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This work deals mainly with questions of English word-formation, and more specifically with questions of non-affixational derivation, with special reference to those phenomena which are called ‘extra-grammatical’ (Dressler & Merlini Barbaresi, 1994; Doleshal & Thornton, 2000). The analysis conducted here has a basic aim: it intends to provide a sort of categorization of word-formation processes considered of extra-grammatical nature, and to differentiate them from those included within grammatical morphology. The fundamental and central topic of this work is indeed the detailed analysis and description of all extra-grammatical phenomena, which are nowadays very frequent and productive in Contemporary English.

English is a language with a huge lexicon, which appears to be very dynamic in terms of new accessions, involving a large variety of word-formation techniques. Nowadays, it has increasingly come into world-wide use and is undergoing a great pressure towards new coinages capable of covering advances in all sectors, and this has stimulated a new interest in word-formation processes, those grammatical, such as derivation and compounding, and those extra-grammatical, such as abbreviations, blending, reduplication, back-formation and others. Extra-grammatical phenomena have been so far excluded by many scholars from their studies on morphology (Spencer, 1991; Haspelmath, 2002), since they are considered irregular processes from the point of view of grammar, or marginalized as minor cases (Aronoff, 1976; Scalise, 1984). Although they are often confined to a marginal branch of morphology and considered borderline mechanisms as compared to regular grammatical ones, extra-grammatical formations are receiving more and more attention and interest within the literature. We can mention a number of studies on these processes, though, each of them deals with extra-grammatical phenomena only partially and specifically. In the majority of cases, scholars
prefer to investigate extra-grammatical formations separately, for instance, Bat-El (1996; 2000; 2006; 2011) and Algeo (1977) focus on blends, Kreidler (1979) on shortening devices, Thun (1969) and Dienhart (1999) on reduplication. In other cases, we find studies describing extra-grammatical processes together with grammatical ones (Marchand, 1969; Bauer, 1983; Adams, 2001; Ronneberger-Sibold, 2008). However, these are studies which treat these phenomena briefly and not exhaustively. For all these reasons, our primary aim is to put together the various phenomena and to derive criteria for their definition and description both individually and in general.

This work is organized into 6 chapters. Chapter 1 is a cursory introduction to the main theories which are relevant for us to draw a clear definition of extra-grammaticality, and also to distinguish this concept from others often conflated with it. Firstly, we illustrate the main differences between grammatical and extra-grammatical morphology (Dressler & Merlini Barbaresi, 1994; Doleshal & Thornton, 2000), and then we also take into exam other two branches of morphology: marginal (Spencer, 1991; Doleshal-Thornton, 2000) and expressive morphology (Zwicky & Pullum, 1987). Lastly, we focus our attention on extra-grammatical phenomena within two major morphological theories, i.e. Natural Morphology (Dressler, 1987; 1999; 2005) and Generative Morphology (Aronoff, 1976).

Chapter 2 introduces the extra-grammatical process of abbreviations, distinguishing between three phenomena, namely, clippings, acronyms and initialisms. These phenomena are treated together because they all exhibit the same fundamental characteristic, that is they are all shortening devices. This chapter, in particular, is divided into five main sections. In section 2, irregularities of clippings, acronyms and initialisms are identified (Bauer, 1983; Dressler & Merlini Barbaresi, 1994; Ronneberger-Sibold, 2008), and then each phenomenon is studied individually, in order to clarify their definition, classification and formation patterns. Specifically, section 3 is dedicated to the process of clipping (Kreidler, 1979; Bauer, 1983; Katamba, 1994; Plag, 2003), and section 4 to acronyms and initialisms (Bauer, 1983;
Chapter 3 is organized into four main sections and deals with the extra-grammatical phenomenon of blending. After a brief introduction of the blending process (section 1), in section 2 we focus on the definition and classification of blends (Algeo, 1977; Soudek, 1978; Bauer, 1983; Lehrer, 1996; Ronneberger-Sibold, 2006). Section 3, instead, deals with the distinction between blends and other word-formation processes, either grammatical, i.e. compounding, clipped compounds, neoclassical compounds and combining forms (Bauer, 1983; Cannon, 1989; Ronneberger-Sibold, 2006), or extra-grammatical, i.e. acronyms (Cannon, 1989; Danks, 2003). Section 4 investigates the recurring patterns of formation, and section 5, the preferential criteria of formation (Bat-El, 2000; 2006; Lehrer, 1996; 2007; Hong, 2004; Ronneberger-Sibold, 2006).

Chapter 4 introduces the redundant phenomenon of reduplication, differentiating it from abbreviations and blends, where a reduction of some kind is involved. In section 2, we determine the definition and classification of reduplicatives, dedicating also a section to reduplicative onomatopoeias (Thun, 1963; Minkova, 2002; Merlina Barbaresi, 2008). Then, section 3 studies reduplication as an extra-grammatical process identifying its main features and violations of grammatical rules (Dressler & Merlina Barbaresi, 1994; Doleshal & Thornton, 2000; Merlina Barbaresi, 2008). Section 4 deals with the recurring patterns of formation for reduplicatives, and, in section 5, we illustrate what are the preferential criteria of formation (Thun, 1963; Dienhart, 1999).

Chapter 5 investigates the so-called ‘marginal phenomena’, i.e. those processes which are considered of minor importance, because they are less productive and used than others, and because they cannot always be clearly
defined as extra-grammatical. These borderline phenomena are: backformation, infixation and phonaesthemes. Section 2 investigates backformation, which is classified and defined as an extra-grammatical process to all intents and purposes (Aronoff, 1976; Bauer, 1983). Section 3 introduces English infixation, a phenomenon usually spread in informal language among young people and teenagers, which is considered by some scholars (Zwicky & Pullum, 1987) an example of ‘expressive’ rather than of extra-grammatical morphology. Lastly, in section 4, phonaesthemes are described as a special recurring phenomenon of sound symbolism (Bolinger, 1968; McCrum, 2001; Hunter-Smith, 2007).

The last chapter of this work, chapter 6, is devoted to the contextualization of all types of extra-grammatical formations within different contexts of use. In this specific case, we analyze extra-grammatical phenomena in general according to three fundamental principles, i.e. the principle of informality, economy and naming. Hence, this chapter is organized into three main sections. Section 2 deals with the principle of informality, which appears to be the most important for extra-grammatical formations, since they are very often exploited in informal language. This section is sub-divided into further parts, since the aspect of informality comprises many distinctive traits and functions to describe, i.e. social closeness (6.2.1), jocularity and playfulness (6.2.2), freshness and novelty (6.2.3), musicality (6.2.4). Section 3 introduces the principle of economy, examining in particular the case of abbreviations, blends and back-formations as economical devices. The principle of naming is treated in section 4 with specific reference to acronyms and initialisms, which mostly exhibit this aspect. In this last chapter, we will provide extracts and examples from either colloquial oral contexts (e.g. movies and TV series scripts, corpora, Internet forums and chats) or written contexts (e.g. newspaper and magazine headlines, scientific and technical articles).

By way of summing up, this study is an attempt to explore in detail English extra-grammatical operations. Furthermore, it intends to make a contribution to the debate concerning the locus that non-affixational word-formation processes
like abbreviations, blends, reduplicatives, back-formations, etc. occupy within English morphology, although many morphologists tend to marginalize and exclude them from their studies.
1.1 Introduction

Morphology, in general, is a branch of linguistics which comprises many heterogeneous phenomena and mechanisms. Some of them are considered part of grammatical morphology, and others, instead, lie outside of it for many different reasons, and are therefore considered part of what is called ‘extra-grammatical morphology’ (Dressler & Merlini Barbaresi, 1994: 36). This work, in particular, represents an attempt to identify and describe all those phenomena which are felt to be extra-grammatical in nature and which exhibit, as we will see, a number of characteristics which set them apart from any other regular process. Consequently, our primary aim, in this first chapter, is to provide an overview of extra-grammatical morphology and to isolate and specify what scholars, especially Dressler & Merlini Barbaresi (1994) and Doleshal & Thornton (2000) mean by this term.

The term ‘extra-grammatical morphology’ was firstly used by Dressler & Merlini Barbaresi (1994) to name a set of heterogeneous phenomena which are considered irregular in that they violate many properties of grammatical morphology. Many phenomena falling under the label ‘extra-grammatical’ are, actually, widespread, productive and frequent, especially among groups of young people or in specific contexts of use. Blends, for example, tend to be used as attention getters, e.g. in advertising, newspaper or magazine headings, and general marketing, whereas acronyms are more often used as space-saving devices in SMS texting and the Internet, but also in more formal texts, such as specialized terminology and jargon. However, despite their current frequency
of use in Contemporary English, these unconventional formations cannot be considered part of grammatical morphology for a number of reasons. In particular, they cannot be predicted by any traditional word-formation rule (Aronoff, 1976; Scalise, 1984). A distinction between grammatical and extra-grammatical morphology is in order here.

This chapter is organized into three main parts. Section 2 mainly takes into exam the differences between grammatical and extra-grammatical morphology. In particular, we will define grammatical morphology by identifying and describing regular morphological processes and their rules of formation. Then, extra-grammatical morphology will be negatively defined as the opposite of morphological grammar, in order to draw a clear-cut distinction between the former and the latter. In addition, other two types of morphology - namely marginal morphology (Doleshal & Thornton, 2000) and expressive morphology (Zwicky & Pullum, 1987) - will be introduced and likewise discriminated from extra-grammatical morphology. This further differentiation appears to be necessary at this point, since, in some cases, expressive or marginal formations are mistakenly felt as extra-grammatical. Sections 3 and 4 are both attempts to investigate how extra-grammatical phenomena are treated within two main morphological theories, i.e. Natural Morphology (Dressler et al., 1987; Dressler, 2005) and Generative Grammar (Aronoff, 1976; Scalise, 1984). In section 3, specifically, we will try to recognize and describe extra-grammatical processes and formations on the basis of the parameters and principles of Natural Morphology; whereas, in section 4 we will try to illustrate the place occupied by extra-grammatical phenomena within Generative Morphology, in order to underline the marginal role that these phenomena play as compared with regular ones.
1.2 Grammatical vs. Extra-grammatical Morphology

1.2.1 Grammatical Morphology

According to Dressler & Merlini Barbaresi (1994: 39), grammatical morphology mainly consists of “categories, rules (or processes) expressing or manipulating them, and principles governing rules”. Basically, it concerns all regular word-formation processes which operate by applying word-formation rules. According to the Oxford English Dictionary (OED), the term ‘grammatical’, indeed, means “conforming to the rules of grammar or usage accepted by native speakers”, and this, actually, represents the key watershed between grammatical and extra-grammatical phenomena. One of the fundamental characteristics that differentiate grammatical phenomena from extra-grammatical ones is that the former have to be related to morphological structures governed by grammatical rules. The rules of word-formation are rules for generating words which may be stored in the lexis of a language. They are part of the grammar of that language and may make reference to other components, such as the phonological, syntactic and semantic properties of words (Aronoff, 1976: 46). These rules specify a set of words on which they can operate, and according to such an assumption, morphological rules cannot operate on anything different from words, i.e. on free morphemes. Moreover, since rules only derive meaningful words from meaningful bases, meaningless morphemes cannot serve as bases for any such rules. Indeed, Aronoff (1976: 21) claims that “all regular word-formation processes are word-based; a new word is formed by applying a regular rule to a single already existing word; both the new word and the existing one are members of major lexical categories”. According to this word-based theory, English words such as deceive, receive and conceive, for example, cannot be considered formations of regular derivation, since the base *ceive is not an existing word which belongs to a major lexical category. However, not just the starting bases are lexical existing words, but also the results of a regular process applying word-formation rules are always lexical and morphological items\(^1\). Therefore, for all

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\(^1\) Preferably words or stems, but also roots and lexicalised phrases (Dressler, 2005).
these reasons and characteristics, phenomena\(^2\) which are not governed by these rules must be considered outside grammatical morphology and then classified as extra-grammatical.

On the basis of the above description and explanation of morphological rules, now we are able to identify which processes are governed by these rules and, consequently, belonging to grammatical morphology. There are at least three types of morphological grammatical processes: inflection, derivation and compounding. The distinction between these regular morphological processes is sometimes elusive, but nonetheless very important. Inflection is defined as purely part of grammar and morphological rules of inflection produce word forms necessary for syntactic constructions and expressing grammatical meaning (Dressler & Merlini Barbaresi, 1994 : 40-41). On the other hand, derivation and compounding are part of word-formation, and morphological rules of word-formation, in general, produce new words (in the case of derivation) or relate existing words (in the case of compounding). Thus, grammatical morphology basically comprises all those phenomena and operations that are governed in their formation by regular morphological rules (Dressler & Merlini Barbaresi, 1994 : 39). Inflection, in particular, is viewed as encompassing the grammatical markers, since it is restricted to the domain of ‘grammatical category’ and it creates new grammatical word-forms, but not new lexemes (Aronoff, 1976 : 2). English inflection can just be reduced to a very small number of suffixes which encode grammatical categories: -s for the plural formation (dogs, houses, mornings), -s which indicates the third singular person of the Present Simple (he lies, she walks), -’s for the formation of the possessive (John’s car, Mary’s book), -ing for the formation of the Progressive Tense (playing, sleeping, working), -ed for the formation of regular Past Tense (studied, washed), -er for the formation of regular comparative (faster, stronger, wilder), -est for the formation of regular superlative (oldest, shortest, tallest).

\(^2\) These phenomena will be described better in the next section and, in detail, in chapters 2, 3, 4 and 5.
Derivation, instead, is completely distinct from the previous mechanism and exhibits some special features. Derivation is not restricted to suffixation, it is also extended to prefixation. Thus, derivational morphemes may occur either at the end or at the beginning of the base words, whereas regular inflection is always expressed by suffixes (Plag, 2003 : 15). Through derivational processes, we may often obtain changes in the base word, and, in particular, the presence of derivational affixes may cause a major grammatical change, involving the change of the base from one word-class to another, as in the case of the suffix *-less*, which can turn nouns into adjectives (*powerless, speechless*). Derivatives may encode lexical meaning, since they can either add some specific meaning to the base word, or, in some cases, completely change the meaning of the word base (opposite meanings), as in *disobey vs. obey, disorder vs. order, inaccurate vs. accurate, unkind vs. kind*. For this reason, derivation also appears to be more semantically opaque than inflection, because the meaning of the new derived word cannot be always directly inferred on the basis of its constituent morphemes, and, in addition, derivational categories tend to be not as productive as inflectional ones (Plag, 2003 : 16). Lastly, another fundamental trait which distinguishes derivation from inflection is that, basically, a derivational affix cannot be added to all the members of a class; indeed, not all the verbs can take the adjectival suffix (e.g. *-ive*: cf. *read-ive, walk-ive, drink-ive*), nor all count nouns take the adjectival suffix *-al*: cf. *girl-al, child-al, book-al* (Bauer, 1988 : 13).

Like inflection and derivation, another morphological process is compounding that is to be considered part of grammatical morphology, since it is regularly governed by specific word-formation rules. This process is, together with derivation, part of word-formation. Compounds are fundamental objects of morphological investigation, because they are elements present in all languages of the world. According to Plag, (2003 : 135) “a compound is a word that consists of two elements, the first of which can be either a root, a word or a phrase, while the second of which can be either a root or a word”. Usually, a compound is formed by two elements, but there are some cases in which we can identify more than two elements (*power source requirement,*
Engine communicator error). However, they are still considered and analyzed as binary structures, even if they are constituted of more than two elements. As regards the formation of compounds, the simple combination of two words may not be sufficient to have a regular compound. There are at least other three more requisites for obtaining a regular compound: (1) between the elements of the compound there must be a plausible semantic relation; (2) the combination must denote a unitary concept; and lastly, (3) the combination must be a ‘syntactic atom’, thus, the two constituents cannot be separated by the addition of an extra word between them (Plag, 2003: 135). These particular features are fundamental to differentiate compounds from other morphological formations which are sometimes felt as very similar, such as syntactic phrases. Another important aspect is their modifier-head structure, where the head (the most important element in the combination) is generally modified by the left-hand member of the combination, as in book cover, where cover is the head and it is modified by the other member of the compound book. The head is also fundamental in the compound because the compound inherits, as a whole, most of its semantic and syntactic information (Plag, 2003: 135). Thus, if the head is a noun, also the compound will be a noun (blackbird, loud-mouth, parks commissioner, teeth marks), if the head is a verb, the compound will be a verb (deep-fry, dry-clean, freeze-dry, shortcut), and if the head is an adjective, the compound will be an adjective (icy-cold, knee-deep, lead-free, salmon-pink). Furthermore, a compound may also inherit other features from the head, such as gender (head-mistress), count / un-count quality (house boat, milk bottle, sea-fish) and plural suffix or verb endings attached to the head (boyfriends, deep-fried, room-mates).

3 In the compound high-school we cannot insert an adjective, for example new, because the constituents of the compound cannot be separated. We may, indeed, say a new high-school, but not *a high-new-school.
1.2.2 Extra-grammatical morphology

The concept of extra-grammatical morphology was firstly introduced by Dressler & Merlini Barbaresi (1994 : 39), and comprises a heterogeneous set of sophisticated operations, which resemble morphological rules, but whose only unifying property is that some principles of morphological grammar is violated. Extra-grammatical morphology - as the term itself suggests - represents the part of morphology comprising phenomena that lie outside grammatical morphology, in that they are not governed by the rules of ordinary regular formation. For this reason, Dressler & Merlini Barbaresi (1994 : 36-41), in order to properly define the notion of extra-grammaticality, have first of all isolated and delimited the domain of grammatical morphology. According to Dressler & Merlini Barbaresi (1994 : 41), grammatical morphology accounts for all grammatically correct, actual and potential words and inflectional word forms of a language. Consequently, either correct actual words or some inflectional word forms are stored in the lexicon and derived directly by a morphological rule. On the contrary, morphological operations which coin formations that cannot be classifiable as either distinct actual words or inflectional word forms are not part of grammatical morphology, but are rather named extra-grammatical. Therefore, extra-grammatical morphology is felt by the majority a scholars (Bauer, 1983; Zwicky & Pullum, 1987; Dressler & Merlini Barbaresi, 1994; Doleshal & Thornton, 2000) as the antonym of grammatical morphology, and defined, generally, as a set of morphological phenomena which cannot be predicted or governed by morphological rules.

However, before identifying which morphological rules are violated in extra-grammatical phenomena, it is interesting to make another fundamental distinction that will help to further delimit what is meant by the term ‘extra-grammatical’. This separation concerns, in particular, two concepts which are sometimes overlapped: ‘extra-grammaticality’ and ‘ungrammaticality’. Basically, extra-grammaticality is referred to linguistically correct forms which are not rule-governed according to grammar, whereas ungrammaticality is a term which is referred to all those formations that contain errors such as wrong
word agreements or hesitations, and other cases of disfluencies in the case of spoken language (Ailomaa et al., 2008: 82). According to this distinction, extra-grammatical operations and processes cannot be considered wrong from the point of view of grammar, but just not entirely covered by word-formation rules.

On the basis of the claim that morphological rules represent essential elements of grammatical morphology, we have to illustrate, now, the major morphological rules that appear to be violated in extra-grammatical formations, compared with canonical formations:

- the output of extra-grammatical operations is not directly predictable by its input, since one of the fundamental property of morphological rules is that they manipulate meaning and form in a regular, predictable way, extra-grammatical processes are governed, on the contrary, by unpredictable and unidentifiable rules. In ordinary word-formation, outputs can be directly predicted from inputs in every detail. While the output of a creative extra-grammatical phenomenon cannot be always predicted by the input of a given rule or model and vice versa, but rather the technique of formation is sometimes modelled according to a specific desired output and an available input (Ronneberger-Sibold, 2008: 203). In the formation of monosyllabic clippings, for example, we are free to take this monosyllable from either the beginning of the base word, as in lab (laboratory), ad (advertisement), from the end of the base word, as in phone (telephone), chute (parachute), from the middle, as in tec (detective), flu (influenza), or even from the beginning + the end, as in vegan (vegetarian). Blends also appear to be created in a very unpredictable way, though, as we will see, in some specific cases we may find a certain degree of regularity according to some recurring patterns of formation. Blends are formed by adding two source words together in many different ways: involving overlapping, as in
sexpress, slanguage, involving clipping and overlapping, as in aquacise, backronym, involving clipping of both bases, as in brunch, chunnel, spork, or of just one of the two bases, as in animule, dumbfound, paratroops.

- Reduced transparency: usually, regular word-formation processes produce morphologically transparent words, where the source words are easily recognizable, as in dancer, where we can identify the base dance to which the suffix -er is added to derive a noun. By contrast, most creative extra-grammatical operations modify their linguistic input in a way that makes it difficult to be recognized in the output (Ronneberger-Sibold, 2008 : 204). Indeed, even if in the output the input is contained in full (as in the case of blends involving complete overlapping such as blobject, cantenna, cocacolonization), the transparency of the resultant formation is always sensibly reduced compared to ordinary grammatical formations. Acronyms and initialisms do not exhibit recognizable constituents or structure, but their basic components are typically blurred because of their abbreviatory nature, as in GMO for Genetically Modified Organism, LAN for Local Area Network, FAQ for Frequently Asked Question, OFFER for Office of Electricity Regulation, URL for Uniform Resource Locator (Mattiello & Conti, 2008 : 562). In addition, the segmental shape of the output may be modified as compared to the input, and this may further increase the opacity of extra-grammatical formations. This opacity, however, can exhibit different degrees. Indeed, clipped hypocoristics such as Dick (Richard) and Kitty (Catherine) are less transparent than Mike (Michael) and Liz (Elizabeth).
• Extra-grammatical phenomena involving shortening tend to delete larger and not necessarily final parts of the source words: subtractive morphological rules exhibit the tendency to delete just small parts, usually final, of the base word, as in Austro-Hungarian, where only the ending of Austrian is cut. Extra-grammatical subtractive operations, which are common in many phenomena, such as clipping, acronyms, initialisms, blends, back-formation, may delete larger parts of base words, and they may also cut these parts away either from the beginning or from the end (Mattiello, 2008: 66). Very large parts of the base words may be cut in the case of blends, as in pinkermint (pink + peppermint), where the beginning pepp is curtailed from the second source word, linner (lunch + dinner), Oxbridge (Oxford + Cambridge), suspose (suspect + suppose); (2) in the case of clippings, as in amp (amplifier), chem (chemistry), preg (pregnant), uni (university); (3) in the case of back-formations, as in acculturate (acculturation), beg (from beggar), brainwash (from brainwashing); and (4) in the case of acronyms and initialisms, where this aspect is even more evident, since only the initial letters remain and the rest of the source words is deleted, as in BA (Bachelor of Arts), KEY (Keep Educating Yourself), NFHS (National Federation of High Schools), SMILE (SMall, Intelligent, Light, Efficient). In addition, contrary to regular phenomena which exhibit a tendency to delete the final part of a base, extra-grammatical shortened formations, as the aforementioned ones, do not always delete the final parts of the bases, but also the beginning and other salient parts, as in the clippings fridge (refridgerator), where the beginning and the end are cut, gator (alligator), where the beginning is deleted.

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4 In all the following examples, the deleted parts are underlined.
The output of extra-grammatical operations cannot be judged according to grammaticality: extra-grammatical formations cannot be considered ungrammatical, or wrong from the point of view of grammar. On the contrary, all of them are correct according to grammar, but they do not follow word-formation rules as any other canonical process (Ronneberger-Sibold, 2008 : 204). There is no sense, indeed, in asking whether forms such as bro or telecast, which are respectively a clipped form of brother and a blend of television + broadcast, are right or wrong for grammar, since they cannot be judged according to the rules of regular formation, but just on the basis of tendencies of formation.

Extra-grammatical phenomena do not always rely on meaningful bases: canonical word-formation rules rely necessarily on existing and meaningful stem or word bases, whereas extra-grammatical formations, in some specific cases, exhibit no meaningful base words. This is the case with reduplicative formations, which sometimes use meaningless bases hardly recognizable as pre-existent meaningful morphemes, as in hanky-panky, hotsy-totsy, zig-zag. In particular, in the onomatopoeic type of reduplicatives, there are no independent or meaningful word bases which are identifiable, because the two components form a phonetic unit, as in baw-waw, bling-bling, hee-haw, hoo-hoo.

Bases of extra-grammatical phenomena may be discontinuous: rules of ordinary word-formation processes, such as derivation, are predictable in form change, since affixes are added always to continuous bases, as in fast-ly and un-break-able, where the bases fast and break remain intact, while the affixes -ly, un- and -able are attached to the base word. The morphotactics of extra-grammatical
processes, instead, often appears irregular because it does not follow ordinary rules of word-formation, and the bases of these processes may be discontinuous, as in infixed forms *ad-bloody-vance, every-frigging-time, no-fucking-body*, which are interrupted by an infix (Mattiello, 2008: 66-67).

- Extra-grammatical formations more often obtain connoted variants than new words do: many extra-grammatical operations do not create new words or word forms, but only connoted (more informal and more specific) variants. This is the case with (1) some reduplicative formations, in particular, *schm*-reduplicatives, such as *baby-schmaby, moon-schmoon*, which do not generally exhibit any semantic variation from the input to the output, but also (2) blending, as in *tab show* (*tabloid* + *show*), *vodkatini* (*vodka* + *martini*); (3) initialisms, as in *OMG* (*Oh my God*), *S.A.* (*sex appeal*); (4) and clippings, as in *hash* (*hashish*), *tato* (*potato*). The semantic meaning of new extra-grammatical formations is always the same, however, they present some particular stylistic or pragmatic features which make them special and different from neutral ones.

These are traits and properties which characterize those phenomena that cannot be included into current grammatical patterns, and are indeed listed under the heading ‘extra-grammatical’. In particular, extra-grammatical morphology includes all the following morphological phenomena: (a) clippings, where parts of the base words are curtailed in order to have a shorter version of the source word (*ad, condo, demo, fan, lab*); (b) acronyms, which are made up of the initial letters of the base words or phrase pronounced as normal full words (*NATO, radar, SMILE*); (c) initialisms, which are formed by the initial letters of the base words or phrase, but, unlike acronyms, are pronounced letter by letter (*BA, FM, UCLA*); (d) blends, which are
combinations of two source words or parts of the source words in order to create a unique word form (*banoffee, californicate, ginormous, sinema*); (e) reduplicatives or echo-words, which are particular formations where a full base or part of it is repeated either to the left or to the right (*hip-hop, itsy-bitsy, tick-tock, zig-zag*); (f) back-formations, which are formations where the subtraction of some elements from the source word is involved (*to edit, to burgle*).

### 1.2.3 Marginal morphology

Extra-grammatical morphology has to be distinguished not only from grammatical morphology, which we have established as its antonym, but also from, at least, other two modules of morphology. In this part, in particular, we will discuss and analyze the differences between extra-grammatical and marginal morphology.

The term ‘marginal morphology’ was introduced by Dressler, in his contribution to Doleschal & Thornton’s (2000) collection of papers presented at the workshop on *Extragrammatical and Marginal Morphology* held in Vienna in 1996, and he was the first to clarify and distinguish the concepts of ‘extra-grammatical’ and ‘marginal’ morphology. In his paper, Dressler (2000 : 1) uses different criteria to distinguish these two modules of morphology, because their definitions have similarities, but at the same time they present distinct traits. According to Dressler (2000 : 1), these two concepts do not overlap, neither one is a subpart of the other, but they represent two aspects of morphology in general. They are also not the opposite of each other, because extra-grammatical morphology lies outside morphological grammar, whereas marginal morphology lies at its boundaries (Dressler, 2000 : 1). Morphological processes of extra-grammatical nature are not rule-governed, since their mechanism of formation does not follow rules of ordinary word-formation. On the other hand, marginal morphology is different from both prototypical grammatical and extra-grammatical morphology, and, according to Dressler (2000 : iv), is defined “with respect to the boundaries between morphology and
other components, and with respect to the boundaries within morphology between inflection, derivation and compounding”.

The concept of marginal morphology, however, in respect to that of extra-grammatical morphology, is more complex and theory-dependent, because marginality presupposes even the notion of boundaries. In particular, we can deal with external boundaries of morphology, thus, between morphology and other modules or components like syntax or phonology, or with internal boundaries of morphology. As a consequence, clitics, for example, are preferably considered phenomena of marginal morphology because they lie at the boundary between morphology and syntax. They are elements which share some characteristics of ordinary words, but, although they are grammatically independent, they cannot stand alone and require to be attached phonologically to something else (Spencer, 1991 : 350). They may belong to any grammatical category, but commonly they tend to be pronouns, determiners, auxiliary verbs, conjunctions or modal participles. The fact that they cannot stand alone makes them similar to inflectional affixes, but, unlike inflectional affixes which syntactically and phonologically attach to specific classes of words or stems, clitics syntactically function above the word level, on the phrase or clause level, and attach to any word provided it is in the right position in the sentence (Spencer, 1991 : 350). Hence, clitics in English basically interface morphology, syntax and also phonology in their formation.

As previously said, we may have also marginal phenomena which lie at internal boundaries of morphology, i.e. between inflection, derivation and compounding. Semi-affixes, in particular, are felt as an example of marginal morphology, because processes involving them are at the borderline between derivation and compounding. They are morphemes whose definition and classification is not always perfectly clear and sure, since they appear somewhere between compound constituents and affixes, as in drug freak, Rolling Stones freak, video freak, where freak is the semi-affix that can be neither a compound, because drug freak is not a type of freak, nor an affix since it is not attached to any word, but just juxtaposed.
In conclusion, there is one more universal dimension of marginality, which is represented by the lack of productivity. The property of non-productivity may assign a phenomenon to marginal morphology, and examples are suppletion, both weak and strong, like in the case of irregular plurals (*man : men; mouse : mice*) or irregular past verbs (*go : went; fly : flew*), and indeclinability within a language with inflection (Dressler, 2000 : 7).

1.2.4 Expressive morphology

Many morphologists tend to compare extra-grammatical morphological operations to Zwicky - Pullum’s (1987) concept of ‘expressive morphology’. The two concepts are, actually, connected and close, since they exhibit a few common fundamental aspects. Indeed, expressive and extra-grammatical morphology are both part of either public language, but also, more significantly, of what is defined private language. They represent a sort of commonplace for intimates, members of the same family, who share a private vocabulary which includes nicknames and made-up words as part of their everyday language. Furthermore, expressive phenomena, as well as extra-grammatical ones, are marginalized and excluded from grammatical morphology, because their formations often include unconventional morphological patterns and processes. However, although expressive phenomena present these similarities and connections with extra-grammatical ones, they also have a number of special characteristics.

According to Zwicky & Pullum (1987 : 3), expressive morphology is different from what they call ‘plain morphology’. The term ‘plain morphology’ is used in their article to describe that branch of morphology which “consists of ordinary productive and non-productive word-formation and word-structure rules of a language”. On the other hand, expressive morphology is defined as “a kind of derivational morphology, which is represented by extra-grammatical phenomena in word-formation associated with special features” (Zwicky & Pullum, 1987 : 6). Although there is a tendency to associate these two notions,
expressive and plain morphology, respectively, to those ones of extra-
grammatical and regular grammatical morphology, we will see that this is not
completely right. Expressive processes and operations, in particular, present a
number of specific features which are not shared by extra-grammatical
phenomena as blends, abbreviations, reduplicatives. These special
characteristics, moreover, tend to set expressive morphology off from ordinary
morphology, both within their languages and across languages, implying a
basic distinction, not only from the concept of extra-grammatical morphology,
but also from that of plain morphology (Zwicky & Pullum, 1987 : 6-7).
Therefore, according to Zwicky & Pullum (1987), in order to classify a
morphological phenomenon as expressive, it must have a significant number of
the following special properties:

♦ expressive morphology is associated with particular pragmatic
effects, i.e. playful, poetic, or simply ostentatious effects of some kind. A
clear example is seen in the commercial names and words formed by -
(e)teria suffixation, which are special coinages that carry an effect
lacking in plain derivational morphology, such as candyteria,
chocolateria, smoketeria, caketeria, honeyteria, luncheteria, cleaneteria
(Zwicky & Pullum, 1987 : 6). Expletive infixation is another example of
expressive phenomenon which is associated with a particular pragmatic
effect. Expletives, as bloody, blooming, frigging, fucking, mother-
fucking, the hell, with their applicability to words, as in Massa-frigging-
hussetts, every-bloody-body, Flori-frigging-da, im-fucking-portant,
emanci-motherfucking-pator, or phrases, as in kick the fucking bucket,
trip the damned light fantastic, shut the fuck up, the first goddamn time
that I met you, convey to the resultant forms a highly expressive
colloquial effect, which cannot be regarded as part of plain morphology.
Another feature concerns the fact that rules of expressive morphology, in contrast with those of plain morphology, have variable and peculiar effects on syntactic categories, and apply promiscuously to a variety of categories. Standardly, rules of plain morphology, in order to produce a derived word of some category, take a base belonging to another category; in fact, from the adjective *white*, we obtain the noun *whiteness*, or the verb *whiten*. By contrast, this does not occur with expressive phenomena, because rules of expressive morphology usually apply to any syntactic category that can also be the same category of the base. Expletive infixation, for example, applies to bases of any syntactic category, and produces items of exactly the same category: *instantiate* is a transitive verb and also *in-fucking-stantiate* is a transitive verb; *absolutely* is an adverb, and *abso-bloody-lutely* is still an adverb (Zwicky & Pullum, 1987: 7). Therefore, in these examples of expressive morphology, the insertion of such expletives does not make a change in the grammatical category from the base to the derived word. In addition, rules of expressive morphology not only have particular effects on syntactic categories, but also on input bases. Basically, plain morphology can apply just to bases and never to inflected forms, whereas expressive morphology can apply to inflected word forms, as in *drygoodsteria*, as well as to simple bases. Rules of expressive morphology can apply even to compound constructions, as in *Madison goddamn Avenue*, and to syntactic phrases, as in *kick the fucking bucket*, or *the first friggin’ time that I saw Paris* (Zwicky & Pullum, 1987).

The outputs of expressive word-formation, with respect to those of ordinary word-formation, often show special and different syntactic properties. Usually, a plain morphological process forming, for example, adjectives from nominal bases does not coin a class of adjectives which can be used only in a particular case or position. This, instead, happens with expressive formations such as *shm*- reduplicatives. Indeed, the
typical use of constructions of this kind is for example (Zwicky & Pullum, 1987 : 8-9):

*Kalamazoo, Shmalamazoo! Let’s talk about Detroit; that’s a real city!*

*You are just a baby! Baby-shmaby, you’re already 11 years old!*

In these examples, *shm-* reduplicatives are used in two-word exclamations, and, although they look like proper nouns, neither of them has syntax of proper nouns. This is clearer if we use these formations as proper nouns, but in different positions:

*Is Kalamazoo Shmalamazoo in Michigan?*

*Let’s not talk about Baby-shmaby now.*

Here, both constructions are irregular from the point of view of grammar, because these reduplicatives can be used as proper nouns only in exclamations, but not in other positions. Hence, another important characteristic of expressive morphology is that it presents a special syntax (Zwicky & Pullum, 1987 : 8-9).

♦ There is also a considerable variation from speaker to speaker in the use of expressive formations. Speakers, in particular, do not always agree on which bases admit expressive formations. To give one example, as regards expletive infixation, when asked to insert the expletive *fucking* into a word, like *discovery*, many subjects split between *dis-fuckingcovery* and *dis-fucking-scovery* (Zwicky & Pullum, 1987 : 8). This shows that from a subject to another there can be a variation in the use of different typical expressive formations. Moreover, for most expressive morphological phenomena, there are speakers who have no productive control of them, and this means that speakers vary widely in their ability to control expressive morphology in a productive way (Zwicky & Pullum, 1987 : 8).
To conclude, expressive phenomena are comparable to extra-grammatical phenomena, because both exhibit some kind of violation of grammar. However, whereas expressive phenomena exhibit a pragmatic effect of some kind, not all extra-grammatical formations are playful or poetic (cf. acronyms and initialisms).

1.3 Extra-grammatical phenomena in Natural Morphology

Among the various approaches to morphology, the best-fitting theoretical model for my analysis appears to be Natural Morphology, because it offers a clear understanding of the limits of morphology, in terms of prototypical vs. marginal and grammatical vs. extra-grammatical phenomena. These distinctions and the principles on which they are based make up the main frame of reference for my analysis. Natural Morphology is a theory that, in principle, deals with all aspects of the morphological module, although rule-bound grammatical processes remain the main object of investigation. However, a clear definition and distinction of what is grammatical in morphology presupposes a series of defining criteria that apply prototypically or only marginally, thus negatively identifying other phenomena named ‘extra-grammatical’ by Dressler & Merlini Barbaresi (1994 : 45). It is especially these latter which are of interest within the area of my investigation. According to Dressler & Merlini Barbaresi (1994 : 45), the theory of Natural morphology may be subdivided into three parts: (I) the universal markedness theory, (II) the theory of typological adequacy and (III) the theory of system-dependent naturalness. However, as regards extra-grammatical phenomena and their position within Natural morphology, only the first subtheory of universal markedness is relevant.

On the basis of this claim, within the universal markedness theory, the most important part concerns universal preferences, since this theory establishes, deductively, degrees of universal preferences on a restricted number of
naturalness parameters (Dressler & Merlini Barbaresi, 1994 : 46). These parameters, in particular, are several and different:

I. the best-known is that of iconicity, according to which there is a scale of naturalness for all the processes of formation from the most iconic, i.e. the most natural, down to the least iconic, i.e. the least natural. As a consequence, it is predictable that regular word-formation processes such as derivation, compounding and other additive operations are more iconic, frequent, productive and stable than extra-grammatical processes that are, instead, non-iconic and rather unproductive and unstable from a grammatical point of view. However, in some specific cases, even a higher amount of iconicity may be predicted for extra-grammatical morphology. Indeed, in shortening of names, such as Musso from Mussolini or Mazo from Mazarin, where a pejorative meaning is added to the lexical one, even if there is a truncation in the signans, the clipped forms may have the iconic function of reflecting semantic privation and devaluation in the signatum (Dressler, 1987 : 106). A similar case is the formation of hypocoristics, such as Beth from Elizabeth, July from Julianne, Sandy from Sandra, which metaphorically imply smallness and truncation reflects this property iconically. Also reduplicatives, such as zig-zag, appear highly iconic, since the repetition of the consonant frame \( z - g \) diagrams a repetition of the word meaning, while the change of the vowel metaphorically symbolizes the change of direction (Dressler, 2005 : 269).

II. Another parameter, derived mainly from Peirce’s semiotics is that of indexicality. As regards this principle, adiacy between an indexical signans and its indexical signatum is preferred to distance. A good index should involve an optimally direct and close connection between signans and signatum (Dressler, 1987 : 110). Therefore, on the basis of this
principle, derivation is generally favored since it applies directly to the base to which it indexically refers. While, the morphological phenomenon of infixation, as an insertion rule, is disfavored and consequently more marked than prefixation or suffixation, because it adds something in between the word-base disregarding component morphemes, as in *Chi-bloody-nese, to-damned-day, un-frigging-believable.*

III. A third relevant factor of the universal markedness theory is transparency. A form is said to be transparent if it obeys to the principle of compositionality and if it is morphotactically transparent. More specifically, the more transparent a morphological process, the more natural and unmarked, whereas the least natural phenomena are those which tend to exhibit opacity and whose meanings are most obscure. From this parameter, we may derive two subparamenters: morphosemantic and morphotactic transparency. On the parameter of morphosemantic transparency, full transparency means fully compositional meaning, as in the case of inflectional meanings. On the parameter of morphotactic transparency, on the other hand, the most transparent and natural forms are those where there is no opacifying obstruction to easy perception. According to the latter principle, extra-grammatical phenomena have to be excluded from Natural morphology, because they tend to exhibit a reduced transparency. Regular word-formation always produces morphologically transparent words, whereas extra-grammatical processes, such as blends, clippings, acronyms and initialisms, modify their input in ways that are difficult to be recognized from the output (Ronneberger-Sibold, 2008 : 204). In blends, it is more difficult to identify the inputs than in ordinary derivatives. Similarly, abbreviatory devices are also less transparent and quite opaque, since, especially in the case of acronyms like *DARE* (*Drug Abuse Resistant Education*) and initialisms like *FBI* (*Federal Bureau of Investigation*),
we do not have sufficient elements to immediately recover the inputs. Another aspect of the preference for morphotactic transparency is the preference for continuous rather than discontinuous morphs (Dressler, 1999 : 137). Therefore, suffixation and prefixation are both preferred over infixation in English, since the latter process involves discontinuous bases, as in *every-fucking-body, to-bloody-gether*. Furthermore, long words tend to be considered more opaque than shorter ones. Accordingly, shortenings should be more transparent than formations involving addition. Yet, extra-grammatical phenomena, such as blends and abbreviating operations, are felt as marked bases because the way of shortening words are hardly regular and predictable.

IV. The last parameter is that of biuniqueness, which is generally preferred over uniqueness, and also over ambiguity. Biunique expressions act as potential sources of complexity, but, at the same time, they are highly transparent and natural, and this counterbalances their potential for a high level of complexity (Bertuccelli & Lenci, 2007 : 13). Basically, biuniqueness means relational invariance between signatum (A) and signans (a); hence, A is uniquely represented by a, and nothing else (Dressler, 1987 : 111). On the contrary, uniqueness in morphology means either allomorphy, for instance A (e.g. to indicate agency) is not represented uniquely by a, but either by a (e.g. *-er in garden-er*) or b (e.g. *-ist in morpholog-ist*). Or it means polysemy, since some affixes may have two meanings rather than one, e.g. the prefix *ex-*, which means ‘former, past’ in *ex-service-man*, and ‘out’ in *exclude, excursion, exhalation* (Dressler, 1987 : 111).

1.4 Extra-grammatical phenomena in Generative Morphology

The term ‘generativism’ refers to the theory of language that was developed by Noam Chomsky in the 1950s and by his followers. Although numerous
scholars disagreed with Chomsky about this theory, he gained many supporters and the idea was both developed and challenged at the same time. His work has been enormously influential, not only in linguistics but also in philosophy, psychology and other disciplines concerned with language, such as cognitive linguistics, applied linguistics as well as language methodology (Lyons, 1981: 228). Since the beginning of his works on generativism, Chomsky has claimed that the fundamental aim of linguistic theory is to explain and show the generative capacity of all linguistic systems. In brief, this linguistic theory explains how all the structures that are parts of a natural language are generated. The primary components studied by experts in generative grammar include syntax (structure of sentences), semantics (linguistic meaning), phonology (sound patterns of language) and morphology (structure and meaning of words), though, at the beginning, the place of morphology in generative grammar was not completely clear.

The place of morphology in Generative Grammar, indeed, was at first eclipsed when this theory came on scene. Part of the reason for the widespread neglect of morphology during the early years of generative grammar was the belief that word-formation could be adequately covered if it was partitioned between phonology and syntax (Katamba, 1993: 10). Thus, morphology sometimes was attached to the syntactic component (morphosyntactic) and sometimes to the phonological component (morphophonology) (Scalise, 1984). Aronoff (1976), in particular, represents the first serious generative attempt to deal with morphology on its own terms. The model proposed by Aronoff (1976: 21) marks a sort of watershed in the development of morphological theory within generative grammar. This model shares certain characteristics with that of Chomsky & Halle in the Sound Pattern of English (1968), most obviously in assuming the existence of a separate component in the grammar which houses word-formation rules (Spencer, 1991: 82). According to Aronoff (1976: 21), one of the fundamental aspects of his theory is represented by the assumption that all word-formation rules operate over words, rather than over morphemes, adopting a theory of word-based morphology. Regular word-formation processes, indeed, are always word-based and do not operate on anything less
than a word. This theory comprises a set of specific rules that basically provide a framework for all the possible grammatical sentences in a language and that correctly predict which combinations of words can form grammatical sentences, excluding those phenomena which do not regularly follow word-formation rules.

What is important and interesting for this study is to identify and describe the place occupied by these phenomena which are not rule-governed within Generative morphology, as compared to canonical grammatical ones. Actually, these processes have not received much attention by generativists, because of their extra-grammatical nature and of a series of characteristics which contribute to differentiate them from regular grammatical formations. Within generative grammar, these extra-grammatical phenomena are not assigned the status of word-formation rules, since they violate many fundamental principles established by morphological rules. According to Aronoff (1976), indeed, a word-formation process considered, to all intents and purposes, grammatical must strictly follow such rules. On the other hand, phenomena such as blends (fishetarian, fantabulous), acronyms (CIA, radar), clippings (disco, lab), initialisms (FBI, UCLA), word manufacture (xerox), reduplicatives (click-clack, ding-dong, yo-yo) are classified among the ‘oddities’ of a language, since they do not act the same way (Aronoff, 1976: 20). The term ‘oddities’ is basically used to refer to very unconventional words that escape regular word-formation processes. Such ‘oddities’ are considered out of the ordinary within Generative morphology, as they do not comply with morphological rules, though they exhibit various internal regularities. Despite the fact that extra-grammatical phenomena are not fully studied by generativists, there are a few other names and headings, which are used to label these processes and their formations, such as ‘non-concatenative’ (Plag, 2003) or ‘unpredictable formations’ (Bauer, 1983). According to Plag (2003: 12), non-concatenative processes, in particular, are those mechanisms which form morphologically complex words not linking together affixes and bases as in a chain, but rather involving other devices, such as subtraction (clippings, acronyms, initialisms, blends, back-formation), repetition (reduplicatives), overlapping (blends),
discontinuous bases (infixation) to coin new word forms. However, in our opinion, the label ‘non-concatenative’ is not totally appropriate to the identification of extra-grammatical processes, because Plag (2003) lists conversion together with those phenomena which exhibit actual extra-grammaticality. On the other hand, the term ‘unpredictable formations’ (Bauer, 1983) is much more appropriate, because it underlines one distinctive and fundamental aspect of extra-grammatical phenomena, viz. the fact that they cannot be predicted by the word-formation rules of generative grammar. In addition, Scalise (1984 : 98) labels these phenomena ‘minor word-formation processes’, since they are not investigated as much as grammatical ones, whereas Fandrych (2004 : 105) uses the heading ‘non-morphemic’ word-formation processes, which describes any word-formation process which is not morpheme-based, and which uses at least one element that is not a morpheme, but a part of a syllable\(^5\) \((\text{mo}-\text{tel} \rightarrow \text{motor} + \text{hotel}; \text{li}-\text{ger} \rightarrow \text{lion} + \text{tiger})\), a phonaesteme \((\text{teeny}-\text{weeny})\), an initial letter \((\text{ONU}, \text{SPA})\), or a number or a letter used as a symbol \((4U, 2u2)\) (Fandrych, 2004 : 109).

\(^5\) This part will be also called “splinter”, after Lehrer (1996). See chapter 3.
2.1 Introduction

The term ‘abbreviation’ used in this chapter is usually referred to more than one phenomenon. Actually, any shortened form of a base word or a phrase is considered an abbreviation, and this makes all those processes involving reduction operations, such as clippings, blends, acronyms, initialisms, subparts of it. However, despite the category of abbreviations is meant to comprise all these extra-grammatical phenomena, there is no complete agreement among scholars on definitions, terminology and classification. First of all, although many linguists tend to consider and list under the label ‘abbreviations’ the process of blending, we do not totally agree, since blending exhibits some characteristics which set it apart from the other abbreviatory mechanisms. Blending, indeed, is a word-formation process which does involve reduction of at least one of its two base words, as in aquacise (aqua + exercise), celeblog (celebrity + blog), telecast (television + broadcast), but it can also involve overlapping without any kind of reduction, as in the case of alibiography, headvertising, slanguage and sexploitation, where both base words are entirely identifiable in the combination. Hence, my decision to examine blending in the following chapter, as a distinct and individual phenomenon.

Scholars also disagree on the position of initialisms within the category of abbreviations. In particular, there is a tendency to give initialisms less attention than the other two phenomena, or to include them in the same category as acronyms, instead of considering them as a class in all respects. Initialisms, in
early studies focused on extra-grammatical processes and more specifically on abbreviations, hardly received any serious consideration (Cannon, 1989: 105). The result is that many legitimate initialisms in the numerous dictionaries are essentially ignored or marginalized by most scholars. Marchand (1969: 452-454), for example, relegates initialisms to the category of word-manufacturing, since he claims that only some of these formations belong to the general vocabulary. Bauer (1983: 237) likewise refers very briefly to this phenomenon, and downplays these formations because they are quite unpredictable and mainly based on orthography. In addition, one of the main reasons for the lack of a systematic study on initialisms can be the considerable overlapping within another class of abbreviations, i.e. acronyms. Pyles and Algeo (1970: 236) consider initialisms and acronyms one a part of the other, since they divide acronyms into: ‘initialisms’, which consist of initial letters pronounced with the letter names, and ‘word acronyms’, which are pronounced as words. In our opinion, however, initialisms should not be considered as a subtype of acronyms, but rather a subtype of abbreviation at the same level as acronyms. Hence, here we will describe and include under the heading ‘abbreviations’, acronyms, initialisms and clippings.

This chapter is divided into the following main sections. Section 2 illustrates the reasons why abbreviation processes are mostly excluded from grammatical morphology and which irregularities they usually undergo (Bauer, 1983; Dressler & Merlini Barbaresi, 1994; Dressler, 2000; Ronneberger-Sibold, 2008). In this section, in particular, we will consider all abbreviation devices together, since clipping, acronyms and initialisms tend to share the same irregularities from the point of view of grammar. Then, section 3 introduces the process of clipping separately from the other abbreviatory mechanisms, focusing on its definition and classification (Kreidler, 1979; Bauer, 1983; Katamba, 1994), formation patterns and restrictions (Kreidler, 1979; Plag, 2003; Jamet, 2009), and finally, its involvement in diminutive suffixation (Dressler & Merlini Barbaresi, 1994; Merlini Barbaresi, 2001). Section 4 deals with the other two processes, namely, acronyms and initialisms (Bauer, 1983; Stockwell & Minkova, 2001; Plag, 2003; López Rúa, 2004; 2006; Conti &
Mattiello, 2008). In particular, section 4 considers their definitions and general characteristics, excluding those phenomena which are not interesting for our study, then distinguishes acronyms from initialisms, and describes their patterns of formation. Section 5 identifies and describes the preferential criteria of formations for abbreviations, in general; and section 6, lastly, investigates the reasons for the frequent use and productive coinage of these abbreviations, focusing on Internet and SMS language (McArthur, 2000; López Rúa, 2007).

2.2 Irregularities in clippings, acronyms and initialisms

The phenomena that we will take into consideration in this chapter, -i.e. clippings, acronyms and initialisms, - are generally ignored by some morphologists since their mechanisms of formation show some irregularities from the point of view of grammar. Abbreviations are considered no rule-governed processes, and for this, are usually excluded from grammatical morphology, or classified as minor or unpredictable (Bauer, 1983; Scalise, 1984). Aronoff (1976 : 20) claims that acronym-formations have no immediately recognizable internal structure or constituents. In contrast with regular formations, we are not able to exactly predict the output of an abbreviated form from its input by applying a rule of ordinary word-formation (and vice versa). For this reason, many linguists prefer to confine abbreviations, as well as blends and other formations of this kind, to what is called ‘extra-grammatical morphology’.

Kreidler (1979 : 29) points out that abbreviation devices are basically characterized by unpredictability in their mechanisms of formation, particularly as regards “the precise shape of the shortening” and “where the cut will be made”. In the case of clippings, for example, what is unpredictable is (a) how many syllables from the base can be retained in the clipped form, e.g. bra for brasserie, bro for brother, mag for magazine all have one syllable retained, whereas binocs for binoculars, limo for limousine, memo for memorandum, undies for underwear have 2 syllables; (b) whether the final syllable will be
open or close, *abs* for *abdominals*, *Birks* for *Birkenstock*, *Minn* for *Minnesota*, *trig* for *trigonometry* have close syllables at the end, whereas *Cali* for *California*, *emo* for *emotional*, *Presbo* for *Presbyterian*, *schizo* for *schizophrenic* have open syllables at the end. Furthermore, (c) the clipped form may be taken from the beginning, the end or the middle of the base word (e.g. *Ave* for *Avenue*, *croc* for *crocodile*, *narc* for *narcotic inspector* are taken from the beginning of the source word; *‘cause* for *because*, *droid* for *android*, *zine* for *magazine* are taken from the end of the base; *flu* for *influenza*, *tec* for *detective* from the middle; *vegan* for *vegetarian* retains the beginning + the end) (Bauer, 1983 : 233; Ronneberger-Sibold, 2008 : 203). In the case of acronyms and initialisms, on the other hand, unpredictability is mainly due to the resultant composition, where the basic constituents appear to be blurred and difficult to identify because of their abbreviatory nature, as in *UCLA* (*University of California Los Angeles*), *FIDO* (*Fog Investigation and Dispersal Operation*), *MIDI* (*Musical Instrument Digital Interface*), *GMO* (*Genetically Modified Organism*), where the letters stand for words (or often phrases), but cannot be immediately recognized (Conti & Mattiello, 2008 : 567).

