Pleonastic Complex Words as Functional Amalgams

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Syntactic amalgams are innovative phrasal constructions that combine otherwise incompatible subparts of other constructions (Lambrecht 1988; Brenier and Michaelis 2005). We describe pleonastic formations like *flavorize* in English and $\psi\eta\lambda\alpha\varphi$ - $i\zeta(\omega)$ [psilafízo] 'palpate' in Modern Greek as functional amalgams at the word level. We examine these formations through the lens of (function-oriented) *Sign-Based Construction Grammar* (Sag 2012), arguing that once we see derivational morphemes as signs, and sign combination as construction-driven rather than head-driven, we can describe such words as coercive combinations that serve a variety of semiotic functions.

Keywords: verbalizers, implicit multiple exponence, word-level amalgams, coercion, Modern Greek, English

1. Introduction

Multiple exponence (ME) is a pervasive linguistic phenomenon in different domains of grammar and at different levels of style (Lehmann 2005, 119). ME in morphology has recently attracted considerable attention (see, among others, Harris 2017; Caballero and Inkelas 2018). Harris (2017, 9) defines multiple (or extended) morphological exponence as "the occurrence of multiple realizations of a single morphosemantic feature, bundle of features, or derivational category within a word". Based on the locus of realization of ME, we distinguish between *explicit multiple exponence* (EME), in which pleonastic information is encoded by two distinct affixes (e.g., *geographical*, as against *geographic*), and *implicit multiple exponence* (IME), in which pleonastic information is both encoded on the stem (as an inherent feature) and by an affix, as in *feets* vs. *feet* and *judger* vs. *judge*.¹

In this paper, we revisit certain cases of IME in English and Modern Greek— those in which a derivational suffix that prototypically assigns a syntactic category is attached to a base that is already specified for that feature. We explore the semiotic function of these pleonastic structures. As an example, in English we find verbal formations like *color-ize* 'cause to appear in color', with a nearly synonymous variant form *color* 'change the color of something by using paint or a dye'; *flavor-ize* 'add flavor to', with a nearly synonymous variant *flavor* 'give a particular taste to food or drink'; and *scar-ify* 'make scratches or superficial incisions in', with a nearly synonymous variant *scar* 'mark with a scar'. In Modern Greek, we find verbal formations like $\psi\eta\lambda\alpha\varphi-i\zeta(\omega)$ [psilafízo] 'palpate' with a synonymous variant $\psi\eta\lambda\alpha\varphi\omega$ [psilafó].

Each of these pleonastic words could be described as an illicit morpheme combination, inasmuch as no derivational pattern licenses the combination of that particular stem with that particular suffix (i.e. *-ize* in the case of English examples and *-i\zeta(\omega)* [izo] in the case of Greek examples). Such pleonastic formations are either dismissed as marginal formations or assumed to

¹ See also Gardani (2015).

be preempted by their regular counterparts and have merited only brief discussions in the literature (see, among others, Jespersen 1942; Malkiel 1957; Lehmann 2005 on English).

Why do these pleonastic words exist and what grammatical mechanisms license them? We will describe them as word-level analogs to the non-standard patterns commonly referred to as syntactic amalgams: innovative constructions in which "pieces of structure are fitted together in a construction which are not expected to go together" (Lambrecht 1988, 338). The word-level formations that resemble syntactic amalgams include apparently redundant derivational suffixes that appear to 'impose' some of their properties on the expressions with which they combine. We ask both whether derivational suffixes can be seen as heads in these formations and what semantic and pragmatic work these pleonastic formations might do. We suggest that the meanings of word-level amalgams typically involve construction-based coercion: semantic enrichment of lexical meanings in morphosyntactic context in the case of English (cf. Michaelis 2003) and change of the inflectional class of the base in the case of Modern Greek (Koutsoukos 2019). We examine these formations through the lens of (function-oriented) Sign-Based Construction Grammar (SBCG, Sag 2012). We argue that language users can achieve such effects because derivational affixes are lexical-class selectors in the same way that stems select their affixes (Michaelis 2003). Once we see derivational suffixes as signs, and sign combinations as construction-driven rather than head-driven, we can describe pleonastic complex words as coercive combinations that serve a variety of communicative functions.

