develop its own vernacular which would help to support its national identity. Hence the attempts to refine the language to such an extent that it could compete with Latin in its complexity, expressive range, and eloquence. Latin at that time was seen as a linguistic ideal. Its flawlessness could not be weakened as it was a dead language, and there were no native speakers who would contaminate it in everyday usage. The constant comparisons between magnificent classical literature and the English one were rather detrimental to the latter. English writers in the 16th/17th century felt that Latin had more expressive power and richer vocabulary, and thus the need to elevate the English language arose. This need may account for the influx of new words, mainly of Latin origin, which entered English at that time. However, this inflow of loanwords and neologisms was not regulated in any way. There was no supervising academy similar to the one which existed, for example, in Italy (de Grazia, 2002, p. 50). Thus one can observe an unparalleled development of lexicon on the one hand, and lack of any lexicographical accounts of English which would establish standards of pronunciation, spelling, meaning, and function of these new words on the other. This characteristic spirit of the age is yet another problem that has to be borne in mind by those who wish to investigate Shakespeare's use of language.

Finally, I would like to make a mention of one more difficulty which present-day readers have to overcome if they want to appreciate the richness and subtlety of the language in Shakespeare's plays. These are words which are obsolete, rare, or even non-existent in Modern English, and thus strange to a modern reader. One of such words is, for instance, *slubber* ("treat carelessly") in:

(61) *Slubber not business for my sake.*

(Merch. V. 2.7.39)

Another example is *eisel* ("vinear") in:

(62) *Woo't drink up eisel, eat a crocodile?*

(Ham. 5.1.271)

Frequently, it is not only a word that has fallen out of use since the Elizabethan times, but also the object that the word used to denote, as in, for example,

chopine ("a woman's overshoe with a high sole of cork covered with leather and often highly decorated") which appears in *Hamlet* (Ham. 2.2.423), or *farthingale* ("hooped petticoat") which can be found in *The Two Gentlemen of Verona* (2.7. 51) and *The Merry Wives of Windsor* (3.3.69). Shakespearean scholars (e.g. de Grazia, 2002; Quirk, 1971) do not attach great significance to the problem of entirely strange words, as such items hardly ever hinder comprehension or lead to misreading. Any doubts are easily cleared up, since a reader who encounters an unknown word while reading usually consults a dictionary.

There are several words in Shakespeare's plays, however, whose meaning and origin are so perplexing that even the most competent lexicographers have failed to define them. One famous example of such an ever-puzzling item is the word *soud* in *The Taming of the Shrew*:

(63) *Sit down, Kate, and welcome. Soud, soud, soud, soud.*
(Tam. Shr. 4.1.125)

The range of possible interpretations of this word is very wide. Some editors claim it to be a nonsense word, others maintain that it has been misspelled and they suggest emendations of various sort.

Another word which has not been satisfactorily defined yet is *scamels* (Temp. 2.2.164). Again, various emendations have been proposed, from *seamels* ("sea-gulls") to *staniels* ("inferior kind of hawk"). It has to be remembered, though, that there are only few such problematic cases in Shakespeare's plays, and the vast majority of words have been successfully explained, even if they do not constitute a part of Modern English lexicon.

5.5 Conclusion

It is hoped that all the potential problems with reading Shakespeare's works presented so far support the claim that the structural and lexical equivalence between Elizabethan English and Modern English is only apparent. Very often, the similarity holds merely between the forms of words, but not their semantic content. It is most evident in the case of the so-called semantic puns, which involve a play on words whose meaning ramifications used to be much broader in the 16th/17th century. The precise construal of Shakespeare's expressions is further thwarted by different priorities and preoccupations of Elizabethan writers and audience. The rapid development of the English lexicon, and, at the same time, the shortage of an English language dictionary contributed to the Elizabethan preference of sound over sense. In the similar manner, the lack of

standardised grammar norms promoted rhetoric, which frequently substituted syntactic relations. Overtly strange words seem to be the least problematic, as they actually make us aware of the dissimilarity between the two periods, however, it has to be borne in mind that not all of such words have been successfully defined yet. Thus linguistic as well as social knowledge of Shakespeare's day, together with what has been described by Onions (1958, p. vi) as "attitude of alertness" might give modern readers a deeper insight into the richness and subtlety of Shakespeare's use of language.

Chapter 6

Agent nouns in Shakespeare's plays

6.1 Source material and data collection

The primary source for corpus compilation has been the Arden Edition of the works of William Shakespeare. The Norton Facsimile of the First Folio of Shakespeare's plays has also been consulted to minimise the risk of misanalysis stemming from potential differences in morphological features of the sampled types in the edited version. I have deliberately disregarded the available search engines of the electronic corpora of Shakespeare's texts, since for the purpose of my analysis their drawbacks (discussed in detail in Molencki, 1999) considerably outweigh the advantages. The "traditional" method of data extraction through reading the texts, although time-consuming, proved much more reliable than computer-searching programs. All 38 Shakespeare's plays have been scrutinised for tokens of agent nouns, so as to guarantee a maximally large and diversified text sample.

Two criteria have been adopted in sampling tokens for further analysis; firstly, a given noun had to comply with the definition of an agent noun presented in detail in the section 6.2, and, secondly, only nouns of complex morphological structure have been selected. Simplex, monomorphemic forms (e.g. *king*, *poet*, *thief*) have been left out as they do not constitute the proper subjects of word-formational study. For the same reason, converted agent nouns have been disregarded as not containing overt complex morphological structure. Spelling variants of a single noun have been treated as representing different occurrences of a single type. Compound nouns with a given agentive noun have been classified as separate types.

6.2 Definition and classification of agent nouns

For the sake of my research, I have adopted a rather inclusive approach towards agency. The definition of an agent noun which I have assumed is fairly broad and general: "somebody who performs the action specified by, or connected with, the base." I have decided on such a rather general approach towards agency since it is justified by my adoption of the Cognitive Linguistics view on categorisation, in which the category membership is a matter of degree. In this way, within the category of agent nouns one might identify "better" representatives — the prototypical agents, as well as less typical representatives that do not possess all the defining features of the prototypical agents. Nevertheless, their being similar to the prototype in some respect legitimises their category membership. Thus the central element of the category of agents, that is, the prototypical agent, can be defined as a [+Human] entity that acts intentionally, has control over his action, and causes a change of state in the object of his action. Deviations from this prototypical model are also treated as agents provided that the agentive reading is contextually motivated and still more evident than any other meaning in this context (e.g. instrumental, etc.). Thus, for example, inanimate objects in metaphorical extensions (i.e. personification) will be classified as agents, despite their lack of the feature [+Human].

Moreover, adopting a prototype-semantics approach towards categorisation has allowed me to include not only the derivatives with a transparent, compositional meaning, but also those which contain some additional semantic features, like, for example, [+Habitual], [+Professional], and so forth. Although it has been assumed that a typical agent is deverbal, I have decided to incorporate into my analysis denominal formations as well (the reasons in favour of classifying noun-motivated names of doers as agents have been discussed in Chapter 4). The semantic relation between a motivating base and its derivative is somewhat different in the case of denominal agent nouns than it is in the deverbal types, and can generally be defined as "one who performs the action connected with the base noun." The exact nature of this connection differs slightly in individual instances of denominal agents, and seems to be lexically conditioned in each case.

The initial criterion for sampling agent nouns in the corpus has been based on semantics: a given noun has been categorised as an agent if it is consistent with the definition of an agent noun presented above, irrespective of its status in the synchronic word-formational system. Then, each type has been checked in the OED to establish its extent of analysability and a degree of semantic and morphological transparency.

The agent nouns which have been compiled fall into three classes organised by the criterion of analysability. A given form is considered to be analysable if it co-occurs with a simple form of the same stem and/or other derivatives

on the same stem (cf. Zbierska-Sawala, 1989; Ciszek, 2004; Fisiak, 1986). The first group is constituted by nouns that formally do not belong to the synchronic derivational system of English, although they meet the semantic criterion discussed above. Therefore, these nouns signify performers of actions, but in word-formational terms they are unanalysable borrowings: according to the OED, no potential motivating base existed in the synchronic English language.

The agents classified into the second group are analysable borrowings; hence, etymologically, they are not true derivatives, but they meet the criteria of analysability mentioned above, that is, they have transparent semantic and morphological structure warranted by the simultaneous synchronic existence of corresponding simplex forms. Since the status of such forms in the synchronic word-formational system is rather indeterminate, in my analysis they will be treated as containing transparent bimorphemic structure (such an approach has been taken by Dalton-Puffer, 1996, as well as Zbierska-Sawala, 1989).

Finally, group 3 nouns are agents formed by contemporary word-formation rules. They are thus "true" derivatives, characterised by the base plus derivational affix structure.

6.3 General corpus characteristics

Altogether, I have sampled 633 types that can be assigned the semantic role of agent in the corpus, out of which 60 are unanalysable forms, and the remaining 573 types are either analysable loanwords, or bi-morphemic derivatives. The quantitative relation is illustrated in Table 1 below:

Table 1. Total number of agent nouns in the corpus

Agent nouns	Types	Tokens
Unanalysable	60	296
Analysable	573	2246
Total	**633**	**2542**

6.4a Unanalysable agent nouns

I have sampled 60 types of "wholesale borrowings" carrying agentive meaning. Although the nouns in this group cannot be treated as Nomina Agentis in the derivational sense (they are, however, agents from the semantic point of view,

which I have adopted here as the initial criterion for categorial classification), they all have the status of derived agent nouns in the donor languages. For each noun in this group, no corresponding simplex form existed in the contemporary lexicon of English, though some of them later gained the status of analysability through backformations (as is the case, for instance, of the noun *equivocator* — the first occurrence of the verb *equivocate* was recorded in 1611).

Etymologically, the nouns under consideration are either of Latin or French origin. The borrowings directly from Latin are less numerous, and they constitute only 20% of all the types in this group. All the remaining types are loanwords from French. The etymological distribution of types and tokens is illustrated in Table 2 below:

Table 2. Unanalysable agent nouns: types and tokens

Etymology	Types	Tokens	No. of first attestations
OF	19	122	–
AF	19	86	1
F	10	69	2
L	12	20	1
Total	**60**	**297**	**4**

The relatively low number of types is accompanied by a high number of tokens and very few first attestations: only 4 types of unanalysable agents were first attested in Shakespeare's plays: *depositary* (Lear 2.2.440), *broker-between* (Troil. & Cres. 3.2.199), *scrimer* (Ham. 4.7.101), and *missive* (Macb. 1.5.6).

The frequency of occurrence is very high for some types, which suggests that to this group belong some of the most commonly used nouns. For instance, the type *traitor* is represented in the corpus by 74 tokens, the noun *messenger* has 40 tokens, *tailor* — 19 tokens, *companion* and *butcher* — 15 tokens each. The type-token relation differs with respect to the etymology of the nouns in question: the agents borrowed from Latin exhibit considerably lower token frequency than French loanwords.

Seven types belonging to this group are marked in the OED as rare or obsolete in Modern English. These are *treacher*, *missive*, *paritor*, *proditor*, *augurer*, *pantler*, and *scrimer*.

6.4b Semantic analysis

As has already been pointed out, the nouns under consideration are not "pure" agents, and as such they are characterised by some additional semantic features, like, for example, [+Professional], [+Habitual], [+Pejorative], [+Characteristic],

and so forth. Some nouns have a highly specialised, restricted meanings, and seem to be fully lexicalised, as, for example, the names of various authoritative or administrative positions or offices: *augurer*, *notary*, *cheater*, *ambassador*, *chancellor*, *paritor*. Similar in this respect are nouns which signify names of professionals: *barber*, *butcher*, *carpenter*, *cutler*, *doctor*, *tailor*, *mariner*.