However, unpredictability is not the only reason why abbreviation processes are excluded from grammatical morphology. As a consequence of unpredictability, a second argument against a regular grammatical status of abbreviations is their reduced transparency. This happens because most abbreviated formations modify their linguistic inputs in such a way that they become almost unidentifiable in the new forms (Ronneberger-Sibold, 2008 : 204). Acronyms and initialisms, in particular, are often abbreviated forms which are less transparent than their longer source words or phrases. Indeed, acronyms such as *BASIC* (*Beginners All-purpose Symbolic Instruction Code*), *LAN* (*Local Area Network*), *SMILE* (*SMall, Intelligent, Light, Efficient*), *WASP* (*West Anglo-Saxon Protestant*), and initialisms such as *GMT* (*Greenwich Mean Time*), *FM* (*Frequency Modulation*), *MAE* (*Master of Arts in Education*) are made up of letter combinations which hardly give a hint of their base words (Conti & Mattiello, 2008 : 567).
Furthermore, while in prototypical grammatical formations (derivatives and compounds) the head is immediately recognizable, the head of abbreviations is often unclear and difficult to assign (Conti & Mattiello, 2008 : 567). This case particularly interests acronyms and initialisms, because they lead to special formations made up of letters from phrases or sequences of words, where the head\(^6\) may be either the right-hand member (as in NHS for National Health Service, NGO for Non-Governmental Organization), the left-hand member (as in LIFE for Laboratory for International Fuzzy Engineering research, MAFF for Ministry of Agriculture, Fisheries, and Food), or even absent (as in NED for National Economic Development council, PACE for Police And Criminal Evidence act) (Conti & Mattiello, 2008 : 567-568). However, Bat-El (2000 : 64-65) claims that the absence of lexical head in abbreviated formations is not necessarily a feature of extra-grammaticality, because also exocentric compounds (such as cut-throat, honey-moon, red skin) do not present the head in the combination, but rather it is outside. This point is actually debatable, as the head in abbreviated formations is obscured rather than absent.

The operations forming clippings, acronyms and initialisms are excluded from grammatical morphology also because they do not involve any change in grammatical category or meaning (Dressler & Merlini Barbaresi, 1994 : 40). Adams (1973 : 135), in particular, restricts the term clipping to “the process by which a word of two or more syllables (usually a noun) is shortened without a change in its function taking place”. We cannot, indeed, find a shift in grammatical category or meaning from ordinary words, such as introduction (noun), neoconservative (adjective/noun), popular (adjective), milkshake (noun), to their clipped forms intro (noun), neocon (adjective/noun), pop (adjective), shake (noun). However, despite abbreviations in general do not coin new words with a different meaning or change of grammatical function from their bases, we can admit that there are a few exceptions, such as the journalistic acronym MEGO, from the clause my eyes glaze over, which obtains the status of a noun meaning a ‘boring subject or story’ (Conti &

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\(^6\) Underlined in the following cases.
Mattiello, 2008 : 568). According to Bat-El (2000 : 64), acronyms may also change the grammatical category, and also allow a large variety of grammatical structures as input (see Zwicky & Pullum’s 1987 “promiscuity with regard to input category”).

In conclusion, although some regularities and recurring patterns can be identified in the formation of English abbreviations, our claim in this study is that their morphological operations are basically of extra-grammatical nature.

2.3 Clippings

2.3.1 Terminology

Clipping is generally considered a linguistic phenomenon consisting in cutting up, truncating, reducing a word in order to produce a new shorter version of this word by loss of material (Jamet, 2009 : 16). The terminology assigned to this process varies according to scholars (Heller & Macris, 1968; Kreidler, 1979; Bauer, 1983; Mester, 1990; Plag, 2003; Ronneberger-Sibold, 2008; Jamet, 2009). The same phenomenon, indeed, is often referred to as ‘shortening’ (Heller & Macris, 1968; Kreidler, 1979; Ronneberger-Sibold, 2008), ‘clipping’ (Bauer, 1983; Jamet, 2009) or ‘truncation’ (Mester, 1990; Plag, 2003). For this reason, first of all, we will see whether the three terms are synonymous or refer to different linguistic realities, and second, we will indicate which one of them we find the most appropriate.

‘Clipping’ and ‘truncation’ are usually used as synonymous terms. The first one is the Anglo-Saxon term, while the latter is a borrowing from French. Both terms, in fact, appear to be at the same semantic level and to explain the same process, one in which the relation between a derived word and its base is expressed by the lack of some phonetic material (Plag, 2003), as in *amp* (amplifier), *caps* (capitals), *curio* (curiosity), *mac* (macaroni or Macintosh), *preg* (pregnant), *soph* (sophomore), *tux* (tuxedo). According to Jamet (2009 : 16), the semantic difference lies, basically, in the use of the other term
‘shortening’, which seems to correspond to a slightly distinct concept. The label ‘shortening’ does not just refer to a single process, but rather it acts as hyperonym comprising clipping or truncation, but also acronyms, initialisms and blends. In our opinion, ‘shortening’ can be considered a synonym of the term ‘abbreviation’, but not of the single phenomena involving reduction. Therefore, in this specific case, ‘shortening’ is not a suitable term for our purposes, whereas ‘clipping’ and ‘truncation’ are the most appropriate ones to refer to the word-formation process under examination. From now on, we will use the term ‘clipping’, instead of ‘truncation’, to refer to the process by which a source word is reduced in such a way as to coin a new form that still retains some phonetic material of the base. Furthermore, truncation generally refers to deletion of material from the final part of words, whereas clipping can be distinguished, as we will see, into back-, fore- and middle-clipping.

2.3.2 Definition

Clipping is a process of English word-formation, which is commonly defined as a phenomenon by which a word-form of usually three or more syllables is shortened without a change in meaning or grammatical function. Although the majority of scholars give more or less similar definitions of the clipping process, we can find slight differences depending on the approach taken. Bauer (1983; 1994), for example, adopts a mainly stylistic approach in order to define clipping, claiming that it is a process with no semantic or grammatical consequences, but with a change in the stylistic value. According to his definition (1983 : 233), “clipping refers to a process whereby a lexeme (simple or complex) is shortened, while retaining the same meaning and still being a member of the same form class”, but frequently resulting in a change of stylistic level. Similarly, Fisher (1998 : 40) claims that “the meaning of the clipping generally corresponds to the meaning of the base, although the stylistic level may vary”.
From a pragmatic point of view, in particular, despite clipped words semantically do not add any new information to the original lexeme, they express a special attitude of the speaker and lower the stylistic level of the discourse (Mattiello, 2008 : 141-142). Clippings are generally used in less formal situations than their full-length equivalents, and appear to be stylistically marked. In many cases, clippings move to different registers and styles as compared to their bases, and tend to be particularly restricted to specific domains and communicative contexts, such as slang, colloquial speech, jargon. They are used also to indicate an attitude of familiarity and intimacy, as in barbie (barbecue), coke (cocaine), Commie (communist), prof (professor), Yank (Yankee), and sometimes for euphemistic and obfuscatory purposes, as in Mia (bulimia) that is a term used by young women afflicted by bulimia (Fandrych, 2008 : 116). In addition, according to Marchand (1969), clippings are not coined as words belonging to the standard vocabulary of a language, but they mainly originate as terms of special groups, like schoolmates (chem for chemistry, hum for humanities, maths for mathematics, uni or varsity for university), soldiers (cap for captain, chute for parachute, vet for veteran), family members (hubby for husband, sis for sister, telly for television), doctors and scientists (bennies for Benzedrine, bronc for bronco, chemo for chemotherapy), friends and teenagers (the aforementioned bro for brother, disco for discoteque, fries for French fried potatoes, negs for negatives, pic for picture), and generally in the intimacy of a group of people where just a hint is sufficient to indicate the whole and to understand each other.

From a phonological point of view, instead, Katamba (1994 : 180) states that “clipping is the term for the formation of a new word-form, with the same meaning as the original lexical term, by lopping off a portion and reducing it to a monosyllabic or disyllabic rump”. Clearly, with such a definition Katamba wants to underline the fact that clippings result from a reduction of polysyllabic bases (address, administration, credibility, telephone, vegetarian, preference) to monosyllabic (cred, phone, pref) or disyllabic forms (admin), sometimes extended by an -y / -ie suffix (addy, veggie). Moreover, López Rúa (2006 :
676) notes that “clippings are medium-size shortenings initially involving the phonological shape of a word, which then develops a different graphic version with occasionally spelling adjustments”, such as change or addition of vowels and consonants (bike for bicycle, coke for cocaine, natch for natural, lesbo for lesbian, spaz for spastic).

On the other hand, Stockwell & Minkova (2001 : 10) adopts a syntactic approach to define clipping, saying that “it is a process that may take any part of a word, usually a single syllable, throwing away the rest, like quiz from inquisitive, […] plane from airplane […], and often applies not just to an existing word, but to a whole phrase”. Thus, we can have clippings also from phrases or compounds, such as Cal (University of California), glutes (gluteus maximus), mob (mobile vulgus), perm (permanent wave), siggy (significant other), zoo (zoological garden).

In conclusion, although scholars follow different linguistic approaches and come to several definitions of the clipping process, we can say that eventually all of them are oriented to the same concept. For this, we can now come to a unique working definition, which is:

‘A clipping is the result of a process involving reduction from a polysyllabic base word (or sometimes from a phrase) to a monosyllabic or disyllabic word-form, which retains just a few elements from the base’.

2.3.3 Classification of clippings

According to the way clippings are coined, and especially to which portion of the base lexeme is clipped, we can distinguish three main classes of clippings: back-clipping, fore-clipping and middle clipping. Firstly, we will examine back-clippings, which are also considered the most common and frequent type:
‘Back-clippings’, also known as *apocopation* or *apocope* or truncation, are those clippings which retain just the beginning of the source word, while the end is cut. Examples of this kind are: *ad* (advertisement), *amp* (amplifier), *app* (application), *bi* (bisexual), *cam* (camera), *celebs* (celebrities), *croc* (crocodile), *cuke* (cucumber), *deli* (delicatessen), *dino* (dinosaur), *emo* (emotional), *fax* (facsimile), *gas* (gasoline), *mayo* (mayonnaise) *memo* (memorandum), *mike* (microphone), *moto* (motorbike), *piano* (pianoforte), *Rasta* (Rastafarian), *spec* (speculation), *tech* (technology), *tick* (ticket), *zep* (zeppelin) (López Rúa, 2006; Jamet, 2009).

This type of clipping is sometimes associated with another extra-grammatical process, i.e. back-formation. According to Stockwell & Minkova (2001: 10) and Bauer (1983: 232), back-formations, such as *burgle* (from burglar), *edit* (from editor), *peddle* (from peddler), are considered as special cases of clipping. However, in our opinion back-formations are different from clippings from many viewpoints. First, the material deleted in back-formation is more predictable than that deleted in clipping, because it is generally a real or supposed suffix, rather than whatever part of a word. Second, back-formations are always class-changing (the back-formed verb *beg* from the noun beggar, or the back-formed verb *destruct* from the noun destruction), whereas it is not the case with clippings, which almost always exhibit the same word-class of the base (cf. the clipped verb *igg* from the verb ignore, or the clipped noun *corp* from the noun corporation). Thus, back-formation obtains new words, clipping only connoted variants.

Back-clippings can be subdivided also depending on which type of base lexeme is shortened. Hence, we can have back-clippings of nouns, such as *bod* (body), *cred* (credit or credibility), *deco* (decoration), *libes* (library), *rehab* (rehabilitation), and
adjectives, such as fab (fabulous), fave (favourite), gen (general), Mex (Mexican), rad (radical), trad (traditional) (Mattiello, 2008 : 142-143). A few back-clippings are verbs, such as frat (fraternize), grad (graduate), prep (prepare), sum (summarize), veg (vegetate), and adverbs, such as def (definitely), inf (infinitely). In addition, according to Mattiello (2008 : 143), some back-clippings can be “exclusive shortenings of slang rather than standard words”, which are no longer considered stylistically and pragmatically marked, but part of a colloquial language due to their frequency of use in everyday language. Examples of this kind are: boob (booby), dig (digger), fag (faggot), flim (flimsy), hood (hoodlum), hum (humbug), mack (mackerel), mech (mechanic), mike (microgram or microphone), mush (mushroom), nig (nigger), pud (pudding), razz (raspberry), roz (rozzer), swizz (swizzle), tab (tablet or tabby). Sometimes the same back-clipping can stand for different word classes, consequently the new formation may be ambiguous (e.g. cert can stand for both the noun certainty and the adjective certain, fash for the noun fashion and the adjective fashionable, glam for the noun glamour, the adjective glamorous and the verb glamorize, perv/perve for the noun perversion, the past participle perverted and the noun pervert) (Mattiello, 2008 : 143).

The majority of the examples above are back-clippings formed by simple bases, but we also encounter cases in which back-clippings derive from complex bases. These are usually composite words, like compounds or phrases, which can retain the first word entirely, such as after (afternoon), bookie (book keeper), common (common sense), ex (ex-boyfriend, girlfriend, husband, wife), floppy (floppy disc), goalie (goalkeeper), hard (hard labour), mobile (mobile phone), moon (moonshine), pay (paymaster), skin (skinflint or skinhead), teddy (teddy bear), teen (teen-ager), or just part of it, such as fries (fried potatoes), mutt
(mutton head), oppo (opposite number), perm (permanent wave), pop (popular music), prefab (prefabricated building), pub (public house), Scottie (Scotch Terrier), soc (social science), typo (typographical error), veep (Vice President), zoo (zoological park). Interestingly, in English complex words the right member generally holds head status (see William’s 1981 Righthand Head Rule). Therefore, a deletion of the second member corresponds to a reduced transparency.

♦ ‘Fore-clippings’, also known as apharesis, are formations coined cutting the initial part of the source word, and retaining just the ending of it. This category of clippings is less numerous than the previous one, but still quite productive. Examples of this kind are: bot (robot), bus (omnibus), cello (violoncello), coon (raccoon), cute (acute), ‘droid (android), fence (defence), ‘fraid (afraid), ‘fro (Afro), graph (paragraph), leet (elite), mark (deutschmark), nana (banana), Nam (Vietnam), phone (telephone), ‘possum (opossum), ‘rents (parents), tache (moustache), ‘tard (retard), ‘tude (attitude), varsity (university), venture (adventure), ‘za (pizza), zine (magazine) (Kreidler, 1979). Many fore-clippings, as we can see in many of the examples above, are usually marked in writing by means of an apostrophe, as in ‘cept (except), ‘roo (kangaroo), ‘shrooms (mushrooms) (López Rúa, 2006).

The great majority of fore-clippings are formed from nouns, such as choke (artichoke), chute (parachute), gator (alligator), loid (celluloid), plane (airplane), but also from verbs, such as fend (defend), mend (amend), niff (sniff), ply (apply), conjunctions, such as ‘cause (because), adverbs, such as ‘deed (indeed), and prepositions, such as ‘gainst (against), ‘neath (beneath or underneath), spite (despite), ‘tween (between) (Mattiello, 2008 : 145). Furthermore, we can distinguish also another subclass of
fore-clippings, which are derived from composite bases, and which mainly exhibit the second element of the base-form intact, as in *bin* (*loony bin*), *Cong* (*Viet Cong*), *jug* (*stone jug*), *pike* (*turnpike*), *shake* (*milkshake*) (Mattiello, 2008 : 147). These are more transparent than the above-mentioned clipped complex words.

♦ ‘Middle clippings’, also known as *syncope*, are those formations which retain the middle part of the base word. This type of clipping with respect to back and fore-clipping, is the least common. Indeed, we can find few examples of this kind: *fridge* (*refrigerator*, with an intrusive -d-), *flu* (*influenza*), *jams* or *jammies* (*pyjamas*), *polly* (*apollinaris*), *script* (*prescription*), *shrink* (*head-shrinker*), *tec* (*detective*), *van* (*advantage*) (Kreidler, 1979; Mattiello, 2008 : 145; Jamet, 2009 : 18).

♦ A discontinuous base, as in *vegan* from *vegetarian* is the rarest type.

An additional class of clippings is that of ‘clipped compounds’, formations made up of two clipped parts.

♦ ‘Clipped compounds’, or ‘clipping compounds’, are cases where a new word is formed out of the beginnings of two base words, such as *des res* (*desirable residence*), *misper* (*missing person*), *slomo* (*slow motion*), *spag bol* (*spaghetti Bolognese*), *sysop* (*system operation*). In these specific cases, it is difficult to establish whether the resultant formation should be treated as a
clipping or as a blend, because the borderline between these two processes is not very clear-cut. According to Bauer (1983: 233), one of the easiest way to draw a distinction between them is to consider those formations which retain compound stress as clipped compounds, while those which take a simple word stress as blends. Consequently, Bauer (ibid.) states that bodbiz (body business), Chicom (Chinese communist), Comsymp (communist sympathizer), midcult (middle culture), pro-am (professional amateur), sci-fi (science fiction), and sitcom (situation comedy) are all compounds made of clippings. On the other hand, according to Mattiello (2008: 146), clipped compounds differ from blends because, while in blends the bases have an autonomous sense, in clipped compounds the bases, being originally compound members, have a composite meaning. Accordingly, conlang (constructed language), cyborg (cybernetic organism), fanfic (fan fiction), hi-fi (high fidelity), op-ed (opinion editorial), pulmotor (pulmonary motor) are all clipped compounds, whereas bathetic (bathos + pathetic), ilk (beer + milk), linner (lunch + dinner), plog (political + blog), skort (skirt + short), slurve (slider + curve) are blends.

According to Mattiello (2008: 145-146), we can also identify a small group of clippings\(^7\), mostly from slang, that do “not only abbreviate the original word but also alter [their] spelling”, such as Jeez/Jese/Jez or Geez/Geeze (Jesus), mensh/mench (mention), natch (natural), nuff (enough), nuke (nuclear weapon), sesch (session), sheen (machine). In this case, the input is hardly recognizable, although alterations are intened to maintain basic sounds of the base.

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\(^7\)Essentially back-clippings, and a few fore-clippings.
2.3.4 Recurring patterns of formation

According to Plag (2003: 117), one the most interesting question is “how such clipped words are formed, and what kind of rules and restrictions are at work?”. This is in line with Plag’s approach, whereby all word-formation phenomena exhibit identifiable regularities. The issue, in fact, is an intricate one, because, the majority of scholars do not agree to this line and consider clipping as a non-rule-governed process, which makes it impossible to analysts to predict and explain the kind of formation patterns it might regularly undergo. From a morphotactic point of view, as previously illustrated, clippings are considered unpredictable, in the sense that we cannot predetermine how much of the original lexeme will be retained in the new formation, nor can we devise stable criteria according to which a certain type of shortening is preferred over another. According to Bauer (1983: 233), neither phonology nor any other linguistic discipline can be the key to the study of clipping, since it is impossible to formalize the phonological realization of clippings, to know how many syllables will be kept in the clipped form, whether the final syllable will be open or close, whether the stressed syllable will be included from the base or not.

On the other hand, Plag (2003: 117) identifies major regularities and recurring patterns of formation, also claiming that the formation of truncated words can be formalized by what he calls ‘prosodic restrictions’ or properties. Partly conforming to Plag’s analysis and assumption (2003: 117-118), we will assume that the formation of clippings is not completely arbitrary and unpredictable, but is rather constrained by some phonological restrictions having to do with the size and syllable structure (syllable constituents) of the clipping. Therefore, now, we will tentatively indicate and describe the recurring patterns or tendencies\(^8\) governing clipping formation:

\(^8\) In this case, it is better to refer to these restrictions as tendencies or regularities or preferences rather than rules.
What seems a regulator criterion is compliance with the more general criterion of shortening. A long and frequently used word is more likely to be shortened than a short and less used word. This happens mainly because in many cases base words are deliberately clipped to save time and space, and to satisfy the “Principle of Linguistic Economy”\(^9\). Clipped forms, which are usually coined from polysyllabic source words and rarely exceed two syllables, play a fundamental role in language economy (Stockwell & Minkova, 2001: 10). They, indeed, tend to reduce the articulatory and memory efforts necessary to generate a word. As noted by Stockwell & Minkova (2001: 10), clippings are morphologically shorter than their bases and very often made up of one syllable, as in bi (bisexual) gin (engine), lib (liberation), sim (simulation), or two syllables, as in aggro (aggression or aggravation), combi/combo (combination), inti (intifada), legit (legitimate). Although most clipped forms are monosyllabic, according to Kreidler (1979) there are also clippings of two or three syllables, which in particular can be subdivided into four different types. First, there are clippings ending with the vowel [i], orthographically –\(y\), -\(ie\), or –\(i\), such as bookie (bookkeeper), Caddy (Cadillac), civvie (civilian), homie (homeboy), marvy (marvellous), telly (television). This final vowel in disyllabic or trisyllabic clippings can be either an addition (–\(y\) / -\(ie\) suffix, see Merlini Barbaresi 2001), or part of the source word, and often explainable as a phonological device for easier pronunciation. Secondly, a bit less common type is that of clippings ending with the vowel [o], either as part of the original base word, as in anthro (anthropology), hippo (hippopotamus), mayo (mayonnaise), promo (promotion), rhino (rhinoceros), tempo (temporary building), or as an addition, as in ammo (ammunition), aggro (aggression), (Kreidler, 1979).

Then, there are clipped forms with stress on the second or third syllable, such as delísh (delicious), exéc (executive officer), legit (legitimate), matríc (matriculation), photóg (photographer), and finally, there are others that have primary stress on the first syllable and middle stress on the second or third,

\(^9\) The Principle of Linguistic Economy was established by André Martinet (1955) after Zipf’s (1949) ‘principle of least effort’. This principle favours shorter and simpler communication, recommending to say as little as possible while still being understandable.
such as ádvèrt (advertisement), écòn (economics), íntercòm (intercommunication system), préfàb (prefabricated building), récàp (recapitulation) (Kreidler, 1979). However, also in the examples listed above, the great majority of polysyllabic clippings are formed of two syllables. Thus, despite the rare cases of clippings made up of more than one or two syllables, they are generally monosyllabic or disyllabic.

- Clippings have a strong tendency to conform to a rather fixed prosodic structure. Firstly, according to Plag (2003 : 118-119), in clippings we can identify an inclination to end in a consonant. Examples of this kind are: av (avatar), bud (buddy), cab (cabriolet), dèrm (dermatologist or dermatological), Minn (Minnesota), pecs (pectoral muscles), reg (regulation), stude (student). However, additional data show that we can also have clipped forms ending in a vowel, generally -o or -y/-ie/-i/-ey, but in these cases phonologically a long vowel or a diphthong is obligatory, as in curio (curiosity), condò (condominium) and lesbo (lesbian), where the ending vowels are pronounced as a diphthong; Ray (Raymond), where the ending vowel is a diphthong pronounced /eɪ/, and Lou (Louise) and Sue (Suzanne), where the ending vowels are both long and pronounced respectively /u:/ and /ju:/ (Plag, 2003 : 118).

Moreover, it is important to note that there are no examples of clipped words that consist just of vowels, but rather at least one consonant has to be present in the combination. Therefore, according to these assumptions, we are able to identify the most frequently used and attested morphonological patterns of clipping, which are:

C (consonant); V (vowel)

CVC → This is the most frequent pattern used to obtain clipped form, such as biz (business), cal (calorie), cat (catamaran or catalytic converter), con (confidence, convict or convention), cuz (cousin), gov (governor), log (logarithm), med (medication), Mel (Amelia), rad (radiator or radial), rev (revolution), Ron (Aaron), tan (tangent).
CVCV → As already said, the ending of clippings can also be a vowel, although more rarely than a consonant. The ending vowel is either –o or –i/-y/-ie/-ey: benny (Benzedrine or benefit), Cali (California), deco (decoration), deli (delicatessen), demo (demonstration or demolition), dino (dinosaur), kilo (kilogram), memo (memorandum), mono (mononucleosis, monochrome or monaural), Paki (Pakistan), photo (photograph), promo (promotion), pullie (pullover), pyro (pyromaniac), repo (repossession).

VC → In this case, the clipped word is formed just of a vowel and a consonant, usually for base words beginning with a vowel, such as ab (abdominal muscle or abscess), ad (advertisement or advantage), ag (agriculture), Al (Albert), app (application), ed (education), ep (episode), op (optical art, operation or opportunity).

CCVC → The three previous patterns of formation ignored the possibility of consonant clusters in clippings, which can occur either at the beginning of the truncation, or, as we will see, at the end (see below). Examples of this kind are: cred (credibility), crip (cripple), croc (crocodile), frag (fragmentation grenade), grad (graduation), pref (preference), preg (pregnant), prep (preparation), pres/prez (president), prom (promenade), prop (propaganda), spec (specialist, specification or speculation), stat (statim10), strep11 (streptococcus), trad (tradition).

CVCC → In this case, the consonant cluster occurs at the end of the clipping, as in bunk (bunkum), carbs12 (carbohydrates), corp (corporation), derm (dermatologist), dorm (dormitory), mezc (mescaline), perk (perquisite), perp (perpetrator), perv (pervert), sarge (sergeant), sync/synch (synchronization), synth (synthesizer), tarp (tarpaulin).

10 Borrowed from Latin.
11 In this case, the pattern is CCCVC, instead of CCVC, because in strept the consonant cluster is made of 3 consonants.
12 In carbs the s is a plural marker, and not part of the consonant cluster.
These are the most frequently attested patterns, but we have to acknowledge that others can be found, such as VCCVC (admin from administration), VCCCV (aggro from aggravation or aggression), CCVCC (bronc from bronco), CVCCCVC (congrats from congratulations), though they are just sporadic and rare cases.

- Another interesting question is how the derived word is related to the base, and, more specifically, which part of the base word is retained in the clipping. As we have seen, the retained part is variable, nevertheless, it can be somewhat predictable. According to Kreidler (1979), “when a source word has a sequence of two consonants between its first and second vowel, the clipped form preserves both consonants or only the first of them, depending on their relative sonority”. By this criterion, if in the original base word there is a sequence of consonants,13 (captain, dermatologist, narcotics), in the resultant clipping we will find either both consonants (derm from dermatologist and narc from narcotics) or just one (cap from captain). These particular patterns are determined by the difference in the sonority of the consonants presented in the sequence. Kreidler (1979 : 16) makes two specific generalizations, claiming that “when the sequence of consonants is such that a more sonorant consonant precedes a less sonorant one, both consonants are preserved in the clipped form”. On the other hand, “when the second consonant is less sonorant than the first one, or when the two consonants are of the same degree of sonority, only the first consonant is retained in the clipped form” (Kreidler, 1979 : 17). Therefore, according to these assumptions, we can identify and illustrate some specific examples in which both consonants of the sequence from the base word are retained, and others in which just one consonant appears in the clipping:

13 Underlined in the following examples.
1. In the first case, clippings retain the entire sequence of consonants from the base word, because the first consonant is more sonorant than the second one. Examples of this kind are:

*dorm* *(dormitory)*, *perm* *(permanent)* and *porn* *(pornography)*, where \[r\] is a liquid more sonorant than the following nasals \[m\] and \[n\];

*sarge* *(sergeant)*, *talc* *(talcum)* and *turp* *(turpentine)*, where \[l\] and \[r\] are liquids more sonorant than the following obstruents \[g\], \[k\] and \[p\];

*simp* *(simpleton)*, *ump* *(umpire)* and *vamp* *(vampire)*, where \[m\] is a nasal which is more sonorant than the plosive \[p\] (Kreidler, 1979: 16-17).

2. On the other hand, source words that present a sequence made of the first consonant less sonorant than the second one, or both consonants at the same degree of sonority, coin clippings which retain just the first consonant, such as:

*ad* *(administration)* and *tech* *(technology)*, where the obstruents \[d\] and \[k\] are less sonorant than the second consonants which are the nasals \[m\] and \[n\];

*lube* *(lubricate)*, *mic* *(microphone)*, *prog* *(progress)* and *quad* *(quadrangle)*, where \[b\], \[k\], \[g\] and \[d\] are all obstruents less sonorant than the following liquid \[r\];

*gym* *(gymnasium)*, where the nasal \[m\] is followed by another nasal \[n\];

*cap* *(captain)*, *doc* *(doctor)* and *spec* *(spectacle)*, where \[p\] and \[k\] are obstruent as well as the following \[t\] (Kreidler, 1979: 16-17).

Furthermore, there is a different treatment when a non-permitted final cluster occurs. For example, from source words such as *convict*, *confidence* or *combination*, where the first consonants \[n\] and \[m\] are more sonorant than the second ones \[v\], \[f\] and \[b\], we will form clippings with just one consonant in
contrast with the previously explained tendency. Thus, from *convict* and *confidence* we will coin the clipping *con*, since the clusters -nv and -nf do not occur in final position in English, and from *combination* we will have *combo*, adding a vowel -o for the same reason (Kreidler, 1979: 17).

- According to Jamet (2009: 27), other two features affecting clipped formations consist of stress shift and phonemic and spelling change. In the first case, Jamet (2009: 27) notes that, “as clipping happens in deleting a part of a word, changes in stress patterns as stress shift are bound to occur”. The stress change which we can examine is the loss of secondary stress from the source word, if there is one, to the clipping. For example, from base words such as *appli’cation, communi’cation, delica’tessen*, which exhibit a primary (’) and a secondary stress (,), we will obtain the following clippings with a secondary stress becoming a primary stress: ’app, ’com and ’deli (Jamet, 2009: 27-28). In the second case, instead, we can assist at a change in spelling and also in phonemic realization. According to Bauer (1983: 233), clippings can also lead to changes in spelling, without any other change in the pronunciation, as in *coke (Coca Cola or cocaine)*, where orthographically the c becomes k, even if the pronunciation is the same; *deets (details)*, where the e redoubled orthographically in the clipping, but it is still pronounced /i:/; *natch (naturally)* where the same pronunciation /tʃ/ is conveyed orthographically in the clipping by tch and in the base by t (Jamet, 2009: 28-29). On the other hand, clippings may also involve phonemic change, which can take on three forms:

- **vowel change → aggro (aggravation)**, where the vowel /ɔ/ of the base is changed into /ɔʊ/ of the clipped form; *ammo (ammunition)*, where from the base the vowel /ju/ is changed into the diphthong /ɔʊ/ ; *bra (brasserie)*, where the vowel of the source word /æ/ is pronounced in the clipping /a:/.

- **consonant change → merc (mercenary)**, where the consonant c of the base is pronounced /sl/, while in the clipping it is /kl/; *bike (bicycle)*,
where the consonant c of the base is pronounced /s/, whereas in the clipping it is orthographically k and phonemically different /k/.

- consonant and vowel change → hubby (husband), where from the base word pronounced /hɑzbaŋd/ we will have in the resultant clipping a phonemic change in the vowel /ə/, which becomes /i/, and the consonant /z/ which is not retained.

- We can now draw some conclusions about the clipping process, its patterns of formation and features. First of all, the clipped word is more likely to be from the beginning of the source word (Can from Canada or Canadian, orang from orangutan, prelim from preliminary) than from the end, but it is more likely to be from the end (coon, gator, phone, varsity) than from the middle of the base word (fridge, tec). Then, a clipped form is more likely to be one or two syllable long, or if longer to fall into one of a very small number of patterns. Moreover, clippings are usually shorter than their base words. A monosyllabic clipping is almost certain to end with a consonant, but if it ends with a sequence of consonants, it is likely that the first one is more sonorant than the second one (br onc from bronco, vamp from vampire). Whereas, if in a clipping the sequence is not retained, but just one of the two consonants occurs, it means that the first one is less sonorant than the second one (synch from synchronization, vibes from vibrations). If the clipping happens to end in a vowel, usually the ending is -o or -y, -i, -ie, -ey, which can be either a part of the source word or a suffixal addition.

2.3.5 Clippings involving diminutive suffixation

Occasionally, clippings exhibit special semantic and pragmatic features, since sometimes they involve diminutive suffixation. Actually, in a significant number of cases, the clipping process is accompanied by this type of suffixation, generally with the addition of the suffix –y or –ie. Indeed, Plag
(2003: 13) mentions it, claiming that “sometimes truncation and affixation can occur together, as with formations expressing intimacy or smallness, so-called diminutives”. Clippings accompanied by diminutive suffixes are especially common and frequently used in nicknames and familiar versions of proper and common names (hypocoristics), as *divvy (dividend)*, *Gerry (Gerald)*, *Mandy (Amanda)*, *Patty (Patricia)*, *telly (television)*, *sausie (sausage)* (Katamba, 1994: 181). The combination between clipped forms and diminutives occur mainly because both clippings and diminutive suffixes very often share the same communicative contexts of use and pragmatic situations. Hence, the areas of use of diminutives and clippings, all belong to an informal, colloquial style and to speech situations characterized by close relationship and intimacy among speakers (Merlini Barbaresi, 2001: 317). Katamba (1994: 181), in particular, tends to restrict ‘diminutive clippings’ to informal situations, claiming that “in colloquial speech, clippings tend to end in a familiar suffix pronounced /ɪl/ (and spelled -ie or -y)”. On the semantic and pragmatic levels, he (*ibid.*: 181-182) also notes that “the semantics and pragmatics of clipping and diminutives is complex. These processes are typically used to express […] small size, […] positive and negative close emotions, familiarity (with the entity referred to, and/or with the addressee)”.

In general, the clipping process does not involve any definite semantic change from the meaning of the base word, but in this case, clippings involving diminutive suffixation tend to exhibit a change or an addition of some special semantic connotations to the original base meaning. Merlini Barbaresi (2001: 318) notes that the most basic meaning/function of the diminutive suffix is hypocoristic in nature, and identifies a particular ability to create names, mostly nicknames, nouns, adjectives used as evocatives or appellatives. Hypocoristic or evocative suffixes are mainly used in speech situations characterized by informality, intimacy, playfulness and affection, to convey a particular meaning of jocularity, tenderness, non-seriousness originated from its habit of being used to form terms of endearment (Merlini Barbaresi, 2001: 318-319). Examples of combinations between hypocoristics and clippings are most commonly names and famous surnames, such as *Andy (Andrew)*, *Angie (Angela)*.
(Angela), Aussie (Australian), Bernie (Bernard), Bertie (Albert), Bogey (Bogart), Boney/Bonny (Bonaparte), Bozzy (Boswell), Chevvie (Chevrolet), Dizzy (Disraeli), Fergie (Ferguson), Gorby (Gorbachov), Monty (Montgomery), Richie (Richard), Sherry (Sheridan), Wollies (Wollworths), Wordy (Wordsworth) (Merlini Barbaresi, 2001; Plag, 2003).

In addition, hypocoristic meaning and its features are the basis for all the other uses of diminutive suffixes. However, what is interesting for our study on combination of clippings and diminutives, are two other areas of use: slangy and familiar use. In the first case, the close connection between the hypocoristic function of the suffix and its slangy use leads to a passage of many hypocoristics into the category of common nouns to name objects of everyday use, such as archie (clipped from Archibald), which means ‘anti aircraft gun’, barbie (clipped from Barbara), which means ‘barbecue’, jenny (clipped from Jennifer), which means ‘a locomotive crane’ or ‘a female animal’, maggie (clipped from Margareth), which means ‘margarine’, ‘a girl’, ‘a pound coin’ (Merlini Barbaresi, 2001 : 320). The category of familiar use stands half-way between slang and nursery formations, and tends to include words mostly referring to people and objects of everyday life. Examples of diminutive clippings in this case are: baccy (tobacco), biccy (biscuit), chuddy (chewing gum), hubby (husband), lavvy (lavatory), milky (milkman), movie (moving picture), nightie (nightdress), shoppy (shopping-assistant), sussy (suspicious), wellies (Wellington boots) (Merlini Barbaresi, 2001 : 322).

In clippings accompanied by diminutive suffixation it is not easy to predict what part of a name is retained in the new formation, because the principles that determine the version of the clipping process that applies in a particular instance are not clear (Katamba, 1994 : 181). However, according to Katamba (1994 : 181), we can distinguish cases of back-clippings involving diminutives, such as boatie (boatman), Chrissie (Christian), comfy (comfortable), grannie (grandmother or grandfather), grotty (grotesque), Jackie (Jacqueline), Natty (Nathaniel), fore-clippings, such as Betty (Elizabeth), bikie (motorbike), brolly
(umbrella), Netty (Antoinette), Sandy (Alexander), Trish (Patricia), and few cases of middle clipping, such as Lexie (Alexandra), Lizzie (Elizabeth).

2.4 Acronyms & Initialisms

2.4.1 What are Acronyms and Initialisms?

Other two popular phenomena involving reduction, which can be listed under the label ‘abbreviation’ together with clipping, are acronyms and initialisms. Like clippings, both acronyms and initialisms involve loss of material, but, contrary to them, here orthography plays a fundamental role. Acronyms and initialisms are extra-grammatical phenomena formed by taking initial letters of multi-word sequences to make up a new word (Plag, 2003: 126). However, it is not always clear what is meant by the term ‘acronyms’ and ‘initialisms’. López Rúa (2004), for example, considers ‘initialism’ as a superordinate term comprising acronyms and the so-called ‘alphabetisms’14. By contrast, Conti & Mattiello (2008: 560) assume that acronyms and initialisms should be listed under the heading ‘alphabetism’, taking this as a superordinate term, instead of ‘initialism’. In this chapter, we will preferably choose the latter classification, using the term ‘alphabetism’ as hypernym to indicate both acronyms and initialisms.

Assuming that the term ‘alphabetism’ comprises the two processes that we will take into consideration, it is interesting to see that this concept includes also a variety of other phenomena. We will, in fact, exclude those categories which are commonly conflated with alphabetisms, due to their abbreviatory character and orthographic shape. Following Conti & Mattiello (2008: 560), in this chapter we will not examine:

- Clippings which exhibit a high degree of shortening formed of just one or few letters. There are back-clippings retaining the first letter of the

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14 The term ‘alphabetisms’ firstly appeared in López Rúa (2002).
base word → c. (Century or chapter), e. (episode), H (Hydrogen), K (ketamine or Special K), p. (page), P (Phosphorus), s.(season) usually for TV shows. Fore-clipping combined with back-clipping, in which the beginning and the ending letters of the source word are retained\(^\text{15}\) → Hz (Hertz), Jr (Junior), Mr. (Mister), vs. (versus), yr (year or your). Random clippings, where we can see just scattered letters, more frequently consonants → dlr (dollar), HRN (Heroin), Ltd (limited) (Conti & Mattiello, 2008 : 560).

- Graphic abbreviations or symbols, such as a.m./p.m. (ante/post meridiem), Br (Bromine), c.v. (curriculum vitae), Na (Sodium), s.v. (sub verbo/voce), which are abbreviations of neoclassical origin; f.p.s./i.p.s. (feet/inches per second), km (kilometre), MV (Megavolt), which are quantificational marks; E.E. (Early English), M.E. (Middle English), O.E. (Old English), which are language names for time periods; E. (East), N. (North), S. (South), W. (West), which are cardinal points (Conti & Mattiello, 2008 : 560-561).

- Alphanumeric combinations\(^\text{16}\), mostly used in SMS language and in text messaging in order to save space and time. In this case, a syllable tends to be replaced by a homophone letter or a number, as in B4 (before), 4U (for you), G8 (great), L8R (later), S8R (skater), 2u2 (to you too) (Conti & Mattiello, 2008 : 561).

\(\text{15}\) Underlined in the following examples.

\(\text{16}\) Alphanumeric combinations will be treated briefly at the end of the chapter (§ 2.6), in the section dedicated to abbreviations in SMS and online language.

2.4.2 Definitions and characteristics of acronyms and initialisms

What is fundamental now, is to provide a clear differentiation between acronyms and initialisms, in order to identify and define each concept separately and not hierarchically. Acronyms and initialisms tend to share a
fundamental feature, i.e. they both coin “new words by taking the initial letters of the words in a title or a phrase” (Bauer, 1983 : 233). However, they still represent two distinct word-formation processes, since we can discriminate acronyms from initialisms on the basis of their pronunciation. Indeed, while acronyms are formations pronounced as full words, by applying the regular reading rules (such as AIDS for Acquired Immune Deficiency Syndrome which is pronounced /eɪdɪz/), initialisms are pronounced letter by letter, by naming each individual letter of the abbreviated words (such as BBC for British Broadcasting Corporation pronounced /biːbiːˈsiː/) (Mattiello, 2008 : 135). This discrimination, however, is not always so clear-cut, since there are many borderline cases accepting both pronunciations17, as in asap/A.S.A.P. (as soon as possible), Raf/RAF (Royal Air Force), vat/VAT (Value Addex Tax), vipl/V.I.P. (very important person), ufo/U.F.O. (Unidentified Flying Object), or combining both pronunciations, as in BTEC (Business and Technology Education Council), CD-ROM (Compact Disk Read Only Memory), JPEG (Joint Photographic Experts Group), MPEG (Moving Picture Experts Group), MS-DOS (MicroSoft Disk Operating System) (Lopez Rua, 2002; Conti & Mattiello, 2008 : 561). In addition, according to Plag (2003 : 127), both formations can be spelled with either capital or lower-case letters. Capital letters are usually considered a formal device to link the acronym or the initialism to its base word, but, nowadays, some words that were historically spelled with capital letters are no longer spelled this way, and for the majority of speakers they tend to be also no longer related to the word they originally abbreviated (radar for Radio Detection and Ranging, laser for Light Amplification by Stimulated Emission of Radiation) (Plag, 2003 : 127-128).

Another characteristic shared by both processes is related to their unpredictability, which is also one of the principal reasons why they are considered out of ordinary morphology. According to Fischer (1998 : 27), the meaning of an acronym or an initialism cannot be easily deduced from its base

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17 In the following examples, the first formation is the acronym, while the second is the initialism.
form, but rather it has to be learned. Indeed, having a series of letters, such as *DAWN* (*Drug Abuse Warning Network*), *DARE* (*Drug Abuse Resistance Education*), we cannot precisely neither retrace the base from which it is reduced, nor identify the meaning of the acronym without its context of use. Furthermore, according to Bauer (1983: 237), the lack of predictability in acronyms and initialisms originates also from the fact that “the phrase from which the acronym is taken is treated with a certain amount of freedom to permit the acronym to arise”. There are, indeed, cases in which the acronym is made up of just the initial letters of the base phrase (*DECT* for *Digital European Cordless Telephone*), cases in which only the first part of a compound adjective provides a letter (*BASIC* for *Beginner’s All-purpose Symbolic Instruction Code*, where from *all-purpose* only the *a* appears in the acronym) or both parts of a compound adjective provide a letter for the acronym (*WASP* for *West Anglo-Saxon Protestant*), cases where some function words are not represented by any letters in the acronym (*ESOL* for *English for Speakers of Other Languages*, *GCSE* for *General Certificate of Secondary Education*, where there are no letters for the prepositions *for* and *of*) and others instead in which letters also for these function words are retained (*EDAC* for *Error Detection And Correction*) (Bauer, 1983: 237).

However, despite their shared features, we prefer to classify acronyms and initialisms separately, so as to distinguish them and identify their specific features.

### 2.4.3 Classification of acronyms

Acronyms, also labeled acronym words\(^\text{18}\), consist of a series of initial letters from longer words, titles or phrases, which are pronounced as normal full words. However, as we will see, acronyms are not always coined by taking

\(^{18}\) According to Bat-El (2000: 67), “acronym words are acronyms pronounced as words, […] while acronyms are pronounced by their letters”. In this study, however, we do not use his terminology, but we prefer to indicate Bat-El’s ‘acronym words’ as acronyms, and ‘acronyms’ as initialisms.
only initial letters from the base forms, but rather we can find cases in which the formation of acronyms does not follow the previous definition strictly. For this reason, following Conti & Mattiello (2008 : 562), we will focus on the classification of acronyms mainly on the basis of two criteria, namely orthographic and word-based. Depending on the first criterion, orthography, we can distinguish the following types of acronyms from the most prototypical to the less prototypical:

I. ‘Non-elliptic acronyms’, in which all the words contained in the source phrase are graphically represented by a letter. Actually, these acronyms are considered the most prototypical ones, because they strictly respect the standard definition of acronyms, according to which they are formed by retaining every initial letter of the base multi-word sequence. Hence, we can find many examples of this type, such as AWOL (absent without official leave), CICS (Customer Information Control System), COIL (Chemical Oxygen Iodine Laser), COLA (Cost of Living Adjustments), LAB (Logistics Assault Base), Legs (level emotion gad speed), RAM (Random Access Memory), RASC (Royal Army Service Corp), REACT (Remote Electronically Activated Control Technology), TARDIS (Time and Relative Dimensions in Space), Team (together everyone achieve more).

II. ‘Elliptic acronyms’ are those formations in which not all the words contained in the base form are orthographically represented by letters. In many cases, function words, in particular, tend to be ignored in order to keep the acronyms manageable. Indeed, one of the commonest cases is the omission of grammar words19: prepositions, as in ARCA (Automobile Racing Car of America), where of does not appear in the acronym, ASCII (American Standard Code for Information Interchange), MOUT (Military Operations in Urbanized

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19 Underlined in the following examples.
Terrain), NUSAS (National Union of South African Students), RARE (Rapid Acquisition with Relaxation Enhancement), conjunctions, as in MORP (Meteorite Observation and Recovery Project), CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act), UNESCO (United Nations Educational, Scientific and Cultural Organisation), articles, such as FOB (Fresh Off the Boat), and their combination, as in BAFTA (British Academy of Film and Television Arts), where neither of nor and are retained in the acronym, PETA (People for the Ethical Treatment of Animals) (Conti & Mattiello, 2008 : 562). This happens mainly because grammar words are considered not very relevant for the realization of acronyms, since they do not carry or convey any lexical semantic content. Ellipsis, though very rarely, can involve also full lexical words20, as in PACE (Police And Criminal Evidence act), LEP (Large Electron-Positron collider), LIFE (Laboratory for International Fuzzy Engineering research). Another characteristic of elliptic acronyms is that, in some cases, they may undergo a process of vowel insertion or suffixation, as in Humvee (High-mobility Multi-purposed wheeled vehicle), where the vowels u and e are added, and yuppie (young urban people) and yumpie (young upwardly mobile professional), where a suffix -ie is added at the end of the acronyms. This type of insertion, though, in acronyms represents a low percentage. By contrast, vowels tend to be frequently inserted in pronunciation, in order to obtain homophones with already existing words, or to make them more pronounceable, such as NSAID (Non-Steroidal Anti-Inflammatory Drug), NWAVE (New Ways of Analyzing Variation in English) and SLRF (Second Language Research Forum), which are pronounced respectively /'enseɪd/, /enwɛv/ and /slɔːrf/ (Plag, 2003 : 128).

III. This class of acronyms is less prototypical than the previous two, and comprises those acronyms composed of more than one initial letter from each word of the base phrase. Examples of this kind are: radar (radio detention and

20 Underlined in the following examples.
ranging), where from the first word of the sequence, radio, we retain the entire first syllable ra; colidar (coherent light detecting and ranging), where from the first and second words of the phrase, the first syllables, co and li, are both present in the acronym; INSET (In-service Education and Training); NORAD (North American Aerospace Defense Command); NOTAR (No Tail Rotor); TENCAP (Tactical Exploitation of National Capabilities) (Conti & Mattiello, 2008 : 563).

IV. Another category, still based on orthography, is represented by the case of ‘recursive acronyms’, in which one word of the source phrase coincides precisely with the acronym itself, usually the first one\textsuperscript{21}, such as ALLEGRO (Allegro Low Level Game Routine), CAVE (Cave Automatic Virtual Environment), LAME (Lame ain’t an MP3 Encoder), MINT (Mint is not Trac), Mung (Mung until no good), PINE (Pine is not Elm), Zinf (Zinf is not Freeamp). This type of acronyms is not very common, and for this reason, it is considered the least prototypical category.

On the other hand, according to Conti & Mattiello (2008 : 563), within the class of acronyms we can also include ‘acrostics’, which are those acronyms whose reading/pronunciation perfectly coincides with another already existing word in English (homonymy/homophony). This type of distinction, however, cannot be proposed on an orthographic or structural level, but rather on a word basis. Therefore, in terms of homonymy/homophony, we can identify two subtypes of acronyms based on their semantic relevance:

V. ‘Semantically-relevant acrostics’ are combinations which intentionally give rise to homophones. In such cases, the resultant formations are

\textsuperscript{21} In bold font in the following examples.
homonyms, but also the meaning conveyed by the acrostic is semantically connected to the meaning of the homophone word in English (as in *Operation PUSH*, where the meaning of *push* as ordinary verb is related to the meaning of the acronym *PUSH* which is *People United to Save Humanity*). According to Makkai (1972; 2000) these acrostics/acronyms are called ‘punning acronyms’, since the result of homophony between the acronym and the existing word is a pun, a sort of wordplay. Indeed, the interesting feature of ‘punning acronyms’ is that they can be thought of either as a single word, or as a sequence of words, or as a word whose meaning is linked with the purpose and function of what both the acronym and the full form describe (Makkai, 2000 : 71). Examples of this kind are: CALL (Center for Army Lessons Learned), FREE (Fathers Rights and Equality Exchange), FUSE (Faiths United for Sustainable Energy), KEY (Keep Educating Yourself), LEAP (Law Enforcement Against Prohibition), POETS (Piss on Everything Tomorrow is Saturday), RACE (Rescue, Activate alarm, Confine the fire, Evacuate/Extinguish), RAPID (Research with Adaptive Particle Imaging Detectors), SAD (Seasonal Affective Disorder), SMILE (Small, Intelligent, Light, Efficient), SWIFT (Society for Worldwide Interbank Financial Telecommunication), VOCAL (Victims of Child Abuse Laws). In addition, according to Plag (2003 : 128), this type of acronyms is mostly used and coined for “marketing or publicity reasons, especially in those cases where the homonymous word carries a meaning that is intended to be associated with the referent of the acronym”. Indeed, sometimes the coiner of such acronyms comes up with a word which is short, easy to pronounce and memorize, and which encloses some specific connotations in order to name, for example, organizations, such as ASH (Association on Smoking and Health), CARE (Cooperative for Assistance and Relief Everywhere), NOW (National Organization of Women), military programs, such as START (Strategic Arms Reduction Talks), associations of people, such as MAD(D) (Mothers Against Drunk Driving), SWORD (Separated, Widowed OR Divorced), or scientific devices and programs, such as FAST (Flexible Algebraic Scientific Translator), GIFT (Gamete Intrafallopian Transfer), SPRINT (Strategic Programme for Innovation and Technology Transfer) (López Rúa, 1999 : 628;
Plag, 2003:128). According to Stockwell & Minkova (2001:9), this type of semantically-relevant acronyms is also called ‘reverse acronyms’, because the process of formation appears to be reversed. The creators start choosing an ordinary word, for example core, and then they work from those letters to find four words which represent the idea they want the word to be associated with. CORE, indeed, is the acronym for Congress of Racial Equality, AID for Agency for International Development, HOPE for Health Opportunity for People Everywhere (Stockwell & Minkova, 2001:9).

