A Concise Description of Derivational Suffixes in English

with Pedagogical Applications for the ESL Classroom

Kristen Foster

Colorado State University
Abstract

English is a highly productive language, and processes of word formation frequently result in the addition of new items to the English lexicon. One of these processes is that of derivational suffixation. This paper provides a brief linguistic description of English derivational suffixes, as well as research-based suggestions for pedagogical application in English as a second/foreign language classrooms.

*Keywords:* English language, word formation, derivation, suffixes, English as a second/foreign language, pedagogy
A Concise Description of Derivational Suffixes in English

with Pedagogical Applications for the ESL Classroom

Introduction

New lexical items are endlessly borrowed, blended, compounded, inflected and derived into the English language. The general term for this process is *word formation*, and it is one that is rarely held in conscious consideration by native speakers of the language. Laurie Bauer (1983) stated that the study of English word formation is a division of linguistics “of central interest to theoretical linguistics”, as well as “currently a confused one” (p. 1). He attributed this confusion to a lack of standard terminology in the field, and even a cursory review of current literature indicates that this question *Just what is a word?* has yet to be entirely remedied (Bauer 1983; Brinton 2000; Plag 2003). Indeed, in perusing various grammars and volumes on word-formation, one comes across terms such as *orthographic word*, *grammatical word*, and *lexeme*, each representing just some of the “subtle ambiguities” (Plag, 2003, p. 9) inherent in the broader term *word*.

The purpose of this paper, however, is not to argue for a definition of the word *word*; rather, it is to discuss an important agent in English word-formation: the *derivational suffix*. After a brief discussion of the concepts of *production* and *restrictions*, the most productive and non-productive forms of those derivational suffixes that result in new nouns, verbs, adjectives and adverbs will be presented, as well as brief commentary on their described restrictions. The pertinence of this topic for English language teachers is obvious: judging word meaning from context or dictionary definitions can often result in confusion, and so a reasonable and effective learning strategy is to decode morphological structure in order to reach word comprehension (Bertram, Laine & Virkkala, 2000). Derivational suffixes constitute a highly productive category
of word-forming morphemes, and language teachers should be able to point out those productive morphemes to his or her students. This, in turn, can help those students become self-sufficient learners, enabling them to independently work toward the systematic decoding of morphemes in order to decipher the meanings of novel lexical items.

**Productivity**

Discussion on derivational suffixes has revealed controversy similar to that mentioned above in relation to defining *word* (Bauer, 1983; Hay, 2002; Plag & Baayen, 2009). Pertinent to this discussion is the concept of productivity. Plag (2003) points out that “some affixes can easily be used to coin new words while other affixes can not” (p. 44), and discusses the ideas of a possible word and an actual word. He goes on to define productivity as “The property of an affix to be used to coin new complex words” (p. 44). Bauer (1983) says that non-productive suffixes are those that possess the ability to form actual words with only a small, well-known and determined list of bases. The productivity of certain suffixes to create new lexical items appears to be gauged slightly differently depending on the source one references. One of the most common of these non-productive suffixes brought up in the literature on word-formation is –th. This suffix forms de-adjectival and de-verbal nouns—such as in *warmth* or *birth* (Bauer & Huddleston, 2002, p. 1704)—and is said to be *lexically conditioned*; that is, its application is so limited that “the possibility to take –th must be listed with each individual lexical item that has this possibility” (Plag, 2003, p. 36).

**Stacking Restrictions**

Another concept discussed in relation to suffixes is stacking restrictions. Plag & Baayen (2009) point out that the question of “…whether there are general principles or mechanisms that constrain the combinatorial properties of affixes” has long been debated. Indeed, not all possible
suffixes may attach to all possible bases; rather, the combinatorial possibilities depend upon the phonological, morphological, semantic, or syntactic properties of the base (Plag & Baayen, 2009). Bauer and Huddleston (2002), for example, write that the nominalizing suffixes –ancy and –ency are restricted in that they attach only to “nouns in paradigmatic relation” (p. 1705) to adjectives ending in –ant and –ent, as when we derive vacancy from vacant. Hay (2002) asserts that defining the stacking restrictions applied to derivational suffixes (and affixes in general) is “one of the most debated problems of English morphology” (p. 527). A native speaker knows intuitively, for example, that *successfully is not permitted; rather, -ly must follow –ful to form successfully. And yet, prescriptively defining these stacking restrictions for the range of possible suffix-root combinations is much more complicated than making intuitive, native-speaker judgments.