Another numerous semantic class are nouns denoting a variety of court-related offices, functions, government agents, and persons in charge of various duties at court: *pursuivant*, *butler*, *harbinger*, *forager*, *pantler*, *ambassador*, *auditor*, *dominator*, *emperor*, *imperator*, *servitor*, *messenger*. Yet another semantically homogeneous group are personal terms belonging to legal nomenclature, connected either with law administration or maintenance, or, on the contrary, with law-violation: *depositary*, *broker*, *arbitrator*, *malefactor*, *mediator*, *procurator*, *proditor*, *traitor*, *tutor*, *treacher*, *truant*. A somewhat less numerous, but nevertheless uniform class is represented by persons (usually professionally) affiliated with military forces of various kinds: *archer*, *chevalier*, *scrimer*, *victor*, *warrior*.

The juxtaposition of French loanwords with direct borrowings from Latin reveals some significant differences in their semantic structures: while, as has been evidenced above, the French-descended agents are equipped with additional semantic features, and their semantic structure is not transparent with respect to their French verb-bases, the majority of loanwords from Latin can be interpreted as actual agents, paraphrasable as "one who is V-ing at the moment," where V refers either to the verb-base in Latin, or to the later backderived verb in English. Consider the examples below (glosses cited after the OED):

> *benefactor*: "a well-doer"
> *competitor*: "one who competes, or engages in a competition"
> *equivocator*: "one who equivocates"
> *expositor*: "one who sets forth in detail; a declarer, narrator"
> *ovator*: "one who takes part in spontaneous, enthusiastic welcome"
> *spectator*: "one who sees, or looks at, some scene or occurrence"
> *supervisor*: "an onlooker, spectator, observer; one who supervises"

All the agents presented above can receive an actual interpretation, where the act of performing the action is concurrent with the point of reference supplied by the context. No additional semantic features are attached, and this almost generic, context-dependent sense makes the agentive Latin loanwords closer to "pure" nominalisations, at least with respect to their semantic characteristics. Therefore, it can be concluded that Latin agent nouns exhibited a lower degree of lexicalisation than the French ones, as they seem to be semantically less incorporated into the English lexicon. This is further supported by their general semantic instability evidenced in a relatively high number of neosemanticisms introduced by Shakespeare: out of 20 tokens of Latin agent

nouns that have been sampled in the corpus, 3 are used with new meanings, while no neosemanticisms have been recorded with the French nouns, despite their much higher rates of occurrence in the corpus. Below are nouns which were semantically re-defined by Shakespeare. Sense 1 is the "traditional," established meaning of the word, while sense 2 is the new meaning first attested in Shakespeare's language. The etymology is provided in brackets:

benefactor (f. *benefacēre* "to do well"):
1. "one who renders aid or kindly service to others, a friendly helper"
2. "a well-doer" (Meas. for M. 2.1.50)

imperator (f. *imperāre* "to command")
1. "emperor, head of the state"
2. "an absolute ruler, commander" (L.L.L. 3.1.187)

supervisor (f. *supervīs*-, pa. ppl. stem of *supervidēre* "to see")
1. "a person who exercises a general direction or control over a business, a body of workmen, etc.; one who inspects and directs the work of others"
2. "an onlooker, spectator, observer" (Oth. 3.3.395)

In all the quoted instances, the new sense first attested in Shakespeare's plays is based directly on the etymology of the form. For instance, the noun *benefactor*, which is a Latin agent noun formed on the verb *benefacēre* ("to do well"), is re-introduced by Shakespeare with a new sense, "a well doer." This new sense is more general and compositional with respect to its Latin counterpart than the meaning already established. Shakespeare's meaning can be seen as a loan-translation of the Latin form. The same phenomenon of introducing "etymological" meanings can be perceived in the remaining two instances of Shakespeare's neosemanticisms. Such a semantic manipulation may lead to (or, perhaps, stem from) a gradually increasing morphological transparency of such forms, resulting in their formal decomposition into two independently occurring morphemes. The consequent analysability of the nouns under consideration is manifested in a subsequent development of backformations (e.g. *compete*, *equivocate*, *supervise*) and the concurrent isolation and extraction of *-or* as an English derivational suffix.

A frequent phenomenon observable in the unanalysable types is the polysemy of the nouns in question. Nineteen out of 60 types are used by Shakespeare in more than one meaning. In many cases, a metaphorical extension or a figurative meaning is attached to a given agent:

butcher:
1. "one whose trade is the slaughtering of large tame animals for food" (2 Hen. VI 3.1.210)

2. (fig.) "one who slaughters men indiscriminately or brutally" (John 4.2.259)

cheater:

1. "the officer appointed to look after the king's escheats" (2 Hen. IV 2.4.95)
2. (fig.) (Tit. A. 5.1.111; Merry W. 1.3.77)

gaoler:

1. "one who has charge of a jail or of prisoners in it" (Cymb. 5.4.204)
2. (fig.) (Cor. 5.1.65)

juggler:

1. "one who works marvels by the aid of magic or witchcraft; a magician, wizard" (Com. Err. 1.2.99)
2. (fig.) "one who deceives by trickery" (Mids. N. 3.2.282)

arbitrator:

1. "an arbiter" (Two Nobl. K. 1.2.114)
2. (fig.) "that which brings about a definite issue" (1 Hen. VI 2.5.28; Troi. & Cr. 4.3.225)

The meaning of some agent nouns is extended to cover instances of non-agentive reference, where an agent noun is used as a term of contempt or ridicule. Such a pejorative sense can be identified in the case of the noun *companion*, which, apart from the agentive reference "one who associates with or accompanies another" (Much Ado 1.1.72; Cymb. 5.5.21), is also used to signal a (usually negative) attitude of the speaker towards somebody involved in the event. The latter sense is applied in the fragment below:

(64) *I scorne you, scuruie Companion.*

(2 Hen. IV 2.4.132)

A similar semantic relation manifests itself in the noun *tailor*: the agentive sense "one whose business it is to make clothes" is applied in *King John* (4.2.195) and *King Henry IV Part Two* (3.2.164), but it is parallely used as a term of disparagement and ridicule in *King Lear*:

(65) KENT.: *A Taylor made thee.*
COR.: *Thou art a strange fellow, a Taylor make a man?*

(Lear 2.2.60)

In some cases, one of the meanings employed by Shakespeare is no longer operative in Modern English. Examples are *broker* and *author*, where it is only the latter sense which has survived:

broker:

1. (obs.) "a go-between or intermediary in love affairs; marriage agent" (Two Gent. 1.2.41; Tr. & Cr. 5.10.33)
2. "a middleman, intermediary, or agent" (3 Hen.VI 6.4.1)

author:

1. (obs.) "he who authorizes or instigates; the prompter or mover" (Tit. A. 1.1.435)
2. "He who gives rise to or causes an action, event, circumstance, state, or condition of things" (Ant. & Cl. 2.6.138)

Some polysemous agent nouns exhibit aspectual contrast between the senses. Thus, *auditor* is used in the sense "hearer, listener" in *Midsummer Night's Dream* (3.1.81), where it receives an actual interpretation, but expresses a habitual, professional agent in *Timon of Athens* (2.2.165). In the latter case, *auditor* means "an official whose duty is to receive and examine accounts of money in the hands of others." Similarly, *messenger* designates "the bearer of a specified message" (John 2.1.260), and as such it refers to an actual, temporary performer of the action, while no such actual reading is superimposed on the other meaning "a servant sent forward to prepare the way" (Merch. V. 5.1.117).

6.5 Analysable agent nouns

The total number of bimorphemic analysable types sampled in the corpus is 573. Twelve agent-forming suffixes have been identified, that is, *-er*, *-ess*, *-man*, *-or*, *-ster*, *-ist*, *-ian*, *-eer*, *-ary*, *-ard*, *-ar*, *-ant*.[1]

The distribution of types in the corpus and the frequency of tokens is presented in Table 3.

The detailed analysis of the relation between the type and the token frequency of a given affix and its relevance in productivity estimates will be carried out in the following sections. A preliminary glance at the figures presented in Table 3, however, already reveals significant differences between native and Latinate formatives. The Latinate suffixes (especially *-ant*, *-ian*, and *-or*) exhibit generally wider ranges of type and token frequency than the native ones. The

[1] I have disregarded affixes which derive personal nouns that not conform to the definition of an agent which I have adopted (e.g. the suffix *-ite*, in *Muscovite*, L.L.L. 5.2.121, *Nazarite*, Merry W. 1.3.35, *convertite*, A.Y.L. 5.4.19).

Table 3. Analysable agent nouns

Etymology	Suffix	Types	Tokens
Native	-er	457	1408
	-ster	4	14
	-man	32	126
Latinate	-ant	11	168
	-ar	3	107
	-ard	1	9
	-ary	1	1
	-eer	4	9
	-ian	7	62
	-ist	9	13
	-or	35	290
	-ess	12	39
Total	–	**573**	**2246**

major agent-forming suffix is *-er*. The scope of its application is unrivalled by any other formative: as many as 79% of all agentive types sampled in the corpus are derivatives in *-er*. The least common formatives are *-ard* and *-ary*. As the data obtained is too scarce to allow for any reliable generalisations, these suffixes will not be subjected to further analysis.

The remaining 10 suffixes will be examined from two perspectives. The first is the formal one, concentrating mainly on the combinatorial properties of the formative under investigation, such as the etymology and the syntactic category of its base, together with attempts to establish its current status of productivity in the synchronic word-formation system. Moreover, semantic effects of suffixation will be analysed, with the main focus on the level of specialisation and the degree of deviation from semantic transparency represented by the analysed form. The suffixes will be discussed in the declining order of type frequency.

6.5.1 The suffix *-er*

6.5.1.1 Formal analysis

The suffix *-er* is the major agent-forming morpheme, both in terms of the frequency of occurrence and the generality of application. Altogether, I have sampled 457 types of derivatives in *-er* in the corpus, 39 of which are

neologisms coined by Shakespeare (the detailed discussion of agentive neologisms in *-er* will be presented in section 6.5.1.4). In general, the types in *-er* are characterised by very low token frequency, the absolute figures presented in Table 3 being somewhat thwarted by the unusually high rate of occurrence of several nouns, for example, the type *lover* is represented by 132 tokens, *murderer* has 42 tokens, *follower* — 54 tokens. The number of hapax legomena with *-er* is very large: 62% of all types occur only once in the corpus. These quantitative aspects alone are indicative of the poductivity of the process of *-er* derivation.

Another manifestation of the productivity of agent formation by means of *-er* is the combinatorial flexibility of the suffix in question. As is illustrated in Table 4 below, *-er* is generally insensitive to the etymology of the bases, and thus is frequently found in hybrid formations:

Table 4. Etymology of the bases of *-er* agent nouns

Etymology	No. of types	Ratio (per cent)
Du	1	0.2
It	1	0.2
F	53	11.5
OF	105	22.9
AF	37	8.0
L	16	3.5
Native	244	53.3

As can be seen, native formations with *-er* constitute slightly more than a half of all the types attested in the corpus. Hybrid formations are the most frequent with bases of French origin, while derivatives motivated by Latin forms are few: there are only 16 such types (e.g. *causer*, *corrupter*, *expecter*, *injurer*, *interrupter*, *pretender*, *seducer*). Other etymologies represented in *-er* derivation are Italian (the type *manager*) and Dutch (the type *loiterer*), but their scope, as Table 4 shows, is very limited.