VI. ‘Semantically-irrelevant acrostics’ are acronyms which are phonetically identical to an existing word, but semantically there is no connection between the meaning of the acronym and the meaning of the homophonous word. Examples of this kind are: SWOT (Strengths, Weaknesses, Opportunities, Threats), which means ‘a way of considering all the good and bad features of a business situation or a company’, and is a homophone of the slang verb to swot (‘to study hard’) and of the noun swot (‘a child who studies very hard’), but semantically has nothing to do with them, BANANA (Build Absolutely Nothing Anywhere Near Anything), MACHO (Massive Compact Halo Object or Massive Astrophysical Compact Halo Object), PAMELA (Payload for Antimatter Matter Exploration and Light-nuclei Astrophysics), PARC (Palo Alto Research Center), PEST (Public Engagement with Science and Technology), PET (Preliminary English Test), PICNIC (Problem in Chair Not in Computer), PIN (Personal Identification Number), SHAPE (Supreme Headquarters Allied Powers in Europe), SLEEP (Scanning Low Energy Electron Probe), TESSA (Tax Exempt Special Savings Account), VERITAS (Very Energetic Radiation Imaging Telescope Array System) (Conti & Mattiello, 2008:563-564).

Acrostics, anyway, both semantically-relevant and irrelevant, can be either elliptic, such as the aforementioned FREE, RAPID, SHAPE, or non-elliptic,
such as $KEY$, $SAD$, $PIN$, from the point of view of orthography. Thus, these two criteria used to classify acronyms combine together to identify different categories, although they are mutually independent.

2.4.4 Classification of initialisms

Initialisms, as already explained, are those formations which, unlike acronyms, are pronounced letter by letter. Initialisms, as well as acronyms, can be divided into two main subtypes according to orthography. That is, we can indentify ‘non-elliptic initialisms’ and ‘elliptic initialisms’:

I. ‘Non-elliptic initialisms’ are formed of the initial letters of every constituent of the base phrase, without any omission. This category is considered the most prototypical, since the type which, on the contrary, retains more than one letter from each constituents of the source phrase is non-prototypical, as there is no one-to-one correspondence between graphemes and full words. Examples of non-elliptic initialisms are numerous: CBOT (Chicago Board of Trade), CCP (Casualty Collection Point), FCS (Football Championship Subdivision), FFC (Free for chat), KCL (King’s College London), KKK (Ku Klux Klan), MGM (Metro Goldwyn Mayer), OC (Orange County), OED (Oxford English Dictionary), RDV (Remote Detection Vehicle), SBA (Simulation-Based Acquisition), SBS (Special Broadcasting Service), SDC (Strategic Defense Command), SFF (Standard File Format).

II. ‘Elliptic initialism’ are, on the other hand, those formations which frequently tend to omit function words, such as prepositions ($BA$ for Bachelor of Arts, $FBI$ for Federal Bureau of Investigation, $NFHS$ for National Federation of High Schools, $SCA$ for Society for Creative Anachronism), conjunctions ($BBSRC$ for Biotechnology and Biological Sciences Research Council, $NVEOL$ for Night Vision and Electro-Optics Laboratory), or their
combinations (CCCP for *Central Committee of the Communist Party*, ESL for *English as a Second Language*, NIAAA for *National Institute on Alcohol Abuse and Alcoholism*, SDS for *Students for a Democratic Society*) (Conti & Mattiello, 2008: 564-565). In very rare cases, ellipsis may also involve full lexical words, as in *CBE (Commander of the order of the British Empire)*, *EBD (Electronic Brake force Distribution)*, *FCA (Fraction of Combat Active forces)*.

III. However, unlike acronyms, initialisms may exhibit other components, such as symbols, numbers, coordinators. For this reason, we prefer to distinguish a further category of initialisms, based on which device is added to ordinary letters. According to Conti & Mattiello (2008: 565), initialisms may admit:

- numerals → in this case, numerals in the initialism may represent either just the correspondent referent, as in *4WD (four Wheel Drive)*, *G8/G10 (Group of 8 / of 10)*, *IE5 (Internet Explorer 5)*, *NC-18 (No children under 18)*, *PG-13 (Parental Guidance for children under 13)*, *POP3 (Post Office Protocol Version 3)*, *2D/3D (two/three Dimension)*, or the number of words beginning with the same letter in the source phrase or expression, as in *A3 (Anytime, Anyplace, Anywhere)*, *C2 (Command and Control)*, *C2D (Command and Control Directorate)*, *C4 (Command, Control, Communication and Computers)*, *4H (Head, Heart, Hands and Health)*, *N3F (National Fan Fantasy Federation)*, *P3I (Pre-planned Product Improvement)*, *R3P (Realm, Refuel and Resupply Point)*, *W3C (World Wide Web Consortium)*.

- coordinators → in particular, we can find three types of coordinators that mostly occur in initialism formations: *and*, as in *B. and S. (Brandy and Soda)*, *O. and M. (Organization and methods)*, *Q and A (Question and Answer)*, *‘n’, as in *r’n’b (rhythm and blues)*, *r’n’r (rock and roll)*, and *&, as in A.T.& T. (American
Telephone and Telegraph Company), B&B (Bed and Breakfast), B&W (Babcock and Wilcox or Black and White), D&D (Dungeons and Dragons), PG&E (Pacific Gas and Electric), R&D (Research and Development), R&R (Rest and Relaxation), R&S (Reconnaissance and Surveillance).

- symbols → usually, the hyphen ‘ - ’, as in A.-A. (Anti-Aircraft), and the slash ‘ / ’, as in I/O (Input / Output), n/s (Non-smoking), W/T (Wireless Telegraphy).


In addition, the pronunciation of initialisms generally depends on the orthographic status acquired rather than on the phonetic value of the words in the base phrase (Conti & Mattiello, 2008 : 565). Indeed, initialisms such as FPS (Federal Protective Service), NBA (National Basketball Association) or TRL (Total Request Live) are pronounced according to their orthography, i.e. as letters /ef pi: es/, /en bi: el/ and /ti: a:(r) el/, and not according to the pronunciation of those relative letters in the source phrase, respectively: /'fed(ə)rəl prəˈtektn ˈs3ː(r)vɪs/, /ˈnæʃ(ə)nəl ˈbaːskɪt, bəˈl əˌsɔusiˈetʃ(ə)n/ and /ˈtɔʊt(ə)l riˈkwɛst ləɪv/. Consequently, initialisms beginning with consonants, like MP (Member of Parliament) and LCD (Liquid Crystal Display), may be preceded by indefinite articles either a or an depending on the pronunciation of the first consonant, as in ordinary English words (Conti & Mattiello, 2008 : 565). In fact, in the case of MP and LCD, we will have an MP and an LCD, since the pronunciation of their initial consonants exhibits a vowel sound /em/ and /el/, while BDU (Battle Dress Uniform) and TLA (Three-letter Abbreviation) will be preceded by a, a BDU and a TLA, since the pronunciation of their first consonants exhibit a consonant sound /bi:/ and /ti:/.
2.4.5 Recurring Patterns of Formation

According to a number of studies, acronyms and initialisms are mostly defined as unpredictable processes of word-formation in English, as compared to other regular mechanisms such as compounding or derivation. Many scholars (Aronoff, 1976; Bauer, 1983; Dressler & Merlini Barbaresi, 1994; Ronneberger-Sibold, 2008) agree on assuming that this unpredictability is likely to be determined by a number of irregularities which set the phenomena under investigation apart from regular word-formation. However, among these irregularities which confirm the extra-grammatical nature of acronyms and initialisms, also some recurring patterns of formation are identifiable, or tendencies which turn out to be very helpful in the prediction of new abbreviated formations. These recurring patterns have mainly to do with the size and structure of acronyms and initialisms, and properties of the source phrase. They may be summarized as:

- The members of alphabetisms are at least two, specifically: initialisms require from two to a potentially infinite number of constituents (IQ for *Intelligence Quotient*, DB for *Database*, LA for *Los Angeles*), whereas acronyms may accept, as a minimum number, three constituents (DAS for *Defensive Aids Suite*, FAQ for *Frequently Asked Questions*, LAW for *Light Antitank Weapon*) (Conti & Mattiello, 2007: 568).

- Both initialisms and acronyms sometimes omit function words, such as conjunctions or prepositions, since they are semantically less relevant than lexical words22. However, initialisms (*BCE* for *Before the Common Era*, *B.L* for *Bachelor of Law*, *MIT* for *Massachusetts Intitute of Technology*) tend to omit them more often than acronyms, mainly because, in acronyms, in some cases, the initials of grammar words tend to facilitate their reading. Examples

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22 See also ‘elliptic’ acronyms and initialisms.
of this kind are: MIMOSA (*Micro Measurements of Satellite Acceleration*) where the preposition *of* has a representation in the acronym, MOMA (*Museum of Modern Arts*), ROA/ROD (*Rate of Abscent / Descent*), ROE (*Rules of Engagement*) (Conti & Mattiello, 2008 : 568).

- Basically, according to the most prototypical formations, acronyms and initialisms have to be coined by just the initial letters of every component of the base expression. Besides, we have just seen that both acronyms and initialisms may exhibit some kind of ellipsis (usually of grammar words) with respect to the original expression, and that there are cases in which acronyms do not retain only initial letters, but also entire syllables or sequences of two or three letters from at least one word of the source phrase, as in Daemon (*Disk and Execution Monitor*) and in the already mentioned Intelsat (*International Telecommunications Satellite Consortium*), radar (*Radio Detection and Ranging*), sonar (*Sound Navigation and Ranging*). In addition, there is another less prototypical case of acronyms which exhibits vowel insertion, as in Humvee (*High-mobility Multi-purposed wheeled vehicle*).

- In alphabetisms, the letters can be separated by dots (*D.N.A.*, *M.A.F.*, *U.C.L.A.*), but the more frequently attested pattern is spelling without dots (*DNA, MAF, UCLA*). Moreover, both acronyms and initialisms normally exhibit capital letters, but when they are lexicalised, in particular in the case of such acronyms as asdic (*Anti-Submarine Detection Investigation Committee*), fubb (*fouled up beyond yourself*), laser (*Light Amplification by Stimulated Emission of Radiation*), loran (*long-range navigation*), scuba (*self-contained underwater breathing apparatus*), tarfu (*things are really fouled up*), they preferably show lower-case letters (Baum, 1955 : 103-104; Plag, 2003 : 127). There are also other cases, in which the acronym may maintain only the initial capital letter, as in Aids (*Acquired Immune Deficiency Syndrome*), Bimbo (*Buy-in Management Buy-out*), Nimby (*not in my backyard*), or the initial and the
Another tendency mainly regards the syntactic property of the source phrase or expression from which acronyms and initialisms are derived. As regards this point, the most prototypical base of both is a Noun Phrase (NP), as in *Best Friends Forever* (BFF), *Central African Republic* (CAF), *Championship Auto Racing Team* (CART), *Google Image Source* (GIS), *good sense of humour* (GSOH), *Operation Point/Post* (OP), *Wireless Application Protocol* (WAP). However, although very rarely, we can also find a few examples of Prepositional Phrase (PP) as base, as in *on approved credit* (OAN), *with approved credit* (WAC), Adverbial Phrase (Adv.P), as in *asap* (as soon as possible), *btw* (by the way), Verbal Phrase (VP), such as *go to go* (GTG), *laugh(ing) out loud* (LOL), and interjections or exclamations, as in *OMG* (Oh my God/Gosh!), *OMW* (Oh my Way/Word!), *OO* (Over and Out!), *WB* (Welcome Back!), *WTH* (What the hell!).

Acronyms can also act as normal lexemes, since they may behave as regular bases of inflection. They can form plurals by adding –s suffix, as well as any other regular word. We can find *lasers*, *Nimbies*, *radars*, *scubas*, *yuppies*. This property, by the way, is only typical of acronyms, because as Conti & Mattiello (2008 : 569) explain, “initialisms do not generally denote categories of countable entities, but rather individual and specific entities, such as organizations, associations, groups, units and the like which do not require pluralization”.

Lastly, both acronyms or initialisms can themselves become parts of new multiple formations, and function as input to word-formation rules (Bat-EI, 2000 : 67). In particular, both may behave as bases in derivation, for the
formation of mostly nouns and adjectives through the addition of specific suffixes, as, for example, -ish in: NATO deriving the adjective NATOish, UFO becomes UFOish, WASP becomes WASPish; -ism: NATO derives also the noun NATOism, Nimby becomes Nymbism, and WASP derives WASPism; -ness: OK may derive the noun OK-ness; -er: NDP (New Democratic Party) derives the noun NDPer, R.A. (Royal Academy) becomes R.A.-er; -dom: WASP can derive also WASPdom, yuppie derives yuppiedom; -able: FOI (Freedom of Information) become FOIable; -ship: A.D.C. (Aide-de-Camp) derives A.D.C.-ship, MP (Member of Parliament) becomes MP-ship, R.A. can also derive R.A.-ship.

2.5 Preferential criteria of formation in abbreviations

The criteria described in this section are important and interesting to define and determine the preferential characteristics of the formation of abbreviations in general. Here, we will provide a number of criteria and parameters according to which clippings, acronyms and initialisms are prototypically well-formed. The preferential criteria that we have identified are:

- **Brevity** - this parameter represents one of the most important for abbreviations. In this case, clippings, acronyms and initialisms all involve a reduction of some kind, and for this reason, they are considered as the most economical extra-grammatical devices. Abbreviations, indeed, conform to the linguistic ‘Principle of Least Effort’ (Principle of Economy), since it is not necessary a big effort to pronounce them achieving the same successful result. Therefore, prototypically abbreviations must be shorter than their correspondent base words, still being recognizable and comprehensible.
• **Recoverability & Salience** - Recoverability is the parameter according to which the bases of abbreviations may be recovered and recognized without any effort. Clippings, in particular, exhibit a very similar structure to that of the longer source words, and this allows an almost immediate identification. Indeed, the retained parts from the bases may be their beginnings, as in *bi* (*bisexual*), *corp* (*corporation*) and *recap* (*recapitulation*), their endings, as in *gator* (*alligator*) and *phone* (*telephone*), or their middle parts, as in *fridge* (*refridgerator*) and *polly* (*apollinaris*). Among abbreviations, the phenomenon of clipping seems to be the most transparent from this point of view, since acronyms and initialisms tend to be less transparent and their input more difficult to recover. Acronyms, such as *awol* (*absent without official leave*), *BAT* (*British American Tobacco*), *NASA* (*National Aeronautics & Space Administration*), and initialisms, such as *BPLD* (*Blood Pressure Lowering Drug*), *HBS* (*Harvest Billing System*), *PSP* (*Play Station Portable*), being formed just by the initial letters of the constituents of the source phrase, exhibit a more obscure structure as compared with clippings.

The aspect of salience, instead, is an interesting criterion in the formation of abbreviations, because, on the basis of such parameter, it is mainly the salient and significant part of the source words to be retained in the shortening. In the case of acronyms and initialisms, prototypically, the salient parts are represented by the initial letters of every constituent of the source phrase, as in ‘non-elliptic acronyms’ *COLA* (*Cost of Living Adjustments*), *Legs* (*level emotion gad speed*) or ‘non-elliptic initialisms’ *CBOT* (*Chicago Board of Trade*), *FCS* (*Football Championship Subdivision*). However, sometimes, either acronyms or initialisms exhibit a rather different mechanism of formation, where the initials of words which are not felt as important, as conjunctions, prepositions, articles, are omitted. Thus, ‘elliptic acronyms’, such as *ARCA* (*Automobile Racing Car of America*), *FOB* (*Fresh off the Boat*), *PETA* (*Petition for the Ethical Treatment of
Animals), and ‘elliptic initialisms’, such as FBI (Federal Bureau of Investigation), SCA (Society of Creative Anachronism) are less prototypical, because not all the words presented in the basic phrase are considered salient and, consequently, they are not orthographically represented in the correspondent abbreviation.

- **Linearity** - Another important criterion to coin well-formed abbreviations is that of linearity. On the basis of linearity, acronyms and initialisms are created by the initial letters of every constituent of the source phrase which necessarily follows the same linear order of the base expression. Hence, the first letter of an acronym or an initialism must coincide with the initial letter of the first word in the basic phrase, the second letter with the second initial, and so on. Linearity is important also in the formation of prototypical clippings, since the retained part is generally the beginning (mayo from mayonnaise), the ending (varsity from university), or the middle (tec from detective), and cases like vegan are non-prototypical. This parameter is closely related with the previous one of recoverability, because thanks to linearity we are able to recover the base words from which the abbreviation is created.

- **Easy Memorization** - Abbreviations have to exhibit a very attractive and attention-catching structure to be noticed and remembered. The realizations of abbreviations have to be easily recognizable and, furthermore, easily memorisable in order to be used again and in different contexts. Clippings, such as bike, ex, grandma, lab, maths, mike, phone, entered the English lexicon and are, nowadays, exploited by speakers and writers as everyday ordinary words because they are very easy to remember. Acronyms, such as PET (Preliminary English Test), RAF (Royal Air Force), UFO
(Unidentified Flying Object) and initialisms, such as CCP (Casualty Collection Point), ESL (English as a Second Language), LCD (Liquid Crystal Display), exhibit an extremely reduced shape, compared to their correspondent source expressions, and, for this reason, they may be easier to memorize.

- **Specificity** - Abbreviations must not be too obscure or ambiguous. To be well-formed, they should exhibit a certain transparency of the components in the abbreviation, and they have to be as clear and understandable as possible. This clarity, however, not only interests the elements forming the abbreviation, but it also concerns, more specifically, all the factors related to the context of use. In case of ambiguity, as in DANCE\textsuperscript{23}, the contextual and co-textual environments and situations (e.g. topic of the conversation, users, etc.) are essential to identify the referent.

- **Pronounceability** - This criterion is applicable only to acronyms, in particular, since they consist of a series of initial letters from longer phrases or expressions pronounced as normal full words. On the basis of such a definition, pronounceability appears to be a fundamental characteristic of prototypical acronyms. To be well-formed, indeed, acronyms must be pronounceable as words (FOB is pronounced /fɒb/, REACT is pronounced /riˈækt/, UNESCO is pronounced /juˈneskəʊ/), and not letter by letter, like initialisms.

\textsuperscript{23} It may refer to: (1) Darpa Active Networks Conference and Exposition, (2) Dynamic Animation and Control Environment, (3) Detector for Advanced Neutron Capture Experiments, (4) Database Access Non-Computer Engine
• **Homonymy** - The parameter of homonymy is applicable only to a specific type of acronyms, i.e. acrostics. Semantically-relevant and semantically-irrelevant acrostics exhibit a fundamental trait which set them apart from any other type of acronyms, i.e. the resultant extra-grammatical formations are homonyms of other English ordinary words. Examples of this kind are: **CALL** (Centre for Army Lessons Learned), **FREE** (Fathers Rights and Equality Exchange), **LEAP** (Law Enforcement Against Prohibition), **PICNIC** (Problem in Chair not in Computer), **PUSH** (People United to Save Humanity), **SHAPE** (Supreme Headquarters Allied Powers in Europe), **SMILE** (Small, Intelligent, Light, Efficient).

### 2.6 Abbreviations in Internet and SMS language

Since the beginning of the 20th Century, and in particular during the First and the Second World War, abbreviations, and in general economical devices, have become frequent and common by the fact that enemies would not recognize the meaning of these shortened formations. Nowadays, this practice and the use of initialisms, acronyms and clippings has been further popularized with the emergence of new ways of communication. According to Fandrych (2007 : 148), abbreviations and blends are symbols of the second half of the 20th Century, since their proliferation has been much aggravated by the widespread use of electronic communication through mobile phones and Internet. This is due largely to the increasing popularity of textual communication services, such as instant and text messaging. Scholars (McArthur, 2000; Fandrich, 2007; López Rúa, 2007), indeed, emphasize the prevalence of acronyms, clippings and initialisms in Internet English, claiming that online conversations usually take place on the written level, but using specific stylistic conventions which are very similar to oral communication. Moreover, Fandrich (2007 : 148) concludes that abbreviations in general are responsible for the characteristic style of Internet language, and that also offline usage is largely influenced by Internet usage.
Basically, abbreviations are coined to denote concepts and terms as concisely as possible. López Rúa (2007 : 170) writing about SMS language, notes that “since the number of characters per message is limited, languages manage to save space in writing by resorting to conventional and unconventional shortening devices”. Therefore, text messaging brings into play both traditional and completely innovative shortening mechanisms, frequently accompanied by the use of punctuation or grammar rules (López Rúa, 2007 : 170).

In these new types of communication, we can find either clear or frequently attested abbreviations, which are by now understandable, such as apps (applications), blog (weblog), btw (by the way), lol (laugh(ing) out loud), MMS (Multimedia Messaging Service), mob (mobile phone), SMS (Short Message Service), tomo (tomorrow), WAP (Wireless Access Protocol), WWW (World Wide Web), or formations which require a more complex decoding process, since they are more opaque and not directly referable to their base words or phrases, such as bbl (be back later), brb (be right back), CWOT (complete waste of time), FC (fingers crossed), GTH (go to hell), JIC (just in case), LO (hello), PITA (pain in the ass), ROTFL (rolling on the floor laughing), ty (thank you), to e (to e-mail) (Fandrich, 2007). However, apart from the institutionalized shortening methods, texting also resorts to other items connecting abbreviations with phonetic respellings, homophones and a number of such minor devices as onomatopoeic expressions or symbols, all of them used on their own or also in combination (López Rúa, 2007 : 170). Thus, according to López Rúa (2007), SMS and online language may also require:

- Phonetic respellings → they are considered abbreviated homophones which use to replace normal regular words (luv for love, ova for over, sum for some, u for you, ur for your, wen for when, wot for what), contractions (is for he is, shis for she is, ur for you are, yer for you are) or longer expressions (cu / cya for see you, wenja for when you are...?) in order to save space in writing.

The majority of these items, in particular, need to be mentally
pronounced to be completely understood, since their pronunciation is the same or at least similar to that of the replaced words (Fandrich, 2007: 149). For example, *cu* (see you) shows that the pronunciation of the *c* /si:/ and the *u* /ju:/ is perfectly the same of *see* /si:/ and *you* /ju:/, or *10Q* (thank you) which does not exhibit exactly the same pronunciation of the expression *thank you* /θæŋk ju:/, but in any case it is a similar one conveyed by the pronunciation of the number *10* /ten/ and the letter *Q* /kju:/.

Sometimes, there are cases in which only part of a word is respelled, while the rest is shortened with one of our abbreviation process, such as *bcum* (become), where the beginning *be* just retains the initial *b*, whereas the rest is phonetically respelled (López Rúa, 2007: 170-171).

- Letter and number homophones → another popular and frequently attested shortening device in SMS and online language is the use of letter and number homophones, which consist of replacing entire words or only parts of them with numbers or letters that happen to have the same pronunciation. Letters homophones are usually written in capital letters, since often they are used to replace the initial letter of a word. Thus, examples of single letter homophones in English can be: *B* (be), *C* (see), *D* (the), *N* (an/and), *U* (you), *Y* (why), but they can very often be parts of words, as in *BCNU* (be seeing you), *ICQ* (I seek you), *qt* (cute), *tnx* (thanks) (McArthur, 2000: 4). On the other hand, numbers also appear in many formations, as do sound symbolic or iconic features, as in *any1* (anyone), *f2f* (face to face), *4ever* (forever), *f2t* (free to talk), *3dom* (freedom), *d8* (date), *gr8* (great), *h8* (hate), *l8r* (later), *no1* (none), *1dful* (wonderful), *RU3?* (are you free?), *sum1* (someone), *2g4u* (too good for you), *2gthr* (together), *2u2* (to you too), *2moro* (tomorrow), *up2u* (up to you).
Symbols and onomatopoeic expressions → sometimes texting also resorts to other minor devices which eventually contribute to save space and time. These specific devices are onomatopoeic expressions, as zzz (boring, tired, sleeping), gnam (eating, hungry), grr (angry), and symbols, that can keep their institutionalized uses or acquire new ones according to what we want to express, as @ (at): @wrk (at work), w@ (what); X (kiss or across): aX (across), xoxo (hugs and kisses), Xme (kiss me); $ (-ss or money): MSU (miss you), $$$ (money); % (-oo, -ou, -ould): C% (cool), W% (would) (López Rúa, 2007 : 174). In addition, another very common and widespread phenomenon in SMS and online language that we should mention is that of emoticons. Emoticons are borderline formations which are iconic and do not belong to any kind of word-formation processes. We choose to mention them because of their great popularity and frequency of use in this type of written language, though they have nothing to do with abbreviations in general. According to Fandrich (2007 : 149), they “fulfil certain communicative functions and thus carry meaning, despite the fact that they mostly consist of punctuation marks (and in some cases letters) to produce ‘emotive icons’ which are read vertically”.

Emoticons are also widely known as ‘smileys’ depending on their archetypal representative, as :-) (smile), :-( (sad), :-D (laughing), :-)X (my lips are sealed), :-) (winking), :-o (surprised), :-)P (sticking out tongue), :-* (giving a kiss), :'-) (so touching), :-S (confused) (McArthur, 2000 : 4).

To conclude, we have illustrated how frequently and commonly abbreviation devices are used in Internet and SMS language, usually because clippings, acronyms and initialisms are space-and time-saving devices. We have also seen that shortening processes may act and operate quite freely. There are abbreviations which follow tendencies and patterns of formation, as
apps (applications) and tomo (tomorrow), which are regular back-clippings, or LOL (laughing out loud) and POS (parents over shoulders), which are regular acronyms, and GFU (good for you) and IMHO (in my humble opinion), which are regular initialisms, while there are other formations which appear either to be phonetically respelled (sum for some), or to involve letters (qt for cute) and numbers (4ever for forever), or also symbols (@ for at) and onomatopoeic expressions (zzz for sleeping or tired).
CHAPTER 3

BLENDS

3.1 Introduction

The term ‘blend’ has been used in a number of different ways, usually to denote the result of that word-formation process which involves a fusion of at least two words or parts of words combined into one. This kind of process has become a highly productive and frequent means of word-creation in modern English, and nowadays, we can encounter new blends almost every day entering the language. Blends, such as banofee, beefalo, mocamp, Oxbridge, vodkatini, appear on a daily basis because they are already attested and incorporated into the English lexicon, and are generally regarded by the majority of English native speakers as ordinary words. However, while blending is reasonably frequent, the mechanisms governing it have largely remained opaque. Actually, blend formation is not completely transparent, because it does not follow a single forming principle, but rather tends to exhibit different structural patterns (Hong, 2004 : 118). For this reason, many morphologists and linguists treat blends mostly as peripheral with respect to English word-formation. Blending, on the whole, is a phenomenon considered marginal to the theory of grammatical morphology, and consequently, confined, together with other not rule-governed phenomena, to the branch of morphology labeled ‘extra-grammatical’.

The present chapter is organized into four main sections: section 2 focuses on the definition and classification of English blends; section 3 deals with the separation of blending from other word-formation processes, in particular, we will distinguish blends from compounds, clipped compounds, neoclassical
compounds, combining forms and acronyms. Section 4 describes the blending process and some of its main patterns according to previous studies, namely Algeo (1977), Bat-El (2000; 2006), Lehrer (1996; 2007), Hong (2004), Ronneberger-Sibold (2006). Lastly, in section 5 we investigate the preferential criteria of blending formation.

3.2 Definition and classification

3.2.1 Terminology

The terminology surrounding blending and its correct definition appears to be quite controversial. Not only definitions of this process can be inconsistent from a writer to another, but there is also confusion about what its appropriate labels should be. Blends, indeed, are differently defined as ‘combinations’, ‘amalgams’ or ‘coalesced words’, although most scholars prefer the terms ‘contaminations’ and ‘portmanteau words’ (Cannon, 1986; Ronneberger-Sibold, 2006). This terminological distinction raises a few questions: first of all, are blends and contaminations the same phenomenon, or do they differ in some way? Cannon (1986: 727) claims that a contamination occurs accidentally, a sort of slip of the tongue, “to create a new form in which elements of one form mingle with elements of the other, as manifested partly in the phonetic form of single words and partly in their syntactic combination”. Moreover, in contamination speakers usually inadvertently tend to mix together two words with a similar meaning, as in fantastulous, made up of fantastic and fabulous, or ginormous formed by gigantic and enormous. On the contrary, in a blend there are two words with different meanings that fuse into a new word with a combination of both meanings, as in boatel from boat and hotel, ‘a hotel on a boat’ (Ronneberger-Sibold, 2006: 158). Jespersen (1894), in particular, was a pioneer in contrasting the term ‘contamination’ and ‘blend’. He gave a slightly different definition of the latter term, claiming that a blend is not necessarily an accidental slip of the tongue as contamination. For these
reasons, the term contamination does not seem appropriate to define blending formation.

On the other hand, ‘portmanteau words’ is a more correct label for these formations, although it turns out to be older than the previous one. This term was coined by Lewis Carroll in his Alice in Wonderland, written in 1872-1876. Few blends are recorded before the 15th Century. The first attested formations are coined by Shakespeare (rebuse from rebuke and abuse) and Spenser (foolosophy from fool and philosophy, knavigation from know and navigation) (in Adams, 2001: 141), but most current blends have actually originated in the 19th century, when Carroll wrote his masterpiece and focused for the first time on blends, called ‘portmanteau words’ in his nonsense poem ‘Jabberwocky’ in Through the Looking Glass (1872):

“Well ‘slithy’ means ‘lithe and slimy’... you see it's like a portmanteau —
there are two meanings packed up into one word”

[from Lewis Carroll, Through the Looking Glass (1872: ch. VI)]

Other examples of Lewis Carroll’s portmanteau words are: chortle, galumph, mimsy, respectively coined from chuckle and snort, gallop and triumph, miserable and flimsy (Quinion, 1996: 1). It is very interesting to notice that, influenced by Carroll, a trend for such formations began in the 1890s, until the middle of the 20th century, when a second wave of blends began. Examples from this period include: brunch (from breakfast and lunch) first recorded in 1896; electrocute (from electricity and execute) first appeared in 1889; mingy (from mean and stingy) from 1911; guesstimate (from guess and estimate) dating from 1936; Jacobethan (from Jacobean and Elizabethan) invented by John Betjeman in 1933; prissy (from prim and sissy) coined about 1895; scientifiction (from science and fiction); sexpert (from sex and expert) coined in 1924; sexational (from sex and sensational) recorded in 1925;
sexploitation (from exploitation and sex) first used in 1942 in many movies, and which was the model for blaxploitation in the early seventies from black and exploitation; travelogue (from travel and monologue) introduced from 1903 (Quinion, 1996: 1).

As anticipated, blends are also called ‘amalgams’, ‘coalesced words’, ‘composites’, ‘conflations’, ‘contractions’, ‘fusions’, ‘telescope words’, in the literature (Wentworth, 1933: 78-79). Yet, in this work, we will use the commonly accepted term blends to refer to the product of the blending word-formation process.

3.2.2 Defining blends

Blending is a common derivational process in English, formed by merging together parts of words into only one, as in dramedy formed from drama and comedy, or soliloquacity formed from soliloquy and loquacity. The resultant product of this process can be defined as a deliberate creation of a new word out of two, or more sometimes, previously existing words in a way which differs from the rules and patterns of regular word-formation (Ronneberger-Sibold, 2006: 157). This definition, in a certain sense, helps us draw a clearer delimitation of blending. First of all, this phenomenon will be distinguished from regular word-formation processes. Indeed, many scholars (Cannon, 1986; Bat-El, 2000; Dressler, 2000) agree that blends present a number of differences from regular formations. Blends are described as not rule-governed, since they cannot be assigned a regular specific formation pattern, and their final segmental make-up is almost completely unpredictable (Dressler, 2000). The reasons for excluding blends from regular formations are certain formal features which are impossible to find in ordinary formations, such as overlapping constituents, and also lack of transparency due to the impossibility of predicting the exact output of a blend given its input (and vice versa). According to Bauer (1983: 234), since blends are made up of curtailed elements, whose bases are sometimes unrecognizable, they are less transparent
than compounds, which, instead, retain full bases. Consequently, he defines blends as “new lexemes formed from parts of two (or possibly more) other words in such a way that there is no transparent analysis into morphs” (ibid.). Although a few linguists more or less explicitly recognize certain recurring patterns in this process, most of them do not recognize a grammatical status of blending.

Another controversial issue concerns the distinction between pure blends and other borderline cases, e.g., compounding, derivation and other abbreviatory processes. As Bauer points out (1983 : 236), the limits of the class of blends are not easy to draw, since the process “is not always well-defined and it tends to shade off into compounding, neo-classical compounding, affixation, clipping, and (...) acronymy”. For instance, the words *faction* and *factoid* are respectively a blend, since *faction* combines parts of two words (*fact* and *fiction*) into one, and a derivative, because in *factoid* the second element is a suffix –*oid* and not a part of a source word (Quinion, 1996 : 2). Therefore, it appears to be fundamental to delineate a clear distinction between blends and other formations, in order to clarify the position of blending with respect to other processes\(^{24}\).

Other borderline cases include ‘hamburger-type words’. Kemmer (2000), in particular, makes a list of new formations of this type, all gathered under the same general heading of blends. In particular, Kemmer (2000) distinguishes: the *hamburger* series (*baconburger, beefburger, cheeseburger, chickenburger, eggburger, porkburger, tofuburger, veggieburger*), the *alcoholic* series (*chocoaholic, cocaholic, cofeeaholic, sexaholic, workaholic*), the *Watergate* series (*Camillagate, Clintongate, Irangate, Rubygate, sexgate, travelgate*), the *hardware* series (*courseware, emailware, freeware, netware, shareware, vapourware*), the *sequel* series (*interquel, prequel*), the *literati* series (*britpoperati, digerati, glitterati, soccerati*). However, these new words cannot

\(^{24}\) For this reason, a more detailed differentiation of blends from compounds and other processes will be made in section 4.
be listed under the same label as blends like *guesstimate* (*guess* + *estimate*) and *fantabulous* (*fantastic* + *fabulous*), because of some fundamental differences. The hamburger-type words are coined by the semantic reanalysis and morphemisation of one polysyllabic word (*hamburger*, *Watergate*, *sequel*) that becomes a sort of generator of a whole new series of words (Frath, 2005 : 5). By contrast, in blends a morphemisation of one of the two bases does not occur, but rather there is either a reduction or an overlap of some parts of them. This shows that hamburger-type formations are closer to ordinary affixation than to blending.

We can conclude that in the literature definitions of blending differ a great deal. However, most studies converge on a basic definition of blends as “words that combine two (rarely three or more) words into one, deleting material from one or both of the source words” (Plag, 2003 : 122). Consequently, now we are able to draw our working definition, which is:

‘A blend occurs when two, or sometimes more elements, merge together to form only one word. At the point of this fusion, segmental material can be either lost from at least one base word, as in cupidity (*cupid* + *stupidity*) and frazzle (*fray* + *dazzle*), or be shared by both, as in glibido (*glib* + *libido*) and memail (*me* + *email*).’

Therefore, any other combination that shows fusion but not deletion of the source words, or overlapping, would not be classified as a blend. In the following section we will consider the different types of blends that were proposed in pertinent literature (Algeo, 1977; Soudek, 1978; Bauer, 1983; Lehrer, 1996; Ronneberger-Sibold, 2006).
3.2.3 Classification of blends

Blending appears as a highly complex word-formation process with distinct sub-classes. Some linguists (Algeo, 1977; Soudek, 1978; Bauer, 1983; Lehrer, 1996; Ronneberger-Sibold, 2006) have attempted to employ various criteria in order to classify blends into several sub-types. However, the classification of blends is only temptative, because some blends could be entered into more than one subgroup.

- Algeo (1977) offers one of the first coherent structural classification of blends centered on morphology. He distinguishes five classes of blends:

I. ‘Blends with overlapping’: the typical pattern here is one in which the forms may overlap phonologically with no other shortening, such as slanguage (slang + language). Indeed, Algeo (1977 : 45-46) in this sub-group lists cases in which overlapping may include of the full form of both source constituents, as in millionheiress (millionaire + heiress), and also cases in which overlapping includes one full form and either the fore or hind part of another, as in cartune (cartoon + tune), cellebrity (cell + celebrity), racqueteer (racquet + racketeer) and sinema (sin + cinema). These latter examples, however, are marked as blends only by the spelling and pronunciation, because according to the orthography, they should be classified as ‘blends with clipping’, since in cartune, for example, we cannot recognize entirely the base word cartoon, but we can in the pronunciation (only American).

II. ‘Blends with clipping’: in this case, forms are combined without overlapping but with the omission of a part or parts from at least one of the base words, such as agiprop (agitation + propaganda), chloroform (chloro + formyl), Eurasia (Europe + Asia), fanzine (fan + magazine), quasar (quasi +
As we will see, the following sub-group can be closely related to this one, because both types of blending involve reduction.

III. ‘Clipping at morpheme boundaries’\(^{25}\): blends that have undergone simple clipping are often shortened along morpheme boundaries, such as 
\(dumb\text{found} (\text{dumb} + \text{confound})\), \(\text{Oxbridge} (\text{Oxford} + \text{Cambridge})\), \(\text{paratroops} (\text{parachute} + \text{troops})\). For such cases, Algeo (1977: 51-52) claims that it is not always clear whether a form is a result of blending or of composition of the constituent morphemes (cf. \textit{hamburger}-type words).

IV. ‘Blends with overlapping and clipping’: these are blends involving both clipping and overlapping, such as \(\text{animule} (\text{animal} + \text{mule})\), \(\text{Californicate} (\text{California} + \text{fornicate})\), \(\text{snark} (\text{shark} + \text{snake})\), \(\text{supose} (\text{suspect} + \text{suppose})\) (Algeo, 1977: 52).

V. ‘Blends with imperfect overlapping’: a blend is considered with imperfect overlapping, when the source words have corresponding segments that share some, but not all, of their component features. Examples are: \(\text{chump} (\text{chunk} + \text{lump})\), \(\text{dang} (\text{damn} + \text{hang})\), \(\text{grudge} (\text{grutch} + \text{gredge})\) (Algeo, 1977: 53).

- Soudek (1978) offers a classification similar to Algeo’s, although he identifies only two categories of blends. The first category that he proposes is ‘concatenated blends’, which are more or less coincident with Algeo’s ‘blends with clipping’. Concatenated blends can be subdivided into three sub-types:

\(^{25}\) This type of blends may be also entered in class II, because they exhibit the same characteristics.
(1) when the first source word is full, while the second one is shortened to its hind part (*fanzine* → *fan* is entire, but *magazine* is shortened to its hind part);

(2) blends formed by the first base word curtailed to its hind part, followed by the second word in full (*Eurasia* → *Europe* is shortened, while *Asia* is entire);

(3) blends with the first source word clipped to its fore part, whereas the second source word is clipped to its hind part (*bisalo* → *bisoni* is clipped to the fore part, and *buffalo* to the hind part) (Hong, 2004: 121).

The second category of blends is called ‘overlapping blends’, which actually incorporates the classes that Algeo (1977) named ‘blends with clipping and overlapping’ and ‘blends with overlapping’. In this category, Soudek (1978) lists words such as *steelionaire* (*steel* + *millionaire*) in which overlapping and clipping of the fore part of the second source word take place, *anecdotage* (*anecdote* + *dotage*), in which the fore part of the first base word overlaps with the hind part of the second base word.

- Bauer (1983), on the other hand, mainly differentiates among three types of blends: (i) blends where only parts of the original words appear in the coinage. Examples of this kind are: *ballute* (*balloon* + *chute*), *chunnel* (*channel* + *tunnel*), *dawk* (*dove* + *hawk*), *shoat* (*sheep* + *goat*) (Bauer, 1983: 234). (ii) Blends where the two base words are both present entirely in the combination, involving overlap in pronunciation, spelling or both. Bauer (1983: 236) lists *glashalt* (*glass* + *asphalt*), *octopush* (*octopus* + *push*), but Adams (1973: 154), previously, also listed *guestimate* (*guess* + *estimate*), *slanguage* (*slang* + *language*), *swelegant* (*swell* + *elegant*). (iii) A third kind of blends is the type where a new lexeme looks as if “it is analyzable in terms of other word-formation processes, in particular as a neo-classical compound” (Bauer, 1983: 236). Examples of this kind are: *autocide* (*automobile* + *suicide*), *molecism* (*molecule* + *organism*), *stagflation* (*stagnation* + *inflation*).
Lehrer (1996) offers combining patterns on the basis of three criteria: the number of ‘splinters’, overlap, contiguity. Splinters, in particular, are parts of words in a blend that belong to either of the source words, but which are not independent formatives (in motel splinters are mo and tel, and in brunch are br and unch) (Hong, 2004:121). Thus, according to Lehrer (1996:117-118) the commonest type of blends are those with one or two splinters.

(a) In the case of a blend with one splinter, we can recognize two types of blends: either a full word followed by a splinter (chatire from chat + satire; vodkatini from vodka + martini; wintertainment from winter + entertainment) or a splinter followed by a whole word (cinemenace from cinema + menace; narcoma from narcotic + coma; squangle from square + angle).

(b) Blends made up of two splinters are also common, and even in this case two types are possible: the beginning of one word is followed by the end of another (cheriodical from cheery + periodical; hurricoon from hurricane + typhoon or monsoon; Spanglish from Spanish + English), and two beginnings (biopic from biology + picture; sitcom from situation + comedy) (Lehrer, 2007:118). Lehrer (ibid.) claims that word ends are rare splinters in English (cf. blog < web + blog and netiquette beelow).

(c) However, also blends with zero splinters occur, in particular when a part of the combination belongs to both component words and the blend involves complete overlap of one or more phonemes. Examples are: blobject (blob + object), clandestiny (clandestine + destiny), cocacolonization (Coca Cola + colonization), sexploitation (sex + exploitation) (Lehrer, 1996:364; 2007:118). This latter category corresponds to Algeo’s ‘blends with overlapping’ and to Soudek’s ‘overlapping blends’.

(d) Finally, a less common type of blends is that involving a discontinuous element, where a word or part of a word is embedded in part of another base word as a sort of infix: chortle (chuckle + snort), where ort acts like an infix; entreporeuer (entrepreneur + pornography), where porn is infixed in the other source word; enshocklopedia (encyclopedia + shock), delinguancy
(delinquency + lingual) (Lehrer, 2007 : 118). This particular type of blends are those named by Kemmer (2003 : 72) ‘intercalative blends’. Kemmer (ibid.) defines these special blends as “formations in which the two words involved in the blend are so tightly integrated in the blended word, that the sounds of one source lexeme are interspersed between the sounds of the others”.

- One of the most recent contributions on blending classification is Ronneberger-Sibold (2006; 2008), who identifies four main subtypes of blends in German.

  (1) According to such a distinction, the most transparent type comprises the so-called ‘complete blends’. This category is considered more transparent than others mainly because the constituents of the blend can be easily recognized since both source words are contained in full. A ‘complete blend’ can be obtained either by an overlap between the end of the first word with the beginning of the second one, in the so-called ‘telescope blends’\(^{26}\), e.g. sex\(^{26}\), e.g. sex\(^{26}\) express (sex + express), slanguage (slang + language), or by a total overlap in the so-called ‘inclusive blends’, where one constituent includes the other as a part of its sound chain, e.g. ComMUNICHation (communication + Munich) (Ronneberger-Sibold, 2008 : 213).

  (2) The second class of blends is labeled ‘contour blends’, and includes those blends in which the matrix word (the source word that provides to the blend the rhythmical contour, the place of its main stress, the number of the syllables, as lunch in brunch) is normally not entirely included, but we can recognize it quite easily (Ronneberger-Sinold, 2006 : 170-171). Examples of contour blends are: smog (smoke + fog) where fog is the matrix word, swacket (sweater + jacket) where jacket is the matrix word.

  (3) The third type indentified by Ronneberge-Sibold (2006 : 173-174) is ‘semi-complete blending’, which includes those blends containing a full word

\(^{26}\) In the following examples, overlapping is underlined.
and fragments of the other source word, either the first or the second part, e.g. bangover (bang + hangover), cupidity (cupid + stupidity), dreaditor (dread + editor).

(4) The last type of blends are also the most opaque ones, the so-called ‘fragment blends’, where both source words are shortened and small fragments are left. Examples of this kind are: Dinajaxet, the name of a syringe (dynamic + inject), Cujasuma, the name of a tobacco brand (Cuba + Java + Sumatra) (Ronneberger, 2006: 168-169).

In order to better understand and distinguish among the above various classifications of blends, we will now transfer all these data to the following table which will illustrate schematically what we have just reported about blending classification in the literature.


<table>
<thead>
<tr>
<th>Type of blending</th>
<th>Terms proposed for blending in literature</th>
<th>Author</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Blends involving complete overlapping</td>
<td>‘Blends with overlapping’</td>
<td>Algeo (1977)</td>
<td>millionheiress (million + heiress), sinema (sin + cinema), slanguage (slang + language)</td>
</tr>
<tr>
<td></td>
<td>‘Blends which involve two full bases’</td>
<td>Bauer (1983)</td>
<td>glasphalt (glass + asphalt), guestimate (guest + estimate), swelegant (swell + elegant)</td>
</tr>
<tr>
<td></td>
<td>‘Blends with zero splinters’</td>
<td>Lehrer (1996)</td>
<td>blobject (blob + object), cocacolonization (coca cola + colonization)</td>
</tr>
<tr>
<td>1. Blends involving complete overlapping</td>
<td>‘Complete blending: telescope blends’</td>
<td>Ronneberger-Sibold (2006)</td>
<td>cantenna (can + antenna), sexpress (sex + express), sexploitation (sex + exploitation)</td>
</tr>
<tr>
<td>2. Blends involving clipping of one or both constituents</td>
<td>‘Blends with clipping’</td>
<td>Algeo (1977)</td>
<td>brunch (breakfast + lunch), quasar (quasi + stellar), smog (smoke + fog)</td>
</tr>
<tr>
<td></td>
<td>‘Clipping at morpheme boundaries’</td>
<td>Algeo (1977)</td>
<td>dumbfound (dumb + confound), paratroops (parachute + troops)</td>
</tr>
<tr>
<td></td>
<td>‘Concatenated blends’</td>
<td>Soudek (1978)</td>
<td>bisalo (bisont + buffalo), fanzine (fan + magazine)</td>
</tr>
<tr>
<td></td>
<td>‘Blends which involve just parts of the original words’</td>
<td>Bauer (1983)</td>
<td>ballute (balloon + chute), dawk (dove + hawk), shoat (sheep + goat)</td>
</tr>
<tr>
<td></td>
<td>‘Blends formed by a full word and a splinter’</td>
<td>Lehrer (1996)</td>
<td>2 types: full word + splinter &gt; chatire (chat + satire), vodkatini (vodka + martini) splinter + full word &gt; cinemenace (cinema + menace), narcoma (narcotic + coma)</td>
</tr>
<tr>
<td></td>
<td>‘Blends with two splinters’</td>
<td>Lehrer (1996)</td>
<td>2 types: the beginning of a base + the ned of the other &gt; hurricoon (hurricane + typhoon or monsoon), Spanglish (Spanish + English) two beginnings &gt; biopic (biology + picture), sitcom (situation + comedy)</td>
</tr>
</tbody>
</table>
2. Blends involving clipping of one or both constituents

<table>
<thead>
<tr>
<th>Category</th>
<th>Author(s)</th>
<th>Examples</th>
</tr>
</thead>
</table>

3. Blends involving clipping + overlapping

<table>
<thead>
<tr>
<th>Category</th>
<th>Author(s)</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Blends with overlapping and clipping’</td>
<td>Algeo (1977)</td>
<td><em>animule</em> (animal + mule), <em>Californicate</em> (California + fornicate), <em>snark</em> (snake + shark)</td>
</tr>
<tr>
<td>‘Blends with imperfect overlapping’</td>
<td>Algeo (1977)</td>
<td><em>chump</em> (chunk + lump), <em>grudge</em> (grutch + gredge)</td>
</tr>
<tr>
<td>‘Overlapping blends’</td>
<td>Soudek (1978)</td>
<td><em>anecdotage</em> (anecdote + dotage), <em>steelionaire</em> (steel + millionaire)</td>
</tr>
</tbody>
</table>

4. Blends involving infixed elements

<table>
<thead>
<tr>
<th>Category</th>
<th>Author(s)</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Blends involving a discontinuous element’</td>
<td>Lehrer (1996)</td>
<td><em>entrepornoer</em> (entrepreneur + pornography), <em>delinguancy</em> (delinquency + lingual)</td>
</tr>
</tbody>
</table>

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27 Although the category of ‘overlapping blends’ includes overlapping, in our opinion, it is better to consider it as a type of blending which involves clipping, as evidenced by the examples.
The above table demonstrates that there is a great variety of parameters along which blends do vary and can be differentiated, and also a number of distinct names and labels for each category. As evidenced by the examples, not always do different labels correspond to different categories, but rather, in many cases, these classes may overlap and be related to each other. Algeo’s (1977) categories of ‘blends with clipping’ and ‘clipping at morpheme boundaries’, for instance, can be considered one a part of the other, since in some cases they may comprise the same blends, but also Lehrer’s (1996) ‘blends with zero splinters’ corresponds to Algeo’s (1977) ‘blends with overlapping’ and Bauer’s (1983) ‘blends with two full bases’. Hence, although there are many labels to identify and distinguish types of blending, many of them appear to be synonymous or very close and, sometimes, may be used interchangeably.

In this chapter, however, the classification that we prefer is between: ‘prototypical’ and ‘partial or non-prototypical blends’. According to Mattiello (2008: 139):

- Prototypical blending is a pattern which comprises formations mainly consisting of the beginning of one word and the end of the other, such as fantabolous and ginormous. Other examples of this kind are: blook (blog + book), boost (boom + hoist), compander (compressor + expander), fleep (fly + jeep), geep (goat + sheep), maridelic (marijuana + psychedelic), mux (mix + flux), Spanklet (spread + blanket), swingle (swinging + single), Yidlish (Yiddish + English) (Bryant, 1974). Here, however, we can find also those blends which present a combination of initial splinters followed by final splinters with overlap between them, such as affluenza (affluence + influenza), boatel (boat

28 Here the first source word (blog) is itself a blend from web + log.

29 The overlapped part is underlined in the following examples.
hotel), frenemy (friend + enemy), Jacobathan (Jacobean + Elizabethan), monergy (money + energy) (Kremer, 2002). In such cases, when the base words overlap at some point sharing elements in the blend, we can differentiate two types of overlap: orthographic and phonetic. The overlap is orthographic when the two source words overlap at a certain point but only in their graphic form, since at the phonetic level the base words are not pronounced in the same way. Indeed, in blends such as dances, where the source words dance and exercise overlap orthographically at the second syllable of the combination, they do not exhibit the same phonetic realization at that point, but rather in dance, the e, graphically reproduced, is not phonetically pronounced, i.e. /daːns/; while in exercise the overlapping e is phonetically reproduced, i.e. /'eks(ə)rəz/. On the other hand, the overlap is phonetic when the overlapping part in the source words is the same phonetically, but not orthographically. An example of this kind may be the blend froodle formed by fruit + noodle which have a different graphic representation for the overlapping part, but its pronunciation is exactly the same in both bases: fruit /fruːt/ - noodle /'nʊd(ə)l/. In addition, we may also find cases in which the overlap is either orthographic or phonetic, as in bonar (boner + sonar) where the overlapping part coincides orthographically and phonetically in both source words: boner /bɔʊnə(r)/ - sonar /sɔʊnə(r)/. This category, in particular, is labeled prototypical because these are considered the most typical and frequent class of blends, although not always completely transparent. Indeed, as we will see, an important generalization that can be drawn is that the most attested and, therefore, prototypical pattern combines the first part of the first element with the second part of the second element.

- Partial and non-prototypical blending, on the other hand, comprises blends in which generally one of the two source words remain intact, while the other is shortened. According to this assumption, in this category we can find different types of blends:
blends where the first whole word is followed by the tail of the second one, as in beer pong (beer + Ping Pong), blogerrific (blog + terrific), camelcade (camel + motorcade), cinemateque (cinema + biblioteque), earwitness (ear + eyewitness), familymoon (family + honeymoon), fruitarian (fruit + vegetarian), gaydio (gay + radio), himbo (him + bimbo), picoverse (pico + universe), screamager (scream + teenager), sunsational (sun + sensational), viewshed (view + watershed) (Kremer, 2002);

blends formed by the beginning of the first source word and the second in full, as in amajor (amazing + major), blasian (Black + Asian), copyleft (copyright + left), e-mail (electronic + mail), parasail (parachute + sail) (Kremer, 2002);

formations in which the word of a partial blend is inserted within another word, as in ambisextrous (ambidextrous + sex), in this case favoured by the similarity between sex and dex, but also adorkable (adorable + dork), autopathography (autobiography + pathology), blawg (blog + law), bumfuzzle (bamboozle + fuzzy), busulfan (butane + sulfonyl), disgrotssting (disgusting + gross), osteopornosis (osteoporosis +porno) (Kremer, 2002) belong to this group. This type of partial blends corresponds to Lehrer’s (1996) ‘blends involving a discontinuous element’ and Kemmer’s (2003) ‘intercalative blends’;

lastly, blends where the first element is a whole word followed by the beginning of the second word, although they are not very frequent, as in kidvid (kid + video).
This last classification, however, does not take into consideration those formations which incorporate full words, usually involving overlap. Thus, we need to add another class of blends, viz. those which exhibit ‘complete overlapping’.