This article has the following structure. Section 2 discusses IME in English and Modern Greek, while Section 3 discusses the notion of head in morphological theory. In Section 4, we present a SBCG approach to derivational suffixes. In Section 5, we address the semantic and pragmatic properties that make pleonastic complex words amalgam-like formations (5.1) and

provide an analysis of IME as construction-based selection (5.2). The final section offers brief concluding remarks.

2. IME in English and Modern Greek

ME may appear in different parts of speech and different morphotactic units, and can also realize different semantic/functional values (cf. Lehmann 2005; Gardani 2015; Harris 2017). Cross-linguistically, IME is not uncommon. Newman (2000) notes Hausa nouns in which the feminine gender is encoded both on the stem and by the suffix $-\bar{a}$, e.g. * $b\bar{e}go_{FEM} + -\bar{a} \rightarrow b\bar{e}guw\bar{a}$ FEM 'porcupine', *tsire_{FEM} + $-\bar{a} \rightarrow$ tsiry \bar{a} FEM 'parakeet'.² He argues that the function of the suffix is not to change gender (since bases already have this feature), but rather to provide the word with an overt shape such that it is explicitly characterized as feminine (Newman 2000, 214).

However, IME has not attracted much scholarly attention. There are two likely reasons for this. First, to accept the observation that a piece of morphological information is duplicated as part of the stem and by an affix, one needs to assume that stems inherently (i.e. lexically) encode some morphological features. However, this assumption is not undisputed: in several theoretical frameworks, including Distributed Morphology, morphological or syntactic information results only from an (overt or zero) affix. Second, even in frameworks in which information may be encoded on the stem, not all languages have the same typological profile or assign information at the same level. For example, Lehmann (2008) distinguishes between languages that assign lexical (or syntactic) category at the stem level and languages that assign syntactic category at the syntactic level.

² We use the following abbreviations: FEM = feminine IC = inflectional class, PRES = present, SG = singular, V = verb, VERBAL = verbalizer. Inflectional suffixes in Modern Greek are indicated within parentheses.

Here we target cases of IME in two languages with distinct typological profiles: Modern Greek, which has rich inflection, and English, which does not. In English, syntactic context often disambiguates the syntactic category of the word, while in Modern Greek, words assign syntactic category at the stem level.³ We focus on cases in which the English suffix *-ize* and the Greek suffix *-i\zeta(\omega)* [izo] are pleonastically added to verbal formations, duplicating syntactic category information. We take our Modern Greek cases from Koutsoukos (2019), an analysis of pleonastic *-i\zeta(\omega)* [izo] formations based on 52 IME base-verb pairs. We take our English data from illustrations of IME in Jespersen (1942, 452), Bauer, Lieber, and Plag (2013, 270), and Dixon (2014, 191), as well as internet searches performed at the time of drafting.

In (1), we present an analysis of two verbal lexemes that exemplify IME in Modern Greek and English, respectively.

(1) IME in Modern Greek and English

$ψηλαφ(\dot{\omega})$ [psilafó] 'palpate'	$\psi\eta\lambda\alpha\varphi$ - <i>i</i> $\zeta(\omega)$ [psilafízo] 'palpate'
STEM(V.IC2).PRES.1SG	STEM(V.IC2)-VERBALIC1.PRES.1SG
color 'to apply color to'	color-ize 'to cause to appear in color'
WORD _V	WORD _V -VERBAL

In order to consider the presence of the pleonastic suffix an instance of IME, we require the two variants (the verb with and without the pleonastic verbalizer) to have (a) the same currency in the repertoire of lexeme signs and (b) the same distributional (syntactic) patterns. Thus, the verb $\psi\eta\lambda\alpha\varphi$ ($\dot{\omega}$) [psilafó] and the verb $\psi\eta\lambda\alpha\varphi$ - $i\zeta(\omega)$ [psilafízo] co-exist in Modern Greek with the same

³ We acknowledge that this issue merits detailed discussion, but space limitations do not allow us to expatiate (cf. Koutsoukos 2021 for a detailed discussion on this topic).

meaning, while the verb *flavor* and the verb *flavorize* co-exist in English, although they do not have exactly the same meaning.