The suffix under consideration exhibits a strong preference for verbal bases, although nominal motivation is not totally excluded. The exact figures illustrating the distribution of the types with respect to the syntactic category of the bases are presented in Table 5 below:

Table 5. Syntactic motivation of *-er* types

Base	No. of types	Ratio (per cent)
Noun	45	9.8
Verb	412	90.2

Further morphosyntactic analysis of the sampled types reveals that both transitive and intransitive verbs could constitute an input for *-er* derivation, the

latter, however, being considerably less available. Some of the few examples of agents formed on intransitive verb-bases are: *breather* (Ant. & Cl. 3.3.21; Meas. for M. 4.4.26), *buzzer* (Ham. 4.5.90), *dieter* (Cymb. 4.2.51), *liver* (Cymb. 3.3.7; Rich. III 3.3.151), *quarreller* (Twel. N. 1.3.30), *roarer* (Temp. 1.1.16), *sleeper* (Rich. III 3.4.23; Mids. N. 4.1.85; Temp. 5.1.49).

Also, formations on inherently transitive verb-bases rarely function as fully independent derivatives; more typically, they form a compound word with their obligatory object:

bellows-mender (Mids. N. 1.2.40)
stone-cutter (Lear 2.2.56)
noise-maker (Temp. 1.1.43)
crow-keeper (Lear 4.6.87)
clock-setter (John 3.1.250)
faucet-seller (Cor. 2.1.70)
garlic-eater (Cor. 4.6.99)
law-breaker (Cymb. 4.2.75)
lie-giver (Rich. II 4.1.68)
master-leaver (Ant. & Cl. 4.9.22)
hare-finder (Much Ado 1.1.186)
fortune-teller (Com. Err. 5.1.240)

In other examples, the obligatory object is expressed by a prepositional phrase occupying the complement position within the noun phrase governed by the agentive head-noun:

bringer of joy (Mids. N. 5.1.20)
eater of broken meats (Lear 2.2.14)
borrower of the night (Macb. 3.1.26)
breaker of proverbs (1 Hen. IV 1.2.115)
curer of madmen (Tr. & Cr. 5.1.49)
finder of madman (Twel. N. 3.4.142)
maker of manners (Hen. V 5.2.267)

Further qualitative analysis of Shakespeare's agent nouns in *-er* suggests that the process was even more available in Shakespeare's epoch than it is in Modern English. That is, some of the restrictions on *-er* derivation stipulated in linguistic literature (e.g. Aronoff, 1976; Bauer, 1983; Szymanek, 1993) do not seem to have been operative in Shakespeare. For example, the blocking constraint is clearly violated by the derivative *stealer* ("one who steals," Much Ado 2.1.211). Other examples which are rather unexpected from the perspective of Modern English word-formational system are agents like *liver* ("one who lives," Cymb. 3.3.7), *breather* ("one who breathes," Ant. & Cl. 3.3.21; Meas. for M. 4.4.26), *feeler* ("one who feels," Cymb. 1.7.101), whose reference is so general that it can hardly characterise any individual.[2] The principle of avoiding

[2] Szymanek (1993) claims that agent nouns are not normally derived from verbs denoting activities common to all human beings.

homophony[3] does not seem to have been a preventive factor, either, as, for instance, the derivative *liver* ("one who lives; one who is alive," Cymb. 3.4.142) shows.

6.5.1.2 Semantic analysis

6.5.1.2.1 Deverbal agent nouns

The deverbal agents in *-er* sampled in the corpus are characterised by a high degree of semantic transparency. The majority are what Strang (1968) calls *minimal nominalisations*, that is, forms whose meaning is fully compositional. In such instances, the suffix *-er* merely nominalises the concept which would otherwise be conveyed syntactically as "one who V-es" or "one who is V-ing." Most deverbal agent nouns in the corpus are such pure nominalisations with generic, actual meanings, for example:

appearer: "one who appears" (Per. 5.3.18)
asker: "one who asks" (Cor. 2.3.204)
brabbler: "one who brabbles" (John 5.2.162)
bringer: "one who brings" (Mids. N. 5.1.20)
causer: "one who causes" (L.L.L. 4.3.317)
cherisher: "one who cherishes" (All's Well 1.3.44)
comer: "one who comes" (Merch. V. 2.1.21)
corrupter: "one who corrupts" (Twel. N. 3.1.37)
desirer: "one who desires" (Cor. 2.3.102)

A small number of agents in *-er* contain additional semantic features. One such subclass are the names of professionals or craftsmen. I have identified 24 such formations. These are:

baker (Ham. 4.5.42)
bellows-mender (Mids. N. 1.2.38)
brewer (Lear 3.3.82)
bricklayer (2 Hen.VI 4.2.37)
carder (Hen.VIII 1.2.33)
chimney-sweeper (L.L.L. 4.3.262)
cobbler (Jul. C. 1.1.21)
ditcher (Ham. 5.1.30)
knitter (Twel. N. 2.4.44)
plasterer (2 Hen.VI 4.2.122)
sail-maker (Tam. Shr. 5.1.69)
searcher (Rom. & Jul. 5.2.8)
tanner (Two Nobl. K. 2.3.46)
tinker (Two Nobl. K. 3.5.83)
tooth-drawer (L.L.L. 5.2.613)
trader (Com. Err. 1.2.12)

[3] For example, postulated by Bauer (1983).

fisher (Com. Err 1.1.115)
fuller (Hen.VIII 1.2.33)
grave-digger (Ham. 5.1.10)
hare-finder (Much Ado 1.1.186)
washer (Merry W. 1.2.4)
weaver (Two Nobl. K. 2.3.51)
wringer (Merry W. 1.2.5)
joiner (Rom. & Jul. 1.4.60)

A higher degree of lexicalisation can be assigned to the derivatives denoting various officials or servants. Such formations, however, are relatively infrequent. Altogether, I have sampled 13 such nouns:

bencher (Cor. 2.1.81)
candle-holder (Rom. & Jul. 1.4.38)
controller (Hen.VIII 1.3.67)
cup-bearer (Wint. T. 1.2.313)
gunner (Temp. 2.2.48)
pardoner (Meas. for M. 4.2.107)
process-server (Wint. T. 4.3.92)
speaker (2 Hen. IV 4.2.18)
commander (Hen. V 4.1.97)
crier (John 2.1.133)
treasurer (Ant. & Cl. 5.2.141)
shoulder-clapper (Com. Err. 4.2.37)
warder (Macb. 4.1.56)

A few derivatives in *-er* have developed contemptuous or pejorative connotations not present in their motivating verbs. These are: *foot-licker* ("a slave, a humble fawner," Temp. 4.1.219), *lifter* ("one who takes up dishonestly, a thief," Tr. & Cr. 1.2.129), *runner* ("a fugitive, a deserter," Ant. & Cl. 4.7.14), *skipper* ("one who skips; applied contemptuously to a youth," Tam. Shr. 2.1.341), *sheep-biter* ("a malicious fellow; a shifty, sneaking, or thievish fellow," Twel. N. 2.5.6).

Finally, few formations are lexicalised with specialised meanings not fully predictable from the semantic structure of their verbal bases. These are:

abuser: "one who perverts truth or abuses confidence; a deceiver or impostor" (Oth. 1.2.78)
bearer: "the possessor of any personal endowment or quality; the holder of rank or office" (2 Hen. IV 4.5.29; Tr. & Cr. 3.3.104)
breaker: "one who transgresses or violates a law, oath, convention, etc." (1 Hen. IV 1.2.132)
cobbler: "one who mends clumsily, a clumsy workman" (Jul. C. 1.1.11)
feeder: "one who eats at another's expense" (A.Y.L. 2.4.99)
leader: "one who leads a choir or band of dancers, musicians, or singers" (Much Ado 2.1.157)
prompter: "a person stationed out of sight of the audience, to prompt or assist any actor at a loss in remembering his part" (Oth. 1.2.84)
setter: "a confederate of sharpers or swindlers, employed as a decoy" (1 Hen. IV 2.2.53)
speaker: "one who speaks formally before a number of persons; one who addresses an audience" (Hen. V 5.2.166)

temporiser: "one who complies for the time, or yields to the time" (Wint. T. 1.2.302)
traveller: "one who travels abroad; one who journeys or has journeyed through foreign countries or strange places" (A.Y.L. 2.4.18)

6.5.1.2.2 Denominal agent nouns

Contrary to the deverbal formations, denominal agents in *-er* are generally characterised by a high degree of lexicalisation. A large, homogeneous group here is constituted by names of professionals and officials:

clothier (Lear 4.6.88)
collier (L.L.L. 4.3.263)
drover (Much Ado 2.1.201)
haberdasher (Hen. VIII 5.3.44)
lawyer (2 Hen.VI 4.4.35)
miller (Tit. A. 1.1.86)
saddler (Com. Err. 1.2.56)
waggoner (Tit. A. 5.2.48)
armourer (Tr. & Cr. 1.2.6)
farmer (Tam. Shr. 1.2.208)
forester (Mids. N. 4.1.102)
gardener (Oth. 1.3.322)
jeweller (All's Well 5.3.297)
pewterer (2 Hen. IV 3.2.257)
usurer (Timon 2.2.64)
warrener (Merry W. 1.4.25)
bencher (Cor. 2.1.81)
commissioner (Hen. V 2.2.61)
executioner (Cymb. 4.2.128)
gunner (Temp. 2.2.48)
scrivener (Tam. Shr. 4.4.59)
whiffler (Hen.V 5.0.12)
officer (Oth. 1.1.16)
treasurer (Ant. & Cl. 5.2.141)

Another frequent semantic relation conceptualised by denominal formations is "one who plays N" (where N refers to the base-noun): *taborer* (Temp. 3.2.149), *bagpiper* (Merch.V. 1.1.53), *trumpeter* (Cor. 1.1.115), *harper* (L.L.L. 5.2.405), *piper* (Much Ado 5.4.126).

In many cases, however, the semantic relation between the base and the referent is lexically determined, and it is difficult to render it by means of a general formula or pattern. Roughly, the formations are paraphrasable as "one who performs the action connected with the base noun." The exact connection between the base and the referent is established by the activity denoted by one of the verbs with which the base-noun in question collocates. However, in many cases the potential number of collocating verbs is very large, and it cannot be predicted which one will be activated in a given formation. Examples of such opaque derivatives are provided below:

falconer: "one who hunts with falcons" (Ham. 2.2.426)
philosopher: "a lover of wisdom" (A.Y.L. 3.2.31)

tasker: "one who imposes or sets a task" (L.L.L. 2.1.20)
confiner: "one living within the confines" (Cymb. 4.2.338)
truncheoner: "one who bears a truncheon" (Hen.VIII 5.3.49)
correctioner: "one who administers corrections" (2 Hen.IV 5.4.21)
chamberer: "one who frequents ladies' chambers" (Oth. 3.3.269)
intelligencer: "one who conveys intelligence or information" (Rich. III 4.4.71)
rhymer: "one who makes rimes or verses" (Ant. & Cl. 5.2.214)
sorcerer: "one who practices sorcery; a wizard, magician" (Com. Err. 1.2.99)
sworder: "one who kills another with a sword" (Ant. & Cl. 3.13.31)

6.5.1.3 Shakespeare's neosemanticisms in *-er*

I have identified 24 instances of Shakespeare's neosemanticisms in *-er*. Typically, the meanings introduced by Shakespeare have either been derived from special meanings of the motivating bases (as in, for example, *disposer*), or the derivative itself has been equipped with additional semantic features not present in the base itself.