- Complete overlapping comprises those blends made up of two source words that appear in full in the combination without any cut. This type of blend is quite common and frequent, and it also appears as the most transparent one since in completely overlapping blends we can easily recognize both source words. Examples of this kind are: alibiography (alibi + biography), banniversary (ban + anniversary), cantenna (can + antenna), faddition (fad + addition), fagnostic (fag + agnostic), hattitude (hat + attitude), headverting (head + advertising), pessimystic (pessimist + mystic), retailgaiting (retail + tailgaiting), scramjet (scram + ramjet) (Kremer, 2002).

3.3 Separating Blends from other word-formation processes

3.3.1 Blends vs. Compounds

It is generally agreed in linguistic literature that blending “tends to shade off into compounding” (Bauer, 1983 : 236). This two word-formation processes present some similarities, and many descriptions of compounding seem to be actually applicable to that of blending. For instance, Plag’s definition (2003 : 133) of compounding as “the combination of two words to form a new one” shows how close and related these two processes are. The creation of blends, as well as composition, involves simultaneous implementation of two source words to coin a new single word. However, in spite of all the similarities between these two processes, this section will be an attempt to resolve this overlap, and to find and describe which special features are distinctive of blending and not shared by the traditional process of compounding.
1) First of all, it is fundamental to provide a clear definition of blending. A blend is a word that combines two or sometimes more words into a new one, deleting or sharing some segmental material from at least one of the source words. Such a definition highlights a first interesting difference, viz. that blends, unlike compounds, must involve some sort of reduction, or overlap at the point of fusion between the base words. In compounds, two words are just juxtaposed to form a third one, e.g. *cook-book*, *girlfriend*, *milk bottle*, *red-skin*, *sea-fish*, *truck driver* (Bauer, 1983: 11), whereas in blends the base words have to merge together, e.g. *aristocretin* (*aristocrat + cretin*), *bilk* (*beer + milk*), *blargon* (*blog + jargon*), *doga* (*dog + yoga*), *expandalism* (*expand + vandalism*), *infomercial* (*information + commercial*), *nupkin* (*nuptial + napkin*), *sheeple* (*sheep + people*).

2) Furthermore, blends appear to be morpho-tactically and semantically opaque, according to their formation which may imply either reduction or overlapping. Words such as *Cruisazy* (*Tom Cruise + crazy*), *Floribbean* (*Florida + Caribbean*), *maddy* (*man + daddy*), *perch* (*persistent + search*), *quillow* (*quilt + pillow*) are formed by parts of base words which are not easily recognizable in the resulting combination. In these cases, blending formations are not completely transparent, since from a blend which involves clipping or overlapping we are not able to trace back its exact base words (Ronneberger-Sibold, 2006: 159). However, the reduction of transparency may reach different degrees in blends, from slight obscuration to complete opacity, on the basis of the blending technique applied. Blends with complete overlapping, such as *karmageddon* (*karma + Armageddon*) or *netiquette* (*Net + etiquette*), for instance, are considered more transparent than the others, mainly because the constituents of the blend are contained in full. As a consequence, the more material from the target words is present in the blend, the easier it is to disambiguate (Lehrer, 1996: 359). On the other hand, the aim of regular compounding is the production of new words which are totally transparent, since they are formed by two whole words joined together that are clearly recognizable for the hearer/reader, e.g. *ice cream*, *motor mouth*, *passion fruit*, *White house*. Moreover, the constituents of a compound, unlike those of
blends, can be modified only by well-defined operations known to the speaker and to the hearer as part of their grammatical competence, whether these operations are ruled-governed or lexically determined (Ronneberger-Sibold, 2006: 160).

3) Another interesting characteristic of blending, which separates it from compounding, is that compounds are usually drawn from words, while blends can also come from ‘non-words’. In particular, the blends *demote* and *poethon* come from affixes, whereas the forms *Thermotainer (thermo- + retainer)* and *bioneer (biology + pioneer)* put together source words, or parts of them, and neoclassical combining forms. The process of compounding, instead, cannot combine a word with bound forms, because the resulting would be classified either as derivation, or neoclassical compounding. Moreover, there are some blends, such as *Golf of Mexico* (golf + Gulf of Mexico), *gone with the will* (Gone with the wind + will) and *the Blair bitch project* (The Blair witch project + bitch), that show a particular combination, where one of the two bases is a phrase. In this case, we can have just a small percentage of possible blends made up of phrases as source words, and, in any case, we can also have compounds from phrases, such as *do-it-yourself* and *forget-me-not*.

### 3.3.2 Blends vs. Clipped Compounds

For some authors (Bauer, 1983; Algeo, 1991), clipped compounds fall into the category of blends, though there are a number of features which, instead, make it possible to talk of two categories with fuzzy boundaries, or, directly, of two different word-formation phenomena. The discrimination between these two word-formation processes is very difficult and problematic, since, as we will see, many of the aspects chosen to identify this separation are not always applicable, or are not appropriate in all cases.

1) According to Bauer (1983: 233), clipped compounds are generally formed by juxtaposition of initial clipping + initial clipping of the two source words, as in *bodbiz* (body business), *edbiz* (editor business), *flo-mo* (flowing
motion), ob-gyn (obstetrician gynecologist), sci-fi (science fiction), sit-com (situation comedy), or of initial clipping of the first source word + the second in full, as in Brit pop (British pop), moblog (mobile blog), navbar (navigation bar), ap art (optical art), org man (organization man). Blends, on the other hand, are made up through different techniques, which can exhibit (i) reduction of both constituents, e.g. infonaut (information + astronaut), jork (jerk + dork), (ii) reduction of one of the two constituents, e.g. grandtastic (grand + fantastic), hangry (hungry + angry), (iii) overlapping without clipping, e.g. charticle (chart + article), glibido (glib + libido), penvy (pen + envy), or (vi) reduction + overlapping, e.g. limon (lime + lemon), mocker (mod + rocker), pennant (pendant + pennon).

2) Bauer (1983 : 233) suggests also that one of the easiest way to draw the distiction between clipped compounds and blends is to take into exam the stress pattern. He claims, indeed, that “those forms which retain compound stress are clipped compounds, whereas those which take simple word stress do not” (Bauer, 1983 : 233). According to such a distinctive criterion, formations such as pro-am (professional amateur), romcom (romantic comedy), sci-fi (science fiction) have to be considered clipped compounds rather than blends. However, this parameter does not seem to be completely appropriate in discriminating between clipped compounds and blends, because there are cases in which some clipped compounds, such as biopic (biographical picture) and elint (electronic intelligence) can take simple word stress depending on individual pronunciation. For instance, biopic can be pronounced either bi'opic, when it takes simple word stress, or 'bio,pic, when there is a primary and tertiary stress which is closer to compound stress. Similarly, also a few blends such as mobus (motor + omnibus) and ausform (austenitic + deform), can be pronounced with compound stress. Therefore, this aspect cannot be considered an absolute criterion to discriminate between blends and clipped compounds.

3) Clipped compounds, being a type of compounds, logically should present many of the typical properties which characterize traditional compounds. It follows that clipped compounds should have far more in common with
compounds than with simple words. One of the fundamental traits of compounds is represented by the head element, which is the most important constituent in the combination. Structurally, compounds in English consist of a head element, that is generally the rightmost constituent, and of a modifier element which precedes it (Plag, 2003: 145). Clipped compounds should likewise exhibit this modifier-head relationship in their structure, e.g. in *amtrac* the type of *traction* is *amphibious*, in *Brit pop* the type of *pop* is *British*, in *romcom* the type of *comedy* is *romantic*. On the contrary, blends are to be considered as simple lexemes, and usually do not exhibit the modifier-head relationship in their structure, as in *babelicious* (*babe + delicious*) which is not a type of *delicious*, *chaord* (*chaos + order*) which is not a type of *order*, *foon* (*fork + spoon*) that is not a type of *spoon*. However, as evidenced by some other examples, many blends do have this particular relationship between their elements, as in *boatel* (*boat + hotel*) where the head *hotel* is modified by *boat*, *chunnel* (*channel + tunnel*) where *tunnel* is modified by *channel*, *flatwich* (*flat + sandwich*) where *sandwich* is modified by *flat*. Hence, this is another characteristic which does not precisely discriminate between blends and clipped compounds, though we can say that if the internal relation between the constituents is of modifier-head, the form could be either a blend or a clipped compound, but if it is not then the form is clearly not a clipped compound.

4) Another interesting characteristic which seems to be typical of some clipping compounds is that the two curtailed elements in the combination often rhyme, such as *hi-fi, lit-crit, sci-fi, slo-mo, romcom* (Danks, 2003: 84; cf. rhyming compounds in chapter 4 and in Merlini Barbaresi, 2008). Clearly this is not the case in all clipping compounds (cf. *alco pop, amtrac, Brit pop, edbiz*), but it represents a characteristic property. On the other hand, none of the blends we have come across with exhibits elements that entirely rhyme with each other, but rather their first element may rhyme, sometimes, with the curtailed part of the second base word, creating a sort of pun blend, as in *mootant* (*moo + mutant*), where *moo* rhymes with the beginning of the second element *mu*, *laardvark* (*lard + aardvark*), where *lard* rhymes with *aardvark*. Therefore, following Danks (2003: 85), “if a formation exhibits two elements
which rhyme with each other, it may be an indication that the best analysis is as a clipping compound, instead if it contains an element that rhymes with the missing part of the source word, it is an almost certain indication that the best analysis is as a blend”.

5) As previously said, clipping compounds are essentially a type of compounds, and, according to this, they should have fairly transparent meanings, which indicates that the original base words are easily accessible. Although some of these forms are harder to understand and recover that others, generally, the etymology and meanings of clipping compounds are quite transparent, because of their widespread use, in the case of forms such as hi-fi, sit-com, slo-mo, wi-fi, or because we may recognize their constituents without effort, in the case of lit-crit (literary criticism), rom-com (romantic comedy). In contrast, many linguists (Bauer, 1983; Cannon, 1986; Bat-El, 2000; 2006) agree on considering blending a less transparent process as compared with clipping compounds or other word-formation processes. However, as a generalization, blends including overlapping words, i.e. complete blends such as blobject (blob + object), cantenna (can + antenna), hattitude (hat + attitude), scramjet (scram + ramjet), tend to be more transparent than blends made up of two splinters that are less accessible out of the context, e.g. argle (argue + haggle), charc (charging + arc), fraters (friend + haters), grog (group + blog), koga (kickboxing + yoga), preet (pretty + sweet).

In conclusion, we can claim that although none of the above factors is a reliable criterion to discriminate between blends and clipping compounds, all these aspects may help distinguish the two processes.

3.3.3 Blends vs. Neo-Classical Compounds

There is another class of compounds that has to be separated from blends, the so-called ‘neoclassical compounds’. In order to draw a clear distinction, we will describe the main properties of neoclassical compounds, in general, contrasting them with blends’ fundamental traits.
Neoclassical compounds are those formations in which lexemes of Latin or Greek origin are combined to form new combinations that are not attested in the original languages; for this reason, it is used the term ‘neoclassical’ to refer to them (Plag, 2003 : 155). A large portion of the technical and scientific lexicon of English consists of neoclassical compounds, e.g. *astrology, astrophysics, bibliography, biodegradable, biography, biology, geology, philosophy, photograph*. There are a few properties of this type of compounds that deserve a special attention, and which will help us distinguish them from blends.

1) Neoclassical compounds are made up of two elements, as well as any other compound, but at least one of the two elements is a bound morpheme, i.e. a combining form. In particular, neoclassical compounds may be created with combining forms that can combine with bound roots, as in *glaciology, scientology*, with full words, as in *electro-cardiograph, hydro-electric, morpho-syntax, retro-design*, or with another combining form, as in *anglophone, astrology, hydrology, morphology, phonology* (Plag, 2003 : 156). None of neoclassical elements can usually occur as free forms, and, with the exception of *morph-/ -morph, phil-/ -phile*, which can occur both in initial and final position, all the other elements can occur either initially or finally (Plag, 2003 : 156). A distinction is made, thus, between neoclassical compounds made up of initial combining forms, e.g. *biocracy (bio-), geography (geo-), retroflex (retro-)*, and of final combining forms, e.g. *democracy (-cracy), genocide (-cide), sonography (-graphy)*. By contrast, blends are formed by two elements that may exhibit different shapes: there may be two full words overlapping (*cinemagic, guestimate, intactivist*), the first element can be a full word and the second a splinter (*bitchicism, fagnostic, screenager*), the first element can be a splinter and the second a full word (*e-commerce, househusband, infoglut*), both elements can be splinters (*snurfing, soquid, squiggle*). According to Adams (1973 : 157), however, there are a few blends which are difficult to discriminate from neoclassical compounds, because they are formed by either an initial combining form plus a terminal splinter, as in *astrodemic (astro- + epidemic), electrolier (electro- + chandelier)*, or an initial
splinter plus a terminal combining form, as in *appesstat* (*appetite + -stat*), *calligraphone* (*calligraphy + -phone*). These examples could be seen as belonging to either blends, since they contain splinters, or neoclassical compounds, since they also contain combining forms. However, in our opinion, the best analysis of such formations is as blends, because the splinters involved in the combination are neither combining forms, nor free-standing lexemes. For this reason, words such as *calligraphone* and *electrolier* cannot be included into any definition of neoclassical compounds.

2) Another property concerns phonological aspects. In this case, the behaviour of neoclassical compounds appears not unitary. Indeed, initial combining forms seem to vary in their segmental structure and in their stress, depending on whether they combine with free forms or other combining forms. In the following words, we can see these differences (Plag, 2003 : 157): *astro-physics, biodegradable* → here there is not the usual left-ward stress pattern as for the other compounds, but the stress is on the right-hand member of the combination; *astrology, bibliography* → the combining forms -logy and -graphy here behave as stress-influencing suffixes, because they impose on these compounds a particular stress contour, all carry antepenultimate stress. In the case of blends, the stress pattern depends on different aspects, i.e. the position and size of the base words. According to Bat-El & Cohen (2011 : 3), both size and position play an important role in determining the position of stress in blends, but it is not clear which one of these criteria is stronger, or higher in the hierarchy. On the basis of the position of the elements, the stressed syllable in the blend corresponds to the stressed syllable of the right base word, as in *aggranóying* (*ágravating + ánóying*), *anchorlástic* (*anchor + elástic*), *fertigátion* (*fértižier + irrigátion*); while on the basis of the size, the stressed syllable corresponds to the stressed syllable in the longer source word, as in *hándkerchoo* (*hándkerchief + kerchóo*), *investopédia* (*invésting + encyclopédia*). There is, however, a third possibility in which size and position are both relevant in the assignment of stress in blends. In particular, this may happen (i) when the blend and both source words have an identical number of syllables, e.g. *irritáinment* (*irritating + entertáinment*), *motél* (*mótor + hotél*);
or (ii) when the blend and the right-hand base word have an identical number of syllables, e.g. *digitéria* (*digital* + *caféria*) (Bat-El & Cohen, 2011: 8).

Lastly, there is another case in which position is the only criterion in determining the stress in blends, whereas size cannot play a role, i.e. when the number of syllables in blend differs from that of both base words, e.g. *anectódagé* (*anecdoté* + *dótagé*), *insinuéndo* (*insinuáte* + *innuéndo*).

3) Neoclassical compounds tend to exhibit a medial vowel -o as linking element in their combinations. This vowel usually facilitates the combination between the elements, and is generally regarded as attached to the initial base (*biblio-*, *electro-*, *hydro-*, *morpho-*, *philo*) rather than to the final one. According to Plag (2003: 158), if there is already a vowel in the final position of the initial combining form, or in the initial position of the final combining form, the linking vowel -o- is not necessary. Therefore, *laryngitis*, *polymorph*, *telepathy*, *telescope* do not exhibit any linking element, while *anthrop-o-morph*, *electro-graphy*, *gen-o-cide*, *laryng-o-scope*, *phil-o-gastric* have an -o to link the two elements of the compound. On the contrary, blends do not exhibit any linking vowel, since in blends which are similar to neoclassical compounds, such as *breathalyzer* (*breath* + *analyzer*), *escalift* (*escalator* + *lift*), *medicar* (*medical* + *care*), the hypothetic linking vowel -a- and -i- can be analyzed as the beginning or ending vowels of one of the two splinters.

### 3.3.4 Blends vs. Combining Forms

As a consequence of the above distinction between blends and neoclassical compounds, we will now explain in detail what the term ‘combining form’ means and, also, what are the main differences between blends’ splinters and combining forms. Such a clarification appears to be necessary, because in many cases splinters are wrongly felt and listed under the label of combining forms when they are not, and vice versa. First of all, let us clarify what is meant by ‘combining forms’.
The term ‘combining form’ is used to define a modified form of an independent word that occurs only in combination with words, affixes or other combining forms, generally, creating compounds and derivatives (Warren, 1990 : 114). A large number of combining forms are of Latin and Greek origin, but so well established in English that they are freely and productively used to form many new words, especially new technical terms. According to Bauer (1983 : 213), combining forms “are sometimes added to lexemes just like any other affix”. However, these elements cannot be analyzed as affixes, since they display a distinct behaviour. They cannot be analyzed as simple lexemes either, because they do not function as free-standing words, but are rather invariably bound elements. Furthermore, combining forms are also different from bound roots, because the latter are combined with suffixes to coin a word, while a single combining form combining with a suffix does not make a word. The majority of linguists (Adams, 1973; Bauer, 1983; Warren, 1990) agree that combining forms may be either initial or final, whereas others (Quirk et al., 1985) claim that combining forms are almost obligatorily initial. In this study, the definition of combining forms will extend to cover either initial, e.g. astro-, electro-, hyper-, micro-, super-, tele-, or terminal elements, e.g. -(a)holic, -(a)thon, -burger, -eteria, -gate, -phobe, -rama, -scape. However, the basic problem with the definition of combining forms is that their linguistic status was never really made clear (cf. Mattiello, 2007), nor were there any specific criterion by means of which they can be distinguished from other types of lexical elements, such as, in this case, splinters. This is the main reason why, we will try to discriminate between them, describing what are the differences and the most problematic area of overlapping between these two linguistic concepts.

1) As already explained in the previous section, there are a few examples of blends which may be classified as very close to formations involving combining forms, since they are formed of either an initial combining form plus a splinter (aerobatics), or an initial splinter plus a final combining form (calligraphone). In any case, we choose to consider these formations as blends, and not as neoclassical compounds, because the splinters involved in the combination are neither combining forms nor free lexemes.

2) Assuming that any neoclassical compound, once it has been formed, acts as any other free-standing lexeme, it may be used as source word to create a blend and, reduced to a splinter as any other free lexeme (Danks, 2003 : 152). Examples of such a form is Hello!tocracy, taken from The Sunday Times Culture (10 March 2002) and cybertocracy, which are made up of, in the first case the full word Hello! and the splinter -tocracy from the neoclassical compound aristocracy, while in the second case, a splinter cyber- from the base word cybernetics and a splinter -tocracy again from the neoclassical compound aristocracy. What is interesting here is that the element -tocracy in both formations cannot be considered a final combining form, but a typical splinter, though derived from a neoclassical compound. The fact that -tocracy is a splinter from aristocracy is also semantically relevant. There is, in fact, a semantic difference between the combining form -cracy and the splinter -tocray, the former means ‘system of rule or government’, while the latter brings with it the aristocratic connotation of ‘privilege and high rank’ (Danks, 2003 : 152). As a consequence, the blends Hello!tocracy and cybertocracy have different meanings with respect to formations such as Hello!cracy and cybercracy, and the best analysis of such forms is as blends which are made up of splinters that may contain combining forms.

3) According to Algeo (1977 : 51), blends that have undergone clipping at morpheme boundaries (dumbfound, paratroops) are difficult to classify, since we cannot be sure whether a form is the result of blending or of composition from the constituent combining forms. Blends based on parachute, for instance, that produce paraglider (parachute + glider), parakite (parachute +
kite), paratroops (parachute + troops), have the effect to confer to the morpheme para- a new meaning. Indeed, para- is a combining form which has become reminiscent of one specific word ‘parachute’, and is, thus, used as a splinter of that word within blends. A similar observation is made by Bauer (1988a: 408) regarding another combining form, gastro-, that in formations such as gastrodrama has to be considered a splinter clipped from gastronomy, rather than a combining form. Words such as parakite and gastrodrama, therefore, should be considered both blends, in spite of the fact that they are made up of initial combining forms + free-standing lexemes, as well as neoclassical compounds. The reason for such a classification is that para- and gastro- are not functioning as simple combining forms, but as splinters of the source words parachute and gastronomy, whose reference is fundamental to make the blends understandable.

4) The most problematic area of overlapping between combining forms and splinters occurs when a splinter of certain specific base words happens to be used in many different blends and, gradually, is felt and treated by native speakers as a regular bound word at the beginning or at the ending of a new formation (Lehrer, 1998: 1). Elements such as -ade, -(a)holic, -(a)thon, -boom, -erati, -fare, -gate, -quel, -scape are all products of such a phenomenon, because they were originally splinters of the base words lemonade, alcoholic, marathon, baby boom, literati, welfare, Watergate, sequel, landscape, which have become widely used, familiar and, consequently, considered as final combining forms. Another common splinter which is, however, becoming a combining form is -licious from delicious, since there are nowadays many formations exhibiting this splinter, e.g. berrylicious (berry + delicious), Bibelicious (Bieber + delicious), fruitlicious (fruit + delicious), iconlicious (icon + delicious). Some of these elements classified as combining forms exist also as free lexemes, e.g. -fare, -gate, but their meaning as combining form is restricted or very different from that of the independent forms. For instance, -gate (from Watergate) meaning ‘political scandal’ has a sense unrelated to the meaning of the free lexeme gate, and -fare in welfare ‘payment to poor or unemployed people’ is rather different from the meaning of fare ‘cost for
transportation” (Lehrer, 1998 : 14). Therefore, formations made up of such combining forms cannot be considered blends, but rather operations closer to regular affixation or compounding.

3.3.5 Blends vs. Acronyms

Acronyms have much in common with clipping compounds, since they are both formed by initial parts of source words. So, having examined the similarities and differences between blends and clipping compounds, we should also analyze the relationship between blends and acronyms. In this specific case, we can have a few overlapping areas which make the discrimination between blends and acronyms confused and difficult.

In particular, one of the most problematic areas of overlapping between these two extra-grammatical phenomena occurs when acronyms are made up by taking not only initial letters from their source words, but several letters or whole syllables from one or more of their base words. Bauer (1983 : 238) states that this is not an infrequent occurrence in acronym formations, because the source words tend to be often manipulated in different ways to make the resultant forms as effective as possible. This manipulation, anyway, makes also the formation more unpredictable and less transparent, and in cases such as Fin-Creep (Financial Committee to Reelect the President), linac (Linear Accellerator), ofsted (office for standards in education), VOLAR (Volunteer Army), it may no longer be clear whether a formation is a blend or an acronym.

1) There are, however, a few characteristics and aspects which help us draw a demarcation between blends and acronyms. An essential and fundamental difference is that the components of acronyms, unlike splinters, do not retain a special relationship of meaning with their original source words. Hence, because of the lack of this important relationship among components, it is not easy to recognize and recover the meaning of acronyms or of their base words without the aid of a detailed explanation or prior knowledge. Acronyms, indeed, are not semantically transparent, whereas for a blend to be effective, it
is necessary that the hearer / reader must be able to access the source words to understand successfully the meaning (Danks, 2003 : 109).

2) The orthographic realization of acronyms represents another factor separating them from blends, since it is very common for acronyms to be written with capital letters. According to Cannon (1989 : 109), the majority of acronyms are all-capital, without periods, and with only the first letter of each key word of the source phrase represented, as in A.D.C. (Aide-de-Camp), FOI (Freedom of Information), RASC (Royal Army Service Corp), UNESCO (United Nations Educational, Scientific and Cultural Organisation). There is, however, a further typical orthographical representation of acronyms which is when only the first letter of the combination is written in capital, while the remaining letters of the formation are lower case, as in Mung (Mung until no good), Team (together everyone achieve more), Zinf (Zinf is not Freeamp). It is, instead, not very frequent to find acronyms in all lower case letters, though there are cases in which they are lexicalised and occur in the lower case variant, e.g. laser, loran, radar, scuba. In contrast, blends do not exhibit such differences in their orthographic realization, but they are always written in lower case letters, except when the blend is representative of a proper name, a brand, or the name of a product, e.g. Bublet (bubble + tablet), which is a ‘trademark for foaming bath oil in tablet form’, Fruitopia® (fruit + utopia) ‘a beverage with fruit’, Lipfinity (lip +infinity) ‘a Max Factor lipstick brand’, P’Zone (pizza +calzone) ‘a new entrée at Pizza Hut’, Tree Musketeers (tree + Three Musketeers) ‘a tree planting organization in El Seguno, California’, Weebok (wee + Reebok) ‘children’s athletic footwear and clothing’. Obviously, this factor is only a graphic difference, therefore it will not help hearers in the distinction.

3) One further obvious difference between blends and acronyms, is that generally acronyms, unlike blends, may have more than two source words, usually three or more. However, as evidence by a few examples of blends, such as Cujasuma (Cuba + Java + Sumatra), manamomster (manager + mother + monster), they may have more than two source words. In fact, according to
Adams (1973: 137), although such forms are certainly not usual, it is possible to find blends made up of three bases. The reason why the above formations are classified as blends, rather than acronyms formed by syllables, is because they appear to be more transparent and, furthermore, the three clipped parts do retain a special relationship of meaning with their correspondent source words. The retained syllables in a blend actually communicate the meanings of their source words. In contrast, formations such as *Marenisco* (*Mary Relief Niles Scott*), *Nabisco* (*National Biscuit Company*), *Yomarco* (*young married couple*), are more acronym-like, since none of them is very transparent, and the clipped parts do not obviously retain any special relationship of meaning with their source words (Danks, 2003: 119).

4) As previously explained, one of the primary differences between blends and acronyms, is that the latter extra-grammatical formations are less transparent than the former. However, in some specific cases, there are acronyms which can be, perhaps, a little more transparent than others, because they are semantically indicative of the referent of the longer form (Adams, 2001: 142). These particular acronyms, named ‘semantically-relevant acrostics’, are combinations which intentionally give rise to homophones, and the meaning conveyed is also semantically related to the meaning of the homophone word in English. Examples of acrostics are: *ASH* (*Action on Smoking and Health*), *GIFT* (*Gamete Intrafallopian Transfer*), *KEY* (*Keep Educating Yourself*), *LEAP* (*Law Enforcement Against Prohibition*), *POETS* (*Piss on Everything Tomorrow is Saturday*), *RACE* (*Rescue, Activate alarm, Confine the fire, Evacuate/Extinguish*), *SPRINT* (*Strategic Programme for Innovation and Technology Transfer*)31. This aspect does not make the acronyms transparent, in any case, and the identity of each of their source words remains elusive without the aid of an appropriate accompanying explanation. As regards blends, instead, this trend is not usual as it could lead to misunderstandings. Blends which resemble already existing words are hardly created, mainly because of semantic blocking, indeed, we have

31 More in chapter 2.
bangover (bang + hangover) rather than banger, greedy (gross + creepy) instead of grossy, headvertising (head + advertising) instead of heading, parascending (parachute + ascending) instead of parachuting.

3.4 Patterns of formation

3.4.1 Recurring combining patterns

According to many studies (Bauer, 1983; Cannon, 1986; Lehrer, 1996; Dressler, 2000), blending is defined as a largely unpredictable category with no or very little observable regularities. The main reason for excluding blends from regular formations is the impossibility of predicting an exact output given an input (Ronneberger-Sibold, 2006: 159). Because of this, blending tends to be marginalized by many scholars, and accounted as an extra-grammatical phenomenon. However, as shown in Bat-El (2006), the grammar of some blends (in this specific case of Hebrew blends) is not always so irregular, but it can have a surprising degree of regularity. In part of the earlier literature on blends, and, in particular, in more recent studies, indeed, some regularities in the formation of blends can be found. For instance Plag (2003), Gries (2004) and Ronneberger-Sibold (2006) more or less explicitly recognize that this phenomenon does not always occur randomly, but that it rather follows certain recurring combining patterns. A first important generalization that we can make on the basis of this assumption is that the commonest pattern in blending formation is the combination of “the first part of the first element and the fore part of the second element” (Plag, 2003: 123). From this a rule can be formulated (Plag, 2003: 123):

Blending Rule (AB is the first source word, CD the second source word, AD is the resulting blend):

\[ AB + CD \rightarrow AD \]
As evidenced by the Plag’s blending rule, the combining pattern of blend here coincides with that one of prototypical blends, described in the previous paragraph. In particular, due to this combining pattern, which involves the head of the first source word and the tail of the second one, prototypical blends exhibit a certain degree of regularity, and are considered by the majority of linguists the most popular and frequently coined. An explanation for the popularity of prototypical blends, with respect to partial and non-prototypical blends, might be that, according to Aitchison (2003: 138), “sounds at the beginnings and at the ends of words are retrieved more easily from mental lexicon”.

On the other hand, there are also other types of blends that do not present this common combining pattern. Blends such as *modem*, *thinspiration* or *celeblog* are exceptions to this pattern. In *modem*, an initial splinter (*mo* from *modulator*) is followed by another initial splinter (*dem* from *demodulator*), and the resultant blend has the structure AC, instead of AD (Plag, 2003: 123). *Thinspiration* is an example of a complete overlapping, because here both source words are perfectly recognizable in the blend, *thin* and *inspiration*. As we can see, in *thinspiration* there is no truncation, thus, in this case, the prototypical combining pattern is not followed. Finally, *celeblog* is a partial blend, which differs from a prototypical one since it is a combination of an initial clipping (*cele* from *celebrity*) and a whole word *blog*. In general, however, blends that do not correspond to the prototypical structure, with or without overlap, are a minor percentage (Plag, 2003: 123).

3.4.2 Principles governing blending formation

One of the most interesting question with respect to blends is whether their phonological structure, size, syllable structure and segmental make-up are
predictable on the basis of the source words (Bauer, 1983: 235). In particular, according to Plag (2003: 123), what is considered important is where speakers set their cuts on the base words, because, as we will see, this is not arbitrary but rather constrained by prosodic categories. For example, having two base words such as glass and asphalt, we could predict the resultant blend, glasphalt, and exclude *glassalt or *glalt because of some restrictions which emerge in these formations. Therefore, despite few cases where source words can provide two possible blends, as in tigon (tiger + lion) vs. liger (lion + tiger), absotively (absolutely + positively) vs. posilutey (positively + absolutely), moorth (moon + earth) vs. earthon (earth + moon), in the majority of cases, base words allow the formation of just one possible blend.

Furthermore, some scholars (Cannon, 1986; Kubozono, 1990; Bat-El, 2000; 2006) claim that the formation of blends is not completely unpredictable and accidental, but rather governed by some general principles, which in turn aim towards two competing goals. On the one hand, the resultant blend must have the structure and the length of a single word, and on the other hand, it must preserve as much of the structure from its base words as possible, in order to maximize its semantic transparency. For these purposes, the principles governing the formation of blends determine some special features: the size or length of the blend, the structure of the base words and the semantic relations between them, and the switch point of the combination (Bat-El, 2006: 67).

I. First of all, as regards the length of blends, it has been often noted that the overall size of the blend is generally determined by one of the two base words (Cannon, 1986; Kubozono, 1990; Bat-El, 2006). More specifically, according to Bat-El (2006: 69), “the number of syllables in a blend is often identical to the number of syllables in the longer base word”, as in alphameric: 4 syllables → alphabetic (4 syllables) and numeric (3 syllables); pinkermint: 3 syllables → pink (1 syllable) and peppermint (3 syllables); Texaco: 3 syllables → Texas (2 syllables) and Mexico (3 syllables). However, this principle has not come to a complete agreement on what exactly the combination should be like,
and we can also find slightly different conclusions. Cannon (1986: 735), for example, only partially confirms the previous observation, saying that there are cases in which blends have one (or even two) syllable more than their longer source word, such as *alibiography*: 6 syllables → from *alibi* (3 syllables) and *biography* (4 syllables); *optimistic*: 4 syllables → *optimist* (3 syllables) and *mystic* (2 syllables); *psychedelicatessen*: 7 syllables → from *psychedelic* (4 syllables) and *delicatessen* (5 syllables). In both cases, by adopting the number of syllables from the longer base word rather than the shorter one (Bat-El, 2006), or by coining a blend with more syllables than both its source words (Cannon, 1986), the resultant formation gets the structure of one word while maximizing its size. Consequently, a maximized size of a blend facilitates the semantic recoverability of the base words, since the more segmental material from the source elements we have, the easier is to recognize them in the combination. Kubozono (1990: 18) comes also to another conclusion, claiming that the number of syllables in a blend is identical to the number of the syllables in the rightmost element. Hence, according to this assumption, the length of a blend is determined by the second source word, regardless of the length of the first source word, as in *aquacise*: 3 syllables → *aqua* (2 syllables) and *exercise* (3 syllables); *backronym*: 3 syllables → *back* (1 syllable) and *acronym* (3 syllables). In addition, Bat-El (2006: 69) also assumes that there are some exceptions where the number of the syllables of a blend is less than the number of syllables of the longer base word, such as *bionic*: 3 syllables → *biology* (4 syllables) and *electronic* (4 syllables); *plumcot*: 2 syllables → *plum* (1 syllable) and *apricot* (3 syllables); *telecast*: 3 syllables → *television* (4 syllables) and *broadcast* (2 syllables). Therefore, since it turns out that the length of the longer base word is fundamental to delineate the size of the blend, in the great majority of cases we can observe that the difference in the syllabic length between the blend and the longer source word is not so evident. Finally, the length of English blends is determined by the length of the longer base word in such a way that the blend has the same number of syllables as, or one syllable more or less than the longer base word (Hong, 2004: 136).
II. Another interesting point of analysis is represented by the structure of the base words in blends and the semantic relations between them. According to Bat-El (2006 : 67), “a blend is one word which delivers the concept of its two base words”, thus, the meaning of a blend is either identical with the original words, or derived from them. Indeed, also parts of the base forms can be preserved in the blend, mainly because the more segmental material from the source words is present, the more the blend is transparent and easier to understand (Lehrer, 1996). However, what is really interesting here is the type of semantic relations between the base words in a blend. We can identify two different types of semantic relation:

- ‘Endocentric relation’: in the combination one of the two source words functions as a semantic head, while the other as a modifier. Usually, in this cases the first word is the determinant, and modifies the second one, that is the determinatum. Examples are: kloran (a bible used by the KuKuxKlan members) → klan + Koran, here, the second element Koran is the head and gives the majority of information to the meaning of the blend, whereas the first element modifies the head; keytainer (a container for keys) → key + container; affluenza (an influenza affecting affluent people) → affluence + influenza; buppie (a black yuppie) → black + yuppie (Bat-El, 2006 : 67-68; Fischer, 1998 : 35). In most endocentric blends, as well as in endocentric compounds, the order of the head and modifier tends to be fixed, thus the head is usually the rightmost element.

- ‘Exocentric relation’: in the blend both source words have the same semantic status, and thus none of them serves as a head or as a modifier. This type of blends, also called ‘dvandva-blends’, presents the two bases as semantically coordinative, as in alphameric (consisting in
both letters and numbers) $\rightarrow$ \textit{alphabetic + numeric}, here both source words equally contribute to the meaning of the blend; \textit{escalift} (a device with the advantage of both an escalator and a lift) $\rightarrow$ \textit{escalator + lift}; \textit{tangemon} (a hybrid of tangerine and lemon) $\rightarrow$ \textit{tangerine + lemon} (Bat-El, 2006 : 68).

In some cases, however, Bat-El points out (2006 : 68) that it is not so clear whether the semantic relation between the base forms in the blend is endocentric or exocentric. There are, indeed, formations which show two related meanings, such as \textit{brunch} (\textit{breakfast} + \textit{lunch}) which means either “lunch with some characteristics of breakfast” (endocentric blend), or “a mixture of breakfast and lunch” (exocentric blend). Endocentric and exocentric relations also appear in compounds, where, though, not any possible combination of lexical categories is possible. In blends, instead, other special combinations are allowed, such as verb + verb (\textit{baffound} from \textit{baffle} + \textit{confound}; \textit{clash} from \textit{clang} + \textit{crash}; \textit{exergaming} from \textit{exercising} + \textit{video gaming}). Lastly, blends do not have preferences between endocentric or exocentric relation, whereas in the majority of cases compounds are endocentric.

III. Blend words can also be classified according to the boundaries between blend components, the so-called ‘switch point’. Switch points may correspond to morpheme or syllable boundaries, or to segmental overlap. In the first case, when the two base words do not have a shared segment (overlapping), the syllable structure plays a role in determining the switch point of the blend (Bat-El, 2006 : 73). We can distinguish two situations on the basis of the number of syllables in a blend. In monosyllabic blends, coined by two monosyllabic bases, the switch point must be at the onset-nucleus boundary. However, it is fundamental to identify which one of the two source words contributes the onset, and which one the nucleus. According to Kubozono (1990 : 7), the
preference is that the first source word contributes only the onset of the blend, while the second source word contributes its nucleus and coda, and consequently also its rhyme. Examples of monosyllabic blends are taken from Bat-El (2006: 73):

[switch points are marked with •]

b•leep → the onset is from blank and the nucleus is from beep;

f•oon → the onset is from fork and the nucleus is from spoon;

f•utz → the onset is from fool and the nucleus is from putz;

k•log → the onset is from knowledge and the nucleus is from blog;

s•art → the onset is from shit and the nucleus from fart;

s•itzy → the onset is from snazzy and the nucleus is from ritzy;

S•atch → the onset is from Swiss and the nucleus is from watch.

The onset and the nucleus in a combination are generally more salient elements with respect to the coda, and this division allows the blend to preserve at least one salient element from each source word, the onset from the first and the nucleus from the second. Although it is not accepted for the previous examples combinations with the onset and the nucleus from the first base and just the coda from the second (*blap, *futz, *knoq, *shirt, *snatzy, *Switch), there are, however, a number of exceptions of this kind, most of which are due to lexical blocking, such as boo•st (*boist is blocked) from boom + hoist, moo•arth (*mearth lexical blocking) from moon + earth, slo•sh (*slush is blocked) from slop + slush (Bat-El, 2006: 73). On the other hand, in polysyllabic blends the situation is slightly different, and the preference for the switch point is at the syllable boundary. This preference allows, in particular, to maximize the segmental material of the blend: prolet•cult (proletariat +
cult) rather than *prolet•ult. However, in polysyllabic blends there is a restriction at this switch point (coda-onset contact), which requires the coda to be more sonorous than the onset, as in cam•corder (camera + recorder) where the [k] from the coda of recorder is more sonorous than the [m] of camera; smother•cate (smother + suffocate) where the [k] of suffocate is again more sonorous than the [r] of smother (Bat-El, 2006 : 73-74). According to Bat-El (2006 : 74), if “the distance in sonority between the onset and the coda is not sufficient, then we will have a different switch point at the onset-nucleus boundary of the second word (like in monosyllabic blends)”. Hence, for example hurricane + balloon does not give *hurri•loon due to the irregular contact between [kl], but rather hurric•oon. Other examples of this kind are (from Bat-El, 2006): molec•ism (molecule + organism) vs. *molec•nism; pink•ermint (pink + peppermint) vs. *pinkpermint; zebr•ule (zebra + mule) vs. *zeb•mule.

There is, however, a second case to analyze in determining the switch point, when the blend arises from a complete or partial overlap. In such cases it is the position of the shared segment to represent the switch point of the blend. The overlapping elements generally correspond to segments in both source words, as in ciphony the segment ph represents the switch point of the combination and is present in both cipher and telephony, or croissandwich where both base words croissant and sandwich contribute to the shared segment san that is the switch point (Hong, 2004 : 126-127). In this type of formations, the presence of overlapping segments, corresponding to the switch point, contributes to the maximization of the blend, since it allows more elements from each base to be preserved. Therefore, we can notice that in Chicagorilla, cinemagpie and glibido, for example, all elements of the source words appear in the blend, while in cupidity (cupid + stupidity), giraffiti (giraffe + graffiti) and glamping (glamour + camping) we do not recognize all segments from the base words, but they preserve most part of them (Kremer, 2002). Furthermore, in blends involving complete overlapping, not only the blend is maximized because more segments are preserved from both base words, but most importantly the
semantic transparency of the combination is higher, and for this reason, the understanding of the meaning of the blend or its components is immediate.

3.5 Preferential criteria of formation

The following criteria are specific aspects that we have identified in order to determine what are the guidelines used to form prototypical blends. The following parameters are useful to determine well-formed blends:

- **Recoverability** - according to this criterion, we are able to identify and recover blend bases without much effort, because the structure and shape of the blend is similar to that of its correspondent source words. In many cases, blends appear to be quite transparent, as compared to other extra-grammatical processes such as acronymy, for instance, and more easily understandable since the base words are clearly recognizable inside the new formations. This, in particular, is the case with complete blends, which exhibit in their structure both source words in full, as in *beepilepsy* (*beep + epilepsy*), *cinemaniac* (*cinema + maniac*), *humanure* (*human + manure*), *intellectronics* (*intellect + electronics*). In complete blends transparency and recoverability reach their maximum degree, but there are also other recurrent formations which are not as transparent as complete blends, e.g. *dictaphone* (*dictation + telephone*), *dramedy* (*drama + comedy*), *grooler* (*grill + cooler*), *karsonist* (*killer + arsonist*), *locavore* (*local + omnivore*), *nocebo* (*No + placebo*), *showmance* (*show + romance*). Even in these less transparent cases, we are still able to recover and recognize the source words and their meaning, usually on the basis of the context of use, the presence in the blend of one of the two bases in full, the meaning of the sentence in which they are used and so on.
**Prominence** - The parameter of prominence mainly concerns the structure of blends, and in particular, the adequacy of their structure. According to this parameter, a blend is well-formed if it exhibits a specific structure in which one of the two constituents is prominent in length and meaning with respect to the other. Many linguists (Cannon, 1986; Kubozono, 1990; Bat-El, 2000) observe that the overall size of the blend is generally determined by one of the two base words, more specifically by the longer one, in such a way that the blend presents the same number of syllables (Texaco 3 syllables → Texas 2 syllables + Mexico 3 syllables) as, or one syllable more (optimystic 4 syllables → optimist 3 syllables + mystic 2 syllables) or less (telecast 3 syllables → television 4 syllables + broadcast 2 syllables), than the longer base word. Furthermore, prominence in blends also regards their meaning, which is very often determined, or, at least, influenced by the semantic relation between their constituents. In blends exhibiting endocentric relations one of the two source words is prominent and functions as a semantic head, e.g. buppie (black + yuppie), keytainer (key + container), perch (persistent + search), quillow (quilt + pillow); whereas in blends exhibiting exocentric relations both base words have the same semantic status, and none of them is more important than the other, e.g. alphameric (alphabetic + numeric), parasail (parachute + sail), peditation (ped + meditation) (Bat-El, 2000: 67-68).

**Salience** - This criterion basically refers to the semantics of blends and to what is important to be highlighted and underlined in the new formations from a semantic point of view. The content and the meaning of the blend, but also of the two constituents are the interesting and salient aspects in this case, because they may represent crucial points in determining whether a blend is well-formed and semantically acceptable, or not. Depending on this, there
are, in fact, blends that cannot be formed because of some particular restrictions, i.e. social and conventional factors. For instance, the blend _brunch_ is preferred over _lunchfast_ or _lunchbreak_, since the most salient content here is in the source word _breakfast_, rather than in _lunch_, and also temporally _breakfast_ occurs before _lunch_. Thus, in the formation of the blend, it is preferable to consider and respect this semantic importance and temporal sequence.

- **Semantic blocking** - The expression ‘semantic blocking’ is used to refer to the unacceptability of applying a morphological process on certain word due to the presence of a competing form (see Aronoff, 1976 : 43). In the specific case of blending formation, it concerns the impossibility of creating a new blend when there is a pre-existing homophonous word which is already incorporated into the lexicon. For example, *

  *smoke* (from *smell* + *choke*)

  would be blocked, because it has the same form as an existing word.

- **Pronounceability & Euphony** - On the basis of the parameter of pronounceability, blends have to be formed in such a way that everyone is able to pronounce them without effort. This mainly means that, in the formation of blends, complicated sequences of consonants and vowels are usually avoided, because they would make the new form unpronounceable. Indeed, blends such as _calfeteria_ (calf + cafeteria), _cawesome_ (cool + awesome), _electrocute_ (electricity + execute), _futz_ (fool + putz), _Hipublican_ (hip + Publican) are preferred over *

  *calfteria*, *

  *collwesome*, *

  *electrcute*, *

  *folltz*, *

  *hipblican.*

  As a consequence of pronunciability, another criterion is that of euphony, which is closely connected to it. According to euphony, a blend has to be created by a pleasant and harmonious combination or succession of words, emphasizing various patterns of
consonants and vowels agreeable to the hearers. Clusters of sounds must conform to the phonological properties of the specific language.

- **Analogy** - This aspect plays an important role in the formation of blends, because it refers to the relation between the source words, i.e. the input, and the resultant formation, i.e. the output, which is usually based on similarity. Therefore, according to such a criterion, a blend is well-formed if it resembles another existing blend, as in *girlicious*, which is coined after *bootylicious*, *beaulicious*, etc. (cf. the potential combining form *-icious*).
4.1 Introduction

Reduplication, as for example in *bye-bye, hurly-burly, shilly-shally* and *tick-tock*, is a very interesting process which largely departs from those previously analyzed. In contrast to those mechanisms involving a shortening of some type, such as blending, clipping, acronyms and initialisms, all oriented to satisfy the Principle of Economy, reduplication appears to be rather based on lengthening and on a criterion of redundancy.

In many languages of the world, reduplication is a wide-spread morphological process, regularly and grammatically employed in both inflection and word-formation, whereas in Western European languages, it is a rare and marginal phenomenon of word-formation only. English, contrary to this tendency, widely and productively exploits reduplication, but its mechanism of formation does not allow for its inclusion within grammar, in spite of the several regularities observable in the outputs. Reduplicatives, also known as ‘echo words’, ‘sing-song words’ or ‘rhyming words’, are a quite recent process of English word-formation. A significant step forward in their creation, indeed, dates back to the 15th Century, while in the surviving Old English documents and texts, reduplicatives are rather scarce.

Reduplication, as a linguistic phenomenon, has long been studied in terms of various formalistic theories, mainly within phonology and morphology (Dressler & Merlina Barbaresi, 1994; Dressler, 2000; Minkova, 2002; Wang, 2004; Merlina Barbaresi, 2008; Ronneberger-Sibold, 2008) as part of what is called ‘extra-grammatical morphology’. The marginalization of reduplication is
mainly due to its irregular mechanism of formation, which does not follow ordinary word-formation rules. Moreover, the status of reduplicative words appears problematic as they lie in the intersection of phonology and morphology, drawing on both linguistic systems (Raimy, 2000).

In this chapter, in particular, we will define reduplication as that morphological process in which a word or part of it is repeated, as in *bye-bye* (‘goodbye’), *gaga* (‘fatuous’), *pech-pech* (‘the sound of heavy breathing’), or in *fiddle-faddle* (‘trifling’), *midge-madge* (‘confusion’), *rumble-jungle* (‘in a rumbling manner’). From a semantic point of view, these new formations are mutually connected by the feature of expressivity, which consequently allows for similarity with other particular phenomena, such as sound symbolism or phonaesthesia, exhibiting the same property. However, these latter expressive phenomena will not be included in this analysis, since they do not exhibit repetition as their main trait.

Depending on the fact that reduplicatives involve the combination of two items, they are labeled in different ways, all underlining this feature. Jespersen (1965) calls them ‘reduplicative compounds’, while Marchand (1969) uses the heading ‘pseudo-compounds’ and Thun (1963) ‘repetition compounds’. These denominations underline the fact that these formations have similarities with compounds, but they also specify the limits of their similarity. As we will see, reduplicatives, in fact, escape the majority of criteria defining canonical compounds. First of all, actual compounds are combinations formed by elements each of which may be used as an individual word. Indeed, apart from those reduplicatives to which this definition can in a certain sense apply, such as *rumble-jungle*, where both *rumble* and *jungle* can stand on their own, but also *battle-rattle, toy-boy, wiggle-waggle*, there are others that do not match with it, such as *harum-scarum*, where neither *harum* nor *scarum* can be found in dictionaries as separate entries, but just as a composite formation meaning ‘be rash’, and thus requiring a distinct definition (Thun, 1963 : 10-11; Rastal, 2004 : 40). Hence, although there are various terms to label the resultant formations of reduplication, in this work we will preferably refer to these
compositions as ‘reduplicative words’ or shortly ‘reduplicatives’, since these headings better describe the shape of our items.

This chapter is organized into four main parts. Section 2 introduces the terminology and definition of the process in exam and its resultant formations (Thun, 1963; Wang, 2005; Nadarajan, 2006), the classification of the distinct categories of reduplicative words (Minkova, 2002; Merlini Barbaresi, 2008), and also the specific case of reduplicative onomatopoeias. Section 3 concentrates on reduplication as an extra-grammatical phenomenon, describing and examining all the irregularities of this process with respect to ordinary word-formation (Dressler & Merlini Barbaresi, 1994; Doleshal-Thornton, 2000; Raimy, 2000). Section 4 investigates, instead, the main recurring patterns of formation, differentiating among phonological, morphological and syntactic patterns, and then focuses on stress pattern (Thun, 1963; Dienhart, 1999). Finally, section 5 illustrates the preferential criteria for the formation of reduplicatives.

4.2 Definition and classification of reduplicatives

4.2.1 Terminology

‘Reduplication’ is a term used by the majority of studies to identify the word-formation process in which a full base or part of a base (a segment, a syllable, or a morpheme) is repeated either to the left, or to the right of the word, or occasionally within the middle of the word. This process, however, can be labeled in different ways, since its terminology appears to be sometimes intricate and controversial. Indeed, more than one term is found to describe reduplication, though not all of them are perfectly appropriate to define it. First of all, we will try to find a clear-cut differentiation between two terms which are sometimes used as synonyms, but that, in fact, often diverge. These terms are: ‘reduplication’ and ‘repetition’. Linguistic terms relating to reduplication and repetition indicate a great variety in terminology and scopes. Indeed, reduplication describes a phenomenon which implies that a first unit is
identical to the second one, or that they differ just in certain well-defined ways, such as change of stem vowels (spilsh-splash ‘to splash repeteadly’) or initial consonants (piggie-wiggie ‘a term of affection’). In contrast, repetition is a term used to indicate sounds and concepts that are repeated in one form or the other to provide reinforcement and emotional emphasis, such as ‘This is an old, old house’ where old, old cannot be considered a reduplicative formation, since it is just a repetition which conveys a special effect of reinforcement to the sentence (Nadarajan, 2006 : 40). According to Wang (2005 : 507), despite the fact that both repetition and reduplication can be used interchangeably in some languages because they overlap at some point, in English we may identify some criteria to distinguish them. Thun (1963 : 8-9), in particular, was the first to propose these criteria of differentiation:

1) a phonetic / prosodic difference: it refers mainly to the stress pattern of reduplicative formation which is different from that of simple repetition, as in prétt-y-prétt-y (reduplication) and prétt-y, prétt-y (repetition);

2) a morphological difference: in the case of reduplicative words we have the possibility to form plurals, as in bye-byes, pretty-pretties, while repetitions do not allow plural formation;

3) a semantic difference: the repeated adjectives pretty, pretty, used just as ordinary repetition preserve their basic meaning from the first to the second word. On the other hand, the primary aim of pretty-pretty as reduplicative is overdone and becomes derogatory (Wang, 2005 : 510).