3. Headedness in morphology

A concept imported into morphology from syntax (cf. Williams 1981), the *head* is the element that determines the formal and semantic properties of the entire structure (cf. Moskal and Smith 2019). Accordingly, a suffix that assigns novel formal and semantic properties to the expression that it combines with might be called the head of that structure. However, it is still an open question whether the notion of head is relevant to morphological formations and whether derivational affixes can be considered heads (see, among others, Bauer 1990).

In pleonastic formations, category-changing derivational suffixes like *-ize* in English and *-* $i\zeta(\omega)$ [izo] in Modern Greek seem poor candidates for head status, because they are extraneous: they neither determine the category of the derived sign nor canonically select for those lexical stems with which they combine: the suffixes *-ify* and *-ize* are not otherwise known to combine with verbal bases. Critically, we assume that in the case of English formations like *scarify* and *colorize*, the lexical stem to which the suffix attaches is the denominal verb lexeme (*scar, color*) and not the source noun of the same form. This assumption is warranted because: (a) there is a high frequency denominal verb corresponding to each of these stems, (b) the pleonastic form is marked according to native speakers (sounds specialized, nonstandard, childish or awkward), and (c) there are pleonastic forms that contain a verbal stem with no corresponding nominal form, e.g., *recoverize*, *dazzleize*, *schmoozify*.⁴

⁴ We distinguish these cases from those in which a denominal verb derived by conversion competes with a denominal suffixed form with the same meaning, such as *pressure* vs. *pressurize*, which both have the meaning 'to

A pleonastic suffix displays certain head behaviors: it selects stems of a particular category and it introduces semantic and formal features that characterize the complex formation. Thus, IME shows that in morphological formations, otherwise incompatible components of complex words can be combined, yielding an amalgam in which some properties of the lexical stem are duplicated or overridden.

4. A SBCG approach to derivational suffixes

We take the lexical-class selectivity of affixes as evidence that they, like the lexical stems with which they combine, are signs. *Constructions* are the means by which simpler signs are combined into more complex signs. SBCG (Michaelis 2013; Sag 2012, among others) conceptualizes grammar as an inventory of *signs*. The signs of SBCG include not only words and lexemes, but also units bigger than words, such as phrases (phrasal signs) and sentences, and units smaller than words such as affixes.⁵ Here, following Riehemann (1998), we assume that the repertoire of signs also includes derivational affixes, which as signs can constrain semantic features of their selectees. In this view of morpheme combinatorics, derivational affixes are not only signs but also daughter nodes within branching constructions. This view of derivational morphemes as daughter signs deviates from the realization-based account of morphology in SBCG, as described by Sag (2012, 71), who promotes SBCG in part as a way to "avoid

strongly persuade someone to do something they do not want to do' derived from the noun *pressure* (Plag 1999, 233).

⁵ Goldberg (2006, 5) argues that bound morphemes (such as derivational affixes) should be regarded as constructions, while Booij (2010) proposes that bound morphemes are part of constructions, but not constructions *per se*, both because bound morphemes are not independent pairings of form and meaning and because "their meaning contribution is only accessible through the meaning of the morphological construction of which they form part" (Booij 2010, 15). From an SBCG perspective, both proposals misconstrue the term *construction*. A construction is a rule for combining signs, not a sign in and of itself. We agree with Goldberg that derivational

unwarranted analysis via morpheme sequences". In our view, however, derivational morphemes are warranted; they are not different in nature from other bound units treated as daughter signs within SBCG, e.g., clitics and combining forms of lexemes.