In 5 instances, the meaning instituted by Shakespeare does not seem to have caught on, as it has not been recorded elsewhere. The list of such nouns together with glosses referring to the meanings introduced by Shakespeare is presented below:

buzzer: "a private obtruder of tales" (Ham. 4.5.90)
conveyer: "a nimble or light-fingered thief" (Rich. II 4.1.247)
encounterer: "one who meets another half-way" (Tr. & Cr. 4.5.58)
skipper: "one who skips or jumps, applied contemptuously to a youth" (Tam. Shr. 2.1.110)
squarer: "one who quarrels; a contentious person" (Much Ado 1.1.82)

Further 5 senses can be tagged as rare and obsolete — their use did not extend beyond the 17th century. Such instances are quoted below together with the dates of last recorded citations and the overall number of attestations (in brackets):

commoner: "a prostitute" (All's Well 5.3.194) last att.: 1695 (2)
entertainer: "one who admits to consideration" (Temp. 2.1.17) last att.: 1612—1615 (2)

proceeder: "one who advances or makes progress" (Tam. Shr. 4.2.11) last att.: 1607—1612 (2)
sojourner: "a guest or lodger; a visitor" (Per. 4.2.149) last att.: 1660 (3)
waggoner: "a driver of a chariot" (Tit. A. 5.2.48) last att.: 1638 (6)

The remaining senses introduced by Shakespeare proved more long-lasting and were employed, with varying frequency, up to the mid-19th century, or at least this is the date of the last occurrence of the sense recorded in the OED. Many of those formations are still in current use (*executioner*, *forerunner*, *house-keeper*, *philosopher*):

carrier: "a bearer of a message, letter, etc." (Tit. A. 4.3.86) last att.: 1857 (5)
depender: "one who depends on sth" (Cymb. 1.6.58) last att.: 1827 (3)
disposer: "one who disposes of sth" (Tr. & Cr. 3.1.95) last att.: 1893 (4)
executioner: "one who puts another to death" (Rich. III 1.2.186) last att.: 1840 (5)
forerunner: "one whom another follows or comes after" (John 2.1.2) last att.: 1866 (5)
house-keeper: "a woman engaged in housekeeping or domestic occupations" (Cor. 1.3.55) last att.: 1859 (5)
intruder: "one who thrusts himself in in an encroaching manner or without invitation or welcome" (Tit. A. 2.3.65) last att.: 1876 (4)
rejoicer: "one who causes rejoicing" (Two Nobl. K. 5.1.121) last att.: 1834 (2)
tasker: "one who imposes or sets a task" (L.L.L. 2.1.20) last att.: 1827 (3)
chamberer: "one who frequents ladies' chambers" (Oth. 3.3.269) last att.: 1863 (3)
philosopher: "a lover of wisdom" (A.Y.L. 3.2.31) last att.: 1871 (4)
pleader: "one who pleads, entreats, or intercedes" (Cor. 5.1.36) 1884 (4)

6.5.1.4 Shakespeare's agentive neologisms in *-er*

The productivity and generality of agent derivation by means of *-er* is nowhere better reflected than in neologisms. This is why a separate section has been devoted to the formal and semantic analysis of Shakespearean coinages in *-er*. A given form is considered to be a Shakespearean coinage if the first citation of the word by the OED is ascribed to him.

The total number of neologisms under consideration is 39. As Table 6 below demonstrates, the novel formations in *-er* are to a great extent heterogeneous in terms of their etymological composition. Slightly more than a half of all the derivatives are motivated by native bases, but there is also a considerable amount of hybrid formations, especially on French bases — altogether, the agents motivated by bases of French origin (OF, AF, and F) constitute 35.8% of all the coinages in *-er*. There are also four types derived directly from Latin bases.

Table 6. Shakespeare's neologisms in *-er*: the etymology of bases

Etymology	Number of types	Ratio (per cent)
OF	6	15.3
AF	1	2.5
L	4	10.2
It	1	2.5
F	7	17.9
Native	20	51.2

Although the suffix can combine with syntactically disjunctive bases, Shakespeare's coinages exhibit strong preference for verbal motivation. Only 7.6% of all the types under scrutiny are denominal formations. The figures are presented in Table 7 below:

Table 7. Shakespeare's neologisms in *-er*: syntactic categories of bases

Syntactic category	No. of types	Ratio (per cent)
Verbs	36	92.3
Nouns	3	7.6

6.5.1.4.1 Shakespeare's agentive neologisms in *-er*: Semantics

Most deverbal agentive neologisms in *-er* introduced by Shakespeare are fully transparent formations, paraphrasable as "one who V-es." Such a semantic characteristics can be identified in the following derivatives: *appearer*, *boggler*, *breather*, *breeder*, *candle-holder*, *cheerer*, *confirmer*, *counter-caster*, *employer*, *fortune-teller*, *injurer*, *intercepter*, *interposer*, *king-killer*, *manager*, *opposer*, *pauser*, *plodder*, *ratifier*, *torturer*, *undeserver*, *waverer*, *thunder-bearer.*

Only three derivatives contain an additional semantic feature [+Professional]: *hare-finder*, *perfumer*, and *rat-catcher*. Denominal coinages are semantically more opaque:

> *truncheoner*: "one who bears a truncheon" (Hen. VIII 5.3.49)
> *correctioner*: "one who administers corrections" (2 Hen. IV 5.4.21)
> *sworder*: "one who kills another with a sword" (2 Hen. VI 4.1.135)

6.5.1.4.2 Shakespeare's agentive neologisms in *-er*: Institutionalisation

A longitudinal survey of Shakespearean *-er* coinages reveals that the majority have been institutionalised, and some, like *employer* and *manager*, further lexicalised with more specialised meanings. Seven neologisms maintained the status of nonce-formations, not having been recorded elsewhere. These are the following agent nouns: *boggler*, *candle-holder*, *correctioner*, *counter-caster*, *pauser*, *moraler*, *perfumer*. The noun *protester* coined by Shakespeare with the sense "one who makes a protestation" remains the only citation in this meaning. The formation does recur in various works of literature up to 1976, but it has been employed in different senses than the primary, Shakespearean one.

6.5.2 The suffix *-or*

The forms in *-or* present a number of problems for formal analysis. Firstly, most nouns terminating in *-or* sampled in the corpus have a rather unclear word-formational status; they are synchronically analysable, but it is possible to argue that the forms are whole-word borrowings of Latinate origin. Also, in many cases there is an attested by-form in *-er:*

sailer — sailor
conquerer — conqueror
contributer — contributor
correcter — corrector
counseller — counsellor
exhibiter — exhibitor
purveyer — purveyor
possesser — possessor
oppresser — oppressor
jailer — jailor
inventer — inventor
governer — governor

In such situations, the formative *-or* might be treated as a rival of *-er*, introduced into the English morphological system as a consequence of the contemporary Latinising fashion, or, alternatively, *-or* in such cases might be considered a spelling variant of the native suffix *-er*. However, the diachronic research which I have conducted reveals that in many such cases *-or* is the etymological form, later temporarily replaced by *-er* (as in *possessor* — the form *possesser* is first attested in 1794, or *detector* — the form *detecter* is first attested in 1755).

The arguments in favour of treating the aforementioned forms as complex words with the suffix *-or* are, firstly, the homogeneous etymological and prosodic features of the bases (all but *sailor* are Latinate and multisyllabic), and secondly, the occurrence of *-or* in new formations, two of which are first attested in Shakespeare (*implorator* and *substractor*). Therefore, the status of *-or* as a synchronic word-formational suffix seems to be confirmed by its occurrence in neologisms, which licences the analysis of forms in *-or* as complex, provided that they meet the criterion of synchronic analysability. Such an attitude will be tentatively taken here.

In the corpus, I have attested 35 types of agents in *-or*. The types are characterised by a high token frequency: altogether, the number of tokens amounts to 290.

6.5.2.1 Formal analysis

With the exception of the noun *sailor* (which is a rather doubtful case of *-or* derivation, since it is most often regarded[4] as the altered spelling of the form *sailer*), all the forms in *-or* are motivated by Latinate bases. As much as 40% are nouns based on forms borrowed directly from Latin, 57% are motivated by French bases (though in many cases there is an indirect Latin motivation). The etymological preferences of *-or* are shown in Table 8:

Table 8. The suffix *-or*: etymological motivation

Etymology	No. of types	Ratio
F	0	0.0
OF	9	25.7
AF	11	31.4
L	14	40.0
Native	1	2.8

[4] For example, in the OED.

Syntactically, *-or* is the most frequent with verbal bases. Denominal motivation is less available, but not totally excluded. The exact figures derived from the corpus analysis are presented in Table 9 below:

Table 9. The suffix *-or*: syntactic motivation

Base	No. of types	Ratio (per cent)
Noun	4	11.4
Verb	31	88.5

6.5.2.2 Semantic analysis

A relatively large number of nouns in *-or* is characterised by a transparent semantic structure. Especially the forms motivated directly by Latin verbs are highly compositional:

conspirator: "one who conspires; one engaged in a conspiracy" (Jul. C. 3.2.237)
protector: "one who protects" (Rich. III 3.4.74; Per. 1.2.80)
emulator: "one who emulates" (A.Y.L 1.1.150)
innovator: "one who innovates" (Cor. 3.1.175)
inventor: "one who invents" (Ham. 5.2.390)
possessor: "one who possesses" (Merch. V. 1.3.69)
executor: "one who executes or carries out" (Temp. 3.1.13)

Many nouns denote names of professionals:

jailor: "one who has charge of a jail or of the prisoners in it; a jail-keeper" (Cymb. 5.4.204)
counsellor: "one whose profession is to give legal advice to clients, and conduct their cases in court" (Meas. for M. 1.2.109)
governor: "one who has charge of a young man's education and occupations; a tutor" (1 Hen. VI 1.1.171)

There are also names of persons holding various offices or functions:

confessor: "one who hears confessions: a priest who hears confessions of sins" (Rom. & Jul. 3.3.49)
surveyor: "one who has the oversight or superintendence of a person or thing; an overseer, supervisor" (2 Hen. VI 3.1.253)

Some nouns have developed special senses, to a large extent unpredictable from their morphological make-up:

> *survivor*: "one of two or more designated persons, esp. joint-tenants or other persons having a joint interest, who outlives the other or others" (Cor. 5.6.19)
> *visitor*: "one who visits from charitable motives or with a view of doing good" (Temp. 2.1.11)

Some nouns occur in the corpus with more than one meaning. Thus, for instance, *actor* is used in the sense "one who personates a character, or acts a part; a stage-player" (Rich. II 5.2.24), and also with an actual, generic meaning first attested in Shakespeare: "one who acts, or performs any action, or takes part in any affair; a doer" (Meas. for M. 2.2.37). The noun *counsellor* exhibits ambiguity between the transparent sense employed in *Winter's Tale* (2.3.55) and a professional term in *Measure for Measure* (1.2.109). A similar case is the noun *executor*, which has a transparent semantic structure in *The Tempest* (3.1.13), and functions as a professional term in *Henry V* (1.2.203). The noun *governor* occurs in the corpus in three different senses, two of which are now obsolete, that is, "the commander of a company, esp. an armed force" (Oth. 2.1.55), and "one who has charge of a young man's education and occupations; a tutor" (1 Hen. VI 1.1.171), and there is also the third, general sense "one who governs" identifiable in *Merchant of Venice* (3.2.167).

Two more cases of neosemantisation (apart from the noun *actor* discussed above) are *visitor*, which has been redefined by Shakespeare as "one who pays a visit to another person or to a household" (Timon 1.1.42), and *detector*, which in turn has been semantically narrowed by Shakespeare to refer to "somebody who finds out what is artfully concealed, or which tends to elude observation" (Lear 3.5.14). Both senses have been active up to the 19th century, the dates of last attestations being, respectively, 1871 and 1840.

Apart from the neosemanticisms, there are two Shakespeare's neologisms in *-or*: *substractor* ("a detractor, calumniator," Twel. N. 1.3.37), and *implorator* ("one who implores," Ham. 1.3.129). Both, however, are nonce-formations — there are no further attestations of any of these nouns according to the OED.