**Derivational Suffixation**

Let us now focus our attention on what suffixes can do. Suffixes are the primary morphological component used to derive new words from already existing words (Bauer & Huddleston, 2002). In their paper investigating the general suffixing preferences in world languages, St. Clair, Monaghan and Ramscar (2009) attribute the influential linguist Edward Sapir as suggesting that, “There is a universal tendency across natural languages for morphemes that modify either the grammatical or semantic properties of words to attach to the end” (p. 1318), as opposed to prefixing or infixing. And indeed, suffixes are capable of effecting four changes upon a word: phonologic, orthographic, semantic, and changes in word class. Examples of suffixation resulting in these changes include the following (Bauer & Huddleston, 2002, p. 1675; Brinton, 2000, p. 86):
1. Phonologic: fuse > fusion, produce > production

2. Orthographic: commit > committal, happy > happiness

3. Semantic: husband > husbandry

4. Word Class: success > successful > successfully

Henceforth, suffixation resulting in changes in word class and semantic meaning shall be focused upon. In the literature reviewed for this paper, hierarchies describing the classification of these class-changing suffixes vary in complexity. Those suffixes will be categorized here in a simple manner, taking after Bauer (1983): nominal suffixes, verbal suffixes, adjectival suffixes, and adverbial suffixes. As there are well over a hundred suffixes, it is impossible to list meanings, variant spellings, allomorphs, and example applications for them all; therefore, for each of the four categories mentioned above, only a few productive and unproductive examples—as well as their application restrictions when possible—will be described for each class.

**Nominal Suffixes**

Nominal suffixes are added to noun, verb, or adjective bases to derive nouns. For example, by taking the adjective kind and adding the suffix -ness (meaning “the state or quality of being X”), we create the word kindness, meaning “the state or quality of being kind.” This suffix is considered by Plag (2003) to be the most productive in English; he states that it and its semantic sister -ity “can attach to practically any adjective” (p. 92). The nominal suffix -dom, on the other hand, was thought a century ago to be no longer productive in English, but has since been shown to be slightly productive (Bauer, 1983). This suffix creates abstract nouns, and is paraphrased as meaning the “state or condition of being X”, as in stardom, or as denoting domains and territories, as in kingdom.
Nominal suffixes that cause some significant change in semantic meaning include diminutives and gender-marking suffixes. Diminutives are added to indicate small size, informality, resemblance and imitation (Bauer & Huddleston, 2002), as well as to express a speaker or writer’s emotional attitude toward the base (Plag, 2003). Examples include –let and –ling, as in piglet and duckling—where the suffixes indicate a small pig and a small duck—and darling, an affectionate term of endearment. Also signifying emotional attachment are suffixes like –ie or –y. These are applied in the endearing terms dearie or sweetie, or when changing the name William to the more informal Willie. Gender-marking suffixes are those like –ess and –ette. The first, -ess, is added to form female nouns from human nouns denoting professional status (Bauer, 1983); for example, the female forms of waiter and actor are, respectively, waitress and actress. Bauer (1983) points out that –ess is quite productive (though its productivity has been somewhat mitigated by feminist disapproval), and that –ette provides –ess a bit of semantic “competition” (p. 221) in the production of female-marked nouns.