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32 In this case, Wang refers to Malay language, where repetition is used interchangeably with reduplication.
Furthermore, also Persson (1974) insists that repetitions in English have to be distinguished from reduplications at three linguistic levels, which are: (i) lexical repetitions, such as an old, old view, (ii) syntactic repetitions, such as God he knows, and (iii) semantic repetitions, such as he was searching and looking for a book. According to Wang, (2005: 510), there is still another fundamental difference between reduplication and repetition, which is the fact that reduplication exists at the lexical level, as in they just let you go on buying on the never-never (meaning ‘to buy something in installments’), while repetition exists mainly on syntactic level, as in your dad learnt never, never to cry in the dark. Another singular feature which characterizes repetitions, with respect to reduplicatives, is that in some cases repetitions may be separated by commas, because the two elements of the composition do not establish a unit, but rather they are one the repetition of the other constituting a sort of redundant expression, as in she sang and sang all night long, or they were amazed at her big, big voice. Finally, repetitions tend to convey some specific effects to the sentence in which they are used. Indeed, Wang (2005: 511) claims that repetition has an informative and reinforcing function, and it is widely used as a poetic device which occurs when a sound, a word, a syllable, a phrase or metrical patterns are repeated to make it a basic unifying device. For these reasons, in this chapter we will preferably differentiate these two phenomena, considering one independent from the other.

However, as previously said, the terminology concerning our process includes also other names and labels. Apart from ‘repetitions’, which sometimes is wrongly used to identify reduplicative formations, we can also have: ‘gemination’, ‘duplication’, ‘reiteration’ (Thun, 1963: 11). All these terms are not completely appropriate for defining reduplication, because ‘gemination’ is mostly used to refer to double consonants, and in particular to cases in which a consonant is pronounced for a longer period of time than other

33 Underlined in the following examples.
short consonants (as in back kick which is pronounced /bæk:k/ with a longer /k:/); ‘duplication’ is generally used as a term for linguistic doubling in a wide sense, including not only doubling occurring in word-formation, but also other types, such as day in day out, hour after hour, one by one (Thun, 1963:11); while, ‘reiteration’ refers simply to a repetition of a word later in a text, or the use of synonymy. Hence, despite the many terms used in the literature to define the process, we definitely prefer ‘reduplication’ to describe the process in which a full base (dick-dick, gale-gale, housey-housey), or a part of it (creepy-crawly, life line, nitty-gritty, super-duper, telltale) is repeated to coin a new formation which may exhibit rhyming, vowel or consonant alternation. Hence, we will refer to the resultant formations as ‘reduplicative words’, ‘reduplicatives’, or, rarely, ‘echo words’.

4.2.2 Defining reduplicatives

Reduplication is a process which is characterized by taking into account not only the phonetic shape, but also other features concerning morphology. According to Thun (1963:12), some qualification and further delimitation is necessary, in order to find a clear-cut differentiation between what can be actually considered a result of reduplication and what is instead a result of some other process. For example, formations such as sillily or tactic exhibit an apparent reduplicative shape and can be easily confused with reduplicatives. These words, like many similar ones, are resultant formations of different processes, though eventually they may acquire a form which is very close to that of reduplicatives. This similar shape, however, is absolutely accidental and due to the working of chance. Indeed, in the case of sillily we have the addition of the suffix –ly to create an adverb from the adjective silly, but this suffix can be added also to other words, such as short + -ly (shortly), simple + -ly (simply) where there is no evidence for a connection or similarity with any reduplicative word.
At this point, it is fundamental to delineate better what can and cannot be listed under the label ‘reduplicative words’. A first distinction, which seems to be necessary, has been made between two distinct kinds of words made up of phonemes which happen to occur twice (or sometimes even more than twice). These two categories of words may be differentiated depending on the motivation of their phonetic redoubling. Therefore, in one category this fact is due to chance\textsuperscript{34}, while in the other the repetition of the groups of phonemes is not due to chance, but rather to certain specific patterns characterized by the identity or near identity of groups of phonemes (Thun, 1963: 13). Hence, words whose shape resembles reduplicatives (called ‘false reduplicatives’ by Thun 1963) (fulfill, sillily, solely, tactic, worthlessness) belong to the first category, real reduplicatives (fuddy-duddy, hodge-podge, pell-mell, picnic) to the second one. The following list clearly illustrates which words we do not consider the result of reduplication, and fall outside the class of reduplicative words:

I. In the case of compounds formed by elements which differ only with regard to initial consonant or stem vowel, such as fulfill, ill-will, mole-hole, there is no reason to assume that they result from reduplication. As evidenced by the following examples, the first constituent of all these words can be replaced by an element of similar or also opposite meaning. In particular, there are many other compounds in which the second element is will (goodwill), hole (dog-hole, mouse-hole, pigeon-hole, pig-hole, rat-hole), or fill (half-fill), where the rime is irrelevant. This, in fact, confirms that the previous formations are not classifiable as reduplicative words, but that they are just accidentally similar to them (Thun, 1963: 14). On the other hand, rhyming compounds, i.e. a particular type of reduplicatives made up by two meaningful bases, exhibit a structure which is, in a certain way, very similar to regular compounds. Examples of

\textsuperscript{34} As we have seen in the previous example sillily.
rhyming compounds are: airy-fairy (‘strange’), battle-rattle (‘military gear carried by foot soldier’), bigwig (‘an important person’), nitty-gritty (‘the heart of matters’), nitwit (‘a person of little intelligence’), quavery-mavery (‘undecided’), willy-nilley (‘undecided’). However, there are a few fundamental features which help us distinguish between rhyming compounds and traditional compounds:

(a) One of the main trait is based on the relationship between the two bases in the composition, that is different in reduplicatives from that induced by canonical rules of compounding, and also no syntactic paraphrase is identifiable. In regular compounds, this relationship between constituents is fundamental since it is responsible for the semantic and referential connection between head and modifier which is typical of traditional compounds and, consequently, of their unitary meaning. As regards the first aspect, compounds very often exhibit a modifier-head structure, where the most important constituent, the head, is the rightmost one, modified by the other element of the composition (Plag, 2003 : 135). The relationship between the constituents of this type of compounds, i.e. endocentric compounds, can be schematized as such : AB > (a)B. It mainly denotes that the combination inherits the majority of its semantic and syntactic information from the head, while the leftmost element just gives to the head a specific temporary characterization, e.g. black-board is a type of board, deep-fry is a type of fry, footstoll is a type of stoll, head waitress is a type of waitress, house wine is a type of wine, installing options are a type of options.

(b) Another interesting characteristic which separates regular endocentric compounds from reduplicatives, is that the former may exhibit a unitary composite meaning to which both constituents contribute. Formations such as book cover, freezy-dry, icy-cold, room-mate, short-cut, White house are made up of elements whose meanings contribute to the resultant meaning of the compounds. In
contrast, reduplicatives do not exhibit such a relationship between the base words in the combination, and do not have a unitary composite meaning contributed by both constituents. Actually, not even rhyming compounds, which are formed by two meaningful bases and are the closest to regular compounds, exhibit a unitary composite meaning, but they rather have a meaning which has nothing to do with the meanings of the bases, e.g. *funny bunny* (‘when a teenager girl has a love interest in a male but is unsure how to express her desire for companionship’), *rumble-bumble* (‘a shooting-up of targets on enemy coastline’). However, there is also another type of compounds, the so-called exocentric compounds, which, contrary to endocentric ones, do not have the head inside the combination, but it is outside, as in *loudmouth* which is not a type of mouth, but a person, *greybeard, honeymoon, pick-pocket, redskin.*

(c) In this case, therefore, the difference between rhyming compounds and exocentric compounds cannot be based on the previous traits, i.e. the presence of the head, the semantic relationship between the constituents and the unitary composite meaning of canonical compounds. It is another distinct aspect that helps us in the discrimination, i.e. the stress pattern. Compounds in English, also the exocentric type, generally exhibit a leftward stress, i.e. the stressed syllable is the leftmost element (Plag, 2003 : 138). In contrast, the stress pattern in rhyming compounds may be either single, with a primary stress on the first syllable when the bases are monosyllabic, e.g. *fág-hag, nít-wít, tí-tít*, or double if the base words are polysyllabic, e.g. *créepie-péepie, fúnny-búnny, nítty-grítty* (Dienhart, 1999 : 25). To conclude, regular compounds, either endocentric or exocentric, exhibiting a rhyming structure, such as *cook-book, flower-power, redhead*, are basically formations created by chance or which intentionally exploit the typical reduplicative structure to catch the attention of the hearer/reader.
II. Words that, although having the appearance of reduplicatives, are simply the result of derivation. Examples of this kind are: the aforementioned sillily, but also chillily, willily and every adjective with the stem vowel [i] followed by an [l] and which ends in [li] to form adverbs; nouns ending in -ness and in -lessness, such as carelessness, hopelessness, listlessness, stresslessness, which happen to look like reduplicatives, but are actually derivatives; kingling that is made up of the noun king and the suffix -ling, which is again just a case of suffixation.

III. A small number of loan-words which are not considered cases of reduplication in their languages of origin, because they are formed by well-established patterns of word-formation. Indeed, according to Thun (1963 : 15), words such as tactic and stictic are not reduplicatives, since tactic is a borrowing from Greek taktikós which is in turn formed from the verbal adjective taktós and the infinite verb tássein (meaning ‘to arrange’), and stictic is from Modern Latin Sticta where there is no evidence of reduplication.

However, there is another fundamental difference between real and false reduplicatives which should be mentioned. The great majority of false reduplicatives are proper compounds (see group I above), i.e. made up of two independent and meaningful words. Furthermore, they belong to the category of compounds in which the second element of the combination is the head, that is modified by the first element, implying a sort of subordination of one constituent to the other (mole-hole is a hole made by a mole or a hole for a mole, pay-day is the day of the payment, sweet-meat is meat that is sweet). On the other hand, reduplicative formations cannot be considered compounds in the usual sense, though there is a subtype of reduplicatives which does include
formations really close to compounds, such as funny-bunny, rumble-jungle and wiggle-waggle. This group of reduplicatives called ‘rhyming compounds’ (see Merlini Barbaresi, 2008 and § 4.2.3 below), where both bases of the combination are meaningful, exhibits properties different from ordinary compounds. In particular, they imply coordination, instead of subordination, since the elements in the combination are juxtaposed and in some cases also synonymous, as in rumble-jungle (‘in a rumbling manner’) where neither the first nor the second constituent modifies the other, but each completes the other, and in quavery-wavery (‘undecided’) where the elements are almost synonyms, because quavery means ‘trembling’ and wavery ‘wavering, fluttering’ (Thun, 1963 : 16).

4.2.3 Classification of English reduplicatives

The reduplication process varies in English. In fact, we may distinguish at least four broad types of reduplicatives depending on a number of features which mainly interest their structure. A primary distinction has to be made between two main categories of reduplicatives, which are ‘full’ and ‘partial reduplicatives’.

♦ ‘Full reduplication’, in particular, involves the exact repetition of a sound or a word, as in bye-bye, ha-ha, yo-yo. This category of reduplicatives may be labeled in several ways, though all of them are related to the concept conveyed. According to Thun (1963 : 209), indeed, the heading used to name the process in exam is ‘identical reduplication’, since the first form in which the reduplicated words appear is that in which both parts of the word are exactly alike. According to Merlini Barbaresi (2008), instead, they are ‘copy

35 In cases of ‘rhyming compounds’, the reduplicatives created are comparable to ‘coordinative’ or ‘copulative compounds’. However, the term ‘coordinative’ or ‘copulative compound’ does not apply just to formations such as rumble-jungle or wiggle-waggle, but rather comprises several other types of compounds which do not exhibit reduplication or rhyme (e.g. Queen-Mother).
reduplicatives’ or ‘exact reduplicatives’ because their second member is the exact copy of the first one. This category of reduplicatives is not the most productive in English, and certainly less frequent with respect to the other type of partial reduplicatives. However, examples of this kind are: ack-ack (‘antiaircraft gun’), arf-arf (‘the sound of a laugh’), auly-aly (‘a collective game’), bon-bon (‘candy’), boo-boo (‘a foolish mistake’), boom-boom (‘a soldier’), buddy-buddy (‘very friendly’), cha-cha (‘a type of dance’), click-click (‘metallic noise’), fifty-fifty (‘to divide up into two parts’), gale-gale (‘wild storm’), gee-gee (‘a horse’), girly-girly (‘girlish in an exaggerated or affected manner’), gogo (‘hustle and bustle, continuous movement’), haw-haw (‘an expression of laughter’), honk-honk (‘the harsh sound of a motor-horn’), housey-housey (‘a type of game’), lulu (‘something outstanding’), my-my (‘used to express surprise or dismay’), plotty-plotty (‘something connected with plot or intrigue’), preachy-preachy (‘tediously moral or moralistic’), pretty-pretty (‘overdoing the pretty’), sing-sing (‘a singing or ringing sound’), sway-sway (‘a state of suspense or hesitation’), trill-trill (‘representation a continued trill or trilling’), zero-zero (‘having zero visibility’).

♦ ‘Partial reduplication’, on the other hand, is that involving the reduplication of only part of a word, depending on vowel or consonant alternation, and exhibiting rhyming components. For this category, we can identify three distinct subclasses of reduplicative words: ‘rhyming reduplicatives’, ‘ablaut reduplicatives’ and ‘rhyming compounds’.

- ‘Rhyming reduplicatives’ → this type of reduplication exhibits two fundamental characteristics: the first one is rhyming constituents, and the second is change of the initial consonant. In this group of reduplicatives, we include not only those formations in which both members of the combination begin with a consonant (bow-wow, pell-mell, super-duper), but also those in which only one of the two members begins with a consonant, while the other with a vowel (edley-medley, igsy-pigsy, itsy-bitsy, tiddy-iddy). Examples of
rhyming reduplicatives are: boogie-woogie (‘a style of playing blues’), black-jack (‘a trade name for adulterated butter’), cag-mag (‘to chatter’), cavie-davie (‘a boy’s game, similar to prisoners’ base’), crapple-maple (‘ale’), dauby-sauby (‘flattery’), eedle-deedle (‘easy-going, lacking initiative’), frig-pig (‘a finicking trifier’), fuddy-duddy (‘an old-fashioned person’), fuzzy-guzzy (‘the balsamweed’), Georgie-Porgie (‘any plump male child, or the name of a pet’), glairy-flairy (‘gaudy, showy’), habbie-gabbie (‘to throw money’), handy-pandy (‘a rhyming jingle’), henky-penky (‘jugglery, legerdemain’), hilter-wilter (at all hazards, come what may), hobnob (‘at random’), hocus-pocus (‘confusion’), hodge-podge (‘to mix up in disorder’), hoity-toity (‘riotous or giddy behavior, fightiness’), incky-dincky (tiny, insignificant’), izey-dizey (‘uncertainly’), kebbie-lebbie (an altercation in which a number of people are talking at once’), lampsy-wampsy (‘a term of affection’), mack-lack (‘in a clattering way’), mousey-pousey (‘the mouth’), namby-pamby (‘weakly sentimental’), nasty-pasty (‘disagreeable’), okey-dokey (‘OK’), opple-scopple (‘to scramble for sweetmeats’), pall-mall (‘a brand of cigarettes’), palsy-walsy (‘intimate friend, comrade’), pee-wee (‘a lagwing, pewit’), pongy-bongy (‘a certain kind of snuff’), poopsy-woopsy (‘a term of affection’), raggle-taggle (‘an untidy person’), razzle-dazzle (‘confusion’), rumble-tumble (‘to roll down the hillside’), shack-back (‘a large of fowls’), slawsy-gawsy (‘a term of affection), tantry-ranty (‘fornication’), tinsky-winsy (‘a poor beer’), twisty-wisty (‘in a twisty manner’), uggledy-muggledy (‘in confusion’), wee-gee (‘nothing extremely good of its kind’), winky-pinky (‘squinting’), zeenty-teeny (a children’s game).

- ‘Ablaut reduplicatives’ → they exhibit vowel apophony, and for this reason they are also called ‘apophonic reduplicatives’. This type of partial reduplication involves a systematic alternation and
change of the stem vowel, either at the beginning, though more rarely, as in *equal-aqual, ickle-ockle, easy-osie*[^36], or in the middle preceded by one or more consonants, as in *flip-flap, glim-glam, kibble-kabble.* According to Minkova (2002:133), ablaut reduplicatives in English are characterized by two principal properties, viz.: (a) identical vowel quantity in the stressed syllabic peaks, and (b) maximally, distinct vowel qualities in the two halves, with commonly a high front vowel [I] appearing to the left (the first syllable peak), and a low vowel to the right, as in *mish-mash, riff-raff, wishy-washy.* By this criterion, the most frequent patterns of vowel alternation are *i / a,* mostly pronounced [ɪ / æ] and *i / o,* mostly pronounced [ɪ / ə]. Examples of this kind drawn from Thun (1963), Dienhart (1999) and Minkova (2002) are listed in the following table:

<table>
<thead>
<tr>
<th>[ɪ / æ]</th>
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| bibble-babble (‘idle or empty talk’), bing-bang (‘a continuous banging noise’), bingle-bangle (‘fickle, vacillating, irresolute’), bittle-battle (‘the game of stoopball’), bribble-brabble (‘vain chatter’), blibber-blabber (‘chatter’), blish-blash (‘idle talk’), chick-chack (‘the wheatear’), chitter-chatter (‘a chatter’), clash-clash (‘clash of | bim-bom (‘the sound of bells’), blink-blonk (‘white wine’), chick-chock (‘joltingly’), criss-cross (‘a game played on slates by children at school’), chip-chop (‘chopping, harshly consonantal’), dingle-dongle (‘ringing of metal’), drill-drolls (‘trailing plants’), drip-drop (‘continuous dripping with alternation of sounds’), easy-oisie (‘easy-going’), flip-flop (‘the

[^36]: Note that here similarity is only phonic but not graphic. The classification of these words as apophonic or rhyming reduplicatives is actually dubious, in that they do not fall in the main subtypes of alternation patterns which will be described immediately below.
weapons’), cringle-crangle (‘winding in and out, twisted’),
dilly-dally (‘to act with trifling vacillation or indecision’),
dingle-dangle (‘ringing of metal’), dribble-drabble (‘a slut’), fible-fable (‘non-sense’),
fish-fash (‘troublesome business’), flim-flam (‘idle talk, non-sense’), flish-flash (‘to
make cuts and slashes with a sword’), frimple-frample (‘in a confused, tangled manner’),
giddy-gaddy (‘same old game’), glim-glam (‘sly look’), jim-jam (‘delirium trements’), midge-
madge (‘confusion’), mish-mash (‘a confused mix, medley’), niggle-naggle (‘to naggle’),
pebble-pabble (‘idle talk’), piff-paff (‘sound of bullets’), pitter-patter (‘beating sound’), prattle-
prattle (‘non-sense speech’), ribble-rabble (‘a great confusion’), riff-raff (‘a hurly-burly, a racket’), rip-rap (‘reproduction of the sound caused by a rapid succession of blows’), scribble-scrabble (‘in a scribbling manner’), scritch-scratch (‘continual scrtching’), splish-splash (‘to splash sound of regular footfall’),
flipperty-flopperty (‘dangling, loose’), hip-hop (‘with hopping movements’), ickle-ockle (‘a nursery rhyme’), jiggy-joggy (‘a term for motion’), kibty-kobty (‘loitering’), knit-knot (‘a knitted or knotted piece of work’), mizzy-
mozy (‘perplexed’), ning-nong (‘a foolish, stupid person’), ping-pong (‘a game, tennis-table’),
shig-shog (‘see-saw’), sing-song (‘a ballad, a piece of verse’), slip-slop (‘twaddle’), smick-smock (‘the cuckoo-flower’), stick-stock (‘downright excessively’), tick-
tock (‘knocking’), tip-top (‘the very top’), tipsy-topsy (‘upset or in disorder as if tipsy’), trit-trot (‘a word imitating the sound of trotting’), wibwob (‘the state of shake or wobbling’), wibble-wobble (‘unsteady’), waffle-
woffle (‘an arrogant fellow’), yip-yop (‘an upstart, a young scatterbrained person’).
repeatedly’), *tinkle-tinkle* (‘tinkling with alternation of sound’), *little-tattle* (‘talk, chatter’), *triff-traff* (‘trampery, trash’), *twingle-twangle* (‘a representation of the continuous sound of a harp’), *whiffy-whaffy* (‘uncertain, changeble’), *whim-wham* (‘a fantastic notion, odd fancy’), *wiggery-waggery* (‘loose motion in walking’), *wimbly-wambly* (‘unsteady, dizzy, feeling sick’), *yip-yap* (‘a foolish person’).

Table 1. Main patterns of vowel alternation in apophonic reduplicatives.

However, other patterns of vowel alternation can be found, such as

1. [1 / ʌ] *bincum-bancum* (‘free-bench’), *bibber-blubber* (‘talk idly’),
2. [u / ɔ] *blew-blaw* (‘the corn-flower’), [e / ʌ] *cherry-churry* (the notes of the lesser ettchaps’), [æ / ʌ] *clatter-clutter* (‘noise’),
3. *clattery-cluttery* (‘changeable’), [ʌ / ɛ] *flush-flash* (‘to flash repeatedly’).

- ‘Rhyming compounds’ → this kind of reduplication involves bases which are both meaningful, such as *funny-bunny*, where both *funny* and *bunny* are meaningful lexemes. Rhyming compounds are particularly close to another subclass, ‘rhyming reduplicatives’, which shares with rhyming compounds some properties in shape. Indeed, rhyming reduplicatives, such as *picnic, rolly-polly, tirly-mirly*, exhibit initial consonant alternation and rhyme, like rhyming compounds, such as *hugger-mugger, rag-tag, razzle-dazzle, tit-bit*.
However, a differentiation between these two subclasses is necessary, since sometimes they may be confused. On the one hand, it might be argued that rhyming compounds, such as *rumble-jungle*, are created primarily because of the rhyme and the similarity in sense, while they do not pay any attention to the alternation of the initial consonant which is an independent and irrelevant feature. By contrast, the primary characteristic of rhyming reduplicatives is that they exhibit apophony of initial consonants, which plays a fundamental role in their formation.

Moreover, rhyming compounds are made up of two bases which can be found in a dictionary and have an established meaning, such as *hugger-mugger* ‘something confused’, where both *hugger* and *mugger* are listed in dictionaries. On the other hand, the bases of rhyming reduplicatives may be both meaningless (*higgledy-piggledy* ‘in a mess, topsy-turvy’ and *Humpty-Dumpty* ‘a short and stubby person’), or only one of them may be meaningful, as in *hubble-bubble* ‘confusion’ and *nimbly-bimbly* ‘describes how a cat jumps’, where just *bubble* and *nimbly* are part of the English lexis.

According to such a distinction, examples of rhyming compounds are: *airy-fairy* (‘strange, weird’), *artsy-crafty* (‘pretending an interest in arts and crafts’), *barmy-army* (‘an organized group of English cricket’s fans which arranges touring parties for some of its members to follow the English cricket team on overseas tour’), *battle-rattle* (‘military gear carried by foot soldier’), *bigwig* (‘an important person’), *chill pill* (‘a drug to calm someone down’), *drape-shape* (‘a good figure’), *dream beam* (‘a smooth girl’), *frame-dame* (‘a smooth girl’), *hanky-panky* (‘jugglery’), *hugger-mugger* (‘concealment’), *nitwit* (‘a person of little intelligence’), *quavery-mavery* (‘undecided, hesitating’), *rumble-bumble* (‘a shooting-up of targets on enemy coastline’), *rumble-jungle* (‘in a rumbling manner’), *rumble-tumble* (‘a rough or tumbling motion’). Rhyming compounds are the closest to canonical formations, and
for this, they show how reduplicatives may also be described in terms of ordinary word-formation rules (Merlini Barbaresi, 2008). Despite the fact that the relationship between the two bases in rhyming compounds is anyhow different from that obtained when rules of ordinary compounding are at work, these reduplicated formations can be compared in shape with a number of regular compounds or expressions having a rhyming pattern. Indeed, according to Merlini Barbaresi (2008), compounds such as brain drain, flower power, jelly belly, snail mail, have a very similar form to rhyming compounds such as nitty-gritty, wiggle-waggle. Nevertheless, the main distinction between regular compounds and reduplicative rhyming compounds is that in the former we can easily recognize the head of the combination\(^{37}\) and the grammatical and semantic relationship between the constituents of the compound, whereas in the latter no headhood can be assigned to any member of the combination, since funny-bunny, for example, is not a type of bunny, but rather “the meaning conveyed by the combined elements is cumulative mainly on the basis of their sound similarity, which makes them phonaesthetically perceived as belonging to the same area of meaning” (Merlini Barbaresi, 2008: 232).

4.2.4 Reduplicative onomatopoeias

A great number of reduplicatives have a particular, special characteristic which sets them apart from all the other formations that do not exhibit the same feature. Actually, these reduplicative words are formed by putting together two onomatopoeic sounds, in order to create a unique word that imitates or suggests the source of the sound which it describes. We will, firstly, try to choose an

\(^{37}\) Especially in the case of endocentric compounds. In exocentric ones, it is anyway possible to identify an underlying paraphrase; e.g. a redskin is a person having such a skin.
appropriate name for these formations, taking into exam two distinct terms: ‘echoisms’ or ‘echo words’ and ‘onomatopoeic words’. In our opinion, both of them are not completely correct to name our formations, since we need, in this specific case, a term which may immediately recall the reduplication process and which may simultaneously suggest the idea of sound.

‘Echoism’ and ‘echo word’ appear to be more congruent with the first prerequisite, since they do exhibit reduplication, while ‘onomatopoeic word’ with the second characteristic, because it does remind us of the imitation of natural sounds and noises. However, onomatopoeias may be made up of single words, without necessarily exhibiting reduplication, and this is the reason why we do not consider this term completely appropriate. Indeed, onomatopoeic words may be either click-click (‘clicking noise made by steel pins’), klop-klop (‘the sound of the impact of something solid on a hard surface’), tic-tac (‘the sound of the hearth beating’), which show a reduplicated form, or bang (‘the sound of an explosion’), hiccup (‘to have hiccups’), meow (‘the noise of the cat’), splash (‘to sound when someone enter the water’), which instead exhibit a non-reduplicated form. On the other hand, also the other two terms, ‘echoism’ and ‘echo word’, are not totally suitable for these formations, because echo words are items characterized by reduplication of a full word or part of it, which do not compulsorily recall the idea of noise or sound. In our opinion, echo words can be considered a simple synonym of the term ‘reduplicative words’ or ‘reduplicatives’, since they describe the same thing. Hence, the new label that we propose to identify these particular reduplicative words, which include repetition and imitation of sounds that are either natural or produced by human activity, is ‘reduplicative onomatopoeias’.

Reduplicative onomatopoeias can be divided into distinct subgroups, depending on two basic properties: what kind of sound or noise they imitate, and to which reduplicative category they belong. In this section, we will preferably opt for distinguishing three main subgroups according to the category they belong to: ‘copy’, ‘rhyming’ and ‘ablaut reduplicatives’.
The category which does contain the wider number of reduplicative onomatopoeias is definitely the one of ‘copy reduplicatives’. This type of reduplicatives involves full reduplication, i.e. the first element of the combination is exactly the same as the second, without any phonetic alternation or change. Many of these identical reduplicative onomatopoeias are:

(1) animal noises, such as *baa-baa* (‘the cry of the sheep or lamb’), *bleak-bleak* (‘the cry of a hare’), *chink-chink* (‘the noise of the chaffinch’), *gobble-gobble* (‘the noise of the turkey-cock’), *hoo-hoo* (‘imitation of the noise of an owl’), *jug-jug* (‘representation of one of the notes of the nightingale or other birds’), *meow-meow* (‘the noise of the cat’), *mick-mick* (‘the green woodpecker’), *moo-moo* (‘the noise of the cow’), *oink-oink* (‘the grunting of a pig’), *quack-quack* (‘the imitation of the noise of a duck’), *quit-quit* (‘the noise of the swallow’), *tweet-tweet* (‘imitation of the notes of some birds’), *weet-weet* (‘imitation of the cry of certain birds’), *woofle-woofle* (‘the barking or snarling of dogs’), *yap-yap* (‘to bark sharply’), *zoo-zoo* (‘the wood-pigeon’) (Thun, 1963 : 64-66). In baby talk and nursery language these particular reduplicative onomatopoeias are sometimes used to label the animal themselves, becoming nouns.

However, reduplicative onomatopoeias are also imitations of sounds and noises stemming from sources other than animals:

(2) musical instruments, such as *clang-clang* (‘the imitation of the sound of bells’), *diddle-diddle* (‘the sound of a fiddle’), *fum-fum* (‘expressing the sound of a stringed instrument’), *gong-gong* (‘the sound of the gong’), *honk-honk* (‘the harsh sound of a motor-horn’), *pip-pip* (‘the sound produced by a bicycle-horn’),
pum-pum (‘a fiddler’), strum-strum (‘a rude stringed instrument’), tan-tan (‘the sound of a kettle-drum’), too-too (‘the musical instrument made from the reed’), tum-tum (‘to play monotonously’), twinkle-twinkle (‘the imitation of the metallic sound of a banjo’).

(3) Sounds produced by people, such as laughter, chatter, whispers, footsteps, various actions: arf-arf (‘laugh’), byochy-byochy (‘to retch, vomit’), chug-chug (‘sound of feet in the mug’), clop-clop (‘the imitation of a sharp sound made by feet or hoofs’), fum-fum (‘a thumping or beating’), glut-glut (‘to swallow’), gooble-gobble (‘rapid and indistinct speech’), haw-haw (‘an expression of laughter’), ho-ho (‘to express derision’), knap-knap (‘to knock against’), munge-munge (‘to moan’), patter-patter (‘to walk in and out constantly’), pattle-pattle (‘to take little, quick steps’), pech-pech (‘the sound of heavy breathing made during any severe exertion’), yalp-yalp (‘of a person to call out loudly and shrilly’).

(4) Noises produced by objects or things in movement, such as choo-choo (‘the sound of the train’), chuff-chuff (‘the sound of the train or a motorboat’), clack-clack (‘a repeated clacking noise’), clunk-clunk (‘the sound of oars in rowlocks’), clutter-clutter (‘repeated noise or clatter’), jug-jug (‘the noise of a motorcycle’), knock-knock (‘an acoustic mine’), lock-lock (‘the sound of oars’), ramp-ramp (‘the sound of the sea’), snip-snip (‘the imitation of the sound of the scissors’), tap-tap (‘the sound of the tap opened’), tick-tick (‘the sound of the clock and child’s name for clock’), tick-a-tick (‘the throbbing of the pulse’), ting-ting (‘the telephone ringing’), tuff-tuff (‘the imitation of the
sound of gas escaping from the tube’), *woo-woo* (‘imitative of the sound of the wind’).

The second subgroup of reduplicative onomatopoeias corresponds to that one of ‘rhyming reduplicatives’\(^{38}\). They involve alternation of the initial consonants coining partial reduplicatives. As well as the first subgroup, also these reduplicative onomatopoeias may be differentiated according to what kind of sound or noise they imitate. Hence, we can indentify:

1. Animal noises, such as *baw-waw* (‘the imitation of the barking of a dog’), *bow-wow* (‘barking’), *caw-dey-maw-dey* (‘the hooded crow’), *curmур* (‘the purring of a cat’), *hooble-gooble* (‘the noise of the turkey’), *huzz-buzz* (‘the common cockchafer’), *pink-twink* (‘the chaffinch’), *pooly-wooly* (‘the cry of the curlew’), *row-dow* (‘the noise of the sparrow’), *terry-ERRY* (the song of the blackbird’), *too-whoo* (‘the imitation of the sound of an owl’), *wey-heyy* (‘the conventional representation of the sound uttered by horses’).

2. Musical instruments, such as *hub-a-dub* (‘the sound made in beating a drum’), *hum-strum* (a musical instrument of rude construction or out of tune’), *hurdy-gurdy* (‘a musical instrument of rustic origin resembling the lute or guitar’), *ran-dan* (‘the sound of the bells’), *rub-a-dub* (‘a drumming sound’), *rumpum-scrumpum* (‘a rude type of musical instrument played like a banjo’), *rum-strum* (‘to strum’), *toodle-loodle* (‘the imitation of the sound of a pipe or a flute’), *tra-ra* (‘imitation of the noise of a horn’).

\(^{38}\) In this category, we comprise also rhyming compounds.
(3) Sounds produced by people, such as *cobble-nobble* (‘to rap on the head with the knuckles’), *cuddle-muddle* (‘to speak in a secret muttering voice’), *cushle-mushle* (‘a low whispering’), *howk-chowk* (‘the noise as if poking in deep mud’), *hubble-bubble* (‘bubbling’), *hummel-bummel* (‘an imitation of mumbling’), *hunge-plunge* (‘a plunging movement’), *mack-lack* (‘do something in a clattering way’), *mumble-jumble* (‘to speak indistinctly and incoherently’), *rap-tap* (‘imitation of the sound produced by rapping on a door’), *rat-tat* (‘a sharp rapping sound’), *rickie-tickie* (‘a contrivance used by boys to rattle on the window of a room and annoy the occupants’), *rowdy-dowdy* (‘a noisy person’), *stam-ram* (‘a rude, noisy person’), *stram-a-ram* (‘a violent knocking’), *trill-ill* (‘the sound of flowing liquid’), *tug-slug* (‘to make a noise in walking’), *yaw-haw* (‘to laugh rudely and noisily’).

(4) Sounds produced by objects or things in movement, such as *chug-drug* (‘the sound of an explosion’), *crack-rack* (‘representing a succession of cracks’), *fluster-bluster* (‘a blustering wind’), *squeegee* (‘imitation of the sound made by the scraper when applied to a wet, smooth surface’).

Finally, the last category of reduplicative onomatopoeias coincides with that of ‘ablaut reduplicatives’. In this subgroup, we will list all those reduplicatives suggesting sounds and noises, which involve alternation of stem vowels. Depending on the difference among types of sound, we may distinguish again:

(1) animal noises, such as *cherry-churry* (‘the note of the lesser pettichaps’), *chick-chack* (‘the wheatear’), *chiff-chaff* (‘the lesser pettichaps’), *hee-haw* (‘the conventional representation of
the bray of the jackass’), *prid-prad* (‘the blue titmouse’), *twit-twat* (‘the house-sparrow’).

(2) Musical instruments, such as *diddle-daddle* (‘violin music’), *knick-knack* (‘an instrument which produces knocking sounds’), *pink-pank* (‘to make a tinkling noise by twitching the strings of a stringed instrument’), *strim-stram* (‘a rude stringed instrument of the guitar kind’), *strim-strum* (‘unmusical’), *tutti-tatti* (‘imitation of the sound of the trumpet’), *twingle-twangle* (‘the representation of the continuous sounds of a harp’), *twing-twang* (‘the sound of a harp’).

(3) Sounds produced by people, such as *bibble-babble* (‘to indulge in babble or idle talk’), *blib-blab* (‘chatter’), *click-clack* (‘chattering or prating’), *gibbie-gabbie* (‘the noise produced by many people talking at once’), *giggle-gaggle* (‘to giggle continuously and noisily’), *hee-haw* (‘a loud, unrefined laugh’), *liglag* (‘a confused noise of talking’), *pid-pad* (‘the imitation of dull sound of footsteps’), *smick-smack* (‘a smacking noise’), *whiter-whatter* (‘to converse in a low tone of voice’), *whittie-whattie* (‘to speak low or secretly, to whisper’), *yolp-yalp* (‘a snarl’).

(4) Noises produced by objects or things in movement, such as *brittle-brattle* (‘hurried motion causing a clattering noise’), *click-clack* (‘express to noise of the watch’), *flicket-a-flacket* (‘the sound made by something flapping’), *frip-fraps* (‘crackers’, which leap about when exploding’), *pinkle-pankle* (‘the sound of liquid in a bottle’), *pipple-papple* (‘to boil’), *pitter-patter* (‘a
rapid repetition of light beating sounds, rain, hail, light football’), plish-plash (‘to splash’), rick-rack (‘the foam of the sea’), snip-snap (‘the imitation of the sound of the scissors’), splish-splash (‘to splash repeatedly), tick-tack (‘representation of the sounds made by a clock’), tick-tock (‘imitation of the ticking of a clock’).

4.3 Reduplication as an extra-grammatical phenomenon

Although, the phenomenon of English reduplicatives appears to be quite significant on various aspects, it is still neglected and marginalized by a number of morphologists to that branch of morphology defined ‘extra-grammatical’ (Dressler & Merlini Barbaresi, 1994; Doleshal-Thornton, 2000; Merlini Barbaresi, 2008). This mainly happens because reduplication, as well as other phenomena such as abbreviations, blends and back-formations, is a process which is not governed by ordinary rules of word-formation, but rather exhibits various fundamental irregularities and violations of morphological grammar. Therefore, our intent here will be to explain how and to what extent reduplicatives, and in particular their mechanisms of formation, fail to conform to ordinary word-formation rules.

(i) Reduplicative words exhibit some particular features which set them apart from any other ordinary grammatical process. In particular, one of their most significant property is that their mechanisms of formation appear to be basically driven by phonological factors, and not only by morphological ones. Indeed, reduplication is shown to result from “general properties of phonology and morphology, and more specifically to be the result of the interaction between these two modules of grammar” (Raimy, 2000 : 2). According to Raimy (2000 : 3), though many approaches to reduplication treat it just as a special kind of morphological process, it is better to consider it as a “morphological construction that provides a complex phonological representation that illuminates previously uninvestigated aspects of
phonological theory”. By this criterion, we have to admit that reduplicative words, and, more specifically, their mechanism of formation interface with two linguistic systems, either morphology or phonology. However, in this chapter we have preferably concentrated on the morphological aspects, though phonology has been useful in the examination of some cases, as we have seen.

(ii) As compared to ordinary regular formations, reduplicative words tend to violate many word-formation rules. First of all, in contrast with derivation and compounding which are predictable and transparent in meaning (e.g. manage + -able or milk + shake), reduplicative formations present less transparency and a non-componential semantics (Merlini Barbaresi, 2008). The semantics of reduplicatives can be very opaque, vague, indeterminate, and also of unknown etymology. Indeed, the meaning of formations such as boo-boo (‘a blunder, a mistake’), dum dum (‘a stupid person’), frog-log (‘a blog about France or the French’), higgledy-piggledy (‘topsy-turvy’), hurdy-gurdy (‘a musical instrument, an hand-organ’), pee-paw (‘grandfather’), riff-raff (‘bad people, scum’), etc. appears difficult to identify, because they are not always ordinary words and, sometimes, they are not listed in English dictionaries. However, the degree of semantic transparency in reduplication may vary and one or both bases may be recognizable, as in double trouble (‘a serious deal’), deep sleep (‘coma’), bigwig (‘an important person’), nitwit (‘a stupid person’), rude dude (‘a guy who is not very nice’), walkie-talkie (‘a portable two-way radio’). These cases, are of difficult classification between rhyming compounds and canonical compounds (cf. Merlini Barbaresi, 2008). For instance in walkie-talkie the head ‘radio’ is outside, but both bases walk and talk contribute to determine it, as in copulative compounds.

(iii) In addition, while canonical word-formation rules lead to the formation of new words, such as ape > aped-om, build > build-ing, mountain > mountain-eer, proof > dis-proof, believe > un-believ-able, reduplication is more likely to obtain “connoted variants”, such as baby-schmaby (‘baby’), din-din (‘dinner’), fancy-schmancy (‘something which appears fancy’), funny money (‘counterfeit money’), mama (‘mum’), marry-schmarry (‘marry’),
transformation-schmansformation (‘transformation’) (Merlini Barbaresi, 2008). Moreover, whereas ordinary derived formations or compounds rely on existing stems or word bases, reduplication does not always use meaningful bases, but rather adopts either (a) meaningless bases hardly recognizable as pre-existing meaningful morphemes, such as chiff-chaff, hip-hop, mish-mash, riff-raff, zig-zag, (b) modified morphemes made less recognizable before the reduplication, such as fam-dram < from family and drama, piggy-wiggy < from pig, teeny-weeny < from tiny, walkie-talkie < from walk and talk, wishy-washy < from wash, or (c) meaningful morphemes in one or both components of the reduplicative, which in any case do not always rely on their resultant meaning, such as bigwig (‘an important person’), bread spread (‘things to put on bread’), chick-flick (‘a movie that women love’), geek-speak (‘technical language used by serious computer users and programmers’), hacker-cracker (‘someone who cracks and / or prevents the work of hackers’), helter-skelter (‘confused’), jet-set (‘wealthy international travelers’), legal eagle (‘a law student’), screen queen (‘female movie star’), sky-high (‘very high in cost’), sound-hound (‘computer program to search music’). In the onomatopoeic type, instead, the two constituents form usually a phonetic unit (e.g. ding-dong ‘the imitation of the sound of the bells’), where no independent and meaningful word bases can be recognizable.

To conclude, another fundamental reason to exclude reduplicatives from grammatical morphology is the fact that the major irregularities also lie inside their own system, i.e. the reduplicative patterns appear to be a non-homogenous set (Merlini-Barbaresi, 2008).

4.4 Recurring patterns of formation

4.4.1 Phonological, syntactic and morphological patterns

Although reduplicative formations are basically described as irregular and not rule-governed from the point of view of grammatical morphology (Dressler & Merlini Barbaresi, 1994; Katamba, 1994; Merlini Barbaresi, 2008), they may
present some specific recurring tendencies of formation which exhibit a sort of regularity. We can indeed identify patterns of formation with respect to distinct linguistic approaches mainly at the levels of phonology, syntax and morphology.

First of all, from a phonological point of view, there are some characteristics which happen to be quite recurrent in the formation of reduplicatives. The majority of these phonological properties basically interest their structure, and, especially, which phonemes are used in their formation. The most frequent phonological features are:


2) In cases of partial reduplication, either ablaut or rhyming reduplicatives are made up of two almost identical constituents,
which differ only for one detail. In particular, bases in ablaut reduplicatives exhibit stem vowel alternation, while rhyming reduplicatives initial consonant alternation. However, we can make some other interesting observations relating to the nature of vowel and consonant alternation and the relative order of the two elements in combinations of these types. As regards ablaut reduplicatives and vowel alternation, the most frequent type is *dilly-dally* (Dienhart, 1999: 30). Indeed, the most prototypical ablaut reduplicatives are those involving vowel change from a front high vowel [i] to a low vowel [æ / ə / ʌ], as in *chiff-chaff* (‘a bird’), *fiddle-faddle* (‘trifling’), *flic-flac* (‘a kind of step in dancing’), *flim-flam* (‘idle talk’), *knick-knock* (‘an alternation of knocking sounds’), *mingle-mangle* (‘a confused mixture’), *rick-rack* (‘stormy’), *skimble-skamble* (‘in confusion’), *ticky-tacky* (‘applied to a system of telegraphy’), *wigwag* (‘to move slightly to and fro’), *zigzag* (‘a series of lines at angles of alternate directions’). On the other hand, as regards rhyming reduplicatives and consonant alternation, Jespersen (1974: 181) observes that the second element in a reduplicated new form (the reduplicant) often starts with a labial consonant, as in *blamby-pamby* (‘idiot’), *Charlie-parlie* (‘pet form of the name Charles’), *hanky-panky* (‘jugglery’), *hockery-pockery* (‘to work awkwardly and clumsily’), *hokey-pokey* (‘chattery’), *hubble-bubble* (‘a bubbling sound’), *hugger mugger* (‘concealment, secrecy’), *itsy-bitsy* (‘tiny’), *namby-pamby* (‘weakly sentimental’), *nimbly-bimbly* (‘describes how a cat jumps’), *niminy-piminy* (‘lacking in force and spirit’), *roly-poly* (‘billiard balls’), *nosy-posy* (‘to snoop’), *rumble-bumble* (‘a shooting-up of targets on enemy coast line’), *tousie-pousie* (‘rough, shaggy’), *tuzzy-muzzy* (‘dishevelled’). He also claims that, in the great majority of rhyming reduplicatives where the reduplicant begins with w, the initial consonant of the first element tends to be /pl/, as in *palsy-walsy* (‘intimate’), *peesy-weesy* (‘sulkiness’), *peetweet* (‘a popular name for the spotted sandpiper of North
America’), *peewee* (‘a lapwing’), *pickwick* (‘Picklike implement for putting out the wick of an oil lamp’), *piggie-wiggie* (‘term of affection’), *pinkie-winkle* (‘very small, narrow’), *poopsy-woopsy* (‘term of affection’), *powwow* (‘a priest, a sorcerer’) (Jespersen, 1974: 181). Exceptions of this pattern are: *boogie-woogie* (‘a style of playing blues’), *eensy-weensy* (‘tiny’), *kickie-wickie* (‘a jocular term to refer to a wife’), *kissie-wissie* (‘a kiss’), *nitwit* (‘a person of little intelligence’), *thirly-whirly* (‘the female pudenda’).

3) Reduplicatives are very often reduplications of monosyllabic units, i.e. they tend to be disyllabic formations. Indeed, either full or partial reduplicatives are generally formed by two syllables, such as *beat-feet* (‘to run’), *black-mack* (‘a blackbird’), *chalk-talk* (‘a talk which uses blackboard and chalk’), *chick-chick* (‘slang for young woman’), *dish-dash* (‘the pied of water wagtail’), *egg-peg* (‘the blackthorn’), *fing-fangs* (‘fleshly protuberances on the feet’), *hoots-toots* (‘exclamation of dissatisfaction with or dismissal of a statement’), *hunge-slunge* (‘a plunging movement’), *keg-meg* (‘chatter’), *lap-clap* (‘the condition of pregnancy’), *mawl-scrawl* (‘a small shrieveled apple’), *nitnit* (‘a person of little intelligence’), *pack-wack* (‘thick gristle left in meat’), *slip-slop* (‘twaddle’), *stip-step* (‘a footstep’). However, there are also many cases of polysyllabic reduplicatives, such as *auly-cauly* (‘a ball game’), *blamby-pambly* (‘idiot’), *chatter-watter* (‘weak tea’), *chawly-chowly* (‘mixture of any sort’), *clipper-clapper* (‘of the nature of a clapper that goes quickly’), *creepie-peepie* (‘an hand-held television camera’), *deeshy-dooshy* (‘very small’), *eeksie-peeksie* (‘equal’), *fliberty-giberty* (‘flightly frivolous, senseless’), *grumbly-grumbly* (‘to complain in a surly manner’), *hashie-bashie* (‘a game played with marbles in which smaller marbles are knocking out of holes by striking them with larger one’), *hickery-pickery* (‘a purgative drug’), *jitty-jetty* (‘to

4) Another phonological characteristic concerns, in particular, the stress pattern, which happens to be a very interesting and fundamental feature, but will be investigated in detail in section 4.4.2.

From a syntactic point of view, instead, we can claim that reduplication principally forms nouns, such as argle-bargle (‘vigorous discussion’), boo-boo (‘a mistake’), chiller-diller (‘frightening story’), choo-choo (‘sound of the train’), crumbum (‘worthless person’), cush-cush (‘a type of wine’), fan-tan (‘type of card game’), hurry-scurry (‘disorderly haste’), nitty-gritty (‘essential substance’), rag-bag (‘a mixture’), riff-raff (‘disrespectable people’), slip-slop (‘meaningless talk or writing’), tom-tom (‘drum’), yoyo (‘a toy’). But they can
also cover other syntactic categories, such as verbs (to *criss-cross* ‘move back and forth over something’, to *dilly-dally* ‘waste time’, to *pooh-pooh* ‘express disdain’, to *shilly-shally* ‘show indecision’, to *tie-dye* ‘dye fabric by means of a certain process’), adjectives (*buddy-buddy* ‘very friendly’, *fifty-fifty* ‘equally divided’, *humdrum* ‘without change’, *never-never* ‘imaginary’, *rah-rah* ‘very enthusiastic’, *too-too* ‘overly affected’), adverbs (*chop-chop* ‘quickly’, *helter-skelter* ‘in headlong and disorderly haste’, *herky-jerky* ‘progressing in a jerky irregular manner’, *holus-bolus* ‘altogether’), and interjections (*ha-ha* ‘to express amusement’, *hubba-hubba* ‘to express admiration’, *my-my* ‘to express surprise or dismay’, *tut-tut* ‘to express contempt’, *yoo-hoo* ‘used to get someone’s attention’, *yum-yum* ‘to express enjoyment’) (Dienhart, 1999: 16).

In addition, another syntactic characteristic is the fact that sometimes, though in a very small number of cases, there are reduplicatives which show a variant form and include extra elements linking together the two members of the combination. According to Thun (1963: 222), these particular formations must be treated separately, since they involve “link syllables” which can be independent and not felt as part of the formation, such as *to* (clink-to-clank ‘a succession of clinking sounds’, clutter-to-clatter ‘garrulous talk’, jig-to-jog ‘the slow pace of a horse’), *by* (blow-by-blow ‘exhibiting great detail’, day-by-day ‘day after day’), *a* (clip-a-clap ‘imitation of sounds of alternating rhythm’, cricket-a-wicket ‘confusion’, ding-a-ling ‘sound of door bell’, flicket-a-flacket ‘representation of the sound made by something flapping’), *the* (loop-the-loop ‘a flight maneuver’), *and* (chock-and-block ‘tightly filled up’, hitheracs-and-skitheracs ‘odds and ends’, odds-and-sods ‘the rank and file’) and *or* (hab-or-nab ‘get or lose’). Finally, English reduplicatives, in general, may be inflected as any other ordinary word in a language, and many of them produce derivatives. As regards inflection, we refer mainly to the plural suffixation –*s* in reduplicatives such as *bye-byes* (‘colloquial and nursery variant of good-bye’), *boy-toys* (‘female sex object’), *deadheads* (‘non-paying passengers’), *jim-jams* (‘delirium tremens’), *Seabees* (‘member of the construction battalion of the US
Navy’), *tittle-tattles* (‘gossip’), but also to the formation of regular past tense with the suffix *–ed*, as in *cha-chaed* (‘dance’), *wee-weed* (‘to have a pee’), *yoyoed* (‘to use the yoyo’). As for derivation, we have to mention the case of *dilly-dallier*, where from a verb meaning ‘to waste time’ we obtain an agentive noun with the addition of the suffix *–er* meaning ‘someone who wastes time’, as well as in *shilly-shallier* (‘someone who shows indecision’) and *wig-wager* (‘someone who moves to and fro’). Nominal derivatives are obtained with the addition of *–ing* in *chit-chatting* (‘engaging in gossip’), *criss-crossing* (‘moving back and forth through and over’), *shilly-shalling* (‘showing indecision’).

### 4.4.2 Stress pattern

As announced, a fundamental phonological feature which appears to be recurrent in reduplicatives concerns their stress pattern. According to Dienhart (1999), it is better to determine the stress pattern of each category of reduplicatives independently, in order to indentify and describe them properly. Below we will adopt his classification of stress patterns, basically distinguishing among three main groups: ‘copy’, ‘ablaut’, and ‘rhyming reduplicatives’.

- ‘Copy reduplicatives’ → this class of reduplicatives corresponds to what Dienhart (1999: 14) calls ‘class 1: the *boo-boo* class’. This class includes those formations which exhibit two identical bases, but which show two different stress patterns.

I. Firstly, we will consider the case of single stress, i.e. primary stress on the first syllable. Reduplicatives which exhibit this pattern are: *ack-

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39 In this case, we will consider rhyming reduplicatives and rhyming compounds in the same group ‘rhyming reduplicatives’.
ack (‘antiaircraft fire’), bóo-boo (‘a mistake’), chów-chow (‘type of Chinese dog’), cúsh-cush (type of wine’), dáda (‘Twentieth-Century group of artists’), düm-dum (‘type of bullet’), guítgui (‘type of tropical bird’), khús-khus (‘type of grass’), nó-no (‘forbidden thing’), póm-póm (‘tuft’), tám-tam (‘gong’). As shown by these examples, here the items in this first subgroup all have two specific characteristics: (i) they are all nouns, and (ii) they are made up of two monosyllabic units, which make them disyllabic.