6.5.3 The semi-suffix *-man*

The analysis of the forms with the element *-man* can be carried out from two different perspectives. In most studies devoted to morphological typology

(Marchand, 1969; Jespersen, 1927) such forms are treated as N+N compounds, the element *-man* thus being assigned a status of a free lexical morpheme. On the other hand, it can be argued that *-man* is a suffix, or, at least, a semi-suffix, the change of status from free to bound being the result of the process of morphologisation, as was the case with, for example, *-ly*, *-ship*, *-ful*, or *-hood*. The latter view is expressed in Dalton-Puffer (1994, p. 52), who writes that "MAN […] shows signs of gaining suffixoid status in the Shakespeare material." A similar opinion is expressed in Wolff (1984, p. 90), who convincingly argues for *-man* to be categorised as a semi-suffix.

Henceforth, I will thus take a stand on a semi-suffixal categorisation of *-man*, the chief reason being the semantics of the sampled forms. Firstly, the element *-man* has a slightly different reference than the homophonous lexical noun *man*, the former being generic and referring to a person rather than an adult male human being. Also, the semantic structure of forms in *-man* is comparable to the derivatives with the suffix *-er*. Actually, many forms in *-man* are synonymous with those in *-er*, for example:

> *huntsman*: "a man who hunts; a hunter" (Mids. N. 4.1.145)
> *horseman*: "one who rides on horseback; a rider" (Jul. C. 5.3.29)
> *shipman*: "a sailor" (Tr. & Cr. 5.2.172)
> *watchman*: "one who keeps vigil; a watcher" (1 Hen. VI 3.1.66)
> *workman*: "a skilled worker" (John 4.2.28)

There are also instances where a single verbal base motivates two different forms, for example, *shearman* ("one who shears woollen cloth" 2 Hen. VI 4.2.141) and *shearer* ("one who removes fleece from animals" Wint. T. 4.3.44).

I have sampled 32 types with *-man* which conform to the definition of an agent that I have adopted. The number of occurrences is relatively high for few types (e.g. *churchman*: 13 tokens, *hangman*: 21 tokens, *horseman*: 13 tokens, *servingman*: 10 tokens), while for the majority of nouns the token frequency is rather low, with 15 types being hapax legomena in the corpus. There is one neologisms in *-man*: the type *pleaseman*.

6.5.3.1 Formal analysis

The semi-suffix *-man* exhibits a strong preference for native motivation. Only three types are motivated by non-native bases: *journeyman* (which stands out semantically, as it is non-transparent, meaning: "one who drudges for another"

Ham. 3.2.37), *pleaseman* ("one who pleases," which is Shakespeare's nonce-formation in *Love's Labour's Lost* 5.2.463), and *servingman*. As can be seen, the French-motivated forms are somehow marked and cannot be regarded as typical representatives of *-man* derivation.

Syntactically, most formations are denominal, but there can also be identified several deverbal and very few deadjectival nouns. The etymological and syntactic motivation is illustrated below in Tables 10 and 11, respectively:

Table 10. The semi-suffix *-man*: etymological motivation

Etymology	No. of types	Ratio (per cent)
F	0	0.0
OF	3	9.3
AF	0	0.0
L	0	0.0
Native	29	90.6

Table 11. The semi-suffix *-man*: syntactic motivation

Base	No. of types	Ratio (per cent)
Noun	26	81.2
Verb	4	12.5
Adjective	2	6.2

In many denominal formations the genitive case marking has been retained: *beadsman*, *craftsman*, *deathsman*, *headsman*, *herdsman*, *huntsman*, *radesman.*

The deverbal formations also exhibit some untypical grammatical features. The noun *spokesman*, for instance, is based on the irregular preterite form of the verb *speak*. Two formations, *servingman* and *singingman*, are motivated by gerund forms functioning as participial adjectives.

6.5.3.2 Semantic analysis

Semantically, the formations in *-man* are similar to the denominal agents in *-er*, in that they fail to establish the exact relationship between the base and the referent. The most numerous group in the corpus are nouns denoting "one connected with profession or office":

> *bellman*: "a man employed to go round the streets of a town and make public announcements" (Macb. 2.2.3)

churchman: "a man of the church; a clergyman" (2 Hen. VI 2.1.25)
clergyman: "a man of the clerical order" (Rich. III 3.7.95)
deathsman: "one who puts another to death, executioner" (Lear 4.6.263)
hangman: "a man whose office is to hang condemned persons" (Oth. 1.1.34)
headsman: "one who beheads, an executioner" (All's Well 4.3.342)
slaughterman: -"one whose work or occupation it is to kill cattle, etc. for food" (Hen. V 3.3.41)
-" one who kills or slays; an executioner" (Tit. A. 4.4.58)
shipman: "a seaman or sailor" (Tr. & Cr. 5.2.172)

Another frequent semantic pattern is "one who uses or is skilled in the use of an implement, device, equipment, etc.":

ploughman: "one who follows and guides the plough" (L.L.L. 5.2.892)
horseman: "one skilled in riding and managing a horse" (Wint. T. 4.3.64)
drayman: "a man who drives a dray" (Tr. & Cr. 1.2.270)
carman: "a man who drives a car; a carter" (Meas. for M. 2.1.252)
markman: "one skilled in shooting or aiming at a mark" (Rom. & Jul. 1.1.212)

Some derivatives may be generally defined as "a trader in or a manufacturer of an article:

silkman: "one who deals in silk" (2 Hen. IV 2.1.31)
tradesman: "one who is engaged in trade or the sale of commodities" (Co. 4.6.8)

I have identified two instances of Shakespeare's neosemantisation with *-man*. The first case is the noun *huntsman*, employed by Shakespeare with the new meaning "the manager of a hunt; a man whose business is to take charge of the hounds and direct the pursuit of game" (Tam. Shr. 1. Induct. 1.16). Another Shakespearean neosemanticism is the form *headsman* with the sense "one who beheads; an executioner" (All's Well 4.3.342). Both senses survived up to the 19th century, the dates of the last attestations being, respectively, 1883 and 1814.

In general, the nouns in *-man* denote habitual rather than actual agents and thus refer to types rather than tokens. Basically, their semantic function is to relate an individual named by the *-man* form to the category or class of persons to which she or he belongs. Therefore, it seems that the primary role of *-man* formation is labelling.

6.5.4 The suffix *-ess*

The type frequency of formations in *-ess* is rather low — altogether, I have attested only 12 derivatives with this suffix. The number of occurrences of the sampled types is also relatively small, with the total number of tokens amounting to 39. As has often been the case with the derivatives discussed in the previous sections, also here the total number of tokens is distorted by their uneven distribution — the type *hostess* is represented by 14 tokens, which constitutes 36% of the total token frequency. Three types are Shakespeare's neologisms (*votress*, *cloistress*, *jointress*). In quantitative terms, then, the productivity of *-ess* derivation is rather limited. The qualitative aspects of *-ess* suffixation will be dealt with in the subsequent sections.

6.5.4.1 Formal analysis

The most available for *-ess* suffixation are nominal bases of French origin. The suffix can also form hybrids — there are two types where *-ess* is appended to the base of native origin (*huntress*, *shepherdess*). One type is motivated by a Latin form (*votress*). The etymological distribution of types is presented in Table 12 below:

Table 12. The suffix *-ess*: etymological motivation

Etymology	No. of types	Ratio (per cent)
F	0	0.0
OF	8	66.7
AF	1	8.3
L	1	8.3
Native	2	16.6

As far as syntactic motivation is concerned, all types in the corpus are denominal. The nominal bases can be both simplex (as in *hostess*, *shepherdess*, *prophetess*) and multimorphemic (*huntress*, *governess*, *protectress*, *jointress*). The complex bases are most frequently the agentive nouns in *-er* or *-or*.

In cases where the suffix in question is appended to a complex nominal base, there can be observed the syncope of the weak vowel in the base suffix *-er*/*-or*, which is reflected on the orthographic level:

huntress — f. hunter, n. + *-ess*
jointress — f. jointer, n. + *-ess*
protectress — f. protector, n. + *-ess*

The form *votress* (f. votary, n.) is a spelling variant of the noun *votaress*, formed by the syncope of the stem vowel on the analogy with nouns like *huntress* or *protectress*. In the form *governess* (f. governer, n.) the whole suffix *-er* undergoes truncation, possibly to avoid the phonetically awkward cluster of a liquid followed by a nasal followed by another liquid.

Table 13. The suffix *-ess*: syntactic motivation

Base	No. of types	Ratio (per cent)
Noun	12	100
Verb	0	0
Adjective	0	0

6.5.4.2 Semantic analysis

Semantically, the nouns in *-ess* constitute one of the most uniform classes. Invariably, all derivatives in *-ess* denote female performers of actions. The semantic characteristics of such formations can be generally rendered as "a female N," where N refers to the nominal base, or, alternatively, "a woman who V-es," where V refers to the motivating verbal base:

huntress: "a female hunter; a woman who hunts" (A.Y.L. 3.2.4)
governess: "a woman who governs" (Mids. N. 2.1.103)
adulteress: "a woman that commits adultery" (Wint. T. 2.1.78)
protectress: "a female protector" (Oth. 4.1.14)

The polysemy of the forms in *-ess* is a frequent phenomenon in the corpus. One such case is the noun *hostess*, which denotes "a woman that lodges and entertains guests" in *Macbeth* (1.6.10), and a slightly different, occupational sense can be identified in *Henry IV*: "a woman who keeps a public place of lodging and entertainment" (1 Hen. IV 2.4.305). Similarly, the noun *prophetess* is polysemous with the meanings:

1. "a woman who prophesies" (1 Hen. VI 1.4.102)
2. "a woman who foretells events" (Rich. III 1.3.301)

Three forms in *-ess* were first attested in Shakespeare: the form *votress* (Mids. N. 2.1.123), which, however, is just a spelling variant of the form *votaress* and as such can hardly be considered an agentive neologism, *jointress* ("a widow who holds a jointure" Ham. 1.2.9), and *cloistress* ("a female tenant of a cloister" Twel. N. 1.1.28). Both *jointress* and *cloistress* have French motivation. While the neologism *jointress* recurred in the English language up to the year 1892, the form *cloistress* remains a nonce-formation not recorded elsewhere.

Despite the aforementioned restricted generality, the process of *-ess* derivation seems fairly productive in Shakespeare. The factors which are conducive to such a conclusion are the high availability of the process, the ability of *-ess* to form hybrids, the semantic transparency of the outcoming derivatives, and the high ratio of neologisms (compared to the total number of types).

6.5.5 The suffix *-ant*

The suffix *-ant* exhibits a low type frequency accompanied by a high rate of occurrence of individual types. In the corpus, I have sampled 11 types, which are represented by 168 tokens. The type *servant* is particularly common, with its 122 attestations, but other types are also frequent (e.g. *suppliant* has 6 tokens, *attendant* — 15 tokens, *appellant* — 5 tokens). There is one Shakespeare's neologism in *-ant*: the type *guardant*.

