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Judeo-Spanish and the lexicalist morphology hypothesis: A vindication of inflectional and derivational morphology

Introduction

Practitioners of lexicalist morphology claim that inflection and derivation are governed by the grammar and lexicon respectively. This claim has varying degrees of emphasis: the so-called weak lexical hypothesis argues that “inflection is part of the syntactic component of grammar and only derivation belongs to the lexicon.” The strong lexical hypothesis is predictably extreme: “all inflection is in the lexicon” [Schwarzwald: 28]. This claim bears clear similarities to Pinker’s essential argument in *Words and Rules*: i.e., that different parts of the brain perform different functions: a word storage component (in the lexicalist scenario, this would be the lexicon) where all irregular forms are housed, and a rule-generating component from which inflections such as the English plural *-s/-es* and past tense *-ed* originate. The former can thus be seen as in some ways as derivational, the latter inflectional. It is my contention that the strong lexicalist hypothesis, that all inflection is lexical in origin, is tantamount to denying the roles played by syntax and morphology in the rule-based system of language. Language is not a relativistic, random accident, open to any type of external influence; clearly, most inflection is securely anchored in the grammar. My analysis of Judeo-Spanish (JS) inflectional and derivational categories, as described by Bauer, in terms of the wider lexicalist hypothesis debate will show this to be true.

1. Borrowing and Levantine JS morphology:

JS, a Spanish dialect subject to linguistic influences from alien environments, is a

particularly useful means of exploring the effect of language contact on a morphological linguistic system. The data from JS offers conclusions that confirm on the one hand the standard inflectional and derivational distinctions while allowing substantial room for variation; the language thus offers a good vantage from which one can view the discussion in a different light.¹ The data presented will be taken primarily from Levantine JS, the language of the Sephardim in the Ottoman Empire, as this is generally acknowledged to offer the richest diversity for analysis and is also the best attested among varieties of JS. The other major JS dialect, Haketía² (Moroccan JS), has enjoyed notably fewer linguistic innovations; its extralinguistic influences seem to have been primarily restricted to Moroccan Arabic. Outside influences on Levantine JS, namely Hebrew, for obvious religious reasons, have made certain kinds of inroads in the JS linguistic system; Ottoman Turkish was another primary influence.

1.1. Ora Schwarzwald notes 5 basic processes that JS loans from Hebrew and other languages went through, two of which are of interest to a discussion of morphology.³ The first process of concern here is fusions of a foreign root with a Sp morpheme: e.g. *darsó* '(he) explained' from Hb *daraš* + Sp. *-o*, 3ps preterite ending. Turkish infinitives undergo the same process of morphemic replacement, as the Turkish infinitival affix *-mak* or *-mek* is replaced by the familiar Spanish *-ear* affix:

<i>dayanmak</i>	>	<i>dayanear</i>	to resist, endure
<i>becermak</i>	>	<i>bidžirear</i>	to succeed
<i>bozmak</i>	>	<i>bozear</i>	to ruin
<i>patlamak</i>	>	<i>patladear</i>	to burst

The above process appears to be identical to similar formations in American Spanglish: English verb root + *ear* suffix—e.g., *pargear* (to park), *chatear* (to chat), *surfear* (to surf), *emailear* (to e-mail), etc.

1.1.2. The only slight exception to the *-ear* suffixation of infinitives occurs with French loans which take an *-ar* suffix instead of the *-ear* suffix, e.g., *s'amuser* (to enjoy oneself) > *amuzarse* (reflexive infinitival form) (Sephpha: 2).⁴

1.1.3. This kind of inflectional and derivational affixation is not limited to infinitival suffixes: "Hebrew nouns often acquired Spanish adjectival affixes" (Harris: 98), such as *-oso*, *des-*, *-ado*, *-udo*. Thus, Hebrew *mazal* (luck) > *mazloso* (lucky) or *desmazalado* (unlucky); Hebrew *sehel* (intelligence) > *seheludo* (intelligent).