In SBCG a sign is represented as a feature structure. A sign assigns values to the following features, among others (Michaelis 2013, 139):

- PHON: a phonological phrase
- FORM: a list of the formatives (words or morphemes) that comprise the expression
- ARG-ST: a ranked list of a lexical expression's arguments (only lexical signs have this feature)
- SYN: CAT(egory) (the sign's syntactic category), SELECT (the means by which a marker or modifier selects a syntactic head), VAL(ence) (a list of the signs with which a predicator must combine to form a phrasal sign)
- SEM: IND(ex) and FRAMES (a feature whose value is a list of the frames that collectively describe a word's semantic dependents)
- CNTXT: background (BCKGRND, including the set of presuppositions associated with a construction type), contextual-indices (C-INDS; identities of speaker and addressee), TOPIC and FOCUS (pragmatic roles sharing referential indices with elements on the ARG-ST list).

In Figure 1, we see a lexeme sign that illustrates the SBCG feature geometry.

morphemes are signs, as evidenced by their semantic selectivity, and that they are combined with stems via constructions.

$$\begin{bmatrix} lexeme \\ FORM < break > \\ ARG-ST \langle NPi, NPx \rangle \\ SYN \begin{bmatrix} CAT \ verb \\ VAL \langle NPi, NPx \rangle \end{bmatrix} \\ \begin{bmatrix} IND \ e \\ FRAMES \left\langle \begin{bmatrix} break-fr \\ AGENT \ i \\ THEME \ x \end{bmatrix}, \begin{bmatrix} rigid-object-fr \\ ARG \ x \end{bmatrix} \right\rangle \end{bmatrix}$$

Figure 1. The sign break in SBCG (Michaelis 2013, 140)

Construction-based theories like SBCG allow us to separate two properties that coalesce in prototypical heads: the property of being a semantic selector, which roughly corresponds to the subcategorization frame of a daughter expression, and the property of determining the syntactic (or lexical) category of the mother sign.⁶ These properties are separable because it is the construction that determines what the allowable daughters are; each daughter selects the other, via mechanisms like VALENCE and SELECT—the latter of which is the means by which a functor (determiner or modifier) selects a nominal sister sign (van Eynde 2020). For example, noun phrases like *a candidate* are licensed by the Determination construction, which determines the type of sign so composed, but each daughter element in that complex sign (the article, the nominal expression) can be said to select its sister sign (as for example an indefinite article selects for the class of signs denoting individuated entities). It is also the construction that determines the semantic specifications of the mother word, as in the case of idiomatic complex words whose meanings are not owed to either daughter sign (e.g., the agentive noun *looker* meaning 'someone who looks nice' rather than 'someone who looks at things').

⁶ The notion of headedness (or prominence) in Construction Grammar is also discussed in Arcodia (2012) and Fábregas and Masini (2015).

We know that a determiner can modulate the meaning of the noun that it selects, as with cases of nominal coercion in which the indefinite article imposes a count reading on what is otherwise a mass noun (e.g., *a water*). In construction-based syntax, the lexical-class selectivity that characterizes the indefinite article is not evidence of head status. In our view, using semantic or lexical-class selectivity as evidence of a sign's head status is no more sensible than claiming, for example, that the plural suffix *-s* is a head in the word *waters* because it imposes selectional requirements on the stem with which it combines (Michaelis 2003).

Equipped with this view of morphological headedness, we can, by adapting conventions of Riehemann (1998), capture crucial properties of derivational affixes. We propose to treat such affixes as signs that select for the lexeme class with which they combine. We use the suffix *-ize* to illustrate this point in Figure 2.