6.5.5.1 Formal analysis

All the formations in *-ant* are motivated by French bases. No instances of hybrid formations, where the affix would be appended to the base of native origin, have been identified. The etymological motivation is presented in detail in Table 14 below:

Table 14. The suffix *-ant*: etymological motivation

Etymology	No. of types	Ratio (per cent)
F	9	81.8
OF	2	18.2
AF	0	0.0
L	0	0.0
Native	0	0.0

Syntactically, all the formations in *-ant* are motivated by verbal bases. This is illustrated in Table 15:

Table 15. The suffix *-ant*: syntactic motivation

Base	No. of types	Ratio (per cent)
Noun	0	0
Verb	11	100
Adjective	0	0

6.5.5.2 Semantic analysis

The nouns in question follow two main semantic patterns. The first one are agentive terms referring to various acts of hostilities, struggle, or military action:

appellant: "one who challenges another to single combat" (2 Hen. VI 2.3.49)
assailant: "he who assails" (A.Y.L. 1.3.116)
combatant: "one who combats; a fighter" (2 Hen. VI 2.3.95)

The other, more numerous group, is constituted by nouns whose semantic structure is such that the underlying subject of the clause which undergoes the nominalisation transformation is in a kind of subservient position with respect to the theme. The formations in this group most frequently denote individuals who render various sorts of services, protection, or assistance:

attendant: "one who waits upon, accompanies, or follows another in order to render service" (Oth. 4.3.8)
servant: "a person of either sex who is in service of a master or a mistress" (Two Gent. 2.4.104)
suppliant: "one who supplicates" (Rich. III 1.1.74)
assistant: "one who gives help to a person, or aids in the execution of a purpose" (Rom. & Jul. 2.4.86)

The type *defendant* ("the party who defends," Merch. V. 4.1.361) has a more specialised sense, but in general is in line with the pattern outlined above.

I have identified two cases of neosemantisation in the corpus, both of which semantically accord with the group discussed above:

dependant: "a person who depends on another for support, position, etc." (L.L.L. 3.1.134)
observant: "a dutiful or attentive servant or follower" (Lear 2.2.109)

The latter sense, however, quickly became obsolete. The last attestations of the meanings introduced by Shakespeare are, respectively, 1875 and 1632.

Apart from the neosemanticisms, there is also one instance of Shakespeare's coinage in *-ant*:

guardant: "keeper, protector" (1 Hen. VI 4.7.9)

This neologism proved rather short-lasting in the diachronic perspective, having been recorded for the last time in 1632.

In general, the formations in *-ant* are characterised by a low degree of semantic transparency. This feature, together with the low type frequency accompanied by a relatively high token frequency and the incompatibility of the suffix with native bases allows to hypothesise that the productivity of *-ant* was rather low. The only new formation attested in Shakespeare (the aforementioned *guardant*) is formed on the French base, thus it can hardly be taken as an indication of the suffix's productivity. Moreover, the neologism does not seem to have been accepted by the language community, the word ceasing to be used as early as in 1632.

6.5.6 The suffix *-ist*

The forms with the suffix *-ist* are rather infrequent across the corpus: altogether, I have attested 9 types. The token frequency of the sampled types is very low — most formations are hapaxes, and the total number of tokens in *-ist* is 13. In the corpus, there are 5 Shakespeare's neologisms in *-ist* (*duellist*, *linguist*, *militarist*, *questrist*, *votarist*).

6.5.6.1 Formal analysis

The suffix exhibits a strong preference for Latinate bases. Most types have either a direct Latin motivation or an indirect Latin motivation via French. The proportion is illustrated in Table 16:

Table 16. The suffix *-ist*: etymological motivation

Etymology	No. of types	Ratio (per cent)
F	4	44.4
OF	2	22.2
AF	0	0.0
L	3	33.3
Native	0	0.0

One type, *linguist* (f. lingua, n. + *-ist*), is an especially noteworthy formation, as it is derived from a Latin noun not lexicalised in English. The formal analysis of the derivatives in *-ist* reveals that the suffix combines with syntactically disjunctive bases. The most typical type of syntactic motivation is denominal, but there is also one deverbal formation (the type *exorcist*) and two deadjectival derivatives (the types *militarist* and *martialist*). The figures are presented in Table 17 below:

Table 17. The suffix *-ist*: syntactic motivation

Base	No. of types	Ratio (per cent)
Noun	6	66.6
Verb	1	11.1
Adjective	2	22.2

Two types in *-ist* are formed on morphologically complex bases already containing one personal suffix: *questrist* (f. quester + *-ist*) and *votarist* (f. votary + *-ist*). A remarkable aspect of *-ist* derivation represented in the corpus is the high ratio of Shakespeare's neologisms: five out of the total of nine types are contributed to Shakespeare. The Shakespearean formations in question are:

duellist (f. duel, n. + *-ist*)
linguist (f. lingua, n. + *-ist*)
militarist (f. military, a. + *-ist*)
questrist (f. quester, n. + *-ist*)
votarist (f. votary, n. + *-ist*)

A comprehensive coverage of the semantic aspects of the aforementioned neologisms will be given in the subsequent section.

6.5.6.2 Semantic analysis

The basic designations that can be identified in the attested *-ist* formations are:
a) a person who practices some art or method:

alchemist: "one who studies or practices alchemy" (Timon 5.1.117)
exorcist: "one who exorcizes; one who calls or pretends to call up spirits by magical rites" (Jul. C. 2.1.323)
duellist: "one who fights duels, or practices duelling" (Rom. & Jul. 2.4.33)

b) a person who prosecutes, studies, devotes himself, or is skilled in, some science or a branch of knowledge:

martialist: "a military man; one skilled in warfare" (Two Nobl. K. 2.1.16)
militarist: "a warrior; one who studies military science" (All's Well 4.3.161)
linguist: "one who is skilled in the use of languages" (Two Gent. 4.1.57)

c) occupational terms:

artist: "a professor of the healing art; a medical practitioner, physician" (All's Well 2.3.10)

Two types, both of which are Shakespeare's neologisms, are semantically distinct from the patterns discussed above: *votarist*, meaning "a votary" (Meas. for M. 1.5.5), and *questrist*, meaning "one who goes in quest of another" (Lear 3.7.17). The latter neologism remains a nonce-formation: this is the only attestation of the noun in the OED. The remaining four Shakespeare's formations in *-ist* proved more long-lasting and reappeared in various literary works up to the mid-19th century.

In general, the low level of lexicalisation reflected in the low token frequency of the types in *-ist*, and the high ratio of neologisms allow to speculate that the suffix was productive in forming agent nouns in Shakespeare.

6.5.7 The suffix *-ian*/*-ician*

I have attested merely 7 types with the suffix *-ian*/*-ician*.[5] The suffix, however, exhibits a high token frequency: altogether, I have sampled 62 occurrences of *-ian* forms in the corpus. I have sampled one Shakespeare's neologism in *-ian* (the type *comedian*).

[5] The suffix *-ician* is sometimes treated (e.g. in the OED) as a compound suffix consisting of *-ic* and *-ian*, hence the decision to subsume both *-ian* and *-ician* under one section.

6.5.7.1 Formal analysis

Etymologically, all the attested formations have French motivation. No hybrid formations have been identified:

Table 18. The suffixes *-ian*/*-ician*: etymological motivation

Etymology	No. of types	Ratio (per cent)
F	4	57.1
OF	2	28.6
AF	1	14.3
L	0	0.0
Native	0	0.0

Syntactically, all the nouns in *-ian* are denominal. Most typically, *-ian* is suffixed to names of sciences or arts terminating in *-ic*. Conversely, it can be claimed that the forms *magician*, *musician*, *physician*, *politician* contain the compound suffix *-ician*. The quantitative aspects of syntactic motivation are presented in Table 19 below:

Table 19. The suffix *-ian*: syntactic motivation

Base	No. of types	Ratio (per cent)
Noun	7	100
Verb	0	0
Adjective	0	0

The noun *comedian* is the only neologism in the corpus as far as *-ian* formation is concerned.

6.5.7.2 Semantic analysis

The attested formations in *-ian* designate:
a) persons skilled in the art or science denoted by the base-noun:

magician: "one skilled in magic or sorcery" (Rich. III 1.2.34)
musician: "one skilled in the science or the practice of music" (Oth. 4.1.199)
physician: "one who practices the healing art" (Macb. 5.1.82)

b) persons who perform in a specific dramatic genre denoted by the base-noun:

comedian: "one who plays in comedies" (Twel. N. 1.5.194)
tragedian: "a stage-player who performs in tragedy" (Ham. 2.2.342)

The noun *guardian* is used in the corpus in a general sense "one who guards, protects" (Macb. 2.4.35). The noun *politician*, on the other hand, is non-transparent, having a contemptuous sense "a shrewd schemer; a crafty plotter or intriguer" (1 Hen. IV 1.3.241).

The low type frequency of the *-ian*/*-ician* formation accompanied by its high token frequency, together with the restricted combinatorial properties (i.e. limited to the bases of French origin) and a relatively high degree of semantic specialisation of the outcoming formations indicate that the suffix in question was rather unproductive in forming agent nouns.

6.5.8 The suffix *-ster*

The scarcity of the collected material with the native suffix *-ster* seems to suggest that the suffix played a minor role in Shakespearean agent formation. There are as few as 4 types in *-ster*, the number of tokens amounting to 14. No Shakespearean neologisms in *-ster* have been identified.

6.5.8.1 Formal analysis

The suffix attaches to bases of native origin. The typical syntactic motivation is denominal, although the type *spinster* is, according to the OED, formed on the verbal base. The etymological and syntactic motivation is presented in Tables 20 and 21 below:

Table 20. The suffix *-ster*: etymological motivation

Etymology	No. of types	Ratio (per cent)
F	0	0
OF	0	0
AF	0	0
L	0	0
Native	4	100

Table 21. The suffix *-ster*: syntactic motivation

Base	No. of types	Ratio (per cent)
Noun	3	75
Verb	1	25
Adjective	0	0

The suffix is not only infrequent, but also not active in Shakespearean word-formation: no coinages in *-ster* have been identified.

6.5.8.2 Semantic analysis

Despite its scarcity, the data collected confirms the claim expressed by Nevalainen (1999) that the original function of *-ster* to form feminine performers of actions in the period of Early Modern English has been restricted to male agent nouns, mainly with pejorative senses. Only the noun *spinster* has retained its original, feminine designation "a woman who spins (professionally)" (Twel. N. 2.4.44; Hen. VIII 1.2.33). The other two occupational terms in *-ster* have either male or generic reference:

tapster: "a man who draws the beer for the customers in a public house" (Merry W. 1.3.17; L.L.L. 1.2.41)
sempster: "one who sews; one whose occupation is sewing" (Two Noble K. 3.5.45)

The type *gamester* is characterised by a high level of polysemy in Shakespeare's plays. I have identified five different senses, some of which are generic in terms of reference, some refer exclusively to men while other exclusively to women. Though some senses are neutral connotatively, most tokens have a derogatory connotative meaning. The five senses of the noun *gamester* are glossed below:

1. "one who plays at any game" (Merry W. 3.1.36; Hen. V 3.6.112)
2. "a joker" (Hen. VIII 1.4.45)
3. "a gambler, adventurer" (Tam. Shr. 2.1.393)
4. "male prostitute" (L.L.L. 1.2.42)
5. "female prostitute" (Per. 4.5.80)

In general, the small quantity of formations in *-ster* suggests that the suffix was not productive in Shakespeare's word-formation. This is further supported by the lack of new derivatives with this suffix and the relatively high degree of semantic specialisation of the sampled forms.

6.5.9 The suffix *-eer*

The suffix *-eer* is very infrequent across the corpus: there are only 4 types represented by 9 tokens. However, the suffix plays an active role in Shakespearean word-formation: 2 out of the total of 4 types are Shakespeare's coinages: *mountaineer* (f. mountain, n. + *-eer*) and *mutineer* (f. mutine, n. + *-eer*).