1.1.4. The same process occurs with Turkish loans:

<u>Tk root</u>	<u>morph.</u>	<u>meaning</u>	<u>JS lexeme</u>	<u>meaning</u>
Tk <i>bibil</i>	+ <i>-iko</i>	(Sp dim.)	<i>bibiliko</i>	little nightingale
Tk <i>kundur</i>	+ <i>-ero</i>	(Sp "maker")	<i>kundryero</i>	shoemaker
Tk <i>uydurma</i>	+ <i>-(s)ión</i>	(Sp nominal)	<i>uydurmasión</i>	fabrication
Tk <i>farfur</i>	+ <i>-ía</i>	(Sp nominal)	<i>farfuría</i>	porcelain

1.1.5. In some cases, loans take both Sp prefixes and suffixes:

em- (Sp to make) + Tk root (*batak* [mud]) + *-ar* (infinitive marker) = *embatakar* (to muddy)

1.1.6. Loan words are sometimes assigned the familiar Spanish gender and accompanying morphosyntactic adjustments, usually via epenthesis of *-a* (Sp feminine ending) and assignment of the appropriate definite article:

Tk <i>börek</i>	> JS <i>la boreka</i>	filled pastry
Tk <i>maymun</i>	> JS <i>la maymona</i>	monkey

1.1.7. The Turkish loans above quite easily take the Sp *-s/-es* plural:

<i>borekas</i>	filled pastries	<i>konduryas</i>	shoes
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The Turkish *bakal* (Turkish: grocery store) > *bakales* (Sp *-es* pl) (grocers) shows how susceptible morphology can be to semantic shift in plural forms: grocery store > people who work in the

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grocery store.

1.1.8. Hebrew loans commonly used in speech, representing general concepts, also take the Sp *-s/-es* plural. Schwarzwald calls these “merged or fused Hebrew” (Schwarzwald: 39):

kales synagogues

ribuyes lots

bene amenus Jews

1.1.9. The plural ending is also regularly applied to other foreign borrowings:

It. *kirurgo* > *kirurgos* surgeons

Gk *piron* > *pirones* forks

Gk *epístola* > *epístolas* epistles

Fr *elevo* > *elevos* pupils (Schwarzwald: 36)

Steven Pinker argues in *Words and Rules* that foreign borrowings are often perceived as rootless, and thus take the standard plural ending (or def. article in the Sp example cited) in the absence of a recognizable connection to any known pattern, such as an irregular, in the native speaker’s mental lexicon (Pinker: 156). The above examples would appear to conform to this notion, and, to some extent, assert the primacy of the inflectional morphemic system.

1.2.1. Of particular interest to the derivation/inflection discussion are instances of morphological borrowing/mixing into the JS lexicon (Schwarzwald’s 2nd process of interest here). Thus, Hebrew loans are imported along with Hebrew morphology intact:

<u>Hb root</u>	<u>Hb gloss</u>	<u>morph. JS lexeme</u>	<u>JS meaning</u>
Hb <i>Hakam</i>	rabbi	+ <i>ut</i> = <i>xaxamut</i>	rabbinical duties
Hb <i>mězamer</i>	singer	+ <i>ut</i> = <i>mezamerut</i>	the function of the cantor’s helper
Hb <i>HameC</i>	any food not Kosher for Passover	+ <i>ut</i> = <i>xamesut</i>	being Chamets, useless

1.2.2. I identified at least one instance where the *-ut* marker was affixed to a Spanish lexeme:

Sp *haragan* + Hb *-ut* = *xaraganut* (laziness) (Schwarzwald: 34)

1.2.3. The Hb morphemes *im/ot* indicate plurality:

<i>talmidim</i>	pupils	
<i>xaxamim</i>	Rabbis	
<i>rabanim</i>	Rabbis	
<i>zixronot</i>	Remembrances, a prayer on Jewish New year	
<i>las kilot/los kilot</i>	the communities	(Schwarzwald: 34)

Perhaps the most salient example of the *-im* plural morpheme is in the term *Sephardim* itself, ‘Spanish Jews,’ which is formed from the Hb word for Spain, *sefarad* + *im* (Schwarzwald: 27).

Again, semantically we see that the parts do not always equal the whole as with the Turkish example above (1.1.7.).

The above Hb morphemic variants tend to be restricted to religious concepts or used in learned writings, especially Rabbinical JS essays—so-called Whole Hebrew (39). Schwarzwald notes that JS regularly applies Sp morphology for “frequency of word use” or commonly used words and reserves Hb borrowings (both morphological and lexical) for high register (37).⁵

1.2.4. Turkish loans quite naturally occupy a less religious sphere than Hebrew and so tend to refer more to worldly affairs. If Hebraisms in Judeo-Spanish tend to “refer especially to religious life (‘concepts, holidays, customs, and institutions as well as proper names’ [Harris: 97]), Turkisms pertain to all areas of daily life. Above all, though, they pertain to business, labor, and administration” (Díaz-Mas: 84). Thus, the Turkish allomorphs *ci*, *cü*, *cı*, *cu* undergo modifications and reductions in the JS forms *-yi/-chi/-dži* to signify names of trades:

<i>boyayi</i>	painter
<i>zarzavachi</i>	vegetable seller

estindakchi inspector

hotelyi hotelkeeper

1.2.5. The *-dʒi* suffix can extend to descriptions of what a person does or his essential nature:

<u>Hb root</u>	<u>Hb gloss</u>	<u>Tk morph.</u>	<u>JS lexeme</u>	<u>JS meaning</u>
<i>tarbut raa</i>	bad manners, evil culture	+ <i>-dʒi</i>	= <i>ta(r)buradʒi</i>	mischievous maker (Harris: 114)

The English *-er* morpheme in terms like *cheater*, *lover* bears obvious affinity with the Tk *-dʒi* suffix. This is also seen in its extension to descriptions of trades, e.g. English *baker*, *teacher*, et al. as with the Tk examples above (1.2.4.).

1.2.6. The Turkish *-achi/-a* suffix signifies affection:

Hb *Behor* man's name + *achi* *Behorachi* dear Behor

Sp *Esther* woman's name + *acha* *Isterulacha* dear Esther

1.2.7. *-li* (from Turkish *-li, lü, lı, lu*) is used for nationalities or places of origin:

Amerikali American

Parishi Parisian

1.2.8. The Turkish abstract nominal marker *-lik/-luk* is seen in the example 1.2.9. and 1.2.10. below.

1.2.9. Turkish-Hebrew morphological fusion is not unknown.⁶ Thus, Hebrew roots can combine with Turkish morphemes as seen in 1.2.5. above but also:

<u>Hb root</u>	<u>Hb gloss</u>	<u>Tk morph.</u>	<u>JS lexeme</u>	<u>JS meaning</u>
<i>matza</i>	flat, unleavened bread	+ <i>-dʒi</i>	<i>masadʒi</i>	matza baker (Harris: 114)
<i>ramay, ?</i>		<i>-luk</i> (abstract	<i>ramauluk</i>	cheating
<i>rama 'ut</i>		nominal marker)		(Schwarzwald: 34)

1.2.10. A few terms, highly restricted in use and unproductive, combine a Hebrew root with a

Turkish derivational nominal suffix and the JS plural marker:

<u>Hb root</u>	<u>Hb gloss</u>	<u>Tk morph.</u>	<u>JS pl morph.</u>	<u>JS lexeme</u>	<u>JS meaning</u>
<i>Purim</i>	Jewish holiday+ <i>-lik</i>	+ <i>-es</i>	<i>purimlikes</i>	Purim gifts	
Hannukah	Jewish holiday+ <i>-lik</i>	+ <i>-es</i>	<i>hanukalikes</i>	Hannukah gifts	

(Díaz-Mas: 84-5)

1.2.11. Some variation between Hebrew-Aramaic and Spanish inflection seems to exist, although it tends to reflect register choices, with the Hebrew-Aramaic occupying the higher register and JS the lower. This is seen in the examples below in which a Hb root takes a Sp inflection, as well as the more standard Hb root with Hb inflection:

<i>mizvas</i> vs. <i>mizvot</i>	commandments	
<i>makas</i> vs. <i>makot</i>	trouble, plague	
<i>yorsas</i> vs. <i>yarsaytim</i>	remembrance day	(Schwarzwald: 38).

Schwarzwald points out that some nouns only take the Hebrew *-im/-ot* endings, some nouns only take the JS *-(e)s* ending, while others freely alternate between either plural (Schwarzwald: 38).

1.2.12. In some instances, using the Hb high register form with a lexical item of low social status (generally Spanish) can be cause for humor:

<i>ladrones</i> (Sp 'thieves') vs. <i>ladronim</i> (Hb) (humorous register)	(Schwarzald: 31)
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The Hebrew *ladronim* is considered humorous for its incongruous blending of the high Hb inflectional morpheme *-im* with a low word of Spanish derivation. The effect is, I would imagine, similar to the mock-heroic style in literature.

1.2.13. A certain amount of double plural marking can be seen, resulting in a kind of semantic reduplication, although this is, of course, somewhat rare ("There are very few nouns in this category" [Schwarzwald: 38]). This is perhaps a result of misanalysis of the Hebrew plural ending:

<i>šed + im + es</i>	Hb root + Hb pl + Sp pl	demons
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tefil + im + es Hb root + Hb pl + Sp pl

phylacteries⁷

(Schwarzald: 31)

This kind of misanalysis is endemic to borrowed terms of whose morphology speakers of the borrowing language are often ignorant. Thus, in English we have *paninis* (the sandwich, not the scholar) from the Italian word for *sandwiches*, or in the Spanish definite article reduplication in Arabic loanwords: *el alhambra*, *el alfombra*, et al.