Verbal Suffixes

According to Bauer (1983), there are two suffixes through which verbs are primarily derived from nouns and adjectives: -ify and –ize. When deriving verbs from adjectives, the former creates the meaning “to make X”, as when we create simplify from simple (Bauer & Huddleston, 2002). When forming verbs from noun bases, the semantic effect shifts slightly to “to make into X”, for example when deriving mummify from mummy. Bauer and Huddleston (2002) comment that while this suffix has not historically been used to make many words, it is still productive in the formation of new words; they give the example yuppify, which demonstrates present productivity as the lexical item yuppie (an acronym interestingly coupled with the suffix -ie) has been added relatively recently to the English lexicon.
The suffix –ize, however, is more productive than –ify (Bauer, 1983), and adds meanings like “to render into X”, “to convert into X”, or “to subject to X”, as in civilize or terrorize. Bauer and Huddleston (2002) bring up an interesting idea when they comment that this suffix is the target of “prescriptive criticism” (p. 1715) for its seemingly excessive productivity. They additionally comment that -ize “is in competition with other verbalizing processes” (ibid); for example, –ize is interestingly sometimes used to derive verbs for which a semantic equivalent already exists, like in legitimize and legitimate, which both mean “to make lawful or legal”.

A less productive verbal suffix is –en. Meaning essentially “to make more X”—as in whiten—it is made less productive because of phonological restrictions; it can attach only to monosyllables that end in a plosive, fricative or affricate (Plag, 2003:]. Bauer and Huddleston (2002) comment that its productivity is even more severely restricted than this, asserting that it now attaches to bases ending only in the alveolar plosives /t/ and /d/.

Adjectival Suffixes

The majority of adjectival suffixes typically form two types of adjectives: relational adjectives and qualitative adjectives (Plag, 2003). Relational adjectives “relate the noun the adjective qualifies to the base word of the derived adjective” (p. 93). For example, in the phrase congressional election, we have added –al to congress in order to modify the noun election as one “having to do with congress”. This denominal suffix –al is highly productive in English—especially in bases ending in –ation (Bauer, 1983) and –ment (Bauer & Huddleston, 2002)—and also manifests through the allomorphs –ial and –ual, as in colonial and ritual. A less productive suffix forming relational adjectives is –ary, which is now productive only with noun bases ending in –ion (Plag, 2003; Bauer & Huddleston, 2002).
Qualitative adjectives simply assign qualities to the words they modify. Plag (2003) points out that relational adjectives typically occur in the attributive position, while qualitative adjectives are largely found in the predicate position of a clause, as in *That statement was ridiculous*. An example of a highly productive suffix forming qualitative adjectives is *–ish* (Bauer, 1983), which means “somewhat X, vaguely X”. It can attach to other adjectives, as in *a yellowish pallor*; to numerals, as in *We’ll arrive around sevenish*; to nouns, to form *bookish* or *foolish* (Bauer & Huddleston, 2002); and to syntactic phrases like *out-of-the-wayish* (Plag, 2003).

**Adverbial Suffixes**

Adverbs are most productively derived using the following three suffixes: *-ly*, *-ward*, and *–wise* (Bauer, 1983). The suffix *–wise* derives adverbs from nouns, and Plag (2003) divides these into two subgroups: manner/dimension adverbs and viewpoint adverbs. In manner/dimension adverbs, *-wise* denotes “in the manner of X, like X”, as in *They moved in a clockwise direction*. Viewpoint adverbs ending in *–wise* are less productive, and mean “with respect to, in regard to, concerning X”, as in *Healthwise, this is not a good choice*. Bauer (1983) points out that *–ly* is also added quite productively to form adverbs from adjectives, as when we derive *greedily* from *greedy*. Restrictions on the attachment of adverbial *–ly* are phonological in nature, and include the attachment to adjectives already ending in *–ly*. For example, the adjective *deadly* would not take an allomorph of *–ly* to create *deadily*.

**Teaching Applications**

Processes in English word-formation are more complicated than meets the eye, and indeed, an entire volume could be filled with a complete itemization of derivational suffixes alone. The necessarily succinct discussion presented here was not meant to be an exhaustive report on productivity, restrictions, and exceptions to rules. Rather, the intent was to demonstrate
the author’s increased understanding of this morphological process, as well as to suggest the following potential applications to the teaching of English as a second or foreign language.