II. The second subgroup, on the other hand, exhibits double stress, which means primary stress on both elements of the combination, as in Bío-Bío (‘a river in Chile’), bún-yan-bún-yan (‘type of evergreen tree in Australia’), chöp-chöp (‘quickly’), nónny-nónny (‘non-sense expression’), póoh-póoh (‘express disdain’), tóó-tóó (‘overly affected’), twénty-twénty (‘having a normal vision’), wónga-wónga (‘type of Australian wine’). Also in this second subclass, we can notice some recurrent characteristics. Indeed it contains (i) a variety of word classes, including nouns, verbs, adjectives and adverbs, and (ii) either monosyllabic (só-só) or polysyllabic reduplicatives (fífty-fífty).

Hence, now we can draw some generalizations about stress pattern in copy reduplicatives, claiming that when the reduplicative involves full reduplication, it may be singly stressed (primary stress on the first syllable) if the new form is a noun and the bases are monosyllabic, whereas it may be doubly stressed if the new form is a noun, verb, adjective, etc. or if the bases are polysyllabic (Dienhart, 1999 : 16). Thus, in this case, stress pattern tends to be determined by two factors, which are syllable number and word class. However, there are some exceptions. We can have nouns which exhibit double stress, even though their bases are monosyllabic, such as lóg-lóg (‘the logarithm of a logarithm’),
and nouns which are singly stressed even though the bases are polysyllabic, such as bándy-bandy (‘a kind of snake’), mía-mía (‘an aboriginal hut’), willy-willy (‘an Australian cyclone’). Moreover, there are also some adjectives made up of monosyllabic constituents, such as gága, gó-go and húsh-hush, which exhibit primary stress on the first syllable even though they are not nouns.

• ‘Rhyming reduplicatives’ → this category is called by Dienhart (1999: 19) ‘class 2: the hocus-pocus class’, and comprises those reduplicatives involving an alternation of initial consonant. As in the previous case of copy reduplicatives, also for this category we can identify two main natural stress patterns:

I. The first subgroup includes rhyming reduplicatives with single stress, i.e. primary stress on the first syllable, such as cláp-trap (‘pretentious but insincere or empty language’), fág-hag (‘heterosexual female who seeks out male homosexual’), flúb-dub (‘nonsense’), hótch-potch (‘thick soup or stew’), hót-spot (‘area of known danger or instability’), péet-weet (‘species of bird’), pée-wee (‘very small’), thígh-high (‘garment that high-up to the knee’), wing- ding (‘noisy celebration’).

II. In the second subgroup, instead, we have formations with double stress, such as áiry-fáiry (‘unrealistic’), ársy-várzy (‘in a backward or thoroughly mixed up fashion’), éensy-wéensy (‘tiny’), hárum-scárum (‘disorganized’), hóity-tóity (‘pretentious’), hóly-móly (‘used to express surprise’), húlly-gúlly (‘type of dance’), núminy-píminy (‘affectedly delicate or refined, effeminate’), rággle-tággle (‘shabby’), téensy-wéensy (‘tiny’), whéeler-déaler (‘person who wheels and deals’).
The distribution of stress pattern here is similar but not the same as the previous category of reduplicatives. In this case, contrary to the previous one, our generalization is based solely on syllable count, while word categories do not represent a distinctive factor. Thus, the stress pattern in rhyming reduplication may be either single, with a primary stress on the first syllable, when the bases used to form the reduplicated combination are monosyllabic (hódge-podge ‘jumble’, nítwit ‘stupid, foolish person’, póp-shop ‘pawn shop’), or double if the bases are polysyllabic (hókey-pókey ‘trickery’, súper-dúper ‘extremely good’, wálkie-tálkie ‘combined transmitter and receiver’) (Dienhart, 1999 : 22). According to Dienhart (1999 : 25), anyway, there are several exceptions to the stress pattern of this category. In particular, (a) reduplicatives made up of monosyllabic bases with primary stress on both constituents (double stress), such as drý-flý (‘artificial fly for use on the surface of the water’), fát-cát (‘wealthy person’), hálf-stáff (‘half-mast’), Jóe-blów (‘average citizen’), póll-máll (‘type of game’), pláin-Jáne (‘unattractive girl’); (b) items formed by polysyllabic bases and singly stressed, such as cútûre vûture (‘person with an excessive or pretentious interest in arts’), fénder-bender (‘collision between vehicles in which there is only minor damage’), fúddy-duddy (‘old-fashioned’), génder-bender (‘someone who blurs the differences between the sexes’), húbble-bubble (‘uproar’), póoper-scooper (‘scoop for cleaning up after an animal that has defecated on the street or sidewalk’); (c) formations which exhibit primary stress just on the second constituent of the combination (on the reduplicant), such as boo-hóo (‘to blubber’), fa-lá (‘text or refrain on old songs’), Locofóco (‘New York city radical Democratic faction’), tee-hée (‘to titter’), yo-hó (‘used to attract attention’); and (d) reduplicatives with variable stress patterns, such as bow-wow (‘imitation of barking’) and ricky-ticky (‘a contrivance used by boys to rattie on the window of a room and annoy the occupants’) which can exhibit either single or double stress, and squee-gee (‘a scraping implement’) which instead can have primary stress on the first or the second constituent.
‘Ablaut reduplicative’ → this category refers to Dienhart’s (1999: 28) ‘class 3: the mish-mash class’. The stress pattern for elements in this category appears to be the most straightforward of all classes, since when the reduplicative is made up of two items which exhibit vowel alternation, it usually has primary stress on the first element, regardless of lexical category or syllable number. Examples of this kind are: chá’-chat (‘light conversation’), clíp-clop (‘sound of horses’ hooves on pavement’), fílm-flam (‘trick or deception’), gúbble-gabble (‘senseless chatter’), héip-hop (‘subculture of big city teenagers’), mish-mash (‘confused mess’), ríprap (‘broken stones used for a wall or foundation’), sée-saw (‘plank at which people on opposite ends go up and down’), skímble-skamble (‘rambling’), tícky-tacky (‘shoddy, flimsy’), wísh-wash (‘foolish talk or writing’). Despite the fact that the stress pattern for ablaut reduplicatives shows a high degree of regularity with respect to the other two categories, there are some exceptions, which mostly involve cases of double or variable stress. Ablaut reduplicatives exhibiting double stress are, for example, héigh-hó (‘exclamation of surprise’), Kíng-Kóng (‘character of a movie’), pí-pá (‘Chinese lute’), while variable stress is found in cases such as hoo-ha pronounced hóo-ha as a noun and meaning ‘uproarious commotion’ or hoo-há as an interjection expressing ‘mock surprise or excitement’, and típ-top which has primary stress on the first element típ-top as a noun (‘summit’), double stress típ-tóp as an adverb (‘very well’) and may take either single típ-top or double stress típ-tóp as an adjective (‘situated at the very top’) (Dienhart, 1999: 30-31).

4.5 Preferential criteria of formation

As we have previously done for abbreviations and blends, the preferential principles of formation of reduplicatives will be explained. These parameters are those which should basically help in the creation of prototypical and well-formed reduplicatives. We have identified the following five criteria:
- **Binarity** - Reduplicatives are well-formed if they exhibit a binary structure, i.e. they must be made up of no more than two constituents. Although, in some particular cases, reduplicatives appear to be formed by more than two elements, as in *clitter-to-clatter, ding-a-ling, flicket-a-flacket, jig-to-jog, odds-and-sods*, they are, in any case, considered formations with a binary structure. These extra elements, which are generally conjunctions or prepositions, are not felt here as independent elements, but rather as linking particles.

- **Similarity** - On the basis of such a criterion, the constituents of a reduplicative should exhibit a similar form in order to create rhyme. Indeed, they may exhibit three distinct structures: (1) they may involve the exact repetition of a word or sound, as in copy reduplicatives, e.g. *bye-bye, gaga, go-go, ha-ha, night-night, plotty-plotty*; (2) they may have the same consonantal contour, in the case of ablaut reduplicatives, e.g. *bibble-babble, chip-chop, jim-jam, pebble-pabble, twingle-twangle, wibwob, yib-yob*; and (3) they can exhibit the same rhyme, differentiating the initial consonant, in the case of rhyming reduplicative or compounds, e.g. *cag-mag, glairy-fairy, higgledy-piggledy, kebbie-lebbie, mack-lack, rag-tag, tit-bit* (Thun, 1963).

- **Rhythm** - This aspect is fundamental in reduplicatives, since their musicality and expressiveness mainly depends on that. According to dictionaries, rhythm is defined as ‘a movement with uniform recurrence of beat and accent’, and, actually, reduplication is based on the recurrence and repetition of sounds and words to create rhymes. The structure of reduplicatives itself already exhibits a rhythmic form. However, the fundamental phonological feature
which gives rhythm to the reduplicative formation is stress. There are differences among the categories of reduplicatives for the stress pattern, since we may have single or double stress depending on distinct aspects (see § 4.4).

- **Alternation** - According to this criterion, reduplicatives should have a structure which exhibits an alternation of some kind, either of consonants or of vowels. In particular, ablaut reduplicatives involve a systematic alternation of the stem vowel, either at the beginning, e.g. *easy-osie, equal-aqual*, or in the middle preceded by consonants, e.g. *giddy-gaddy, shig-shog, sing-song, tittle-tattle* (Minkova, 2002 : 133). Rhyming reduplicatives and rhyming compounds, instead, exhibit alternation of the initial consonant, as in *fuddy-duddy, Georgie-Porgie, henky-penky, hugger-mugger, nasty-pasty, nimbly-bimbly*. In contrast, this parameter does not concern copy reduplicatives, because they are formed by the exact repetition of the constituents of the combination, e.g. *ack-ack, chink-chink, weet-weet*.

- **Meaningfulness** - As already explained, reduplicatives are often made up of non-sense, meaningless words, or, in the case of rhyming reduplicatives, they may exhibit only one meaningful constituent, as in *edley-medley, handy-pandy, mack-lack, twisty-wisty*. However, there is one category of reduplicatives, i.e. rhyming compounds, which instead involves meaningful bases as constituents. This type of reduplicatives are particularly close to rhyming reduplicatives, since both exhibit consonantal alternation, and to regular compounds, since both have meaningful constituents.
CHAPTER 5

MARGINAL PHENOMENA:
BACK-FORMATION, INFIXATION & PHONAESTHEMES

5.1 Introduction

This chapter investigates three different phenomena, which we will label ‘marginal’ because they represent unconventional word-formation processes and unusual coinages which are not felt as part of grammatical morphology, and for this reason they are marginalized. Thus, the term ‘marginal’ used here is not to be intended in the sense of ‘Marginal Morphology’ (Doleshal & Thornton, 2000; Dressler, 2000). Indeed, the phenomena under investigation are not at the boundary of morphological grammar but outside it, on the periphery of extra-grammatical morphology.

In this chapter, in particular, we will take into exam: (1) back-formation, which will be considered an extra-grammatical phenomenon to all intents and purposes, as well as the others already illustrated; (2) infixation, which will be analyzed as a mechanism of expressive morphology, but still outside grammatical morphology; and, lastly, (3) phonaesthemes, which will be illustrated as a special case of sound symbolism and not as an ordinary word-formation process. Actually, these linguistic phenomena do not fall into discrete categories whose identification and distribution is easily achieved. Rather, it is not always clear what is unconventional from the point of view of grammar, and the literature on the topic also reflects the difficulty of isolating these phenomena. Since they exhibit different characteristics and properties,
we prefer to separate and clearly distinguish among them in order to better define each unusual device.

Section 2 will investigate the phenomenon of back-formation. ‘Back-formation’ is a term used to define that specific process of word-formation which involves the subtraction of some elements from source words. Normally, following canonical rules of derivation, words are formed by adding some affixes to the base form, usually suffixes. By contrast, less commonly the reverse may occur and a word may be coined by removing supposed affixes from a base form. The latter is, in fact, the case of ‘back-formation’. According to Aronoff (1976: 27), back-formation is not to be listed under the label ‘oddities’, as blends, abbreviations and reduplicatives, but it is described as ‘a backwards application of word-formation rules’. Nevertheless, in our opinion, as well as in other studies (Dressler & Merlì, 1994; Dressler, 2000), back-formation must be preferably considered an extra-grammatical process, in that it exhibits some particular features which discriminate it from regular grammatical processes.

Section 3 will be devoted to English infixation, and, more specifically, to expletives and other more recent types of infixation. This process is considered by most scholars (e.g. Bauer, 1983) as almost inexistent in English, or highly restricted to informal speech. In particular, in expletive infixation profane and obscene terms like damned, fucking, goddamn, the fuck, the hell are inserted within words neither to coin new words, nor to convey an irreverent meaning, but to reproduce the speaker’s attitude and mood at the moment of speech. The phenomenon of infixation is considered by some scholars (Zwicky & Pullum, 1987) an example of what is called ‘expressive morphology’. ‘Expressive morphology’ is in many cases associated with extra-grammatical morphology, and the two terms partially overlap (see chapter 1), in the sense that they both depart from ordinary grammatical morphology. Expressive morphology, however, exhibits a number of special characteristics, such as connection with specific pragmatic effects, a special syntax, distinct properties of the bases or the new forms, variations from speaker to speaker, which are particularly
pertinent to infixation. For this reason, besides ‘extra-grammatical’, we will use the term ‘expressive’ to describe infixation.

Lastly, in section 4, phonaesthemes will be described as a sub-type of sound symbolism, and differentiated mainly from simple morphemes and derivatives. In this last section, indeed, these items will be analyzed as a distinct phenomenon from ordinary word-formation processes and also from all the other extra-grammatical devices. Phonaesthemes will be defined as particular segments recurring in words which happen to share some kind of meaning, and, for this reason, identified as sounds or sound clusters that associate a certain vocal sound to some specific meaning.

5.2 Back-formation

5.2.1 Defining back-formation

Back-formation is nowadays a productive and widespread mechanism of formation for new words, especially verbs, as we will see. The term ‘back-formation’ used to define the resulting neologisms of this particular word-formation process was coined in 1889 by James Murray, the first editor of the Oxford English Dictionary (OED). Marchand (1969 : 309), however, prefers to use the term ‘back-derivation’ to refer to the same phenomenon. This different choice is justified by the fact that Marchand wants to stress the derivational character of back-formation (1969 : 309). He claims, in fact, that, historically, formations such as edit and stoke are derived respectively from editor and stoker, from which the supposed suffixes -or and -er are deleted. For this reason, back-formation is described sometimes as a derivative process which occurs backwards. However, the term ‘back-derivation’ is not completely appropriate to define the process under investigation, since it is not always a derivational process to be reversed in back-formation (see Bauer, 1983; Nagano, 2007 for a related position). Rather, it is a case of reconstruction, in which the subtracted part may be other than an affix. For instance, there are back-formations, such as admix from admixt, beg from beggar, claustrophobe
from *claustrophobia*, *costume-make* from *costume-made*, coined by source forms which do not drop any real affix. Rather, they are often formed as analogues of some existing word forms (cf. *ideologue* < *ideology* in the same way as *analogue* < *analogy*). Hence, in this chapter, we definitely prefer to use the term ‘back-formation’ instead of ‘back-derivation’ to refer to the process in exam.

With the exception of Pennanen (1966) and a few others, studies on back-formation are not numerous. Jespersen (1942), in particular, was one of the first authors to focus his attention on back-formation in English, which he defines as the process of forming a new word by extracting actual or supposed suffixes form another word. Initially, he distinguishes two types of English back-formation: (1) those which subtract the ending\(^{40}\) from the base, as in *brainwash* from *brainwashing*, *computerize* from *computerized*, *escalate* from *escalator*, *handwrite* from *handwriting*, *loaf* from *loafer*, *manipulate* from *manipulation*, *prodigal* from *prodigality*, *raunch* from *raunchy*, *sunburn* from *sunburned*; and (2) formations which delete the beginning of the base, as in *choate* from *inchoate*, *couth* from *uncouth*, *kempt* from *unkempt* (in Štekauer, 2000: 72). There are not many examples of the second type, thus, consequently, the first type of back-formation is the most prototypical. Despite the fact that Jespersen’s (1942) definition and classification of back-formation would not be accepted nowadays, he strongly influenced his subsequent generations of linguists on this topic. After Jespersen, then, other linguists took into exam this phenomenon, describing its characteristics and specific properties, and, more importantly, distinguishing it from other word-formation processes.

In the literature, back-formation has been often considered a type of shortening (Jespersen, 1942; Stockwell & Minkova, 2001), a type of zero derivation with deleted material (Marchand, 1969), or a combination of conversion and clipping (Nagano, 2007). Thus, in order to clarify the status of

\(^{40}\) Underlined in the following examples.
back-formation and identify its features, we will first of all differentiate it from clipping and conversion.

Bauer (1983: 232), for example, defines back-formation as “the formation of new lexemes by the deletion of actual or supposed affixes in longer words”. Accordingly, it should be considered a special case of clipping, since both processes involve the deletion of some material from longer base words (Bauer, 1983: 233). However, back-formation and clipping are not to be confused at least for one important reason. Whereas clipping is class-maintaining (i.e. it only provides a reduced version of a base word, as in lab for laboratory, memo for memorandum, varsity for university), back-formation changes the syntactic category of the base, as in the verbs acculturate, caretake and curate, from the respective nouns (acculturation, caretaker, curator).

Secondly, according to Marchand (1969: 309-311), back-formation may also be associated to another word-formation process, zero-derivation. This phenomenon, in particular, does not exactly create new words in terms of added material, but it is rather used to shift the syntactic category (Marchand, 1969: 293), as in to better (verb) from better (adjective), to bottle (verb) from bottle (noun), to bridge (verb) from bridge (noun), a call (noun) from to call (verb), to dirty (verb) from dirty (adjective), a dump (noun) from to dump (verb), to empty (verb) from empty (adjective), to garage (verb) from garage (noun), a guess (noun) from to guess (verb), to hammer (verb) from hammer (noun), to mushroom (verb) from mushroom (noun), to trash (verb) from trash (noun) (Bauer, 1983: 229-230). In contrast, the process of back-formation coins new words by omitting something from the source form and changing its functional class. For this reason, also Marchand’s (1960; 1969) claim that back-formation is a type of zero-derivation is not correct, although both processes involve changes in grammatical categories.

Recently, Nagano (2007) has revisited Marchand’s analysis of back-formation, claiming that it is a type of conversion with a clipping adjustment. Although this definition appears to reconcile the above views, we will consider
back-formation as an autonomous phenomenon, in that it involves a reanalysis of words, on the basis of analogical patterns.

5.2.2 Criteria to establish back-formation

As seen in the previous paragraph, back-formation shares with other word-formation processes some particular characteristics. We have also observed that the process in exam is not to be confused with any other mechanism of word-formation. To categorically delimit back-formation, we have to introduce a few fundamental features which could help us in the identification of actual instances of back-formation. Pennanen (1966) basically identifies four criteria to characterize back-formation:

I. the direction of the process: in this case, we will have a back-formation if there is a regressive direction of the process from derivative towards primitive forms (Štekauer, 2000 : 72). This means that back-formation may be seen as the reverse of derivation. Indeed, while the process of derivation involves the addition of an affix (either prefix or suffix) to a base form, as in *care* + *-less* + *-ness*, *dark* + *-ness*, *king* + *-dom*, back-formation involves the deletion of an actual or supposed affix to obtain a shorter word, as in the verbs *babysit*, *cohesion*, *enthuse* and *sculpt*, which are respectively back-formed from the nouns *babysitter*, *cohesion*, *enthusiasm* and *sculptor*. However, the latter process may not necessarily imply the deletion of an actual affix. As we have already said, in many cases the omitted part may be mistakenly felt as an affix, as in *Chess* from *Chesham*, where *–am* is not a derivational suffix in English.

II. the chronological data: this criterion, in particular, concerns the two words involved in the back-formation, i.e. the base and the back-
formed one. On the basis of this chronological criterion, the back-formed word has to be chronologically more recent than the base word from which it is derived. However, despite the fact that chronological data may be important in the determination of what is back-formed and what is not, sometimes such data have to be used carefully, because a word created by back-formation may appear in historical written sources even earlier than the word from which it is supposed to be derived. Therefore, following Pennanen (in Štekauer, 2000 : 72; ch.4), the definition of a new word as back-formation is not to be based exclusively on chronological data;

III. analogy: back-formation is considered a word-formation process which operates on the basis of analogy. The pattern of analogy generally comprises the parallel existence of base words and back-formed ones. Thus, according to analogy, if the back-formed verb *to injure* exists, it must be originated from the noun *injury* because of their similarity. However, even in this case, analogy alone cannot be a sufficient feature to set the process of back-formation in motion (Pennanen, 1966);

IV. meaning agreement: this criterion is one of the most important in determining back-formation, since the disagreement in meaning may exclude some cases which, at first sight, appear as back-formations, but which actually are not, though the chronological data and analogy establish the contrary. For example, the relation between *to unwish* and *unwished* may not be considered that of back-formation from the point of view of meaning agreement, despite the fact that, analogically and chronologically, these two words may be considered related by back-formation. (Štekauer, 2000 : 73). However, the basic disagreement in meaning, viz. the participial form *unwished* means
‘not desired, unwelcome’ and the verb to unwish ‘to make an end by wishing’ or ‘to retract or cancel’, clearly shows that unwished cannot be the source of the verb to unwish, but that the verb is created by ordinary prefixation.

Hence, we can claim that back-formation is to be determined on the basis of all these criteria, because they are not mutually exclusive, but rather support one another. The process should have the regressive direction and the word should also conform with analogy, chronological and semantic criteria. Consequently, now we are finally able to draw our working definition:

‘Back-formation is a process which involves the formation of new words by deleting some elements from the base (either from the beginning, or, more often, from the end) and changing their grammatical categories’.

5.2.3 Classification of back-formations

Generally, the great majority of back-formations in English are verbs coined from nouns or, less frequently, from adjectives. Back-formation is usually classified on the basis of which grammatical category is realized in the back-formed lexeme. However, although it is fundamental to identify and distinguish between back-formed verbs and nouns, there is another classification to draw first. Some scholars (Pennanen, 1966; Marchand, 1969; Nagano, 2007) provide, indeed, a distinction between English back-formation based on simple words (i.e. one-root words), e.g. adulate from adulation, advect from advection, biograph from biography, couth from uncouth, crank from cranky, diplomat from diplomatic, drowse from drowsy, laze from lazy, manipulate from manipulation, nake from naked, obsess from obsession, peddle from peddler, pleb from plebs, quantitate from quantitative; or on composite words (i.e. from compound bases), e.g. blockbust from blockbuster, book-keep from
book-keeping, bushwhack from bushwhacker, caretake from caretaker, chain-smoke from chain-smoker, co-vary from covariation, cross-refer from cross-reference, costume-make from costume-made, dry-clean from dry cleaning, eavesdrop from eavesdropper, fine-tune from fine tuning.

However, in this study, we prefer to classify back-formations on the basis of the passage of syntactic categories and the supposed affixes. In fact, according to the syntactic categories, we can identify two main classes, i.e. verbs back-formed from nouns and adjectives, and nouns back-formed from adjectives:

- V ← N - This category of back-formations includes verbs coined from either (i) simple nouns, e.g. to adsorb from adsorption, to acculturate from acculturation, to accrete from accretion, to adolesce from adolescence, to benefact from benefactor, to commentate from commentator, to gamble from gambler, to hook from hooker, to injure from injury, to intuit from intuition, to legislate from legislator, to liaise from liaison, to orientate from orientation, to process from procession, to resurrect from resurrection, to sedate from sedative, to surveil from surveillance, to swindle from swindler, to vanify from vanification; or (ii) composite nouns, e.g. to auto-destruct from auto-destruction, to back-form from back-formation, to ghostwrite from ghostwriter, to handwriting from handwriting, to headhunt from headhunter, to housebreak from housebroken, to jerry-build from jerry-built, to sleepwalk from sleepwalker, to kidnap from kidnapper, to self-destruct from self-destruction, to typewrite from typewriter. We can also make a distinction on the basis of either (iii) the supposed derivational suffixes which are deleted:

- ation / -ition, as in to free-associate from free association, to intuit from intuition, to orientate from orientation, to televise from
television, to trickle-irrigate from trickle-irrigation, to vaccinate from vaccination;

-er, as in to buttle from butler, to gamble from gambler, to globe-trot from globe-trotter, to hard-boil from hard-boiled, to headhunt from headhunter, to proofread from proofreader, to shoplift from shoplifter, to typewrite from typewriter;

-ing, as in to air-condition from air-conditioning, to houseclean from housecleaning, to housekeep from housekeeping, to nitpick from nit-picking, to sightsee from sightseeing, to soft-land from soft-landing, to tongue-lash from tongue-lashing;

-or, as in to commentate from commentator, to edit from editor, to sculpt from sculptor;

-y, as in to choreograph from choreography, to complicit from complicity;

(iv) or the supposed inflectional suffixes:

-s, as in to eave from eaves, to headquarter from headquarters, to tricep from triceps.

In contrast, we have not found any example of back-formed verb where the supposed prefix is deleted from the base.

♦ V ← Adj. - Although more rarely with respect to the previous type, verbs may also be back-formed from adjectives. Also in this case, verbs may be created from (i) either simple, e.g. to aesthete from aesthetic, to choate from inchoate, to peeve from peevish, to sulk from sulky, or (ii) composite bases, e.g. to hard-boil from hard-boiled, to sunburn from sunburned. Generally, (iii) the supposed derivational suffixes which are deleted from the base to the new formations are:
-ed, as in to computerize from computerized, to hard-boil from hard-boiled, to nake from naked, to sunburn from sunburned;

-y, as in to cose from cosy, to crank from cranky, to creep from creepy, to flab from flabby, to funk from funky, drowse from drowsy, to gid from giddy, to laze from lazy, to mottle from motley, to sass from sassy;

(iv) we can also identify a few (mainly negative) prefixes which are deleted:

in-, as in to choate from inchoate;

The V ← N/Adj. pattern is the most prototypical one, thus the majority of back-formations are generally verbs; however, we can distinguish another pattern forming nouns form adjectives:

♦ N ← Adj. - We can distinguish this type of formations on the basis of (i) the supposed derivational suffixes deleted from the bases, which are generally:

-y, as in clumse from clumsy, dill from dilly, dinge from dingy, drear from dreary, dowd from dowdy, flake from flaky, glitz from glitzy, grot from grotty, grunge from grungy, haze from hazy, husk from husky, lair/lare from lairy/leary, shonk from shonky, sleaze from sleazy, spike from spiky;

-ed, as in pea-brain from pea-brained;

-ish, as in Yid from Yiddish;

-ing, as in hot-log from hot-logging;
(ii) there are also some rare examples of prefixes deleted from the base:

non-, as in committal from non-committal;

un-, as in couth from uncouth.

5.2.4 Back-formation as an extra-grammatical phenomenon

Back-formation is a word-formation process of extra-grammatical nature, because of some specific characteristics and traits which are not accepted by grammatical morphology. In particular, back-formation is a mechanism by which a new form is created by removing something from the source word, thus, like abbreviations and blends, it represents a process of shortening. This operation, however, remains partly unexplained by word-formation rules, and this is the reason why, it is considered part of extra-grammatical morphology rather than of grammatical morphology. The following characteristic traits classify back-formation as an extra-grammatical process.

(1) The process of back-formation is morphotactically less transparent than regular derivation, as its output is very often unpredictable. For instance, having a base word, such as self-destruction, we cannot be completely sure that the resultant back-formed verb would be to self-destruct, because it could also be to self-destroy due to the analogy destroy from destruction (see § 5.2.5).

(2) Back-formation is a shortening process, and, as well as any other process involving deletion of material, it may delete from the source words either the beginning, i.e. supposed prefixes, or the ending, i.e. supposed suffixes. In fact, we may have nouns, such as committal and couth back-formed from the adjectives non-committal and uncouth, where the initial parts are cut rather than the final ones. By contrast, regular morphological processes have the tendency to delete short parts, usually, final. Furthermore, we tend to delete parts which generally correspond to existing affixes, but there are cases that do
not correspond to any derivational rule, e.g. *to frivol* from *frivolous*, nor to any derivational affix, e.g. *to liaise* from *liaison*.

(3) Lastly, another important characteristic concerns the semantics of the new formations with respect to the source words. Back-formation, as just said, is a mechanism which requires the subtraction of some elements, which sometimes correspond to actual suffixes or prefixes, from the base words. However, this operation has consequences not only on the shape of the new formation, but also on its meaning. In fact, verbs, such as *to edit*, *to gamble*, *to peddle*, back-formed from the nouns *editor*, *gambler*, *peddler* from which the suffixes *-or* and *-er* are subtracted, lose also the agentive meaning that is conveyed by those specific suffixes.

5.2.5 Patterns of formation

As just said, back-formation does not strictly follow any word-formation rule in the production of new words, however, it may exhibit a number of tendencies, like the other extra-grammatical phenomena examined so far, which will help us to better delineate this process.

- The mechanism of formation for this kind of new words is described by a number of scholars (Marchand, 1969; Bauer, 1983; Algeo, 1991) as a regressive process of derivation, sometimes called ‘de-suffixation’, because it involves the deletion of a suffix, or, rarely, of a prefix. According to such a hypothesis, the rule for the formation of such words as *buttle*, *commentate* and *evaluate* would be the inverse of the derivation rule:

  derivation rule:  
  
  \[
  \text{buttle} + \text{-er} \rightarrow \text{butler} \\
  \text{commentate} + \text{-or} \rightarrow \text{commentator}
  \]
evaluate + -ation → evaluation

back-formation rule: butler - -er → buttle

commentator - -or → commentate

evaluation - -ation → evaluate

As evidenced by these examples, the word-formation rules of derivation and back-formation look exactly like one the inverse of the other, because in derivation there is an addition of affixes, whereas in back-formation there is a deletion of supposed affixes. However, the formulation of a back-formation pattern is not as easy as it looks here. First of all, the deleted elements in back-formed words are not always actual affixes, they are considered mistakenly affixes (as in to liaise from liaison). Secondly, according to Aronoff (1976: 27), there may be back-formations which are not always directly created on the basis of the previous rule, but depending also on other factors. For example, the verb corresponding to cohesion could be either cohede (after delude from delusion, and collide from collision), cohese (after confuse from confusion) or cohere (after adhere from adhesion). There are three competing rules which allow three possible formations (Becker, 1993: 7). The same happens for the verb corresponding to self-destruction that could be either self-destroy (after destroy from destruction) or self-destruct (after construct from construction). According to Aronoff (1976: 28), in cases like these, in order to decide which one is the most appropriate, we should follow the principle of least effort, viz. “when in the course of our ‘reconstruction’, we arrive at a choice which is arbitrary, we choose the form which is the ‘closest’ to the one we started out from”. Consequently, in this instance, we will choose self-destruct for self-destruction, rather than self-destroy and cohese for cohesion, rather than cohere or cohede, as the most likely.
Another tendency of back-formation concerns the fact that each new back-formed word deletes some material, either finally, or, less often, initially, and exhibits change in its grammatical category. This latter aspect, in particular, is fundamental in back-formation, since it is one of the discriminatory properties which help in its distinction from shortenings, and, more specifically, from clippings. Back-formation and clipping actually share an important device of formation, which is represented by the deletion of a part of the base word, but, on the other hand, they also differ because back-formation does change the functional category of the base, as in application (noun) which becomes to applicate (verb) and burglar (noun) which becomes to burgle (verb), while clipping does not. Hence, to identify back-formations, at least two characteristics are necessarily required: deletion of material and change of grammatical category.

Finally, the great majority of back-formed words in English are verbs. This claim is supported by many scholars (Pennanes, 1966; 1975; Marchand, 1969; Adams, 1973; Bauer, 1983; Katamba, 1993) who state that at least the 80 per cent of back-formations are verbs. Pennanen (1975 : 217), in particular, tries to give an explanation for this preference by saying that verbs, with respect to other form classes, such as nouns or adjectives, tend to have “a larger field of derivatives around them”, and for this reason, there is also a wider range of possible sources for a back-formation which is a verb. Verbs may be back-formed most prototypically from nouns, as in to cohabit from cohabitation, to conjunct from conjunction, to escalate from escalator, to gamble from gambler, to kidnap from kidnapper, and from adjectives, as in to contage from contagious, to convene from convenient, to cose from cosy, to diz from dizzy. Less frequently, nouns are back-formed from adjectives, as in grunge from grungy, shonk from shonky, sleaze from sleazy.
5.2.6 Preferential criteria of back-formation

We identify two distinct preferential criteria of this process of formation, which represent the parameters to follow in order to create prototypical well-formed back-formations. The parameters identified are:

- **Economy** - On the basis of such a parameter, back-formations are economic items because they involve deletion of some kind. However, what is interesting here, is that in back-formation this kind of economy is different from that exhibited by ordinary syntactic forms. Here, it represents a sort of morphological choice as regards to longer expressions. Through back-formation we have the possibility to create shorter word forms in place of longer, redundant formations expressing exactly the same content. For instance, we tend to use back-formed verbs, such as *to obsess*, *to proliferate*, *to sleepwalk* rather than *to behave obsessively*, *to grow or produce by proliferation*, *to walk while sleeping*, or nouns, such as *clumse*, *dinge*, *pea-brain* rather than *a clumsy person*, *dinginess*, *a foolish or unintelligent person*. Also compound verbs, like *to baby-sit* and *to sleepwalk*, are more economical than the sentence they stand for (*to baby-sit* > ‘to stand by the baby’; *to sleepwalk* > ‘to walk while sleeping’).

- **Subtraction** - Contrary to regular shortening operations, back-formation exhibits a fundamental distinct characteristic as regards subtraction. In fact, back-formations exhibit subtractions not only in their phonological and morphological structure, but also in their semantic meaning. According to this criterion, in back-formation the meaning is never additional, as in regular derivation, but subtractive, since from the base words something meaningful is deleted. For instance, we may back-form (i) a verb from an agentive noun, as in *to
commentate from commentator, to caretake from caretaker, to ghostwrite from ghostwriter, to hawk from hawker; (ii) a verb from an instrument, as in to escalate from escalator, to type-write from type-writer; (iii) a singular from a plural, as in bicep from biceps, kudo from kudos, tricep from triceps.

5.3 Infixation

5.3.1 Defining infixation

The phenomenon of infixation is very rare and uncommon in English as compared to affixation. In contrast to many languages of the world that exhibit a frequent and productive use of infixes, with various morphosyntactic functions, English infixes are neither derivational, nor inflectional, but only used in a very small number of cases, especially, to produce a particular derogatory effect.

Infixation appears to be less familiar to students of linguistics than are prefixation and suffixation. It exhibits a fundamental difference from prefixation and suffixation, since infixing is the attachment of parts of words or of full words inside a stem, and not at its beginning, as with prefixing, or at the ending, as with suffixing. Following Yu (2007 : 11), an infix is that item which appears as a segmentally distinct entity between two strings that form a meaningful unit when combined, but that do not themselves exist as meaningful parts, as in per-bloody-haps, where the infix bloody is inserted between per and haps which by themselves are not meaningful, abso-fuckin-lutely, edu-ma-cate, fan-bloody-tastic, h-iz-ouse, hypo-damned-crite, vio-ma-lin, wel-diddly-elcome. As evidenced by these examples, infixes may be either full words, ‘expletives’, as in amalga-bloody-mated and garan-damned-tee, or syllables, as in b-iz-itch, Miche-ma-langelo, saxo-ma-phone, s-iz-oldiers.
Many scholars generally agree that English, in contrast to other languages, such as Greek or Hopi, has no infixes within canonical word-formation, because either inflection or derivation are processes which involve only suffixation and prefixation, with no examples of infixation. Although ordinary word-formation in English does not comprise inflexion, nowadays in Modern English there is the possibility of inserting expletives in the middle of words to create new formations expressing the strongly negative attitude of the speaker, as in *abso-bloody-lutely*, *fan-flaming-tastic* and *ri-goddamn-diculous* (Plag, 2003: 101). Hence, inflexion is both extra-grammatical, in the sense that it lies outside grammatical morphology, and expressive, in the sense that it belongs to what Zwicky & Pullum (1987: 330) call ‘expressive morphology’.

The extra-grammaticality of this particular operation is expressed and motivated by a few characteristic traits. (1) First of all, unlike other morphological operations, inflexion does not derive new words, but only connotated variants. There is no syntactic change, indeed, from words such as *absolutely* or *tomorrow*, and *abso-bloody-lutely* or *to-fucking-morrow*, only a deprecative meaning is added to the source words. (2) Another claim in favour of the extra-grammaticality of infixes is their ‘promiscuity with regard input category’ (Zwicky & Pullum, 1987: 336). As evidenced by the previous examples, inflexion does not apply to a distinct class of base words, as in canonical word-formation, but to a variety of syntactic categories which include adjectives (e.g. *fan-diddly-tastic*), adverbs (e.g. *to-bloody-gether*), nouns (e.g. *kanga-bloody-roo*), verbs (e.g. *w-iz-alk*) and also proper names (e.g. *Massa-friggin-chussets*). (3) Moreover, inflexion is a process which involves discontinuous bases, since expletives or infixes, in general, are inserted in the middle of the base words. In English rules of ordinary word-formation processes, instead, are totally predictable in form change, bases are

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41 Greek relies on inflexion to signify important grammatical functions, and Hopi, a Uto-Aztecan language spoken in northeastern Arizona, uses infixes for plural formation.

42 This particular type of inflexion in English is named ‘expletive inflexion’, and it will be better analyzed in section 5.2.
always continuous and affixes are added either at the beginning or at the end, but they never interrupt the base word.

Furthermore, expletive infixation, in particular, as in *be-awfully-ware, Chi-bloody-inese, in-goddamn-consistent, my-fucking-self*, is typically expressive of the speaker’s emotive state, and hence confined to expressive morphology. Expressive morphology represents that branch of morphology which comprises mainly unconventional processes and unusual coinages that convey some special pragmatic effects which extend beyond their lexical meaning. Expressive formations, in fact, such as expletive infices, cannot be used in any situation or speech context, because it clearly lowers the level of the discourse in the direction of informality (see chapter 6).

5.3.2 Classification of infixation

As announced, infixation in English is less productive than other affixation phenomena. Basically, it represents the phenomenon whereby an infix, which may be either a full word, part of it or just a syllable, is inserted in the middle of another word to coin a new one with additional emphasis (Mattiello, 2008: 123). Although in English this word-formation device is not as common as in other languages and is not used to convey any morphological or syntactic function to the new form, we may distinguish four different types of infixation: the aforementioned ‘expletive infixation’, ‘*diddly*-infixation’, ‘Homeric infixation’ and, lastly, ‘hip-hop infixation’.

- ‘Expletive infixation’ → this is the type of infixation by which an expletive, usually a full word, is inserted into a regular word to convey a particular pragmatic effect and is also given an intensificatory function. The term ‘expletive’ comes from the Latin verb *explere* meaning ‘to fill’, and was introduced for the first time in English in the 17th century to refer to various padding devices, such as the addition of a syllable to a line of poetry for
metrical reasons. In linguistics, ‘expletive’ refers to a word inserted into another to contribute a pragmatically-determined derogatory meaning. In fact, it is often exploited in bad language. Infixed expletives such as bleeding, bloody, blooming, damned, flaming, freaking, fucking, goddamn inserted into words, as in abso-flaming-lutely, fan-freaking-tastic, un-fucking-believable, Tumba-bloody-rumba, do not contribute to the lexical meaning of the new formations, but to communicate the speaker’s strong feeling of (usually) irritation or anger.

Siegel (1974 : 180) and Aronoff (1976 : 69) observe that the insertability of these expletives is not just a matter of morphology, but it also depends on phonological factors, more specifically on the stress pattern of the base word in which the expletive will be infixed. This actually suggests that the rules for the insertion of expletives are not totally arbitrary, but phonologically determined. Therefore, following Siegel (1974 : 180) and Aronoff (1976 : 69), a first rule that we can be drawn is that the insertion of expletives occurs at a syllable boundary and only to base words with a stress pattern formed by a tertiary stress at the beginning and a primary stressed syllable after the inserted expletive, as in abso-blooming-lutely, Massa-frigging-chüssets, Kalama-fucking-zőo. However, McCarthy (1982 : 575) claims that this rule does not adequately represent the expletive infixation process for a number of reasons. For instance, it cannot explain cases like un-fucking-believable and to-bloodygether, where there is no tertiary stress at the beginning of the words, or every-bloody-body, where there is no primary stress after the expletive. According to McCarthy (1982), expletives have to be inserted before the prosodic ‘foot’, which is a phonological unit larger than a syllable\(^43\). Thus, expletive infixation occurs between foot boundaries so that the main stress is to the right of the infix.

\(^{43}\) This will be better explained in section 5.3.3, when we will investigate the patterns of formation.
‘Diddly - infixation’ → it is a novel language play made famous by the speech of Ned Flanders in the television show *The Simpsons*. This particular process involves the insertion of the non-sense word *-diddly-* into a base word with initial stress as well as reduplication of the rhyme of the stressed syllable (Elfner & Kimper, 2008 : 150). In a certain sense, *-diddly-* and expletive infixation are very similar, and many times they are analyzed and described as a unique phenomenon. What distinguishes *diddly-* infixation from expletive infixation is the fact that the former phenomenon also entails the reduplication of some elements of the base word, e.g. *wel-diddly-elope* and *ac-diddly-action*, to create new words, while the latter does not involve reduplication. For this reason, we have decided to discriminate between these two types of infixation, rather than listing them under the same heading. In most canonical examples, *-diddly-* follows an initial stressed syllable and is followed by reduplication, as in *Ca-diddly-ánada*, where the stressed syllable is at the beginning and it is reduplicated after the insertion of *-diddly-*., *mur-diddly-úrder*, or *diddly-órder* (Elfner & Kimper, 2008 : 151). According to Elfner & Kimper (2008 : 150), the reduplication involved in *diddly-* infixation is “motivated by phonological, rather than morphological factors, because it appears only in specific prosodically-determined environments”. Indeed, reduplication appears to be necessary in initial-stress words in order to allow both infixation and correspondence between the position of main stress in the base and the derived form, as in *wel-diddly-elope*, where the stress of the initial syllable is repeated right after the inserted infix *-diddly-*-. On the other hand, in cases in which there is non-initial stress, reduplication will be dispreferred, as in *fan-diddly-tástic*, rather than *fantas-diddly-ástic* (Efner & Kimper, 2008 : 150). Moreover, contrary to some expletives which can also appear outside the word (*fan-fucking-tastic* or *fucking-fantastic*, *in-fucking-credible* or *fucking-incredible*), the infix *diddly* may just occur inside the word, and not as a prefix or a suffix (*diddly-action*, *order-diddly*).
• ‘Homeric infixation’ → this type of infixation is a morphological construction that has recently gained currency in Vernacular American English, particularly, from the speech of the main character of the TV animation series *The Simpsons*, Homer Simpson. Homeric infixation is also known as ‘ma-infixation’, since it involves the insertion of the syllable *ma* in the middle of base words, as in *oba-ma-boe, saxo-ma-phone, tele-ma-phone*. The meaning of this construction indicates attitude of sarcasm and distastefulness, although it may also be used as a form of language play. The infix *-ma-* does not seem to have any historical morphological antecedents in English, i.e. it is considered by some morphologists (Haspelmath, 1995; Yu, 2003; 2004; 2007) a particular type of morphological creation named ‘morphological excrescence’. English Homeric infixation involves the insertion of *-ma-* usually after a disyllabic trochaic foot, as in 'saxo-ma-phone. However, we may have slightly different patterns of formation on the basis of two fundamental aspects:

1. if the stressed syllable of the base word is closed, that is if it ends with a consonantal sound rather than a vocalic, as in 'careful, 'grapefruit, 'graveyard, 'hairstyle, a schwa is inserted in the pronunciation to create a disyllabic stressed foot (Yu, 2004). This kind of addition is called ‘schwa epenthesis’ and examples of this type are: *care-ma-ful* pronounced /kʰɛɾã-m̩-fʊl/, *grape-ma-fruit* pronounced /ɡɹæpɛ-m̩-fɹut/, *grave-ma-yard* pronounced /ɡɹɛjva-m̩-jʊrdl/, *hair-ma-style* pronounced /hɛɾɛ-m̩-stæjl/, *Or-ma-well* pronounced /ˈɔɾ-m̩-wɜl/ (Yu, 2004);

2. if the first syllable of the base word is open, in addition to ‘schwa epenthesis’, a consonant identical to the onset of the following syllable appears before the schwa. This is the case of compensatory reduplication, such as *oba-ma-boe, opa-ma-pus, parta-ma-ty, piga-ma-gy, purpa-ma-ple, scamba-ma-ble, stinka-ma-ky, taba-ma-ble, tuba-ma-ba, washa-ma-shing, wata-ma-ter,

Another distinctive trait of Homeric infixation concerns the fact that the morpheme *ma* never appears at the periphery of a word, neither at the beginning *ma-o boe*, nor at the end *o boe-ma*, but always in the middle of a word, as in *oba-ma-boe, vio-ma-lin* (Yu, 2003: 184). The non-periphery distribution of -ma- is due to the interaction of two phonological subcategorization constraints (Yu, 2004). The first constraint requires that the infix appears to the right of a maximal disyllabic foot, and the second demands that the infix appears before a syllable. These two constraints block the insertion of such an infix either at the beginning of a word, as prefix (*ma-telephone, *ma-welcome*), or in final position, as suffix (*listen-ma, *lively-ma*), because it must necessarily appear before and after something.

- ‘Hip-hop infixation’ → this particular type of infixation, as in the case of Homeric and diddly infixation, is quite recent. Hip-hop infixation is also known as *iz* - infixation, since the infix which happens to be inserted into words is usually *-iz*, sometimes realized as *-izz*. It is an English infix used in pop-culture and hip-hop slang and strongly popularized by the famous American rappers Snoop Dogg and Bay Area Rapper E40. For this reason, this kind of infixation and, in particular, its resultant formations, such as *h-iz-igh, h-iz-ouse, l-iz-ines, l-iz-ost, w-iz-alk*, are considered part of what is called ‘Snoop speak’ or ‘Snoop slang’. Hip-hop infixation, with respect to the other types, may occur in words which are either monosyllabic or polysyllabic. Thus, according to Viau (2006: 3):

2. If disyllables undergo hip-hop infixation, -iz- / -izz- aligns with the stressed vowel, as in ah-iz'-ead, beh-iz'-ave, d-iz'-ollars, G-iz'-oogle, eff-iz'-ect, exch-iz'-ange, s-iz'-oldiers, surpr-iz'-ise, w-iz'-eddings;

3. For infixed disyllabic words, the stress pattern of the base word is preserved with trochees, as in 'mi.sson > m-iz('n)-ission, 'sol.diers > s-i'z-oldiers, 'wed.dings > w-i'z-eddings, while it shifts with iambic of the infix, as in be. 'have > be'h-iz-ave, sur. 'prise > sur'pr-iz-ise;

4. Infixed words with more than one or two syllables are rare, however, few cases are m-iz'-illimeter, t-iz'-eleision, v-iz'-ideos, walkie-t-iz'-alkie.

5.3.3 Patterns of formation

Infixation, in contrast to prefixation and suffixation, is a phenomenon which interfaces with both morphology and phonology in its formation and application. According to Plag (2003 : 102), infixation in English, the expletive type in particular, can be regarded as a case of prosodic morphology, i.e. a kind of morphology where prosodic units and restrictions are mainly responsible for the shape of the resultant complex formations. Because of the interaction between morphology and phonology in the phenomenon in exam, we may identify a number of interesting traits and characteristics which appear to be quite recurrent in all the types of English infixation identified, or, at least, in most of them.

- Insertions may occur inside different word-forms. They may be inserted (1) inside simple lexemes, as in amalga-fucking-mated, Chi-bloody-nese, emanci-bloody-pator; (2) inside compounds, e.g. any-dammed-thing, every-bloody-body, five-fucking-mile, rail-goddamn-way;
between bases and affixes, e.g. dis-blooming-member, in-bloody-credible, un-fucking-comfortable; (4) inside initialisms, e.g. B-Bloody-C, O-fucking-K, V-dammed-IP; (5) inside proper names, e.g. Lithu-bloody-anian, Massa-friggin-chussets, So-dammed-ho, many of which are made up of two words, as in Barchester-bloody-Towers, Sir-fucking-Launcelot, United-dammed-Kingdom (McMillan, 1980: 163-164). Hence, as evidenced by these examples, the syntactic base lexemes of expletive infixes may be not only ordinary lexemes, but also composite lexemes, such as compounds or syntactic phrases (McMillan, 1980: 163):

I. adverb, negative or intensifier + adjective → all-fucking-upset, bone-bloody-lazy, brand-bloody-new, far-dammed-out, far-fucking-short, half-bloody-dead, not-blooming-likely, pretty-dammed-useless, too-fucking-much;

II. adjectival or determiner + noun → all-fucking-day, at long-bloody-last, beg your-fucking-pardon, born-damn-survivor, fat-goddamn-chance, happy-damn-birthday, happy-damn-New Year, hard-blooming-luck, high-bloody-time, take your-bleeding-time, thanks a–fucking-lot, white-bloody-knight;

III. preposition + noun sequence → ace of-damn-heart, all to-fucking-pieces, jack of-bloody-spades, month of-blooming-Sundays, of-fucking-course;

IV. verb + particle or adverb → get-the hell-out, hurry-dammed-up, shut-the hell-up, sit-fucking-down, wake me-the hell-up;
V. auxiliary + verb sequence → don’t-fucking-forget, don’t-bloody-let, might well-fucking-ask, won’t-the hell-do, wouldn’t-the hell-be here;

VI. before the post-modifier → everybody-bloody-else, how-blooming-else.

♦ Expletives, in particular, are usually adjectival in form (bleeding, blooming, freaking, fucking), but they do not conform to adjective word order. Infixes like bloody or damned, indeed, do not maintain their ordinary lexical meanings in the insert position, but they convey to the new word a special stylistic and pragmatic meaning. This kind of infixes are, indeed, typically sorts of intensifiers, and their function is that of an emotive stress amplifier (McMillan, 1980: 164). By contrast, if an infix adds to the new formation lexical meaning rather than just an emotive effect and intensity, it is not to be treated as a real infix. Infixes are also normally unmodified, i.e. they occur in the middle of a base without any alteration. However, there are a few examples that exhibit some kind of modification, as abso-positively, where the expletive posi is clipped, and iz-infix that sometimes may occur as izn / izm or ilz, as in B-ilz-arbara, B-ilz-obby, b-izn-ottle, m-izn-ission. Remarkably, as infixes, we may find different kinds of terms, some of them are obscene, profane and irreverent, as bloody-hell, by God, by heaven, damned, fucking, goddamn, mother-fucking, the devil, the fuck, the hell; some euphemistic, as bally, bleeding, bleep, blessed, blooming (cf. bloody), flipping, fugging (cf. fucking), jolly; and a few are neutral terms, as absolutely, awfully, down to drain, eternally, extremely, flaming, one-hundred-percent, posi, Pygmalion.
According to Bauer (1983: 90), infixes may be limited in their position by syllable pattern. The minimal form in which an infix may be inserted is usually a disyllabic unit with stress on the second syllable, as in *a-damn-men, ad-fucking-vance, be-bloody-ware, boom-bloody-boom*, e-fucking-nough, dis-damn-creet, ha-absolutely-ha, ho-bloody-ho, ho-bloody-rah, me-bloody-self, per-bloominghaps. However, this pattern is less frequent as compared to the pattern with polysyllabic words, which is more prototypical, as in *dis-damn-membered, garan-damn-tee, handiblooming-cap, hypo-bloody-crite, im-bleeding-material, in-goddammconsistent, inde-goddamn-pendent, irre-fucking-sponsible, per-bloodyhaps, Picca-damn-dilly, propa-bleedin-ganda, un-bloody-brella, unfucking-conscious, tribu-fucking-lation*. Generally, we cannot find any cases of monosyllabic bases infixed with expletives, -ma- or -diddly-. However, in the case of hip-hop infixation, the infix -iz/-izz- may be regularly inserted into monosyllables between the onset and the nucleus, as in *dr-iz-eam, d-iz-utch, l-iz-ine, l-iz-ost, sl-iz-ang*.