1.2.14. The borrowed Turkish adjectival agreement markers, *li/liya/lis/liyas* and *ji/jiya/jis/jiyas*, quite regularly alternate with Spanish agreement markers in both gender and number:

<u>Sg. M</u>	<u>Sg. F</u>	<u>Pl. M</u>	<u>Pl. F</u>	<u>meaning</u>
<i>dezmazalado</i>	<i>dezmazalada</i>	<i>dezmazalados</i>	<i>dezmazaladas</i>	unlucky
<i>xenli</i>	<i>xenliya</i>	<i>xenlis</i>	<i>xenliyas</i>	graceful
<i>guzmadji</i>	<i>guzmadjiya</i>	<i>guzmadjis</i>	<i>guzmadjiyas</i>	exaggerator

(Schwarzald: 36)

2. JS and inflectional/derivational categories:

Analysis of the above data within the parameters of Leslie Bauer's 8 criteria for determining derivational and inflectional categories reveals some interesting trends with relevance to the larger lexical morphology debate. In the interest of fuller description, I have included as an appendix a chart listing most, if not all, of the JS morphemes I herein examine and the 8 criteria to which I subjected them; results of such test cases are also indicated in rather abbreviated form.

2.1. **Meaning:** Ostensibly, this criterion aims to establish inflectional or derivational morphemes by meaning alone; thus, it holds relevance for lexicalist interpretations of morphology. In other words, inflectional and derivational categories can be determined simply via "morphological categories such as number, person, gender, case, tense, aspect, voice and the like" (93). Bauer offers examples from Turkish, Swahili, and Finnish which complicate this scenario: apparently, all

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affixes in the respective examples do the same thing—i.e. give the meaning “to make something or someone do what the first form says” (92). However, despite this semantic similarity, the T and S examples are considered inflectional in their respective languages while the F example is considered derivational. Meaning is, thus, a deceptively straightforward criterion.

However, if we interpret lexemes with morphological markings of “number, person, gender, cast,” etc. as inflectional, then it becomes apparent that many JS (essentially Spanish) lexemes quite easily fit into this criterion. The only possible exception might be *-ado* as in *desmazalado* (unlucky). The morpheme is a past participle marker in Spanish (the other being *-ido* in standard Spanish), and so quite naturally is assumed to be inflectional. However, as with the present participle *-ing* in English, some degree of functional flexibility seems to pertain. For the meaning of *desmazalado* is essentially adjectival, either attributive, *un hombre desmazalado* (an unlucky man), or predicative, *es desmazalado* (He is unlucky). The typical function of a past participle is in perfect constructions, such as *El ha ganado dinero* (He has won money), but one cannot say **El ha desmazalado* (lit. *He has unlucked), either in a transitive or intransitive sense. This is another example of semantics disrupting the systemic uniformity of such traditional morphological distinctions as inflection and derivation. This essential discontinuity of the *-ado* suffix will not cohere with some of Bauer’s other criteria below.

2.2. Derivation causes a change of category: This is perhaps another deceptively straightforward criterion. Bauer gives the example of adding *-s* to *car* to give *cars* as a simple demonstration of an inflectional morpheme that does not change category: *car* begins as a noun and ends as a noun in *cars*. He contrasts this with the derivational morpheme *-al* which quite clearly transforms the nominal *person* to the adjectival *personal* (93). Throughout, Bauer proclaims the need for a better definition of category: “Categories are determined by distribution: if two items have identical distributions [word class distributions], they will be considered to belong to the same category”

(93). He offers counterexamples on p. 94 of derivations which do not change category (noun > noun, verb > verb, adj > adj, etc.), albeit with generally a broadening or narrowing of meaning, negation, or gender assignment. He then offers an example of how inflections can cause a change of category, although it is not clear to me how the example that he offers is an example of this—the morpheme *-al* (*person* > *personal*, noun > adj) is not to my knowledge considered inflectional in English.

More convincingly, Bauer offers the well-known example of the category transgressing *-ing* inflectional morpheme in English: *-ing* functions as a present participle: “Evelyn was shooting clay pigeons”, but also as a gerund: “The shooting of the clay pigeons was dramatic.” (The definite article clearly assigns *shooting* here to a nominal function.) Other manifestations are subject to debate: “His shooting clay pigeons didn’t worry me” (95). Thus, *-ing* can be both inflectional (present participle) and derivational (gerund: nominal-making) in this example depending on how one wishes to look at it. Bauer seems to be uncomfortable with this ambiguity and uses it to deny the validity of this criterion outright.