6.5.9.1 Formal analysis

All the attested types are motivated by bisyllabic nouns of French etymology. The suffix seems to exhibit a preference for nouns ending in a lateral liquid or a voiceless alveolar stop. This, however, needs to be checked against a more expansive data. For the sake of clarity, the etymological and syntactic properties of the bases of *-eer* forms are presented in Tables 22 and 23 below:

Table 22. The suffix *-eer*: etymological motivation

Etymology	No. of types	Ratio (per cent)
F	3	75
OF	1	25
AF	0	0
L	0	0
Native	0	0

Table 23. The suffix *-eer*: syntactic motivation

Base	No. of types	Ratio (per cent)
Noun	7	100
Verb	0	0
Adjective	0	0

6.5.9.2 Semantic analysis

The claim that most coinages in *-eer* of the period are derogatory (Nevalainen, 1999) does not find confirmation in my data. On the contrary, the formations

in *-eer* represent a variety of different senses established by a notoriously unclear semantic relation holding between a nominal base and the derivative. Thus, the noun *muleteer* (f. mulet, n. + *-eer*) denotes "the driver of a mule" (1 Hen. VI 3.2.68), while *cannoneer* (f. cannon, n. + *-eer*) is used in the sense "an artilleryman who manages the laying and firing of a cannon" (Ham. 5.2.273; John 2.1.461). Shakespeare's neologisms in *-eer*, *mountaineer* and *mutineer* denote, respectively, "a dweller amongst mountains" (Temp. 3.3.44) and "one who revolts against the authority of a superior" (Temp. 3.2.40). Both formations established themselves in the English lexicon and were repeatedly attested up to the middle of the 19th century.

It seems, then, that, despite the low frequency of occurrence, the suffix *-eer* was fairly productive, which is evidenced in a relatively high ratio of new attestations (compared to the total number of sampled types).

6.5.10 The suffix *-ar*

The status of *-ar* in the corpus is rather problematic. I have sampled only 3 types in *-ar* (*beggar*, *liar*, *scholar*), which are, however, represented by a very high number of tokens (total: 107). This implies that the attested forms are lexicalised, and thus the suffix is not productive, at least as far as Shakespeare's word-formation is concerned. There are no new formations in *-ar*, which further supports this assumption. Moreover, it is possible that in all the attested forms *-ar* is the spelling variant of the native suffix *-er*, as for each noun in *-ar* there is a corresponding, synonymous form in *-er* (*beggar — begger*, *liar — lier*, *scholar — scholer*). The change of spelling from *-er* to *-ar* is probably due to the Latinising fashion discussed in Chapter 5.

6.6 Conclusion

In the concluding section of the analytic part of my study, I will present a brief recapitulation of the morphosyntactic and semantic features of the collected types and relate those to their systemic and functional status. For the sake of the clarity of exposition, the formal features of the attested agentive suffixes will be reviewed in Table 24.

Table 24. Agentive suffixes in the language of Shakespeare's plays: summary

Etymology	Corpus characteristics				Etymology of bases					Syntactic category of bases		
	suffix	types	tokens	no. of neologisms	Du	It	F, OF, AF	L	native	N	V	Adj
Native	-er	457	1408	39	1	1	195	16	244	45	412	0
	-ster	4	14	0	0	0	0	0	4	3	1	0
	-man	32	126	1	0	0	3	0	29	26	4	2
Latinate	-ant	11	168	1	0	0	11	0	0	0	11	0
	-ar	3	107	0	–	–	–	–	–	–	–	–
	-eer	4	9	2	0	0	4	0	0	4	0	0
	-ian	7	62	1	0	0	7	0	0	7	0	0
	-ist	9	13	5	0	0	6	3	0	6	1	2
	-or	35	290	2	0	0	20	14	1	4	31	0
	-ess	12	39	2	0	0	9	1	2	12	0	0

Several observations can be made from the contrastive quantitative aspects of suffixation presented in Table 24, such as the generality and the availability of the process under investigation, its combinatorial preferences, its productivity reflected in such aspects as the number of new formations, the type-token relation, and the occurrence in hybrid formations. The semantic aspects of derivation discussed in detail in Chapter 6 should lend an additional support for the claims presented below.

As is evidenced in the analysis, the major agent-forming suffix in Shakespeare is the native *-er*. Its generality represented by the high type frequency, and its availability evidenced in an unconstrained etymological and syntactic motivation is unrivalled by any other formative. No other suffix exhibits such an indiscriminate selectional properties as far as the etymology of the bases is concerned. Also, no other suffix is to such an extent insensitive to the syntactic aspects of motivation. The suffix *-er* is also the most readily employed by Shakespeare in new formations, at least in quantitative terms.

However, if one takes into consideration the relational aspects of productivity, like, for example, the relation of the number of new formations with a given affix to the total number of types with that affix, then the high productivity of the Latinate *-ist* becomes evident. The formations in *-ist* have a very high rate of neologisms — the quotient of new formations to the total number of types of all the words formed by *-ist* is .55, while the same value for *-er* derivation in the corpus equals .08. Unlike *-er*, however, *-ist* is not found in hybrid formations. As far as syntactic motivation is concerned, *-ist* is the only Latinate suffix which combines with three lexical categories: nouns, verbs, and adjectives.The remaining native formatives, *-ster* and *-man*, are rather unproductive in Shakespeare. The suffix *-ster* is not used at all by Shakespeare to coin new agentive nouns, and, in general, it is very infrequent across the corpus. Furthermore, it does not combine with foreign bases. The semi-suffix *-man* also exhibits a low degree of productivity (the quotient of the number of new formations to the total number of types for *-man* is .03) and a high level of lexicalisation and semantic specialisation of the sampled types. What is noteworthy in *-man* derivation in the corpus is that the Shakespearean neologism in *-man* is formed on a French verbal base, which, as far as my analysis is concerned, is rather an unusual pattern, since *-man* exhibits a strong preference for nouns of native origin.

As far as the Latinate suffixes are concerned, it is apparent from my analysis that apart from the aforediscussed *-ist*, also the suffix *-ess* was highly productive. Two out of the total of 12 types are Shakespearean coinages (which, using the formula again, gives the quotient .16). Also, *-ess* is the only Latinate suffix which forms hybrids (apart from the dubious case of *sailor*, the hybrid with *-or*). Two out of 12 types are based on native lexical elements. Shakespeare's coinages in *-ess*, however, are all based on French

nouns. The agentive derivation in *-ess* is characterised by a high degree of semantic transparency and regularity. It can be stated that the formations in *-ess* are fully compositional.

Another Latinate suffix whose properties are indicative of productivity is *-eer*. Here, however, the possible conclusions are constrained by the insufficient amount of data. In general, the ratio of the number of new formations to the total number of types is very high (.5), but it cannot be deemed reliable as the type frequency of forms in *-eer* is very low. Semantically, the nouns in *-eer* are unpredictable, which is characteristic of all denominal derivatives.

The suffixes which are unproductive in Shakespearean agent formation are *-ant* and *-ian*. The suffix *-ant* has very few types, which are, in turn, represented by a large number of tokens. The type-token frequency relation, accompanied by a semantic specialisation of the types, is indicative of the high degree of lexicalisation of the forms in *-ant*. The suffix is not found with native bases. There is one Shakespearean neologism in *-ant*, but since it has a French motivation, it cannot be taken as a sign of the productivity of the suffix in question.

Similarly, the suffix *-ian* shows hardly any signs of productivity in Shakespeare. The high token frequency may be suggestive of lexicalisation. All the bases are of French origin, including the Shakespearean neologism.

As far as *-ar* and *-or* are concerned, it seems that the former did not enjoy the status of an independent formative, and should rather be seen as a Latinising spelling variant of the native *-er*. The *-or*, however, seems to have functioned as a distinct suffix, deriving agent nouns mostly on Latin verbal bases. I have identified two Shakespearean neologisms in *-or*, both motivated by Latin verbs.

Semantically, the sampled nominalisations represent a wide variety of senses, stretching from the fully compositional, transformational ones at the one end of the cline, to the highly specialised, unpredictable meanings on the other. The nouns with the highest degree of morphosemantic transparency are the formations in *-er*, and also the Latin-motivated stock of the derivatives in *-or*. Among these types, one can identify pure nominalisations, whose chief function is to maintain the cohesion of a passage. Such derivatives do not contain any additional semantic features, and they seem to have been readily employed by Shakespeare as they provide a metrically convenient condensation of meaning otherwise conveyed syntactically. Also, such pure nominalisations are used by Shakespeare in a deictic function, helping to establish an anaphoric reference within the text. The majority of Shakespeare's coinages in *-er* are such transparent, minimal formations. The Latinate suffixes, on the other hand, are employed by Shakespeare to derive nouns whose main function is to provide designations for extralinguistic entities. Such a role is evidenced in formations with the suffixes *-ist* and *-ess*. Here, the Shakespearean derivatives act as labels

which characterise the individuals denoted by them. There is, thus, the aspectual difference between the native *-er* and the most productive Latinate suffixes *-ist* and *-ess*, such that the former can derive actual agents, while the latter ones form agents mostly with habitual meaning.

Conclusions

The major aim of the present work has been to provide a comprehensive synchronic account of Shakespearean agent nouns. I have also devoted a substantial part of the monograph to the problems connected with adopting an appropriate model which could serve as a functional, conceptual and empirical framework covering the complex interrelations of the formal and semantic properties of nominalisations. Since, as has been demonstrated, none of the currently proposed theories is inclusive enough to encompass all the difficulties connected with the morphosemantic description and the categorial classification of derived agent nouns, I have adopted a rather eclectic approach whose core constitutes the prototype-semantics attitude towards graded category membership. The tenets of TGG and GS, on the other hand, have proved valuable in the exploration of the formal and semantic aspects of agentive nominalisation.

I have also made an attempt at establishing productivity values for the suffixes under consideration. Different attitudes towards both the operationalising of the notoriously vague notion of productivity, as well as the methods of measuring it have been discussed. Special emphasis has been placed on those suggestions which can be profitably applied to the data extracted from historical corpora. Of all the presented methods, I have selected the productivity estimate based on the quotient of Shakespearean neologisms to the total number of types, as this allows to eliminate the distortions caused by a very high token frequency of individual types. This calculation, together with the evaluation of the degree of semantic transparency of a given suffix, its occurrence in hybrid formations, as well as its general frequency and availability, has constituted the major components taken into consideration in estimating the degree of productivity of a given suffix.

As is evidenced in the analysis, the suffixes which enjoyed the highest status of productivity in Shakespeare's word-formation were the native *-er* and the Latinate suffixes *-ist* and *-ess*. The suffix *-er* was the most frequently used

by Shakespeare in an anaphoric role, where it functions as a mere nominaliser that does not induce any manipulation in the semantic relation between the base and its referent. The lexical effect of *-er* suffixation in such cases is the coining of the actual, temporary agents with the meaning "one who V-es/is V-ing at the moment." A somewhat different function of nominalisation can be identified in the case of *-ist* and *-ess* formation: the Shakespearean coinages in *-ist* and *-ess* act primarily as labels which characterise the person designated by the noun in question.

It has to be stressed, however, that Shakespeare exploited almost the whole inventory of agent-forming suffixes. Apart from *-er*, *-ist*, and *-ess*, there are also Shakespearean lexical innovations in *-man*, *-ant*, *-eer*, *-ian*, and *-or*. No Shakespearean neologism in the native *-ster* has been identified. The suffix in general was infrequent across the corpus.[1] Shakespeare also seems to have neglected the generally productive native semi-suffix *-man*: there is only one neologism attested in all 38 plays, in spite of the overall high frequency of the *-man* formations in the corpus.

An opposite relation can be observed in the case of the Latinate suffix *-ist*. The suffix was highly productive in the parole sense of the word, that is, it was heavily exploited by Shakespeare to form agentive neologisms. However, the general type and token frequency of *-ist* formations is very low.