From a phonological point of view, another fundamental element that must be taken into exam is stress. The stress pattern is, indeed, important to decide if a lexeme can be a suitable base for infixation or not, and also what is the correct position where the infix is more likely to be inserted (*im-fucking-possible vs. *impo-fucking-ssible or *impossi-fucking-ble, disa-damn-greeable vs. *disagree-damn-able*). In the following points, we will analyze this pattern, differentiating among the types of English infixation:

I. ‘expletive infixation’ → the infixation of expletives like bleeding, damned and frigging is not only a matter of morphology, but also of phonology. Indeed, the stress pattern plays a fundamental role in determining their position in the new formation. Siegel (1974) and
Aronoff (1976) claim that rules of expletive infixation appear not totally arbitrary, since expletives have the tendency to occur in words with a particular stress pattern:

*Mononga-fucking-'hela* (3-infix-1)

*Santa-frigging-'Cruz* (3-infix-1)

*fan-bloody-'tastic* (3-infix-1)

*abso-bloody-lute* (1-infix-3)

*fan'ta-fucking-stic* (1-infix)

*Tur-fucking-in* (1-infix-0)

According to this rule, the expletive must be immediately followed by a primary stress and preceded by a tertiary stress somewhere in the word (Aronoff, 1976: 70). McCarthy (1982: 575-576), however, notes that this rule does not cover every example of expletive infixation. Firstly, there are cases of regular infixation in which the primary stress does not occur immediately after the expletive, but it may occur before, as in *every-bloody-body* (1-infix-3), *hypo-bloody-crite* (1-infix-3), *necro-frigging-mancy* (1-infix-3); and, secondly, the tertiary stress does not always precede the infix, as in *e-bloody'-nough* (0-infix-1), *Ha-bloody'-waii* (0-infix-1), *im-frigging'-portant* (0-infix-1-3), *to-bloody'-gether* (0-infix-1-3). Thus, McCarthy (1980: 576) states that, in order to find out an appropriate generalization about expletive infixation, we need to be aware of the prosodic unit called ‘foot’, which is of crucial importance here. The foot is a metrical unit consisting of either one stressed syllable, or one stressed syllable and one or more unstressed syllables. In English each word can be assigned a metrical structure in terms of feet, with each stressed syllable heading one foot, as in *fròntier*, where we may identify two

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44 With 3 we mean ‘tertiary stress’, and with 1 ‘primary stress’.  

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feet⁴⁵ (fròn) and (tíer), (cárni)(vòre), (sár)(dine). According to McCarthy (1980: 577), the appropriate generalization is that an expletive has to be inserted between two feet, as we can see in carni-
fucking-vore, emanci-motherfucking-pator, sar-bloody-din, since it is
not allowed to interrupt a foot, as in *ti-bloody-ger, where tiger is a
unique foot, *am-frigging-per, *Ca-damned-nada, *car-fucking-
ivore. To conclude, English expletive infixation is determined by the
metrical structure of the base word, and, more specifically, by its foot
structure. This type of infixation, indeed, occurs at some foot
boundaries with the primary stress at the right of the infixed expletive,
as in Cali-frigging-'fornia, where Cali and fornia represent the
prosodic feet of the base word, the infix frigging is inserted between
the two feet and is followed by the primary stress which is on 'fornia;

II. ‘diddly infixation’ → the position of the infix -diddly- is determined
mainly by the stressed syllable, since usually this type of infix is
inserted in the base word before primary stress. A particular aspect of
this category of infixation, is that -diddly- tends to be inserted into
words which exhibit an initial stress, as in 'action, 'murder, 'order,
'welcome. Hence, when the primary stress occurs at the beginning of
the base and the infix is inserted into that base, then a reduplication of
the stressed vowel must occur right after the infix to maintain the
stress after the insertion, as in a-diddly-action, mur-diddly-urder, o-
diddly-order, wel-diddly-elcome. In cases of bases with non-initial
stress, as fan'tastic, the infix will be normally inserted before the
stressed syllable, as in fan-diddly-'tastic (Elfner & Kimper, 2008:
151-152);

⁴⁵ Foot boundaries are indicated by parentheses.
III. ‘Homeric infixation’ → the infix -ma- usually occurs after a disyllabic trochaic foot and before a syllable, as in saxo-ma-phone, where the foot saxo is made up of two syllables, and phone is instead monosyllabic. More specifically, the infix -ma- is invariably inserted after the unstressed second syllable, whether the main stress is on the first syllable, as in 'feuda-ma-lish, 'secre-ma-tery, 'tele-ma-phone, 'wonder-ma-ful, or on the third syllable, as in Ala-ma-'bama, dia-ma-'lectic, hippo-ma-'potamus, Missi-ma-'ssippi (Yu, 2004). However, sometimes bases which have essentially the same syllable count and stress pattern, may also have different infixation patterns, but, in the majority of the cases, ma-infix still prefers to appear to the right of a disyllabic trochaic foot. On the other hand, in deficient bases (i.e. bases which cannot provide the syllabic structure that we have just illustrated with a disyllabic foot before the infix and at least a syllable after it), the situation is different and other two patterns are found. The first pattern involves ‘schwa-epenthesis’, viz. the insertion of an extra schwa in the new word when the stressed syllable is closed, as in 'lively, where the stressed syllable ending in a consonantal sound is closed and require the schwa\(^{46}\) before ma-infix, live-ma-ly pronounced /'lajvə-mə-ləl/, but also grave-ma-yard pronounced /ˈɡræjvə-mə-ʒəd/, lone-ma-ly pronounced /ˈlounə-mə-ləl/ (Yu, 2004). The second pattern, instead, is ‘compensatory reduplication’ that occurs when the initial syllable is open, in addition to schwa epenthesis. In this case, a consonant identical to the onset of the following syllable appears before the schwa, as in oba-ma-boe, where the consonant b is reduplicated right before the infix with an epenthetic schwa, opa-ma-pus, parts-ma-ty, piga-ma-gy, scramba-ma-ble, taba-ma-ble, tuba-ma-ba (Yu, 2007 : 196).

\(^{46}\) The epenthetic schwa is underlined in the following examples.
IV. ‘hip-hop infixation’ → the insertion of the infix *iz*/*izz* is determined by the primary stress, since the infix happens to be inserted right before the stressed vowel. In monosyllabic bases, in particular, *iz* occurs between the onset and the nucleus, as in *dr-iz-eam, l-iz-ine, l-iz-ost*. In disyllabic bases, the infix aligns with the stressed vowel, as in ‘*b-iz-ottle*’, where the infixation occurs right before the stressed vowel *o*, ‘*d-iz-ollars, eff-iz-ect, ’s-iz-oldiers, sur’pr-iz-ise* (Viau, 2006: 3).

5.3.4 Preferential criteria of infixation

In the specific case of infixation, the preferential criteria identified for the other extra-grammatical phenomena are not applicable. In fact, we are not able to find any appropriate parameter according to which we may create well-formed infixed words. Hence, we will take into exam a few criteria to illustrate that in infixation there are no relevant criteria that apply prototypically or generally:

- **Pronounceability** - The criterion of pronounceability does not work, because, infixed words are often unpronounceable or difficult to pronounce. Although there are formations which involve ‘schwa epenthesis’ to ease pronunciation, such as *grave-ma-yard, live-ma-ly*, in cases of ‘hip-hop infixation’ within monosyllabic bases, the infix - *iz* interrupts the syllable and the pronunciation requires a greater effort, e.g. *dr-iz-eam, l-iz-ine, l-iz-ost, w-iz-ork* (Viau, 2006; Yu, 2007).

- **Salience / Recoverability** - The criterion of salience does not apply either. In infixation there are no salient parts in the new formations. On the contrary, the base words are interrupted and made less salient, more opaque and nearly unrecognizable, as in *beawfullyware,*
fanfreakingtastic, ingoddamnconsistent, ordiddlyorder, partamaty, pigamagy, welldiddlywelcome.

- **Concatenation / Linearity** - Concatenation does not apply because infixes are not added to bases, as in regular derivation or composition, but inserted within them. Hence, infixation does not obey the parameter of linearity either, because it is a process which involves discontinuous bases. In fact, infixes interrupt the linearity of the source words, as in *ad-bloody-vance, every-friggin-time, no-fucking-body, un-fucking-believable*.

### 5.4 Phonaesthemes

#### 5.4.1 Defining phonaesthemes

In the vast majority of words in a language, the relationship between sound and meaning is usually considered arbitrary. However, this general principle in some specific cases does not hold. Following Katamba (1994: 42), this fact may take place mainly in two circumstances. Firstly, it may take place in onomatopoeic words where a direct association is made between the sounds of word-forms, such as *click-clack, chuff-chuff, moo-moo, tick-tock*, and the meaning that they represent. In cases of onomatopoeia, moreover, the sounds use to symbolize or reflect some specific aspect of the meaning of the word that they represent, as in *meow-meow*, which reproduces in words the noise of the cat, or *gong*, which reproduces the sound made when the gong is struck. Secondly, it may happen in the so-called phonaesthemes, which are particular sounds, or groups of sounds, which are not recognized as meaningful units and, thus, cannot be properly called ‘morphs’. Nevertheless they appear to be vaguely associated with some kind of meaning (Katamba, 1994: 42).

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47 See also chapter 4.
According to Anderson (1998: 66), it was the British linguist Firth (1930), who introduced the term ‘phonaesthemes’ from two Greek lexemes: *phone*, which means ‘sound’ and *aisthanomai*, meaning ‘perceive’. Bolinger (1965) later explored the concept of phonaesthemes in relation to morpheme analysis. He discovered sets of synonyms all formed with the same phonaesthetic elements, as in *flutter*, *mutter*, *putter*, *splutter*, *sputter*, *stutter*, where *-utter* contributes the impression of ‘discontinuity in speaking’ (in, Anderson, 1998: 66). Similarly, the word *dusty* sounds semantically related to *crusty*, *musty*, *rusty*. Phonaestemes such as *-utter* or *-usty*, cannot be considered as true morphemes in the traditional sense, though they contribute to the structure and meaning of vocabulary items in a similar manner as bound morphemes. According to Jakobson & Waugh (1979: 268), furthermore, phonaesthemes are defined as “features, phonemes, collocation of phonemes which are common to a specific set of words with like meaning may come to be associated with that meaning”. They add other series of phonaesthemes, such as *clip*, *drip*, *flip*, *grip*, *nip*, *pip*, *tip*, *yip*, where the post-vocalic stop is synesthetically related to the meaning of ‘blow’ and the sound-symbolic vowel /ɪ/ seems to suggest a briefer focus upon the action as compared to the vowel sound /æ/, as in *clap*, *flap*, *lap*, *rap*, *slap* (Jakobson & Waugh, 1979: 268).

Lexical words all connected by phonaesthemes, like these, are recognized as giving rise to a particular lexical context, and create in each word the ability to evoke in the audience the thought of other words and their relative meanings not present in the discourse (Merlini Barbaresi, 2000: 8). Such a potential may certainly allow sophisticated exploitation in creative language, as actually happens in English.

However, morphologists tend to marginalize the phenomenon of phonaesthesia, considering it as extra-grammatical in nature. As previously said, in fact, phonaesthemes exhibit a few similarities with regular morphemes and also with derivatives, but they cannot be confused with them, because they do not coincide with any regular grammatical formation. For this reason, now, we will distinguish phonaesthemes from morphemes and derivatives.
First of all, scholars (Firth, 1930; Bloomfield, 1933; Rhodes & Lawler, 1981) claim that phonaesthemes are classifiable merely as morphemes. In particular, Bloomfield (1933) states that phonaesthemes are more or less “a system of initial and final root-forming morphemes, of vague signification”. Hence, he definitely admits that phonaesthemes must be treated basically as morphemes. The same notion is supported by Rhodes & Lawler (1981:22), who identify phonaesthemes as simple morphemes, but claiming that “the status of their construction is, like that of all derivational morphology, still a unitary entity, a special case of fixed expression”. However, we do not agree with this assumption, because phonaesthemes must be kept distinct from morphemes due to their non-compositionality. Critics, in fact, emphasize that phonaesthemes are vague as compared to morphemes, i.e. they evoke vague sensations rather than precise meanings. Morphemes are small components of a word that may stand on their own if they are free, as free, less, or may not stand on their own if they are bound, such as -able, -ation, -dom, un-. Phonaesthemes, on the other hand, are elements, such as -ash, -ump, sw-, which are not independent and that occur in a number of words sharing a particular meaning. In addition, morphemes are usually attached to source words in order to create a new formation, as in un-comfort-able, and this property, in particular, follows the criterion of compositionality typical of morphemes. Phonaesthemes, on the other hand, do not follow the normal criterion of compositionality, since they are not attached to any base words and, also, removing a phonaestheme from words like glint or flow leaves material which is not morphemic in nature. Hence, we agree to Bergen’s (2004:290) definition of phonaesthemes, according to which these clusters “are frequently recurring sound-meaning pairings that are not clearly contrastive morphemes”.

Secondly, phonaestheme formations cannot be related to derivatives, because in the former items there is no clear distinction between the core of the word and an affix, either a prefix or a suffix. Derivatives, such as stressless and unbelievable, have a perfectly recognizable composition made up of a base word, stress and believe, and something added to convey an extra-meaning, i.e.
affixes, *-less*, *un-* and *-able*. On the other hand, phonaesthemes are not relatable to derivatives or any other formation which involves addition or subtraction of elements from base words, because their internal structure is not compositional. This means that a word which contains a phonaestheme, such as *glitter*, *slip*, *twist*, cannot be analyzed as a derivative, since excluding the phonaesthemes, in the examples *gl*, *sl* and *tw*, there are no regular words left, but just meaningless sequences of letters (*-itter*, *-ip* and *-ist*). Phonaesthemes, perhaps, may exhibit a kind of connection with derivatives only by chance, because they are affix-like in appearance and sometimes very similar to conventional derivational morphemes. So far their cognitive status remains partly controversial, because they do not fit well into linguistic theories that establish compositionality as a defining and fundamental characteristic of morphology.

On the other hand, phonaesthesia is considered as a variety of what is called ‘sound symbolism’ by a number of linguists (Jespersen, 1922; Bolinger, 1968; Hunter-Smith, 2007). This term, in particular, describes that branch of linguistics which refers to the idea that phonemes carry meaning in and of themselves, and that sound and meaning in a word relate closely. Phonaesthemes may, in fact, be considered a part of sound symbolism, since they are very often qualified as a group of similar meaning with similar sounds and a group of words which have in common some element of meaning or function (Bolinger, 1968). These resultant formations are not unconventional from a structural point of view, as we have previously seen for infixation, but they are just forms which contain so-called ‘phonomorphs’, i.e. recurring sequences of phonemes that still carry some semantic consistency from one representative word to another. They are structurally simple, and for this stored in the lexicon as any other ordinary word, and, also, they do not derive from any word-formation process or rule, e.g. *gleam* is not made up of *gl* + *eam*. Furthermore, phonaesthemes cannot be assigned a specific and consistent meaning systematically throughout the lexicon. Indeed, the phonaestheme *gl* in words like *glad*, *globe*, *glory* does not systematically convey the meaning of ‘light’ or ‘bright’ (Baldi & Dawar, 2000).
To conclude, we may define phonaesthemes as sounds, sound clusters or sound types which are directly and closely associated with some meaning. They are not classifiable as morphemes or derivational formations, since they do not follow the criterion of compositionality or any rules of word-formation. They are nothing more than structurally simple words which are part of native vocabulary. Nevertheless, they may be considered a variety of sound symbolism, because in both phenomena the primary characteristic is represented by the systematic relationship between sound and meaning.

5.4.2 Phonaesthesia as an extra-grammatical phenomenon

Many morphologists tend to ignore and marginalize phonaesthemes because they are mainly considered an extra-grammatical phenomenon. However, contrary to the majority of the processes and formations that we have so far analyzed, phonaesthesia does not exhibit the fundamental characteristics to be treated as an extra-grammatical word-formation process. In fact, first of all, phonaesthemes cannot be considered new formations or results of a word-formation process, since they are just words exhibiting a particular consonantal cluster or a vowel that happen to occur in several other words. Therefore, an important distinction with the other extra-grammatical processes, such as abbreviations, blends, reduplicatives, concerns the fact that, in this case, we have no word-formation process taking place. Phonaesthesia is a phenomenon based mainly on affinity among sets of words sharing non-etymological clusters of phonemes and, consequently, evoking similar sensations, feelings and meanings. Phonaesthemes exhibit an internal structure which is totally different from that of regular grammatical formations, since it is non-compositional. There is nothing either added, as in ordinary derivation, juxtaposed, as in compounding, or subtracted, as in many extra-grammatical operations. The lexemes characterized by these clusters of phonemes are rather typically similar in meaning and sound.
The extra-grammaticality of phonaesthemes, hence, is not a matter of violation of word-formation rules, but it refers to the nature of this phenomenon, interacting between phonology and semantics. Phonaesthemes are, indeed, the result of this complex linguistic interaction, which makes them completely different from any other grammatical or extra-grammatical formation. They associate sound and meaning in their structure, and are usually exploited in words which denote events that would produce similar sounds, as in *bash, crash, smash*, where the phonaestheme *-ash* occurs in various lexemes similar or connected to the meaning ‘violent impact’. Furthermore, phonaesthemes are also used and found in some extra-grammatical formations, as reduplicatives and expletive infixes. Ablaut reduplicatives may in some cases exhibit initial phonaesthemes, e.g. *chit-chat, chitter-chatter, flic-flac, flip-flop, flitter-flatter, hubble-bubble, snip-snip*, which, with their sound-symbolic structures, suggest special sensations and emotions, colorful expressions and evoke the sounds produced. In infixation as well we may find a few expletive infixes sharing the same initial consonantal cluster *bl-*; e.g. *bleeding, blessing, bloody, blooming* (see § 5.4.3 below).

### 5.4.3 Recurrent phonaesthemes

Phonaesthemes are defined as sub-morphemic units that have a predictable effect on the meaning of a word as a whole. Because of this predictability, we may differentiate English phonaesthemes into several types, on the basis of the similarity recovered in many words between phonetic form and meaning conveyed. We can classify the most recurring phonaesthemes in English, distinguishing between those which occur at the beginning of words and those which occur as endings. The following occurs at the beginning of the word (Firth, 1930; McCrum, 2001; Bergen, 2004; Hunter-Smith, 2007):

- *bl-* → this initial phonaestheme is usually associated to different meanings: (i) ‘imitative of the sound of a bubble’, e.g. *blabs, blazes,*
bleats, blisters, blows, blot, blubbers, blunts; (ii) ‘blowing’, e.g. bladder, blast, blain blaze, blizzard, bluster, blore; (iii) ‘swelling of the lips’, e.g. blob, blot, blabber, blabber-lipped, blobber-lipped. Moreover, this particular phonaestheme is recurrent in various special words, i.e. expletives (bleeding, bleep, blessed, bloody, blooming), which are inserted in the middle of other words to contribute a derogatory meaning;

- **cr-** → this phonaestheme tends to convey the meaning of ‘something which is bent or distort’ and is pronounced /kr/. Typical formations with this consonantal cluster as beginning are: crack, cramp, crankle, crawl, creep, crick, crimp, cringe, crinkle, crisp, crouch, crumple;

- **fl-** → in this case, instead, the phonaestheme fl- at the beginning of a number of words is usually associated with ‘phenomena of movement, flying, flowing’, but also ‘liquid motion’. Examples are: flack, flag, flare, flaught, flicker, flee, fleet, flicker, flies, flirt, flit, flitter, float, flood, flop, flow, fluid, flump, flunk, flurry, flush, fly;

- **gl-** → this sound occurs in many words related to ‘light or vision, visual phenomena’. It occurs, for instance, in the following words: glade, glare, gleam, glent, glimmer, glimpse, glint, glitter, glitz, gloom, gloss, glow;

- **gr-** → the meaning conveyed by the phonaestheme gr- is that of ‘deep-toned, menacing noises’, as in grin, grim, grimly, growl, groin, grouse, grudge, gruff, grum, grumble, grunt, gruntle, grutch;
- **m-** → the labial consonant /m/ occurs (often more than once) in several words which mean ‘talk indistinctly’ or ‘movement of mouth’. The pronunciation of this consonant is made with the lips firmly closed preventing clear articulation, and the act of pronouncing a word with such an initial sound iconically mimics also a key aspect of its meaning. Words such as *mumble, mump, munch, murmur, matter, muted*, involve this sound at least once. However, this consonantal sound does not occur just at the beginning of a word, but it can be also inserted in the middle of a word conveying the same meaning, as in *umble, grumble, yammer;*

- **sl-** → the phonaestheme *sl-* is usually contained in words meaning ‘sliding movement, lack of traction’ or ‘slime, slush, liquid’, as in *slash, sled, sledge, sleight, slide, slime, slip, slithers, slive, sloppy, slosh, slouch, sludge, sluice, slumps, slush.* A few linguists (Firth, 1930; McCrum, 2001) claim that a group of words involving this particular phonaestheme share a pejorative meaning. This idea is supported by the fact that *sl-* sometimes appears as beginning of words to indicate negative actions or negative effects, such as (1) *slave, slavery, sleep, sleepy, sloth, slow*, which mean ‘inaction or passive action’; (2) *slime, sloth, slush*, meaning ‘dirty’; (3) *slide, slippery, slip, slither*, meaning ‘unstable’; (4) *slander, slight, slur*, meaning ‘denigration’; (5) *slim, slit-eyed, sliver*, meaning ‘narrowness’;

- **sn-** → another frequent phonaestheme in English is initial *sn-* related to ‘nose or breathing’ or, by metaphorical extension, to ‘snobbishness, inquisitiveness’. Examples of this kind are: *sneeze, sniff, sniffle, snivel, snoop, snore, snort, snot, snout, snuff, snuffle;*
- **sw-** → this phonaestheme is mainly related to the meaning of ‘flourish’ or ‘swinging’, as in *swagger, swank, swap, sways, swell, swerve, swish, swiftly, swinge, swings, swip, swirle, swish, swnone, swoop, swoosh*;

- **tw-** → the meaning conveyed by the phonaestheme **tw**- as initial sound in a word is that of ‘twisting movement’ or ‘small sounds’, as in *twank, twang, twat, tweak, tweeddle, tweet, twiddle, twick, twine, twinge, twinkle, twirle, twist, twister, twit, twitter, twitch*;

- **v-** and **vi-** → in general, the consonant sound /v/, but also /vʃ/, is interesting because it conveys the meaning of ‘intense and violent ill-temper’, as in words like *vehement, verve, vibes, vicious, vigor, vim, vindictive, vitalic, vitriolic, vituperative*.

The most frequent phonaesthemes occurring instead at the end of the word are:

- **-ag** → words ending with the phonaestheme -ag convey the meaning ‘droopy’ and ‘flabby’, as in *bag, drag, flag, lag, sag*;

- **-ash** → this phonaestheme is found in many English words meaning ‘violent impact’, ‘breaking’ or ‘fragments’, as in *bash, crash, gash, gnash, pash, rash, slash, smash, snash, splash, trash*;

- **-icious or -ous** → the phonaestheme -icious or -ous, which in derivation is also used as a suffix, gives to the words where it occurs a meaning of
‘sensual indulgence, appealing to the senses’. Examples of this kind are: delicious, licentious, luscious, nutritious, scrumptious, voluptuous;

- -p → the post-vocalic stop is synesthetically related to the meaning of ‘blow’, as in bip, clap, clip, dip, grip, nip, yip;

- -ump → this particular sound is often found at the end of words which are associated with ‘heaviness and clumsiness’ or ‘heavy, awkward movement’. It is pronounced /ʌmp/ in words like bump, clump, crump, dump, hump, lump, mump, plump, rump, slump, stomp, thump;

- -urry → the phonaestheme -urry conveys to the word in which it is contained the meaning ‘haste’ and ‘confusion’, as in blurry, flurry, hurry, scurry, worry;

- -ush → this phonaestheme, instead, tends to convey the meaning of ‘something oozy’ and ‘moist’, as in flush, gush, lush, slush;

Some phonaesthemes may also occur in medial position:

- /ʌ/ → the mid central lax vowel is very often found within words associated with various kinds of ‘dullness’ or ‘indistinctness’, as in blunt, clump, dud, dull, dusk, mud, sludge, slump, slush, stunt, thud, thump;
- /u/ → the high front vowel frequently occurs as phonaestheme in words associated with ‘smallness’, as in bit, brief, kid, lean, little, meagre, mini, miniature, pinkie, tiny, thin, teeny-weeny, wee. In particular, this vowel may be used also finally in diminutive words, where the suffix -y / -ie is added to the end of the word, e.g. belly, brolly, daddy, granny, handy, telly;

- /u/ → this phoneme suggests, instead, ‘foolishness’ as noted by Bolinger (1965), e.g. boob, coo-coo, fool, galoot, rube, stooge.

5.4.4 Preferential criteria of identification

In the specific case of phonaesthemes, we cannot determine criteria of formation, since there is no formation taking place. However, we may distinguish the following criteria of identification:

- **Recursiveness** - A cluster or a vowel is considered a phonaestheme if it is recurrent in a number of similar words which share similar sound and meaning. Phonaesthemes have to exhibit recursiveness as a fundamental feature to be counted as real phonaesthemes, rather than simple bound morphemes or affixes.

- **Homogeneity** - Phonaesthemes generally exhibit a high degree of homogeneity because they usually have the same position and the same pronunciation in the words where they are found. As we have seen, they may be initial, final clusters, or inserted vowels.
• **Semantic Coherence** - Phonaesthemes have to be homogenous not only in form, but also in meaning. The lexemes that exhibit the same phonaesthemes must express also a similar semantic meaning, as in *glade, gleam, glint, glister, glitter, gloom, gloss, glow*, all related to the meaning ‘light or visual phenomena’ conveyed by this cluster -gl. On the other hand, *glaciations, glass, glicinum, globe, glue* do not convey the same meaning and, thus, the beginning cluster gl- in this case cannot be considered a phonaestheme.
6.1 Introduction

New situations, new inventions, new objects, new experiences and developments of all types and in all fields always demand new words. This need is often partly satisfied by the introduction and successive spread of many extra-grammatical formations and unconventional words. Extra-grammatical phenomena before the middle of the 19th century were somewhat rare, but, according to some scholars (Lehrer, 2007; Fandrich, 2008), they represent the symbol of the second half of the 20th century. Nowadays, indeed, the phenomena studied in this work appear to be increasingly common and productively used in Modern English. Extra-grammatical mechanisms and formations, in particular, are very frequent in a number of specific contexts of use, such as colloquial conversations, advertisements, newspapers and magazines, but also in more formal contexts like scientific and technical texts, to deliberately show the affiliation of the speaker to a group, to exhibit a special attitude, to make something incomprehensible to whom is not part of a group, to catch the attention of the hearer or the reader and so on. However, what is interesting to explain here is the reason why in certain contexts extra-grammatical formations are preferred over grammatical ones, and also in which domains and contexts extra-grammatical phenomena are more commonly used than grammatical ones.

First of all, we will illustrate the reasons why, in some cases, extra-grammatical is more attention-catching with respect to grammaticality. In particular, grammatical phenomena and formations, such as regular derivation
and compounding, are seen and felt as something which is already incorporated into the language and its lexicon, like something ordinary, predictable and totally understandable even if it is new. On the other hand, extra-grammatical formations, such as blends, abbreviations, back-formations, reduplicatives, etc. appear as violations of rules, and consequently, they are more attractive and interesting. Since extra-grammatical phenomena are not explainable by word-formation rules as grammatical process and deviate from what is felt as normal, canonical, regular, they are considered particularly intriguing and eye-catching for speakers and hearers. Therefore, one of the main reasons for the frequent and increasing use of extra-grammatical formations with respect to grammatical ones is that, lying outside grammar and not being considered part of grammatical morphology, they result more interesting and attractive.

As regards the contexts of use and domains where we can generally find extra-grammatical phenomena, we should distinguish among the various processes and their relative contexts, since not all of them share the same lexical domain or context of use. For example, the commonest lexical domains for blends are, as we will see, in product and trade names, advertisements, newspaper and magazine headlines. According to Lehrer (2007: 128-129), blends, in particular, are all attempts to catch the attention of the reader, or the hearer in speech situations, and to convey a very special effect to the communicative context in which they are used. The media and commercial sectors in creating and using such blends wish to elicit a favorable response in the reader or the costumer, and, through these novel devices, they want to call their attention to the news or products (Lehrer, 2007: 128). In the case of newspaper’s articles, writers tend to use blends in order to make the piece more interesting and attractive to the reader; whereas in the case of an advertisement for a product the intention is to motivate the costumers to buy that product, or at least to memorize its name (Lehrer, 2007: 129). In newspaper lines, also, the principle of economy is at work.

In the case of abbreviations, instead, the lexical domain and context of use is a bit different. Indeed, acronyms and initialisms are not only used in informal
language, but also in written specialized contexts and formal register. Abbreviations, moreover, have become increasingly productive and common with the appearance and spread of computers and electronic communication. These extra-grammatical devices are preferred in texting and Internet language over others, such as reduplicatives or blends, mainly due to their extremely reduced shape.

Extra-grammatical phenomena which instead involve redundancy, such as reduplication and infixation, appear mostly in domains and contexts which convey some special effect of playfulness and jocularity, especially in the case of reduplicatives, or in bad language expressing a strongly negative attitude of the speaker, as in the case of expletive infixes.

This last chapter, therefore, is an attempt to investigate the contextualization of extra-grammatical formations. It is organized into three main sections which mainly deal with the identification and description of criteria of contextual suitability. In section 2, the principle of informality is introduced, in sections 3 and 4 the principles of economy and naming will be described and illustrated by extra-grammatical phenomena in different contexts of use. In this chapter, we will provide extracts and examples from typical colloquial oral contexts, mainly taken from movies and TV series scripts, corpora, Internet forums and chats, and from specialized written texts, such as newspaper and magazine headlines, scientific and technical articles.

### 6.2 Principle of informality

Informality is the most important and central principle at work when extra-grammatical phenomena are involved. It is fundamental, first of all, because it refers to a specific type of language, i.e. informal language (Crystal, 1985), to which we assign extra-grammatical formations. Informal language is generally characterized by spontaneous speech in situations that may be described as natural or ‘real-life’. This genre tends to be used in spoken language, and it usually contains a number of colloquialisms and conversational expressions.
that are inappropriate for the majority of formal written English contexts (Crystal, 1985). English is spoken informally in some specific speech situations, such as among friends, co-workers, relatives, members of the same group, peers, school-mates. The phenomena studied in this work are therefore considered representative elements of an informal style of language. Consider, for instance, the following colloquial dialogues, taken from *American Pie* (1999), *Notting Hill* (1999), *10 things I hate about you* (1999) and *Bridget Jones’s Diary* (2001), which, indeed, present cases of clipping (1-6) and infixation (7):

1. KEVIN: “Then she said -- she loves me.”
   
   OZ: “Oh shit dude, the L-word!” (Love word)
   
   (from *American Pie*, 1999)

2. OZ: “Uh...you know, my friends call me Nova (Casanova)-- as in Casanova.”
   
   COLLEGE CHICK: “You need some work, buddy!”
   
   (from *American Pie*, 1999)

3. MARTIN: “Shall I go get a cappuccino? Ease the pain.”
   
   WILLIAM: “Yes, better get me a half. All I can afford.”
   
   MARTIN: “I get your logic. Demi-capu (demi-cappuccino) coming up.”
   
   (from *Notting Hill*, 1999)
4. WILLIAM: “Well, okay. There's this girl...”

SPIKE: “Aha! I'd been getting a female vibe (vibration). Good. Speak on, dear friend.

(from Notting Hill, 1999)

5. HONEY: “It is great, isn't it. See you tonight. Hey, Marty-- sexy cardy.”

(cardigan)

(from Notting Hill, 1999)

6. BRIDGET: “Right. I'll just pop to the shop for some ciggies.”

(cigarettes)

BRIDGET: “... p for the Polos and packet of Wheat Crunchies.”

MARK: “Packet of Embassy, please.”

(from Bridget Jones’s Diary, 2001)

7. JAMES: “We are living in cloudcuckooland (cloud-land + cuckoo)-- we'll never get this done today.”

ANNA: “We have to. I've got to be in New York on Thursday.”

(from Notting Hill, 1999)

Extra-grammatical phenomena, such as those just illustrated may also indicate language debasement. Debasement is “evident in general slang words, which are very often used by speakers to break with the neutral standard language and to reduce the level of discourse to familiar and low speech”
Examples illustrating this trait may be seen in the following headlines, taken from online magazines:

8. **BAFTAs go WOWIE for TOWIE...**

   *(British Academy of Film and Television Arts)*

   *(24 May 2011, Female First, Celebrity Gossip and Lifestyle Magazine)*

9. **Cheryl Cole to take 'time out' from showbiz** *(show business)*

   *(30 May 2011, from Female First, Celebrity Gossip and Lifestyle Magazine)*

10. **Dominic West: “Money is the only reason Brits (British people) go to America”**

    *(31 May 2011, from Female First, Celebrity Gossip and Lifestyle Magazine)*

11. **What Happens in the Lab Stays in the Lab** *(laboratory)*

    *(24 June 2011, from Science Magazine)*

12. **Then they unfurled a banner warning Delors ‘Don't bulldoze Europe.’**

    *(to bulldoze ≠ bulldozer)*

    *(1992; from Today)*
In the headings from 9 to 11, instead of using the full formal words (*show business, British people, laboratories*), the writers prefer to use their clipped versions, that is *showbiz, Brits, lab*, to lower the discourse tone and, perhaps, also to convey the writers’ intention to refuse convention, formality and fixed rules. The same happens in the first heading (8), where the full expression *British Academy of Film and Television Arts*, is replaced by the corresponding acronym *BAFTAs*, in order to save space and convey more informality, and in the last back-formation (12).

The primary contexts of use of these extra-grammatical formations are (a) colloquial oral contexts and (b) written specialized contexts, comprising (i) newspaper and (ii) advertising language. Let us briefly consider each context:

(a) In typical colloquial contexts, phrases and expressions tend to be shorter and less sophisticated, often presenting various violations of the linguistic rules we normally find in written language. The tone is more conversational and informal, because these texts use more colloquialisms, slangy words and unusual formations. The representative speech situation in which colloquial language is used is among speakers who share the same vocabulary, and perhaps, even the same social background, i.e. among teenagers, schoolmates, young people, peers, relatives. Teenage slang, in particular, is extremely informal, often plenty of new slangy words and current words used with a completely new senses, taboo words, swearwords, and pragmatic markers with partly new functions. Extra-grammatical formations are highly exploited in colloquial language, mainly because they represent a deviance from regularity and from what is ordinary and grammatical, which is no more interesting for young people (Lehrer, 2007). Phenomena such as those studied in this work arouse teenagers’ curiosity and catch their attention more than canonical ones, for their original and innovative character and for their unusual and fanciful use. Consider, for example, a few extracts, taken from *There’s something about Mary* (1998), *10 thing I hate about you* (1999), *American Pie* (2000), *Catch and release* (2006), *Juno* (2007) and the TV series *How I met your mother*,
where different types of extra-grammatical formations are used to convey a more informal language style and to lower the level of the discourse:

13. HEALY: “Okey-dokey (OK), so tomorrow night?”

(from There’s something about Mary, 1998)

14. TUCKER: “What's up, Doc?” (Doctor)

MARY: “Tucker, you look different somehow. Did you do something with your hair?”

(from There’s something about Mary, 1998)

15. PATRICK: “I don't know, Dorsey. ..the limo (limousine) - the flowers. Another hundred for the tux --” (tuxedo)

JOEY: “Enough with the Barbie n' Ken shit. I know.”

(from 10 things I hate about you, 1999)

16. SHERMAN: “What's up, fellas?” (fellows)

JIM: “Hey Sherman. Scopin' the babes.”

(from American Pie, 2000)
17. SAM: “I knew it was a bad idea.”

GRAY: “Which? I mean, the vodka, the pills or the combo?”
(combination)
(from Catch and release, 2006)

18. JUNO: “Well! Nothing like experimenting.”

BLEEKER: “I did the prep (preparation) questions for this lab (laboratory) last night. You can copy my answers if you need to.”
(from Juno, 2007)

19. ROBIN: “Oh, you are gonna love Kelly. She’s fun, she’s smart, she lives in the moment.”

BARNEY: “Translation: She’s ugly, she’s ugly, she UGS in the ugly.”
(to ug > ugly)

ROBIN: “Oh, and she’s totally hot.”
(from, How I met your mother, season 1 episode 5)

Again we have a series of clippings, mostly back-clippings (14-18), but also reduplication in (13) (okey-dokey < OK) and a humorous back-formation in (19) (to ug < ugly).

(b-i) In written contexts, as well as in oral ones, informality is an important aspect, especially in newspaper language and advertisements which, in many cases, exploit unconventional formations to attract the readers. Extra-grammatical formations, in fact, thanks to their novel and creative character, are more eye-catching and interesting with respect to ordinary regular words.
Particularly, in newspaper language, they are usually used in headlines to convey a special attractive effect to the reader, who, perhaps, is encouraged by these unusual language devices to read the entire article or to buy the newspaper. The following headlines from various online newspapers and magazines show the great exploitation of extra-grammatical phenomena as informal mechanisms:

20. A FORMER Girl Guides boss is to edit (to edit > editor) a new sex magazine

(1992; from The Daily Mirror)

21. PETA (People for the Ethical Treatment of Animals) Statement Re: Victoria Beckham Attack

(21 October 2010; from Female First, Celebrity Gossip and Lifestyle Magazine)

22. Phasebook (phase + facebook)? My(Green)Space? Can Social Networking Be Harnessed for Energy Conservation?

(23 June 2011, from Scientific American)

23. Mirror's Bellfield subterfuge was blessed by the PCC

(Press Complaints Commission)

(27 June 2011, from The Guardian)
24. *A licence to thrill* (Licence to kill + thrill)

(27 June 2011, from *The Sunday Times*)

Blends (*phasebook, a licence to thrill*), acronyms (*PETA*) and initialisms (*PCC*), are particularly useful in headlines, the former for their originality and the latter for their brevity (see Principle of Economy § 6.3 below).

(b-ii) Finally, advertising language in one of the most informal context of use for extra-grammatical phenomena among written specialized contexts. The aim of advertisements, basically, is not only to give people some information about a product, but also to persuade them to buy that product. Language in the field of marketing and advertising has a powerful influence over people and their behavior, and the choice of an informal language to convey a specific message with the intention of convincing people is vitally important, since everyone may easily recognize their everyday language and successfully understand it (Lehrer, 2007: 129). Among the extra-grammatical phenomena studied in this work, advertising language has the tendency to use reduplicatives, for their jocular and repetitive character, blends, because they may mix together two words saving space but still having an ironic effect, and phonaesthemes, for the particular sound effect that they may convey. The following examples, indeed, show how reduplication, blending and phonaesthesia may be successfully used in commercials and slogans in order to promote and facilitate the memorization of the product (Kremer, 2002):

I. Reduplicatives:

25. *Don't get mad, get Glad* - Slogan for garbage bags;

26. *Easy, breezy beautiful Cover Girl* - Slogan for makeup;

27. *Teeny doesn't mean weeny* - Slogan used to market *iPod* mini;
II. Blends:

28. *Airphoria* (*air* + *euphoria*) Ad campaign by Virgin Atlantic Airways;

29. *Days Innspiration* (*Days Inn* + *inspiration*) Days Inn motto;

30. *iThink, therefore iMac* (*I think therefore I am* + *iMac*) Slogan for *iMac*, based on René Descartes famous line “*I think, therefore I am*” (*Cogito ergo sum*);

31. *X TEN* (*X-Men* + *Ten*) Slogan for Network Ten;

32. *Under the Gymfluence* (*gym* + *influence*) Advertising slogan for Crunch fitness centers;

III. Phonaesthemes:

33. *Melts in your mouth, not in your hands* - Slogan for *M&M’s* based on phonaesthemes involving the bilabial consonant *m*, which iconically suggests ‘movement of mouth’;

34. *The Cold, Crisp Taste of Coke* - Slogan for *Coca-Cola*, based on consonant alliteration and the use of the phonaestheme *cr* to convey the iconic meaning of ‘something which is distort’, perhaps, for the sparkling taste of this drink.

Informality, however, is a wide criterion that needs more detailed specification. The various aspects of informality will be investigated in the following sub-sections, focused on: (6.2.1) social closeness, (6.2.2) jocularity and playfulness, (6.2.3) freshness and novelty, and, lastly, (6.2.4) musicality.
6.2.1 Social closeness

One of the fundamental features of informality is social closeness among speakers who adhere to a specific social group and who share interests, values, concerns and habits. This particular closeness and interaction may allow speakers to create and use variants of standard English, in order to have a completely new type of language that no one else outside the group can understand (Mattiello, 2008: 214-215). Extra-grammatical formations perfectly serve this function, since they are new forms with some special traits that, in many cases, make them totally incomprehensible to people who are not part of the same group. Consider, for example, the dialogues extracted from Grease (1978), The hairy Bird aka Strike! All I wanna do (1998), the sit-com Friends and the TV series True Blood, where extra-grammatical formations are used in speech situations involving friends or schoolmates:

35. RIZZO: “I feel like a defective typewriter. I skipped a period.”

MARTY: “You think you’re P.G. (pregnant)? Was it Kenickie?”

RIZZO: “Nah. You don’t know the guy.”

(from Grease, 1978)

36. DOODY: “Hey, Eugene!”

EUGENE: “Hi, fellows!” (fellows)

DOODY: “Shake, Buddy.”

EUGENE: “Ow!”

(from Grease, 1978)
37. VERENA: (cont'd) “This is where the D.A.R. (Daughters of the American Ravioli) meets.”

   TWEETY: “We can get any canned food we want up here. They store boxes of it over the kitchen.”

   ODIE: “What exactly is the D.A.R.?”

   MOMO: “It stands for Daughters of the American Ravioli.”

   VERENA: “In the D.A.R., we all share our most secret dreams of what we want to be. [...]”

   (from The hairy Bird aka Strike! All I wanna do, 1998)

38. ROSS: “Dude, I was gonna ask her out.”

   CHANDLER: “I said it first, bro.” (brother)

   (from Friends)

39. TED (CONT’D): “Your friends don’t seem too happy.”

   ROBIN: “That’s cuz (because) I’m here talking to a Daniel.”

   TED: “Actually it’s Ted. Have ya met Ted?”

   (from How I met your mother, season 1 episode 1)
40. BARNEY: “Well, I have a new favorite: Lebanese girls. Lebanese girls are the new half-Asians.”

TED: “I don’t even know what a Lebanese girl looks like.”

BARNEY: “Trust me. They’re Lebalicious.” (Lebanese + delicious)

(from How I met your mother, season 1 episode 1)

In all these dialogues, the speakers are friends and peers, thus, they can use unpredictable words and still understand each other without any effort. In the first extract (35), taken from Grease (1978), Rizzo and Marty are school-mates at the Rydell High and close friends belonging to the same girl gang called ‘Pink Ladies’. The girls in this dialogue use the abbreviation P.G., instead of the correspondent full word pregnant, to disclose their intimate relationship and, perhaps, to prevent intrusive hearers. The second and fourth extracts illustrate similar situations: in (36), taken again from Grease (1978), Doody and Eugene are schoolmates, and the use of fellas, instead of the ordinary fellows, does not cause any misunderstanding between the speakers. In (38) the speakers are again friends and the clipped version bro (brother) signals their familiar connection and closeness. These extra-grammatical expressions are interesting because they represent markers of social identity and group exclusiveness, and devices to indicate intimacy, familiarity, cohesion and friendship. The initialism D.A.R. used in (37), is an example of group exclusiveness, since only the girls involved in the conversation may use and understand that word, which acquires a special effect and is felt as a sort of secret password to enter their group.

Connected to the aspect of social closeness there are other two traits which are peculiar of informal language: (i) secrecy and (ii) obscenity.

(i) Secrecy and privacy are typical aspects of a specific group of people, such as drug dealers and criminals, who use extra-grammatical formations and slang words in their illegal traffics (Mattiello, 2008 : 216). Drug addicts exploit
extra-grammatical words to hide information about their traffics from public authority and to reduce the risk of a potential intrusion of other people into the group. The most common extra-grammatical processes in this type of slang are, mainly, abbreviations: clippings, such as coke for cocaine, marja for marijuana; acronyms and initialisms, such as E for Ecstasy, PnP for Party and Play (slang of respectively drug and sex), Special K for Ketamine, Substance D for Death. The following extracts, taken from A Skanner Darkly (2006), are examples which show the preferential use of abbreviations rather than regular full words:

41. CHARLES FRECK: “I don't want to lay her. I just want to buy from her.”

JIM BARRIS: “Donna does coke (cocaine). Anybody who would give her a gram of coke she would undoubtedly spread her legs for.”

(from A Skanner Darkly, 2006)

42. BOB ARCTOR: (quietly) “You know why I've got a block against this stuff? Because this bullshit is what gets people on dope.”

FRED: “"D" is for Substance D (Substance Death). Which is for Dumbness, Despair, and Desertion, the desertion of your friends from you, you from them, everyone from everyone, isolation and loneliness and hating and suspecting each other. D is finally death. Slow Death, we... (beat) ... we the dopers call it...”

(from A Skanner Darkly, 2006)

(ii) The aspect of obscenity generally tends to be found in the slang and language of teenagers and adolescents. Usually, they use a vocabulary made of
dirty, vulgar, swear and taboo words to exhibit and prove their virility and strong attitude towards their peers and the world around them, to show off their strength and power and to boast that, when they are alone and not under the parental or school authority, they can reach excesses in their language (Mattiello, 2008: 218). Consider, for instance, the following extracts, one taken from American Pie (1999), where one of the speaker uses an acronym to hide a vulgar expression, and the other taken from The Sisterhood of the traveling pants (2005), illustrating to use of a blend:

43. FRESHMAN GUY: “Dude! That chick -- is a MILF!”

FRESHMAN GUY #2: “What the hell is that?”

FRESHMAN GUY: “M-I-L-F! Mom I'd Like to Fuck!”

(from American Pie, 1999)

44. TIBBY: “Yeah, it's gonna be a huge hit. Thrilling footage on how to stack deodorant. I think I'm gonna start my own genre, call it the ‘suckumentary’. (suck + documentary)

(from Sisterhood of the traveling pants, 2005)

However, one of the most productive extra-grammatical processes used to produce words or expressions that convey a particular obscene effect, is definitely infixation, more specifically, expletive infixation. Infixed expletives tend to occur in bad language and to express the strong feeling of the speaker, usually negative, as irritation or anger (McCarty, 1982; Yu, 2003; 2007). Consider the following extracts taken from Trainspotting (1996), 27 Dresses (2008) and the TV series True Blood:

RENTON: “I want a fucking hit.”

(from Trainspotting, 1996)

46. BEGBIE: “Picture the scene. Wednesday morning in the Volley. Me and Tommy are playing pool. No problems, and I'm playing like Paul fucking Newman by the way. [...]”

(from Trainspotting, 1996)

47. JANE: “I had no idea he was writing an article about me.”

TESS: “You? He called me "Bridezilla" in the New York Frickin' Journal!”

(from 27 Dresses, 2008)

48. RUSSELL: “There's a New Fucking Authority in Town!”

(from True Blood)

49. LAFAYETTE: “I know every man gay, straight, or George Motherfucking Bush is terrified of the pussy”

(from True Blood)
50. **SOOKIE**: “*Well, it won’t happen again. I’m staying away from vampires. I can guaran-damn-tee you that!*”

(from *True Blood* season 4 episode 1)

6.2.2 Jocularity and playfulness

The contexts of informal language use may be situations requiring or establishing, as we have just explained, secrecy and privacy, intimacy, vulgarity in some cases, but also rousing jocularity and playfulness. According to Mattiello (2008: 222), playfulness and jocularity are two aspects which are typical of metaphorical slang words and, in our opinion, also of many extra-grammatical formations, since they are usually felt as out of the ordinary, odd and sometimes innovative and fresh. Humour is an important trait of extra-grammatical phenomena, though not all of them obtain a playful and jocular effect in the discourse where they are used. It is better to distinguish, thus, between those extra-grammatical processes which allow humorous effects and those that, instead, exhibit other features and are therefore used in other contexts. According to this, (I) blends, (II) reduplicatives, (III) infixation are phenomena expressing jocularity and playfulness, while abbreviations and back-formations hardly convey these effects. This is the reason why, we will now treat each of these mechanisms individually.

I. Let us consider blends first of all. Blending is a much more playful process if compared to any regular word-formation process, as compounding or derivation, because it is seen as something unconventional, new and even progressive, attractive from many points of view and tempting (Lehrer, 2007: 128). The creators of such blends intend to arouse interest in the hearer or reader, and to catch their attention using these new humorous formations. Consider for example the following blends (Kremer, 2002):
- *Abra CaBubble* (*abracadabra + bubble*) Trademark for Bubble gums;
- *Avant-Card* (*Avant-gard + card*) A greeting card shop;
- *Baroque’n’roll* (*baroque + rock’n’roll*) A mischievous merging of baroque music and rock’n’roll;
- *Beefstro* (*beef + bistro*) Restaurant in Iowa City, Iowa;
- *Copabanananas* (*Copacabana + bananas*) Club in Panama City, Florida;
- *Count Chocula®* (*Count Dracula + chocolate*) Trademark for chocolate cereals;
- *Crepe Escape* (*crepe + Great Escape*) Name of a restaurant;
- *Mexican with Mauitude* (*Mexican with attitude + Maui*) Slogan for Maui Tacos;
- *Moby Dickens* (*Moby Dick + Dickens*) A book store in Taos, New Mexico;
- *Pull love* (*pullover + love*) Shop in Pisa, Italy;
- *Ready, steady, cook!* (*ready, steady, go! + cook*) A TV program about cooking;
- *The Aristocats* (*aristocrats + cats*) Title of a Disney movie.

The above blends are all examples of trademarks, movie titles, advertisements and slogans, magazines headings, names of shops and restaurants which exploit the jocular and playfulness effect that blends can produce (Lehrer, 2007). However, also in colloquial conversation among close friends and relatives, humorous blends are very often used to arouse
amusement and fun in the hearer. Examples of this kind are taken from
American Pie (1999), 10 things I hate about you (1999), Meet the parents
(2000) and 27 Dresses (2008):

51. SHERMAN: “She's around. Seems that she's taken a liking to me.
Fellas, it's time that she experienced -- The Sherminator.” (Sherman +
Terminator)

      KEVIN: “Yeah, okay Sherman, whatever.”

      SHERMAN: “I'm a sophisticated sex robot, sent back through time...to
change the future for one lucky lady.”

      (from American Pie, 1999)

52. JOEY: “Lookin' fresh tonight, Pussy-Kat” (pussy + Katharina)

KAT: “Wait -- was that?-- Did your hairline just recede?”

      (from 10 thing I hate about you, 1999).

53. PAM: “Hi, Daddy!”

      JACK: “Hi! Sweet pea! I missed you so much, Pancake.” (Pamela +
pancake)

      PAM: “I missed you too, FlapJack.” (flapjack + Jack)

      (from Meet the parents, 2000)
54. TESS: “I gotta get outta here. Oh, but you better alert Traffic Control... because Bridezilla's on the loose!” (bride + Godzilla)

(from 27 Dresses, 2008)

In the above extracts, the humour and playfulness of blends are basically obtained by means of a subtle and elusive play of metaphorical extensions, which presupposes the hearer’s knowledge of the circumstances to identify the real meaning implied by the blends (Mattiello, 2008: 223). Indeed, in all these examples, the blends are used among close friends or peers (as in 51 and 52) or members of the same family (as in 53) who may easily understand the jocular and funny word puns.