Figure 2. The sign -*ize*

We assume that there are several *-ize* sign types, distinguishing them according to the framesemantic properties of the suffixed verbal lexeme and the syntactic category of the lexeme with which the suffix combines. For example, the suffixal sign represented in Figure 2 is the one found in verbs like *glamorize*, *colorize*, *terrorize* and *accessorize*. This suffix combines with a noun lexeme. It derives a verb that means something like 'transfer an instance of the nominal type to some location'. In Figure 2, the index type of the noun is *ni-index*, indicating that the nominal is interpreted as an existentially quantified implicit argument, i.e. a missing argument with an indefinite interpretation (Chaves, Kay, and Michaelis 2020). The quantified variable is the value of the feature VAR (Chaves, Kay, and Michaelis 2020). What this means is that a sentence like *I accessorized* can include an oblique argument referring to the particular accessory chosen (e.g., *with a scarf*). Anaphoric reference to the theme argument is possible as well, e.g., *When she accessorizes*, *it is always tasteful* (Koenig and Mauner 2000). The suffixed lexeme is a verbal lexeme, as indicated by the suffix's CAT value. According to this scheme, distinct head properties attach to each daughter sign: the noun daughter is the determinant of the derived lexeme's combinatoric potential (its valence), while the suffix daughter is the determinant of the syntactic category of the derived word.

5. Functional analysis of IME formations

5.1 Word-level amalgams

Syntactic amalgams are innovative constructions that combine otherwise incompatible subparts of other constructions, in ways that may appear illogical or redundant (Lambrecht 1988; Brenier and Michaelis 2005). Such structures provide imperfect solutions to function-mapping dilemmas, as the presentational amalgam *There was a guy said this phone has a camera* allows the user to both introduce and predicate something about a referent (the guy in question) in a single clause. In an approach in which constructions are the licensors of complex words, as well as phrasal signs (Fillmore and Kay 1993; Booij 2010), we expect similar deviations from combinatory

constraints at the word level. Syntactic amalgams can create pleonastic structures, like the appositive double-*is* pattern described by Brenier and Michaelis (2005) (e.g., *The thing IS is you never really know*) and the ample negative described by Lawler (1974), e.g., *Not in MY house you don't*. Most if not all syntactic amalgams serve to disaggregate semiotic properties that would otherwise coalesce in a single daughter sign. In the double-*is* construction, for example, the focus-marking and complement-taking functions served by the single finite copula in the standard version of the pattern are distributed over the finite copula and its copy, respectively, in the pleonastic version. Against this background, it seems reasonable to consider IME formations as functional amalgams at the word level—their pleonastic properties serve the disaggregation function. In the case of *colorize*, for example, the verbal features of the stem *color*, which otherwise mask the nominal properties of the sign, appear instead in suffixal form. But concatenative transparency is not the only function that pleonastic words afford. Semantic enrichment is another.

As suggested by the case of the indefinite article above, a sign that is a selector, whether or not it is a head, and whether it is a bound or free form, is a potential coercion trigger (Michaelis 2003). How does this insight apply to cases of IME like those discussed in Section 2 above? Let us illustrate this with the aid of *flavorize*, a non-standard version of the causative denominal verb *flavor* ('impart flavor'). The *-ize* suffix in this word belongs to the same class as that in *colorize*, *glamorize*, etc. Because this suffixal sign typically combines with nominal bases, the combination of *flavor*, otherwise a verb, with *-ize* creates a mismatch whose resolution requires the interpreter to recategorize the denominal verb stem as a noun even when it is not, as in, e.g., *schmoozify*.

Why would *flavorize* exist alongside the denominal verb *flavor*? We assume that Gricean quantity-based implicature is part of the answer. While the denominal option is the more succinct, the suffixed option is more transparent inasmuch as it embeds the source word, enabling it to retain its original category. Similarly, the quantity-based constraint on prolixity ('Do not say more than you must') would require that the pleonastic form contrast in meaning with the original form. Another example is the pleonastic verb *scarify*, which contrasts with the zero-derived denominal verb *scar*. While the latter refers to an unintentional action and is frequently used metaphorically (to refer to an indelible impression on one's psyche), the former refers to an intentional action (of making superficial skin incisions for ritual or medical purposes), and is almost uniformly literal.