There currently exists disagreement concerning whether or not English affixes should receive explicit attention or not in the teaching of English as a second/foreign language (Bauer & Nation, 1993; Pavičić Takač, 2008; Schmitt, 2000; Schmitt & Zimmerman, 2002; Ward & Chuenjndaeng, 2009). Part of this disagreement stems from uncertainty over how students process and understand novel vocabulary. Vocabulary and morphological knowledge, specifically, is believed to develop over an extensive period of time (Bauer & Nation, 1993; Schmitt & Zimmerman, 2002). Historically, most foreign language teaching approaches that have enjoyed widespread popularity “did not really know how to handle vocabulary” (Schmitt, 2000, p. 15), and in the teaching of vocabulary, depended largely on the distribution of bilingual word lists and the hope that students would acquire vocabulary incidentally. In recent second language acquisition research, it is agreed that the derivational complexity of a lexical item is one of the factors that increases its “vocabulary learning load” (Pavičić Takač, 2008, p. 7).

Evidence suggests that the mind stores words as single units (helpful) that can be parsed (help + ful), and organizes words according to families, which Schmitt (2000) purports is validation for teaching root words and word families as units. Bauer and Nation (1993, as cited in Schmitt, 2000) write that once a root word is known, recognizing derivations of that word “requires little or no extra effort” (p. 253), and that inflected or derived forms should be comprehensible to learners without their having to learn each form individually.

Schmitt (2000) counters that this assumption should not lead teachers to believe that the comprehension or acquisition of derivations unfolds effortlessly for learners, though, reminding that “even native speakers do not have full mastery over morphology until at least high school”
This can partly be explained by textual analyses that have revealed that derivational suffixes appear more frequently in written texts than oral texts, suggesting that these morphological devices are more characteristic of formal, academic discourse (Schmitt, 2000). Ward and Chuenjundaeng (2009) suggest that for lower-level learners, teachers should be less concerned with morphological analyses and rather devote more attention to teaching learners vocabulary learning strategies, such as how to use a dictionary efficiently.

Schmitt (2000) suggests instructing language learners in vocabulary-learning strategies in order to provide students with the metacognitive knowledge they will need to “effectively control their own vocabulary learning” (p. 138). He warns against “presenting a word once and then forgetting about it” (p. 137); because the acquisition process is incremental and gradual, previously introduced words and derivations should be often revisited to strengthen and deepen learners’ knowledge.

While the dearth of substantive evidence in support of the explicit teaching of derivational morphology has resulted in the lack of a comprehensive approach to pedagogy in this area, if teachers do decide that attention to derivational morphology is worthwhile to incorporate into their course, several have made suggestions for how to most successfully do so. Bauer and Nation (1993) published a list of affixes classified according to seven levels of difficulty. These levels were established using the following criteria: frequency, productivity, predictability, regularity of the written form of the stem, regularity of the spelling of the affix, regularity of the spoken form of the affix, and regularity of function. Teachers could use this list as a starting point for developing a systematic approach to addressing derivatives with their students.
Alternately, Schmitt and Zimmerman (2002) have suggested several principles for aiding in the learning and acquisition of derivative word forms. They suggest that when new words are introduced to students, derivative should also receive attention, as this may encourage students to begin conceptualizing the English lexicon in terms of word families and morphemes. They suggest providing learners with at least some explicit instruction in suffixes, writing that, “Learners need instruction in the use of suffixes along with a healthy dose of caution” (164) in order to guard against the over- or misapplication of suffixes. Furthermore, they suggest that teachers emphasize adjectival and adverbial derivative forms, as derivatives in these word classes seem to be acquired last, if at all. Finally, they suggest incorporating academic texts into existing curriculum, or at least encouraging learners to seek these texts, as research in first language acquisition suggests that reading academic texts facilitates the acquisition of derivatives.
References