A similar correlation between a low type frequency and a comparatively high ratio of neologisms holds in *-eer* derivation. A half of all the attested types are Shakespearean neologisms.

Foreign suffixes which are the least productive are *-ant* and *-ian*. Each is represented by one neologism and a small number of semantically specialised types with the very high frequency of occurrence in the corpus. The element *-ar*, it seems, is a termination representing a Latinising spelling alternation of *-er*/*-ar*.

[1] A tentative reason for the unproductivity of *-ster* might be that the rival native suffix *-er* has taken over denominal agent formation in generic senses, while the French *-ess* was adopted to form feminine agents formerly conveyed by *-ster* derivation.

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Appendix
Shakespeare's agentive neologisms

all-seer: "one who sees all" (Rich. III 5.1.20)
appearer: "one who appears" (Per. 5.3.18)
boggler: "one who boggles or hesitates" (Ant. & Cl. 3.13.110)
breather: "he who breathes" (Ant. & Cl. 3.3.24)
breeder: "that who breeds or produces offspring" (Tit. A. 4.2.68)
candle-holder: "one who holds a candle; an attendant or assistant who lights those who are engaged in any work or ceremony by night" (Rom. & Jul. 1.4.38)
cheerer: "one who cheers" (Hen. V 5.2.41)
cloistress: "a female tenant of a cloister" (Twel. N. 1.1.28)
comedian: "one who plays in comedies" (Twel. N. 1.5.194)
confirmer: "one who confirms" (John 3.1.24)
correctioner: "one who administers corrections" (2 Hen. IV 5.4.21)
counter-caster: "one who casts with counters" (Oth. 1.1.31)
cutter-off: "one who cuts off" (A.Y.L. 1.2.53)
duellist: "one who fights duels, or practices duelling" (Rom. & Jul. 2.4.33)
employer: "one who employs" (Much Ado 5.2.31)
fortune-teller: "one who tells fortunes" (Com. Err. 5.1.239)
gibbet-maker: "one who makes gibbets" (Tit. A. 4.3.79)
guardant: "keeper, protector" (1. Hen. VI 4.7.9)
gull-catcher: "one who catches gulls" (Twel. N. 2.5.204)
hare-finder: "a man whose business is to find or espy a hare in form" (Much Ado 1.1.186)
implorator: "one who implores" (Ham. 1.3.29)
injurer: "one who injures" (John 2.1.174)
intercepter: "one who intercepts" (Twel. N. 3.4.242)
interposer: "one who interposes" (Merch. V. 3.2.329)
jointress: "a widow who holds a jointure" (Ham. 1.2.9)
king-killer: "one who kills a king" (Timon 4.3.382)
linguist: "one who is skilled in the use of languages" (Two Gent. 4.1.57)

manager: "one who manages (something specified)" (L.L.L. 1.2.188)
militarist: "a warrior; one who studies military science" (All's Well 4.3.161)
moraler: "a moralizer" (Oth. 2.3.294)
mountaineer: "a dweller amongst mountains" (Temp. 3.3.44)
mutineer: "one who revolts against the authority of a superior" (Temp. 3.2.40)
night-brawler: "one who brawls during the night" (Oth. 2.3.196)
opposer: "one who opposes" (All's Well 3.1.6)
pauser: "one who pauses" (Macb. 2.3.117)
perfumer: "one employed to fumigate or perfume rooms" (Much Ado 1.3.60)
pleaseman: "man-pleaser" (L.L.L. 5.2.463)
plodder: "one who plods" (L.L.L. 1.1.186)
protester: "one who makes a protestation or a solemn affirmation" (Jul. C. 1.2.74)
questrist: "one who goes in quest of another" (Lear 3.7.17)
rat-catcher: "one whose business is to catch rats" (Rom. & Jul. 3.1.78)
ratifier: "one who ratifies" (Ham. 4.5.105)
rumourer: "one who disseminates rumours" (Cor. 4.6.47)
sin-absolver: "one who absolves sins" (Rom. & Jul. 3.3.50)
substractor: "a detractor, calumniator" (Twel. N. 1.3.37)
sworder: "one who kills another with a sword" (2 Hen. VI 4.1.135)
thunder-bearer: "the bearer of thunders" (Lear 2.4.230)
torturer: "one who inflicts or causes torture" (Rich. II 3.2.198)
truncheoner: "one who bears a truncheon" (Hen. VIII 5.4.49)
underskinker: "a tapster" (1 Hen. IV 2.4.26)
undeserver: "one who is not deserving (of sth)" (2 Hen. IV 2.4.406)
votarist: "a votary" (Meas. for M. 1.5.5)
votress: "a female votary" (Mids. N. 2.1.125)
waverer: "one who wavers" (Rom. & Jul. 2.3.89)

Aleksandra Kalaga

Nomina agentis w języku dramatów Williama Szekspira

Streszczenie

Niniejsza praca stanowi formalną i semantyczną analizę morfologicznie złożonych nazw wykonawców czynności w języku sztuk Williama Szekspira. Celem pracy jest wyodrębnienie formantów derywacyjnych kategorii *nomen agentis* oraz oszacowanie ich produktywności na podstawie relacji ilościowej typów i konkretnych przykładów, stopnia przejrzystości semantycznej, występowania w funkcji anaforycznej oraz tworzenia nowych formacji o znaczeniu agentywnym.

Praca składa się z sześciu rozdziałów. Rozdział pierwszy przedstawia problematykę związaną z opisem nominalizacji w obecnie najszerzej stosowanych modelach badań językoznawczych, takich jak gramatyka tranformacyjno-generatywna, semantyka generatywna czy językoznawstwo kognitywne. Celem tej części rozprawy jest wypracowanie modelu teoretycznego, który pozwoli na najpełniejszy opis badanych jednostek słowotwórczych.

Rozdział drugi podejmuje kwestię produktywności w badaniach słowotwórczych. Autorka omawia proponowane w literaturze językoznawczej metody mierzenia produktywności, ze szczególnym uwzględnieniem problemów odnoszących się do szacowania stopnia produktywności danego procesu w badaniach historyczno-językowych. Poruszane są również zagadnienia związane z zależnością między produktywnością danego procesu i jego frekwencją i dostępnością oraz stopniem jego semantycznej leksykalizacji.

Rozdział trzeci stanowi opis trudności związanych z przynależnością kategorialną. Zacierające się granice między kategoriami derywacyjnymi, jak na przykład między wykonawcami a środkami czynności, wymagają szczególnej metodologii badawczej.

Autorka podejmuje próbę wykorzystania do tego celu teorii prototypu, gdzie przynależność do kategorii ustalana jest na zasadzie siatki krzyżujących się podobieństw, a sama struktura wewnętrzna kategorii cechuje się wielopoziomowością i hierarchicznością.

Rozdział czwarty przedstawia dalsze problemy odnoszące się do typologii w ramach kategorii *nomen agentis*. Okazuje się bowiem, że samo pojęcie agensa cechuje się wieloznacznością i jest różnie definiowane przez różnych badaczy. W rozdziale tym omówione są także wyróżniki formalne agensów, jak również najbardziej produktywne sposoby ich tworzenia we współczesnym języku angielskim.

Rozdział piąty niniejszej dysertacji jest wprowadzeniem do epoki języka Williama Szekspira. Przedstawione są pokrótce najważniejsze cechy morfologiczne i składniowe okresu elżbietańskiego. Najwięcej uwagi poświęca Autorka zmianom semantyczno-leksykalnym, jakie zaszły w języku angielskim od XVI wieku, które to zmiany mogą utrudniać prawidłowe odczytanie języka Szekspira.

Rozdział szósty to część empiryczna dysertacji. Autorka poddaje analizie formalnej i semantycznej leksemy o znaczeniu agentywnym występujące w korpusie sztuk Szekspira. Szczególny nacisk kładziony jest na frekwencję i efekt semantyczny danego afiksu w neologizmach. Autorka śledzi również proces neosemantyzacji nazw wykonawców czynności.

Aleksandra Kalaga

Nomina Agentis in der Sprache William Shakespeares Dramen

Z u s a m m e n f a s s u n g

Die vorliegende Abhandlung ist eine formale und semantische Analyse der morphologisch zusammengesetzten Bezeichnungen für handelnde Personen in der Sprache Williams Shakespeares Dramen. Sie bezweckt, die Derivationsaffixe aus der Kategorie *Nomina Agentis* abzutrennen und deren Produktivität anhand des Mengenverhältnisses von Typen und konkreten Beispielen, des semantischen Klarheitsgrades, des Auftretens in der Funktion einer Anapher und der Bildung von neuen Bildungen mit Treibkraft zu schätzen.

Die Arbeit besteht aus sechs Kapiteln. Das erste von ihnen schildert die Nominalisierung an solchen heutzutage am häufigsten angewandten Modellen der sprachwissenschaftlichen Forschungen, wie: transformations-generative Grammatik, generative Grammatik, kognitive Sprachwissenschaft. Sein Zweck ist es, ein solches theoretisches Modell zu entwickeln, das die vollständigste Beschreibung der zu untersuchten wortbildenden Einheiten möglich macht.

Das zweite Kapitel befasst sich mit der Produktivität in Wortbildungsforschungen. Die Verfasserin behandelt die in der sprachwissenschaftlichen Fachliteratur vorhandenen Methoden, die Produktivität zu beurteilen und dabei die Probleme in Betracht zu ziehen, die die Beurteilung des Produktivitätsgrades von einem bestimmten Prozess in sprachgeschichtlichen Forschungen angehen. Sie geht auch ins Detail folgender Fragen: die Wechselbeziehung zwischen der Produktivität eines bestimmten Prozesses, dessen Frequenz, Verfügbarkeit und dem Grad dessen semantischen Lexikalisierung.

Das dritte Kapitel schildert die mit der Kategorienangehörigkeit verbundenen Schwierigkeiten. Die verschwimmenden Grenzen zwischen den einzelnen Derivations-

kategorien, wie z.B.: zwischen den Agentia und den Handlungsmitteln, erfordern einer besonderen Forschungsmethodologie. Die Verfasserin versucht zu diesem Zwecke die Theorie des Prototyps anzuwenden, wo die Angehörigkeit einer bestimmten Kategorie als ein Netz von den sich überschneidenden Ähnlichkeiten dargestellt ist und die innere Struktur der Kategorie vielschichtig und hierarchisch ist.

Im vierten Kapitel werden die die Typologie im Bereich der Kategorie *Nomina Agentis* betreffenden Probleme erörtert. Es zeigt sich nämlich, dass der Begriff „Agens" vieldeutig ist und von verschiedenen Forschern unterschiedlich definiert wird. In dem Kapitel bespricht die Verfasserin außerdem formale Agentia-Charakteristika, als auch die produktivsten Methoden deren Bildung in gegenwärtiger englischer Sprache.

Das fünfte Kapitel ist eine Einführung in die Epoche William Shakespeares Sprache. Berührt werden hier die wichtigsten morphologischen und syntaktischen Eigenschaften des elisabethanischen Zeitalters. Die größte Aufmerksamkeit schenkt die Verfasserin den in der englischen Sprache seit dem 16.Jahrhundert stattgefundenen semantisch-lexikalischen Änderungen, welche eine richtige Interpretation Shakespeares Sprache schwer machen können.

Das sechste Kapitel ist empirischer Teil der Abhandlung. Die Verfasserin untersucht die im Textkorpus Shakespeares Dramen auftretenden, formalen und semantischen Lexeme mit Treibkraft. Sie hebt vor allem die Frequenz und den semantischen Effekt des bestimmten Affixes in den Neologismen hervor. Verfolgt wird hier auch die Neu-Semantisierung der Bezeichnungen für handelnde Personen.

More about this book

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