II. Reduplicatives very often convey jocularity and amusement, since their shape appears funny. Many reduplicatives, because of their special and attractive structure and of their musical and jocular nature, are extensively exploited, like blends, for advertisements, slogans, book and movie titles, names of shops and restaurants (Kremer, 2002). Examples of this kind are:

- **Bearum scarum** - Title of a book for children by Vic Parker;
- **Bling Blang** - Children’s book by Woody Guthrie;
- **Cafe Cafe** - Espresso shop in Sequin, Washington;
- **Chick-N-Quick** - Quick chicken product from Tyson Foods;
- **Crave the wave** - Ocean spray cranberry juice slogan;
- **Crunch Munch** - Children’s book by Jonathan London;
- **Dolly the Trolley** - Tours in Fort Scott, Kansas;
- *Dress for success* - Book of business dress;
- *Fatty Natty* - Nickname for a character in the *Finding Brian* TV show;
- *Frog on a log* - Children’s book;
- *Happy Hippo* - Trademark for Kinder chocolate;
- *Humpus Bumpus* - Bookstore in Cumming, Georgia;
- *Loose Caboose* - Sandwich shop in Bay City, Michigan;
- *No glove, no love* - Slogan for safe sex;
- *Oogie Boogie* - Character in movie, *The Nightmare Before Christmas*;
- *Roast 'n Boast* - A barbecue and music festival in Columbus, Mississippi;
- *Splish Splash* - Water park in Riverhead, New York;
- *The joy of soy* - Cook book by Dana Jacobi;


55. STIFLER: “You dipshit, you're expecting to score with some goody-goody choir-girl priss?”

    OZ: “Dude, watch me work. They go for sensitive studs like me.”

    (from *American Pie*, 1999)
56. BRIDGET: “So how do you feel about this whole situation...in Chechnya? Isn’t it a nightmare?”

DANIEL: “I couldn’t give a fuck, Jones. Now, look, how do you know Arsey Darcy?”

BRIDGET: “Apparently, I used to run ’round naked...in his paddling pool.”

(from Bridget Jones’s Diary, 2001)

57. COSMO: “You really ought to hurry up... and get sprugged up, you know, old girl? Time’s a-running out. Tick-tock.

BRIDGET: “Yes, yes.”

(from Bridget Jones’s Diary, 2001)

58. HOMER: “Well I hate going. Why can’t I workship the Lord in my own way, by praying like hell on my death bed?”

MARGE: “Homer, they can hear you inside!”

HOMER: “Relax! The pious morons are too busy talking to their phoney-baloney God!”

(from The Simpson The movie, 2007)

59. JUNO: “I remain unconvinced”

ROLLO: “This is your third test today, Mama Bear. Your eggo is preggo, no doubts about it!”

(from Juno, 2007).
Such reduplicatives help reinforce the humorous and playful effect of the conversations. In fact, especially in (56) taken from Bridget Jones’s Diary (2001), the reduplicative Arsey Darcy is created to confer to the entire context and, in particular, to the character addressed by this word (i.e. Mark Darcy) a comic and ironic impression by making fun of him.

III. As regards infixation, it represents a phenomenon which may be felt as jocular and ironic depending on which kind of words are inserted into the base word. Indeed, if expletives are infixed, as in im-fucking-possible, to-bloody-day, un-damned-believable, the resultant formations will probably convey obscenity and vulgarity, rather than playfulness. However, there are a few examples of a particular type of infixation where the element inserted is a non-sense word, i.e. diddly (sometimes diddley), which expresses irony and humour. This type of infixation, as we have announced in chapter 5, is typical of a character from the TV series The Simpsons, Ned Flanders (Elfner & Kimper, 2008). Consider, for instance, some examples of this playful type of infixation taken from the TV cartoon The Simpsons:

60. NED: “Hi-diddly-ho, neighbor!”

HOMER: “Get lost, Flanders.”

NED: “Okily dokily.”

(from The Simpsons, season 5 episode 16)
61. NED: “I wish there was some other explanation for this, but there isn’t. I’m a murderer, I’m a murderer!”

   BART: “Then that’s not the real Ned Flanders.”

   NED: (yelling) “I’m a mur-diddley-urderer!”

   (from The Simpsons, season 6 episode 1)

62. NED: (slams on the breaks, stopping the car in the middle of the road) “Gosh, darn it! Am I that pre-diddly-dictable? (sighs) I’ve wasted my whole dang-diddly life!”

   (from The Simpsons, season 10 episode 10)

IV. Finally, although more rarely than blends, reduplicatives and diddy-infixation, also abbreviations may convey a jocular and humorous effect, but only in some specific contexts and conversational situations. Consider, for instance, the following extract taken from Meet the Parents (2000):

63. KEVIN: “He was a carpenter, and I just figured if you're gonna follow in someone's footsteps, who better than Christ?”

   GREG: “Hmm.”

   PAM: “Greg's Jewish.”

   KEVIN: “Are you? Yeah.”

   GREG: “Mm-hmm.”

   KEVIN: “Well, so was J.C. (Jesus Christ)

   (from Meet the parents, 2000)
In this extract, the initialism *J.C.* acquires an ironic and playful meaning, since it refers to the name of *Jesus Christ*, but it is used as any other ordinary proper name abbreviated in a friendly way.

### 6.2.3 Freshness and novelty

The aspect of freshness and novelty is a distinctive feature in typical informal language, in particular of slang, because, especially young people and teenagers have the tendency to create new words. Their language is necessarily innovative and fresh, since they always need new terms to indicate new items or situations (Lehrer, 2007: 128). For this reason, they exploit the creativity of extra-grammatical operations. Extra-grammatical formations are felt as original and innovative from the point of view of grammar. Thus, they are especially exploited by teenagers, who are very creative, imaginative and continually in search of different words and expressions in line with the trends of modern times (Mattiello, 2008). Consider the following original expressions used in oral conversations, taken from *Austin Powers: International Man of Mistery* (1997), *Say it isn’t so* (2001), the TV series *Friends*, *Glee*, *Make it or Break it*, a quotation from the book *The Beach* by Alex Garland (1996) and two songs of *Snoop Dog* and *Frankie Smith*:

I. Blends:

64. **AUSTIN:** “*Have you ever made love to a Chigro*? *(Chinese + negro)*”

   **VANESSA:** “*A Chigro*?”

   **AUSTIN:** “*You know, a Chigro*; *part Chinese, part Negro*; *Chigro*."

   (from *Austin Powers: Internation Man of Mistery*, 1997)
65. WALTER: “I'm surprised she didn't give up the sausage and become a vaginatarian.” (vagina + vegetarian)

(from Say it isn’t so, 2001)

66. ROSS: “Oh yeah, I’m sure he’s gonna give you a job. Maybe make you his SEXretary.” (sex + secretary)

(from Friends)

67. KEN TANAKA: “Hey...Eminem. Soooo...I got me some tickets to Monster Trucks this weekend. (sexy) Loge tickets.

EMMA: “No thanks, not my thing.”

KEN TANAKA: “Truckzilla vs. Truckasaurus (truck + Gozilla / truck + dinosaur). And get it...the trucks breathe fire.”

(from Glee, Season 1 Episode 1)

68. PEYSON’S DAD: “Who is that horrible woman?”

PEYSON’S MUM: “She’s Kelly Parker’s manamomster. Manager slash Mother slash Monster. She’s the worst stage parent I’ve ever seen in this world.”

(from Make it or break it)
II. Reduplicatives:

69. RACHEL: “Hi, how was the movie?”

CHANDLER: “Toootal chick-flick” (‘a film for girls’)

(from Friends)

III. Infixation:

70. The surgeon is Dr. Dr[IZ]e so l[IZ]ay and pl[IZ]ay / with DO double G[IZ]ee / the fly human being (Dree, lay, play, G)

(Snoop Doggy Dog, Tha Shiznit, 1993)

71. W[ILZ]e [ILZ]are pl[IZ]aying d[IZ]ouble d[IZ]utch ...

(we, are playing, double, dutch)

(Frankie Smith, Double Dutch Bus, 1981)

IV. Back-formation:

72. “You fish, swim, eat, laze around (to laze > lazy), and everyone’s so friendly. It’s such simple stuff, but... If i could stop the world and restart life, put the clock back, i think I’d restart it like this. For everyone.”

(from The Beach, Alex Garland)

Furthermore, there are also many other examples of extra-grammatical formations, especially blends and reduplicatives, exhibiting freshness and
novelty, which come from advertisements, newspaper and magazine headlines, titles of books or movies, such as (Kremer, 2002):

I. Blends:

73. Alter Eco (alter ego + ecology) Celebrity ecology show on Planet Green TV channel;

74. Dairy Potter (dairy + Harry Potter) The Harry Potter character carved into a giant block of butter and featured at the Iowa State Fair;

75. Empire of the Son (Empire of the sun + son) An episode of TV series Gossip Girl;

76. Gone with the will (“Gone with the wind” + will) An episode of TV series Gossip Girl;

77. Happy Who-lidays (who + happy holiday) U.S. Postal Service advertising featuring the Grinch;

78. Inglorious Basstards (“Inglorious Bastards” + Bass) An episode of TV series Gossip Girl;

79. Shacksorize (Radio Shack + accessorize) To accessorize your electronics with the best connectors. (Radio Shack TV commercial);

80. Sexpress yourself (sex + express yourself) Fictional TV program in Meet the Fockers (2004);

81. The Blair Bitch Project (“The Blair Witch Project” + bitch) An episode of TV serial Gossip Girl;

82. The Choy of Cooking (choy + The Joy of Cooking) Cookbook by Sam Choy;

83. The ex-files (“X-files” + ex) An episode of TV series Gossip Girl;
II. Reduplicatives:

84. *Chubby Hubby* - Flavor of Ben & Jerry's ice cream;

85. *Chunky Monkey* - Flavor of Ben & Jerry's ice cream;


87. *Shaq Shock!* - Heading from a sport magazine about Shaquille O’Neal;

As evidenced by the above examples, but also by any other extract or example in this chapter, many of them may exhibit more than just one aspect. For instance, the aforementioned blend *Bridezilla*\(^{48}\) that we listed as an example of jocularity and playfulness, may also be classified as a fresh and innovative word-form, or the above reduplicative *Dairy Potter* (74) illustrates both freshness and jocularity. The same happens for many other extra-grammatical formations, because they exhibit many different features and convey more than just a single effect.

6.2.4 Musicality

This aspect is interesting because many words coined in informal language or slang may play with sounds and may exhibit a sort of onomatopoeic character. The extra-grammatical phenomenon that mostly displays this particular character is reduplication. Reduplicative formations tend to reproduce sounds creating rhyme, onomatopoeic colour and musicality. They are made up of at least two elements which sometimes are non-sense, but just combined to produce a particular musical effect. Consider the following

\(^{48}\) See example 54.

88. MARTY: “Oh, double doo-doo!”
   BETTY: “Please”
   JAN: “What was that?”
   MARTY: “One of my diamonds just fell in the macaroni!”
   (from *Grease*, 1978)

89. MAC: “I'm not ready to be a Pop-Pop.”
   BREN: “You’re not going to be a Pop-Pop. And Juno’s not going to be a ma. Somebody else is going to find a precious blessing from Jesus in this garbage dump of a situation. I friggin’ hope.”
   (from *Juno*, 2007)

90. DAVE: “I can see why you wanted that condom.”
   CARL: “What?”
   DAVE: “Well, well, night-night.”
   MARIANNE: “What did he just say?”
   CARL: “Night-night?”
   MARIANNE: “No, before that.”
   (from *Pirate Radio*, 2009)
In (88), the copy reduplicative *doo-doo* expresses disappointment, while in (89) - (90), *pop-pop* and *night-night* express irony. Consider also the following examples of rhyming reduplicatives exhibiting musicality; the extracts are taken from *Grease* (1978), *When Harry met Sally* (1989), *Austin Powers: International Man of Mistery* (1997), *American Pie* (1999), *Notting Hill* (1999) and *In the loop* (2009):

91. DOODY: “Hey! What are you doing?”

   BETTY: “What do you think this is, a *gang-bang*?”

   DOODY: “You wish.”

   (from *Grease*, 1978)

92. HARRY: “No, you didn’t. A ‘Sheldon’ can do income taxes. If you need a root canal, Sheldon is your man. But *humping and pumping* in not Sheldon’s strong suit. It’s the name. Di it to me ‘Sheldon’, you’re an animal ‘Sheldon’, ride me big ‘Sheldon’. Doesn’t work.”

   WAITRESS: “Hi, what can I get ya?”

   (from *When Harry met Sally*, 1989)

93. AUSTIN: “Hey, who put this in here? Someone's playing a prank on me! Honestly, this isn't mine.”

   VANESSA: (suffering) “I'm sure.”

   AUSTIN: “I think I'll give that stew a *ding-a-ling*.”

   (from *Austin Powers: International Man of Mistery*, 1997)
94. OZ (sings along): “And little hurly-burly came by in her curly-wurly, and asked me if I needed I ri-hide --”

KEVIN: “How the hell do you know all these random songs?”

(from American Pie, 1999)

95. WILLIAM: “Oh well, great. Perfect. Oh no -- shittity brickitty -- it’s my sister’s birthday -- shit -- we’re meant to be having dinner.”

ANNA: “Okay -- fine.”

(from Notting Hill, 1999)

96. SIMON FOSTER: “Go on, it'll be easy-peasey lemon-squeezy.”

TOBY WRIGHT: “No, it won’t. It'll be difficult, difficult, lemon difficult, that is what it'll be.”

(from In the loop, 2009)

However, not only reduplicatives convey musicality, but also phonaesthemes may be used to stress colorful expressions or to evoke the sounds produced. The following examples are extracts taken from A Skanner Darkly (2006) and Confessions of a shopaholic (2009):

97. CHARLES FRECK: “I know you. Besides Arctor would snuff me if I did that.”

(from A Skanner Darkly, 2006)
98. ERNIE LUCKMAN: “That doesn’t make any sense. He’d have snuffed himself too.”
(from A Skanner Darkly, 2006)

99. DONNA HAWTHORNE: “No! Look, I snort a lot of coke; I have to be super careful because I snort a lot of coke.”
(from A Skanner Darkly, 2006)

100. REBECCA: “The sheen of silk, draped across a mannequin. Oh, the smell of new Italian leather shoes.”

PATIENT: “Italian leather shoes, that’s the best.”

REBECCA: “Oh... The rush you feel when you swipe your card.”
(from Confessions of a shopaholic, 2009)

In the first three extracts (97-99), taken from A Skanner Darkly (2006), the recurrent phonaestheme sn-, which is related to the meaning of ‘nose or breathing’ in the words snuff and snort, conveys a sort of colorful and sound effect to the action of sniffing, by pronouncing those specific words. The same happens in the last extract (100), where the protagonist Rebecca Bloomfield, describing her happiness and joy for shopping, uses words exhibiting the phonaestheme sm- and sw-, respectively smell and swipe, to evoke the image and the sound of that feeling/action.

By contrast, there are also extra-grammatical formations which do not exhibit musicality at all, because of their particular phonological structure. This is the case with infixation, especially expletive infixation, where expletive infixes are inserted into a base word making it usually more difficult to
pronounce, e.g. emanci-motherfucking-pator, eu-freakin'-reka, fan-freaking-tastic, Massa-frigging-chussets, woo-motherfucking-hoo (McCarthy, 1982).

6.3 Principle of Economy

The principle of linguistic economy (Martinet, 1955) is based on Zipf’s (1949) ‘principle of least effort’, which consists of the minimum amount of effort necessary to achieve the maximum linguistic result. This aspect results from gradual linguistic changes, but it can also be traced back to the very nature of English and its speakers. English is, indeed, one of the simplest European language, due to its use of several abbreviations, and the easiness and elegance of its constructions, which are all features indicating economy and saving as beneficial traits of the language (Vicentini, 2003: 37-38).

According to such assumptions, the principle of economy is a fundamental aspect of many extra-grammatical phenomena, especially those involving reduction or deletion of some kind. Extra-grammatical formations such as blends, clippings, acronyms, initialisms, back-formations are all typical items conforming to the principle of economy, while reduplicatives and infixes, being redundant formations, are not. Consider, for instance, these magazine headings exhibiting extra-grammatical formations:

101. Tyson’s No To DWTS (Dancing with the Stars)

(30 May 2011, from Female First, Celebrity Gossip and Lifestyle Magazine)

102. Amanda Holden unsure of BGT return (British Got Talent)

(30 May 2011, from Female First, Celebrity Gossip and Lifestyle Magazine)
103. *Brangelina* (Brad Pitt + Angelina Jolie) Case Study: Will the Kids Get Their Parents to Marry?

(2 June 2011, from *The Time*)

The initialisms *DWTS* and *BGT* and the blend *Brangelina* are more economical than their extended versions in terms of number of letters used. Thus, they suit newspaper and magazine language, which have a limited number of characters, and must be concise and yet understandable. Here are a few other examples of back-formation, initialisms and acronyms from newspaper language:

104. *High-Power Directional Emission from Microlasers with Chaotic Resonators*

[…] circularly symmetric resonators, which lase on (to lase > laser) "whispering-gallery modes" of the electromagnetic […] corresponding modes would be too short-lived to lase. There are four symmetric islands for negative […] corresponding modes and allowing them to lase […]

(5 June 1998; from *Science*)

105. *Questioning the benefits of HGH* (Human Growth Hormone)

(15 November 2009; from *Stanford Scientific*)

106. *From DSK* (Dominique Strauss-Kahn) to WeinerGate: Are American Women Really Better Off than the French?

(7 June 2011; from *The Time*)
107. **Pros and Cons of Taking the GMAT (Graduate Management Admission Test) in College**

(22 June 2011; from *US News and World Report*)

108. **EPA (Environmental Protection Agency) to Study Natgas Fracking at Five Sites in Four U.S. States**

(23 June 2011; from *Scientific American*)

Lastly, also Text and Internet language uses this type of formations. This kind of language, mostly popularized in the last decades with the advent and spread of mobile phones and computers, is called SMS language or *Textese*\(^{49}\) including abbreviations and slang most commonly used due to the necessary brevity of mobile phone text messaging. SMS language is also frequent on the Internet, including e-mails, instant messaging and forums (López-Rúa, 2007 : 170). The aim of texting language is again to reduce the number of characters needed to convey a comprehensible message. Thus, punctuation, grammar, capitalization are largely ignored and clipped words, acronyms and initialisms are preferred. This language represents a sort of symbol and an aspect of the identity formation of teenagers. Consider, for example, the following extra-grammatical formations, mostly abbreviations and a few blends, which are frequently exploited in SMS language (López Rúa, 2007):

- **ASAP** - As Soon As Possible
- **attwicted** (*twitter + addicted*) Slang term used to describe someone addicted to Twitter

\(^{49}\) It is known also as *txt, chatspeak, texting language, txt lingo, SMSish* or *txt talk.*
- **B4** - Before
- **BFN** - By For Now
- **BTW** - By The Way
- **cre8** - Create
- **Dweet** (*drunk + tweet*) Slang term used to describe a tweet that has been sent by a user who is drunk
- **F2F** - Face to face
- **FWIW** - For What It’s Worth
- **FYI** - For Your Information
- **IMHO** - In My Humble Opinion
- **IMO** - In My Opinion
- **LOL** - Laughing Out Loud
- **PLOS** - Parents Looking Over Shoulder
- **ROTFL** - Rolling On The Floor Laughing
- **TIA** - Thanks In Advance
- **Twaffic** (*Twitter + traffic*) Slang term used to mean ‘Twitter traffic’
- **Tweeple** (*Twitter + people*) Slang term used to indicate Twitter users

The use of extra-grammatical formations involving reduction, especially acronyms and initialisms, whose meaning is difficult to recover, however, is successful only if there is a level of conventionality, i.e. a complete agreement between the speakers and if they can understand each other without any effort. This means that, the words will be clipped and the phrases will be abbreviated
only if they are still recoverable and easily understandable by the speakers. Consider the following extracts, taken from *Bridget Jones’s Diary* (2001) and *Juno* (2007):

109. NATASHA: “Hello, Bridget. Didn’t know you were coming. Mark, your father wants to begin A.S.A.P.” (as soon as possible)

   MARK: “Oh, does he? Right.”

   (from *Bridget Jones’s Diary*, 2001)

110. MARK: “We’d better get back downstairs ASAP.” (as soon as possible)

   (from *Juno*, 2007)

and a few samples of SMS conversations (López Rúa, 2007: 180-181):

111. “Icn’tCU2niteIHve02Wear” (I can’t see you tonight, I have nothing to wear)

112. “HpyBday2U” (Happy Birthday to you)

113. “W%dULk2Cum2OurPlAc4DiNa?” (Would you like to come to our place for dinner?)

114. “GladULkIt. Wan2JoinUs4ATrpThsWknd?” (I’m glad you liked it. Would you like to join us for a trip this weekend?)

115. “2day, I cam bk 2 skool.” (Today I came back to school.)

116. “I feel v O© BC I hv dn all my hm wrk.” (I feel very saintly because I have done all my homeworks.)
117. “My smmr hols wr CWOT.” (My summer holidays were a completely waste of time.)

In the above examples, especially in the case of SMS conversations, we can see how it may be sometimes difficult to understand the meaning of many of these reduced words. It is necessary, indeed, that the speakers share the same language (López Rúa, 2007).

Hence, on the basis of the principle of economy, the preferential contexts of use for extra-grammatical formations, especially abbreviations in this case, are written contexts, i.e. newspaper language and SMS language. However, we must also consider other written contexts where economical extra-grammatical devices are often exploited, i.e. scientific and technical contexts. Technical and scientific texts, as compared with advertisements, newspapers and magazines, tend to use a more formal style of language. Grammar and vocabulary in technical and scientific texts need to be concise, but accurate and clear, since the writer must be sure that the reader will understand the text with as few words as possible. Technical terminology evolves, in particular, due to the need for experts in a specific field to communicate with precision and brevity, but, in many cases, it has the effect of excluding people who are unfamiliar with this specialized language. Scientific-technical texts exploit a great number of extra-grammatical formations such as clippings, acronyms and initialisms. Sometimes, it is actually the presence of these abbreviations to make technical language so difficult to understand. Consider, for instance, the following headlines from different online science and technical journals where acronyms and initialisms occur:
118. **PET** (Positron Emission Tomography) Guerrilla: A former Uruguayan antigovernment rebel is developing a revolutionary diagnostic tool for Alzheimer’s disease

(1 April 2011; from The Scientist)

119. **GWS** (Global Wireless Solutions) Wraps Up Network Tests

(15 April 2011; from Wireless Week)

120. Efficient method for interfacing **TRIAC** (Triode Alternating Current Switch) dimmers and **LEDs** (Light Emitting Diode): There are more than 2 million installed **TRIAC** dimmers worldwide, and they can prove a challenge to the control circuitry of an **LED** light. With such a large base, backward compatibility is a must

(23 June 2011, from EDN)

In the above headings, acronyms and initialisms stand for phrases and expressions which are very long and complicated for lay people. Therefore, even in these types of texts, which are more formal, extra-grammatical mechanisms involving abbreviation are helpful to save space and replace very long phrases with more specific labels.

### 6.4 Principle of naming

The principle of naming, like the principles of informality and economy, is an important aspect of extra-grammatical operations, especially of acronyms, initialisms and blends. Generally, for each new concept, such as an organization, association, political party, discovery, etc. a new term referring to
it is coined. For instance, there are many business organizations and companies, such as AT&T (American Telephone and Telegraph Company), ESSO (S.O. from Standard Oil), Nabisco (National Biscuit Company), Sunoco (Sun Oil Company), that exhibit a reduced structure from pre-existing source items.

Also many long words and expressions used during the two World Wars were abbreviated and became acronyms and initialisms in order to facilitate communication and to make them incomprehensible to the enemies. Examples of this kind are: AAC (Army Air Corps), AA&E (air, ammunition and explosives), AOL (absent over leave), ARM (Anti-radar Missile), AWOL (absent without leave), BLUF (Bottom Line Up Front), CQB (Close Quarters Battle), fubar (Fouled up beyond all Recognition), NAFTA (North American Free Trade Agreement), NAS (Naval Air Station), PMC (Partially Mission Capable), PME (Professional Military Education), PMS (Planned Maintenance Schedule), RTB (Return To Base), snafu (Situation Normal: all fucked up), susfu (Situation Unchanged: still fucked up). Some of these denominations have replaced their longer variants, which are now hardly known by most speakers. Others, instead, become well-established only after the longer phrases have entered the lexicon.

This is also the case with some blends. Algeo (1991: 9) states that blends appear to be as contractions of pre-existing forms, and, for this reason, it makes sense to claim that the terms back acronym, biology pioneer, protein sausage and sit com commercial come before the correspondent blends backronym, bioneer, prosage, sitcommercial.

According to the principle of naming, we can identify and distinguish some preferential contexts of use for such extra-grammatical formations. In this specific case, they are mostly written contexts, i.e. (a) newspaper language and (b) scientific language. (a) In newspaper language, extra-grammatical formations illustrating this principle are very often used in headlines and articles, because they convey a special attractive effect, but also represent
economical versions of already existing words. Consider, for example, the following headlines:

121. *Sarah Palin Is Becoming the Paris Hilton of the GOP* (Grand Old Party)  
(23 June 2011, from *U.S. News and World Report*)

122. *Tseng Wins L.P.G.A.* (Ladies Professional Golf Association) *Championship in a Runaway*  
(26 June 2011, from *The New York Times*)

123. *S.E.C. (Securities and Exchange Commission) Shift Leads to Worries of Overestimation of Reserves*  
(27 June 2011, from *The New York Times*)

124. *Rice HS (High School) students mulling next moves*  
(27 June 2011, from *Daily News*)

In all the examples above, the formations used are acronyms and initialisms, since these two types of extra-grammatical phenomena are predominantly used in denomination.

(b) The language used in scientific and technical contexts is completely different from everyday colloquial language, because it rather expresses formality instead of informality. Scientific and technical terminology is characterized by a large number of abbreviations, in particular acronyms and
initialisms, and this is the reason why these specific contexts of use are so interesting and connected to the principle of naming. The following headlines taken from various online science journals illustrate the great exploitation of acronyms and initialisms in scientific language:

126. **XMRV** (Xenotropic Mulv-Related Virus) *doesn’t cause chronic fatigue*: Two studies point to contamination of patient samples as the cause of a controversial 2009 finding that linked the mouse virus **XMRV** with chronic fatigue syndrome

(5 June 2011; from *The Scientist*)

127. **VoLTE** (Voice over Long Term Evolution): *Taking Carriers Beyond Voice*

(6 June 2011; from *Wireless Week*)

128. **Comparative Proteomic Analysis Identifies a Role for SUMO** (Small Ubiquitin-Like Modifier) *in Protein Quality Control*

(21 June 2011; from *Science Magazine*)

129. **HPV** (Human Papilloma Virus) *vaccine shows promise*: An **HPV** vaccination program in Australia appears to have resulted in a drop in cervical lesions among young women

(22 June 2011; from *The Scientist*)

Although the preferential contexts of use of extra-grammatical formation, are generally written, there are also a few cases in which these formations,
especially alphabetisms, are exploited in colloquial oral contexts. However, such formations occur in typical colloquial conversations when the concepts conveyed by them are already incorporated into the lexicon in order to be easily recognized and understood. Consider, for instance, the following extracts taken from *Catch and release* (2006), *The Hunting Party* (2008), *Monsters vs. Aliens* (2009) and the TV series *True Blood*:

130. GRAY: “One quick **DNA** (Deoxyribonucleic Acid) swab and he gets it all.”

   MAUREEN: “What are you talking about? What money?”

   GRAY: “What the H-E-double L is she talking about?”

   (from *Catch and release*, 2006)

131. LAFAYETTE REYNOLDS: “Excuse me, who ordered the hamburger with **AIDS** (Acquired Immune Deficiency Syndrome)?”

   (from *True Blood*, season 1 episode 5)

132. CIA OPERATIVE: “Let me ask you a question. why would you think the **CIA** (Central Intelligence Agency) would want to let a war criminal go?”

   SIMON: “Let me ask you a question. In five years, why has the **CIA**, the Hague, the United Nations and **NATO** (North Atlantic Treaty Organization) not been able to find a guy that we found in just two days, if you actually wanted to find him?”

   (from *The Hunting Party*, 2008)
133. NEWS REPORTER: “Once again, a UFO (Unidentified Flying Object) has landed in America, the only country UFOs ever seem to land in.”

(from Monsters vs. Aliens, 2009)

Hence, extra-grammatical formations of this type may appear in colloquial oral contexts, although, in the specific case of acronyms and initialisms, they usually occur after the integration of these words into the language.
CONCLUSIONS

By way of concluding, I would like to sum up the results of the study conducted in this work. Our morphological inspection has given significant and interesting results pertaining to the identification and description of extra-grammatical phenomena in English, and to the differentiation between grammaticality and extra-grammaticality. The primary aim, here, was to put together those linguistic mechanisms, which are considered by a number of scholars (esp. Dressler & Merlino Barbaresi, 1994; Doylehal & Thornton, 2000) of extra-grammatical nature for many reasons, and which have been investigated as separate phenomena in the literature. In this study, extra-grammatical phenomena are taken into exam together, rather than independently, in order to find general criteria of formation and internal comparisons.

Furthermore, in chapter 1 we have established a clear distinction between grammatical phenomena and those which are, instead, outside morphological grammar, and for this, called extra-grammatical (Dressler & Merlino Barbaresi, 1994). We have explained and clarified that processes which tend to occur regularly and exhibit a high frequency of use are not necessarily grammatical. Indeed, as demonstrated by the contextualised examples in chapter 6, also extra-grammatical phenomena are frequent and widespread Some extra-grammatical formations are even lexicalised. It is not unusual, in fact, to hear such new words, as brunch, smog, aids, laser, radar or walkie-talkie, in normal oral conversations, or to find them in newspaper and magazines headlines and articles. Despite the fact that these formations tend to be often ignored by scholars, nowadays, they can no longer be marginalized because of their increasing productivity and creativity, of their contextual specificity and of their common and frequent use in many different written contexts and speech
situations. Extra-grammatical devices have entered the English mechanism of word-formation as any other canonical grammatical process, though, they still exhibit many special characteristics and do not follow ordinary word-formation rules.

In particular, relative to the phenomenon of abbreviations (chapter 2), including clippings, acronyms and initialisms, extra-grammaticality is due to their violations of grammatical rules in terms of reduced morphotactic transparency. Nevertheless, they also exhibit a certain degree of regularity in their mechanisms of formation. We have explained that clippings, for instance, have the tendency to conform to a sort of fixed prosodic structure, such as (I) ending with a consonant rather than a vowel (lab instead of labo [for laboratory], lib instead of libe [for liberation], sim instead of simu [for simulation]), (II) exhibiting a monosyllabic structure rather than polysyllabic (abs for abdominals, bud for buddy, cab for cabriolet, reg for regulation), (III) retaining, more often, the beginning rather than the ending or the middle of the word (Can for Canada, orang for orangutan, prelim for preliminary, uni for university). However, we have also claimed that these are just tendencies, and not rules of formation, therefore, they are not stable. On the other hand, for acronyms and initialisms, we have found out that, mainly, their recurring patterns of formation are related to their size and structure, i.e. acronyms and initialisms are (I) usually formed by at least two elements (LA for Los Angeles, MA for Master of Arts), (II) sometimes omit function words (B.L. for Bachelor of Law, MIT for Massachusetts Institute of Technology), (III) may also retain entire syllables (Daemon for Disk and Execution Monitor, radar for Radio Detection and Ranging); or to the properties of the base word or phrase, since the most prototypical base of acronyms and initialisms is a Noun Phrase (NP) (BFF for Best Friend Forever, WAP for Wireless Application Protocol). Another important result, from the study of abbreviations concerns the preferential criteria of formation. These criteria are relative to a few parameters or principles according to which abbreviations may be well-formed. We have identified, in particular, eight preferential principles, i.e. brevity, recoverability
and salience, linearity, easy memorization, specificity, pronounceability and homonymy.

Relative to the phenomenon of blending, the morphological study conducted in chapter 3 has given important results, mostly, pertaining to the regularities and recurring patterns of blend formation. We have first established that these formations totally conform to extra-grammatical morphology and that do not follow canonical word-formation rules in their mechanism of formation. However, although blends are considered unpredictable in their formation and less transparent than derivatives and compounds, there are some regularities and principles governing their formation. They are: (I) the size or length of the blend, since its length is determined by the number of syllables in the longer base word (alphanumeric [4 syllables] from alphabetic [4 syllables] + numeric [3 syllables], pinkermint [3 syllables] from pink [1 syllable] + peppermint [3 syllables]), (II) the structure of the source words and the semantic relations between them, (III) the switch points between the components of a blend. Furthermore, we have described the differences between blends and other word-formation processes, in order to better delineate a clearer definition of blends. In particular, we have discriminated between blends and various regular grammatical formations, i.e. compounds, neoclassical compounds and combining forms, and also from extra-grammatical ones, i.e. acronyms and clipped compounds. Lastly, we have illustrated the possible criteria or principle according to which a blend is well formed. We have chosen as preferential criteria of blending six principles, i.e. recoverability, meaning prominence, salience, semantic blocking, pronounability and euphony, analogy.

As regards the phenomenon of reduplication, the investigation conducted in this study has brought to define reduplicatives as extra-grammatical formations to all intents and purposes, for a number of special properties which differentiate them from any other similar grammatical device that may be mistakenly considered an example of reduplication. First of all, we have distinguished among actual reduplicatives (hoity-toity, hurly-burly, splish-splash), from compounds exhibiting rhyming elements (cook-book, ill-will,
mole-hole), derivatives ending in -lessness (carelessness, hopelessness) or -ly (chillily, sillily, willily) and loan words (stictic, tactic). Then, after the classification and description of all the types of reduplicatives in English, we have tried to identify which recurring patterns of formation are typical of this extra-grammatical process. The results of this investigation are interesting on the level of morphology (reduplicatives may exhibit inflection, as in bye-byes, yo-yoed, and derivation, as in chit-chatting, shilly-shallier), phonology (phonemes used in the formation of reduplicatives) and syntax (reduplicatives are principally nouns). Another important recurrent feature in reduplicatives is the stress pattern, which is directly related to the phonological shape of reduplicatives. Finally, we have tried to determine a few preferential criteria of formation for reduplicatives. We have identified five different parameters, i.e. binarity, similarity, rhythm, alternation, meaningfulness.

The phenomena that we have named ‘marginal’ in chapter 5, because of their lower frequency of use, creativity and, in some cases, of their uncertain type of extra-grammatical mechanism, are back-formation, infixation and phonaesthemes’. As regards back-formation, we have established that it is an extra-grammatical process because it exhibits a number of typical properties also shared by other extra-grammatical formations. Although many scholars (Marchand, 1969; Bauer, 1983; Algeo, 1991) consider back-formation as the opposite process of derivation, the real status of this phenomenon is that it is used to create new formations by removing something from the ending (to acculturate > acculturation, to beg > beggar), or the beginning (sipid > insipid, couth > uncouth) of the source words. We have identified a few recurring patterns of formation also for back-formation, establishing that through this mechanism (I) the tendency is that often verbs are coined from either nouns (to applicate > application, to burgle > burglar), or adjectives (to contage > contagious, to diz > dizzy); (II) prototypically, back-formed words necessarily involve deletion of material from the beginning or the end of the base words and change of grammatical category, i.e. V > N / V > Adj / N > Adj; (3) the deleted parts are just supposed affixes, and not real ones, e.g. Chess > Chesham.
Relative to infixation, we have first of all determined that in English this process actually exists, although, according to some linguists, it is almost inexistent. Our results on the study of infixation demonstrate that the phenomenon through which ordinary words are interrupted by the insertion of expletives, e.g. bloody, blooming, freaking, frigging, fucking, or other types of infixes, e.g. -diddly-, -iz-, -ma-, exhibits some special features either of extra-grammatical nature (infixation forms just connoted variants, rather than new words; promiscuity with regard input category), or of expressive nature (particular pragmatic effects conveyed by the infixes; special syntax). Furthermore, we have determined a number of recurring tendencies in the formation of infixed words: (I) insertion may occur inside different types of word-forms, simple (wel-diddly-elcome) or complex (in-fucking-credible), between initials (O-bloody-K), inside proper names (Paul damned Newman), in the middle of phrases (kick the fucking bucket); (II) infixes may be limited in their position by syllable patterns, i.e. usually expletives are inserted into polysyllabic words, less frequently in disyllabic, whereas -iz- occurs also in monosyllabic bases (l-iz-ive, l-iz-ost); (III) the stress pattern is fundamental to decide the position of the infix in the base words. We have also tried to identify a few preferential parameters of prototypical infixation, however, we have concluded that, in this case, we cannot establish any precise and recurrent criterion, and that those applying to other extra-grammatical processes are not applicable here.

As regards phonaesthemes, we have first established that they are classifiable neither as morphemes, nor as derivational affixes, because of a number of distinct properties. Phonaesthemes are, instead, defined as sounds, sound clusters or sound types which have some kind of association with particular meanings. For this reason, we have decided to follow the assumption that the phenomenon of phonaesthesia is a variety of sound symbolism, which refers to the idea that in some specific phonemes, e.g. fl-, -icious, sn-, sw-, tw-, sound and meaning are closely related (Bolinger, 1968; Hunter-Smith, 2007). Unlike any other extra-grammatical phenomenon previously investigated, phonaesthemes cannot be defined as results of a word-formation process, since,
in this case, there is no process occurring; rather they represent special formations with particular clusters of phonemes either at the beginning, e.g. cr-in crimpe, cringe, crinkle, at the end, e.g. -ash in bash, crash, smash, or in the middle, e.g. /l/ in bit, little, teeny, wee, which evoke similar meanings, sensations and feelings. In fact, there are no patterns of formation recoverable, since there is no formation process occurring. However, we have lastly determined a few preferential criteria of identification, i.e. recursiveness, homogeneity and semantic coherence.

Finally, chapter 6 has confirmed that extra-grammatical phenomena are nowadays fully productive, widespread and frequently used in many different contexts, either oral (colloquial conversations), or written (newspaper language, SMS and Internet language, advertisements, scientific and technical language), and by different kinds of speakers, either young people and teenagers (especially in colloquial speeches and in SMS language), or adults (in newspapers, magazines, advertising) very creative and innovative and characteristic of a particular style of language. In the last chapter, we have examined extra-grammatical phenomena on the basis of three fundamental principles: informality, economy and naming. Each principle represents an important motivation for extra-grammatical formations. As for informality, we have established that the majority of these unconventional phenomena are typically exploited in informal language with different functions, i.e. social closeness, jocularity and playfulness, freshness and novelty, musicality. As for the principle of economy, some extra-grammatical phenomena, especially those involving shortening of some kind, i.e. clippings, acronyms, initialisms, blends, back-formations, are defined as more economical than their correspondent ordinary forms. For this reason, they tend to be used in many contexts, such as newspaper and magazine headlines and articles, scientific and technical texts, SMS and Internet language, as space-saving devices. As for the principle of naming, instead, acronyms, initialisms, and, sometimes, also blends are contractions of pre-existing words or expressions. The longer word forms are first incorporated into the language and then reduced to acronyms, initialisms or blends for a more efficient use.
The following corpus of data consists of some extra-grammatical formations found and collected during our study. In the following corpus, we list different types of formations, either those occasionally formed which are either used only in a specific context or situation, those proper of particular types of slang or jargons used mainly by teenagers and, generally, young people, or those formations which are commonly used, but are not listed yet in any English Dictionary.

**ABBREVIATIONS**

**Clippings, Acronyms and Initialisms**

- **ABD (all but dissertation)** This is an initialism used by students as an unofficial term to describe a stage in the process of obtaining a Doctor of Philosophy (Ph.D.); from the online guide *All-but-Dissertation Survival Guide™*;

- **AMA (ask me anything)** An acronym from an online forum

- **ATM (at the moment)** This initialism is used to name a brand new online magazine;

- **BBW (big beautiful woman)** This initialism is used to name an online magazine: *BBW. The power of plus*;

- **CRAFT (I can’t remember a fucking thing)** This is an acronym used in slang, used in Facebook to name a group: *C.R.A.F.T. (Can't Remember A Fucking Thing) Club*;
- *D & D (Dungeons and Dragons)* It is an initialism to name a card game;

- *ER (Emergency Room)* Initialism used as title of a TV series;

- *Handy Manny (manual) Manny* is a clipping from *manual* and it is used in *Handy Manny* to name a Playhouse Disney character;

- *Eminem* (Marshall Bruce Mathers) This is the adaptation of the initials *M&M* from the name *Marshall Mathers*. In this case, this is the name of a popular singer, but it may be used for any kind of proper name beginning with double *M*, as in the first episode of the TV series *Glee* season 1:

  KEN KANATA: “Hey, Eminem. Sooooo...I got me some tickets to Monster Trucks this weekend.”;

- *The Menaissance (men + Renaissance)* Blend coined in the TV series *Men in Trees* season 1 episode 9;

- *mani pedi* (manicure and pedicure) These two clippings are used in an episode of the TV series *Pretty Little Liars* to indicate a manicure and pedicure treatment;

- *newbie* (new beginner) This is a clipping used to describe a new snowboarder that is not very good, from *Snowboarding Forum*;

- *pipe (half-pipe)* It is a snowboarding slang term used to describe a structure used for extreme sports, such as snowboarding, skateboarding, skiing, freestyle BMX, inline skating;

- *QP (quarter pipe)* Initialism used by snowboarders to identify a ramp for extreme sports which resembles a quarter of the cross section of a pipe;

- *SPORE (stupid person on rental equipment)* This is an acronym used in snowboarding slang to define someone who is being inconsiderate or dangerous around other people on the piste;

- *SUATB! (See you at the bottom!)* Another acronym used by snowboarders to communicate;
♦ **The Undies (underwear)** This clipping is used in the TV series *90210* to name an fictional achievement ceremony, season 3 episode 7;

♦ **tranny / trannie** (transvestite) It is a clipping used in the TV series *It’s always sunny in Philadelphia* season 6 episode 1: CHARLIE: “I think you’re just getting upset that the tranny married some guy that's not you.”;

♦ **VMAs (Video Music Awards)** This is the name of an achievement celebration show;

♦ **Volks** (a Volkswagen vehicle) This is the clipping version of Volkswagen;

### BLENDS

♦ **Acafellas** *(a cappella + fellas [clipping of fellows]*) A blend coined in the TV series *Glee* season 1 episode 3;


♦ **Bollywood** *(Bombay + Hollywood)* This blend is used to describe Indian style movies;

♦ **boxerina** *(boxer + ballerina)* It is a blend coined in the MTV program *Made*;

♦ **Braniac** *(brain + maniac)* It means ‘intelligent person’, and it is a blend that named a fictional character of DC Comics;

♦ **Bride and prejudice** *(Pride and prejudice + bride)* It is the title of a Bollywood movie (2004);
♦ *bridenap* (*bride + kidnap*) This is a blend from the TV series *Men in trees* season 1 episode 19;

♦ *Cheapnet* (*cheap + Internet*) This is a blend used to name an e-mail account;

♦ *Christmukkah* (*Christmas + Hannukkah*) A blend coined in the TV series OC;

♦ *Damien Darko* (*Damien + Donnie Darko*) This is the title of the 13th episode of the TV series *Gossip Girl* season 4;

♦ *daycation* (*day + vacation*) It means ‘a day off from work’, and it is used in *Mail Online News*: “Introducing the daycation: How we’re opting for day trips instead of two-week breaks as finances are squeezed” (17 March 2011);

♦ *dunch* (*dinner + lunch*) A blend used in an headline of *The New York Times*: “Linner and Dunch. Portmanteau terms for late-afternoon dining” (8 July 2010);

♦ *Filezilla* (*file + Gozilla*) This blend is used to name a computer software;

♦ *Ghostbusters Spooktacular* (*spook + spectacular*) This blend was used to name an attraction located at *Universal Studios Florida* and closed in 1996;

♦ *glimited* (*Glee + limited*) This is a blend used in the TV series *Glee*;

♦ *glist* (*Glee + list*) It is a blend used in the TV series *Glee* season 1;

♦ *Gnomeo and Juliet* (*garden gnome + Romeo*) It is the title of a child movie (2011);

♦ *hairography* (*hair + choreography*) The title of the 11th episode of the TV series *Glee* season 1;
♦ **jeggs (jeans + leggings)** This is a blend for a new type of leggings, which are similar to jeans;

♦ **Kayucky (Kayley + Nicky)** It is a blend name for the couple of Kayley and Nicky in the TV show *Make it or Break it* season 1 episode 14;

♦ **Lambanana (lamb + banana)** It is a blend used to name characteristic sculptures in Liverpool;

♦ **Lasandwich (lasagna + sandwich)** Trademark for a food product in Tesco shops;

♦ **Legoland (Lego + wonderland)** It is the name of a child-oriented theme park in Denmark, themed around the Lego toy system;

♦ **linner (lunch + dinner)** A blend from the TV program *“La prova del cuoco”* (19 January 2011);

♦ **Luke Filewalker (Luke Skywalker + file)** It is the name of an antivirus program;

♦ **milktate (milk + lactate)** A blend from a quote in the movie *Juno* (2007): LEAH: “But then you’ll get huge. Your chest is going to milktate. And you have to tell everyone you’re pregnant”

♦ **Oscorp (Osborn + Corporation)** It is the name of a fictional business organization in the movie *Spider Man* (2002);

♦ **Pull Love (pullover + love)** This is the name of a shop in Pisa;

♦ **Sexcapade (sex + escapade)** A blend used to describe ‘a sexual escapade’ in an article from tv.com (21 October 2008);

♦ **sexting (sex + texting)** A blend used in the MTV program *Made* (26 February 2011);
♦ **smud (snow + mud)** It means ‘brown, muddy, snow found on very warm days’ and it is a typical term of snowboarding slang. Found in a forum called: *ABC-of-Snowboarding*;

♦ **sparents (spare + parents)** It is a blend created in the book *Committed* by Elizabeth Gilbert;

♦ **The Balloonatic (balloon + lunatic)** It is a short comedy film directed and starring by Buster Keaton (1923);

♦ **The Grandfather: part II (The Godfather part II + grandfather)** Title of the eighth episode of the TV series *Gossip Girl* season 3;

♦ **The Singsations (sing + sensations)** This is the fictional name of a choir in the TV series *Glee* season 1 episode 1: ANNOUNCER’S VOICE: “Ladies and gentlemen...please welcome to the stage, from Lima, Ohio...The Harrison High Singsations”;

♦ **The witches of Bushwick (The witches of Eastwick + Bush)** Title of the ninth episode of the TV series *Gossip Girl* season 4;

♦ **WiiMote (Nintendo Wii + remote)** It is a nickname for the *Nintendo Wii*’s remote handset;

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**REDUPLICATIVES**

♦ **Asspass** - It is used in snowboarding slang to define ‘when you fall on your ass but going so fast that you pass people on your ass: “he pulled the old asspass on me, and flew right by!”’; taken from *ABC of snowboarding Dictionary*;

♦ **Badonkadonk / Badunkadunk** - This reduplicative is a slang word that the rapper Keith Murray invented to define ‘a girl with a big booty’;
Bingo bango - It is the title of a song by Basement Jaxx and it is also an interjection suggesting that something happens automatically;

Chock-a-block - This is the name of a BBC children’s television program form 1981;

cobble-wobble - The Frome Cobble-Wobble is a an individual-timed bicycle hill-climb sprint in Frome, Somerset (see the online site www.cobblewobble.co.uk);

dust on crust - This expression means ‘a small amount of fresh powder snowfall, but crust underneath’. It is a term of snowboarding slang from the MTV program Made;

Eager Beaver - This expressions means ‘an enthusiastic person’, and it is used to name a kids clothes collection;

Fake bake - It is the name of professional salon for tan treatments;

Fear is Real - It is the title of a reality television series premiered on January 7th 2009;

Foxy Knoxy - Nickname used by journalists to call Amanda Knox;

Frat rat - The reduplicative frat rat means ‘members of a fraternity’ or ‘girls who spend a lot of time in a fraternity house’, from the article Exterminating the Frat rata: Why Greeks need to expel Hazers in their midst in the online site stophazing.org;

freak a leak - This reduplicative is used in snowboarding slang to mean ‘to take a piss’, from MTV program Made; but it is also the title of a song by Petey Pablo Freak-a-leak;

Handy Dandy - This reduplicative is used in various contexts and with different meaning: (1) it is used in snowboarding slang to describe ‘a person carving all over the place and cutting people off left and right’ from
talksnowboarding.co.uk; (2) it is the title of a song by Bob Dylan; and (3) the Handy Dandy Design is a furnishing company in Milan;

- **JollyOllie** - This reduplicative is used to name a pub / pizzeria in Hendersonville;

- **Killer Diller** - Title of a drama movie with musical themes (2004) directed by Tricia Brock based on the novel by Clyde Edgerton. The reduplicative also means ‘a musician that really plays all out, especially a horn player’;

- **KooKoo** - It is the title of the solo album by Debbie Harry, released in 1981, while taking a long break from the band Blondie. This reduplicative is also used in snowboarding slang to mean ‘to do something that is a bit crazy but awesomely entertaining. e.g. a kookoo run, a kookoo move’ from ABC of snowboarding Dictionary;

- **Lawn Chair Air** - It is used in snowboarding slang to mean ‘to jump very high and then to collapse like a lawn chair upon impact’ taken from ABC of snowboarding Dictionary;

- **Papas Tapas** - It is a reduplicative used to name a fictional restaurant in the TV series Privileged season 1 episode 16;

- **Piggly-Wiggly** - This is the name of a supermarket chain operating in the MidWestern and Southern regions of United States;

- **Pow Pow** - This reduplicative in snowboarding slang means ‘fresh powder’ e.g. Cuttin the pow pow; Cherry Cherry Pow Pow is also the name of a shop of snowboarding stuff;

- **Pricks with Sticks** - This is an insulting term in snowboarding slang used to describe ‘an annoying skier or group of skiers’; The prick with the stick is also the name that Dubliners give to the statue of James Joyce walking with a cane in his hand;

- **Scream Queen** - It is the title of an MTV reality show;
♦ **sneak peek** - This reduplicative is used to describe ‘a special viewing or informational presentation of an art piece or product given to a select audience before being shown to the general public’. It is also used as synonym of ‘special preview’ or ‘teaser’;

♦ **SoundHound** - This is a creative reduplicative used to name an *iPhone* application of instant music search and discovery;

♦ **Spruce-Juice** - This reduplicative is used to name an energy drink;

♦ **Tinky-Winky** - It is the name of a character from the BBC series *The Teletubbies*;

♦ **The Stiletto in the Ghetto / The Nail in the Pale / The Pin in the Bin / The Stiffy at the Liffey / The Erection in the Intersection / The Rod to God** - These reduplicatives are all expressions used by Dubliners to name the *Spire of Dublin*, officially titled the *Monument of Light*, which is a large, stainless steel, pin-like monument located on the side of the former *Nelson's Pillar* on *O'Connel Street* in Dublin;

♦ **3-2-1 Rattle Battle!** - This is the name of a video game for WiiWare by *Tecmo* released in Japan in 2009. However, we may also find *Battle the Rattle* which means ‘to travel on a railway without paying the ticket’;

♦ **TootLoop** - In snowboarding slang, it is a term meaning ‘a schwank recovery from an almost deadly Dook Blast’, from *ABC of snowboarding Dictionary*;

♦ **Vicky-Verky** - Title of a song by Squeeze;
BACK-FORMATIONS

♦ to rastafy (Rastafarian) This is a verb back-formed from the noun Rastafarian, taken from the TV series The Simpsons season 8 episode 14: HOMER: “I feel we should rastafy him by ... ten percent or so.”

INFIXATIONS

♦ back-ass-wards (backwards + ass) It is an infixation meaning ‘done or performed incorrectly’, taken from an headline in the online magazine Daily News (11th July 2010): “Sarah Palin calls Barack Obama 'backasswards' on Twitter, slams President for supporting Harry Reid”;

♦ fanschmabulous (fantastic +schm + fabulous) This formation is a blend between fantastic and fabulous with the insertion of -schm, taken from TV series The Simpsons season 8 episode 14: KRUSTY: “I hope you enjoyed my one-man pie fight, kids! Now it's time for another fanschmabulous episode of... Itchy and Scratchy!”;

♦ Jabbe-baby-wocky (Jabberwocky + baby) It is an infixation taken from the movie Alice in wonderland (2010): RED QUEEN: “She killed my Jabberbabywocky!” KNAVE OF HEARTS: “Not yet. But it will happen if we don’t stop her.”.


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