Still other pleonastic words are forms of *linguistic extravagance* (cf. Haspelmath 1999), like *bestest* ADJECTIVE._{SUPERLATIVE}-SUPERLATIVE. Here the addition of a superlative suffix to an inherently superlative word invites a reinterpretation of *best*, as an extreme but not terminal degree, at the same time that it conveys social affiliation, or social meaning (Acton and Potts 2014). Because this pleonastic form is associated with the speech of children, it appears to convey affection, humor and other qualities associated with childhood, as suggested in the following dictum from a Quora user (https://www.quora.com/Can-you-use-the-word-bestest-in-order-to-say-you-are-better-than-the-best, by Joel Postman, updated September 29, 2016): "Use of the 'word' bestest should be confined to teenage girls, texting, or at sleepovers, or texting at sleepovers".⁷

⁷ An additional superlative pleonasm is found in this poetic passage from Kipling's *Just so Stories* (1902), where it again evokes child language (we thank Frank Brisard for bringing this example to our attention):

In Modern Greek, IME formations and their simplex counterparts do not differ in their semantics or their distributions; the difference between the two formations should instead be sought in their inflectional properties. Modern Greek verbs inflect according to two major inflectional classes (IC, cf. Ralli 2005). This information is encoded on the stem and can be overwritten by the information borne by category-changing derivational suffixes, as illustrated by the form $\psi \eta \lambda \alpha \varphi - i \zeta(\omega)$ [psilafízo] in (1). Coercive category change appears to have at least two functional motivations. First, IC1 is the more productive of the two classes (Ralli 2005; Anastasiadis-Symeonidis and Masoura 2009). Second, Modern Greek shows a clear preference for explicit expression of morphological categories (Anastasiadis-Symeonidis and Masoura 2009, 631) The addition of the suffix $-i\zeta(\omega)$ [izo] alters the inflectional properties of the entire formation, changing it from a verb of IC2 to one of IC1, the latter class having the higher type frequency, and giving the verbal stem a shape that explicitly signals its membership in IC1. A by-product of this change is the disaggregation we noted above as a salient function of pleonastic formations and amalgams more generally: the verbal features otherwise fused with the stem are expressed by a suffix in the IME alternate.

5.2 IME as construction-based selection

The foregoing discussion raises the question whether the analysis of IME is amalgam-based or coercion-based. The answer is that it is both. Amalgams are cases of formally incompatible daughters yoked together by a construction that builds a complex sign. Such constructions are non-standard variants of standard constructions. Coercion, by contrast, is a case in which a standard construction (e.g., Determination) combines with a nominal word that is of the right formal type but the wrong semantic type, resulting in semantic readjustment, as in, e.g., *a water*.

There is nothing formally exceptionable about *a water*. What makes IME formations like *bestest* and *flavorize* amalgams, and not (merely) cases of coercion, is that these combinations violate morphosyntactic combinatoric restrictions: there is no (word-level) construction combining a verbal base with a verbalizing suffix, or a superlative adjective with a superlative suffix.

The bottom line is that amalgams are new constructions, which feature new constraints on the daughter signs combined, while coercion is simply an already entrenched construction that gains greater semantic latitude. At the word level it is often difficult to tell the two phenomena apart, because successful interpretation of a morphological amalgam will necessarily involve an enriched (coerced) interpretation of the lexical stem. The reason is that an affix is a functor, and the head word is an argument of that functor, so any modulation that occurs to render an unsanctioned combination interpretable will involve coercion.

6. Conclusion

Mutual selection of signs in complex structures is a tenet of construction-based theories and in particular those that see sign combination as construction-driven rather than head-driven. In morphological amalgams, just as in syntactic amalgams, we see combinations of daughter elements that are not permitted by the concatenative schemas of the language. Like syntactic amalgams, morphological amalgams fulfill a communicative need: to trigger a revised categorization of the selectee—whether the shift is a shift in inflectional class or a shift in syntactic category. In all of these cases, the concatenative schema is an exercise in optimization—solving a semantic mapping problem at the expense of creating unlicensed combinations.

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