The JS data concur to some extent with Bauer’s rejection of this criteria. In the examples below, the expected derivational category change has not occurred:

<u>morph: JS lexeme:</u>	<u>gloss:</u>	<u>semantic effect:</u>	<u>category effect:</u>
<i>des-</i>	<i>desmazalado</i>	unlucky	negation adj > adj
<i>em-</i>	<i>embatakar</i>	to make muddy	to make someone or something do x verb > verb
			(similar to Turkish example above)
<i>-iko</i>	<i>bibiliko</i>	little night- ingale	diminutive noun > noun
<i>-ut</i>	<i>xaxamut</i>	rabbinical	extension noun > noun

		duties		
-yi	<i>boyayi</i>	painter one who does x		noun > noun
-acha	<i>Isterulacha</i>	dear Esther affectionate		noun > noun
-li	<i>Amerikali</i>	American abstract > concrete (narrowing)		noun > noun
-lik	<i>Purimlik</i>	Purim gifts abstract > concrete (narrowing)		noun > noun

A further complication of the above is the Hb *-im* morpheme which is something of a hybrid: it indicates both plurality (inflectional) and yet is derivational in its semantic effect of ascribing origin: e.g. *Sefarad/Spain* > *Sefardim/Spanish Jews*:

<u>morph:</u>	<u>JS lexeme:</u>	<u>gloss:</u>	<u>semantic effect:</u>	<u>category effect:</u>
<i>-im</i>	<i>Sephardim</i>	Spanish Jews	abstract > concrete (narrowing)	noun > noun

To my knowledge, neither English nor modern Spanish can do this. The Hb *-im* morpheme would appear to be a fusion (or, less plausibly, a portmanteau) of inflectional and derivational categories.⁸

Another complication is with the *-ear* inflectional morpheme: infinitives and present participles form a class known in traditional grammar as verbals: verb forms that, in effect, become nouns in certain environments. Thus, *Yo quiero bidzirear en mi vida* (I want to succeed in my life) is somewhat ambiguous: is the infinitive *bidzirear* part of a compound verb structure of *querer* + infinitive, or is it acting as a simple nominal object, as in *I want a book, I want food?* Such ambiguity is typical of language, but Bauer seems to have little patience for it. My general impression in this section is that he splits hairs for the sake of his argument and not all that convincingly (pp. 94-5). He, like many other linguists searching for airtight, mechanistic explanations for linguistic phenomena, seems to want absolute conditions for making distinctions between inflectional and derivational categories. But I would venture to say that language is only *mostly* systematic and rule-governed—it is not a machine and is not reducible to its parts. This is the problem with all the mechanistic metaphors used in describing language and by which empiricists

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seem to operate. Semantics dictates formal manifestations of mental processes and thus accounts for all the variations and inconsistencies that Bauer cites above. The slippery nature of semantics makes it notoriously difficult to map.

2.3. **Inflectional affixes have regular meaning; not all derivational affixes do:** Bauer

amplifies as follows: “The difficulty with this criterion is that many derivational affixes also have a perfectly regular meaning” (96). He offers the examples of *-er* and *-able*: he cites *-er* as probably derivational, although I believe that traditional English grammar considers it inflectional, at least in its comparative sense [the other sense of *-er*, as maker or doer of *x*, as with *baker*, *teacher* is clearly derivational]. He offers more examples of derivational morphemes that conform to this criterion in their multiplicity of meanings: *-ette*, a derivational morpheme with various meanings: feminine, diminutive, simulative, and English *-ment* which can range in meaning from state of *x*, that in which one is *x*, thing which *xes*, and the act of *xing* (97). On the inflectional side, the *-ing* example cited above showed that inflections do not always have regular meaning but are themselves occasionally subject to semantic reshuffling.

The JS data further demonstrate the complexities of this criterion. A particular manifestation of the slipperiness of derivational categories is the Turkish *-li* suffix. On the one hand, *-li* clearly signifies place of origin: *Amerikali* (American). However, in other environments it assumes an adjectival agreement function: *xenli* (m.s.), *xenliya* (f.s.), *xenlis* (m.p.), *xenliya* (f.p.) (graceful) (see 1.2.14 above). Similarly, the JS derivational morpheme *-oso* appears to have a regular meaning (adjectival). However, in mainstream Spanish, the derivational *-oso*, while generally signifying an adjective, can undergo category shift to a noun: *baboso* (slobbish > a slobbish person). Spanish morphosyntax in particular tends to nominalize adjectives rather profusely, generally by simply appending an article to the front of an adjective:

mal (bad) > *los malos* (bad persons)

bueno (good) > *los buenos* (good persons)

It also does this with past participles formed with *-ado*:

olvidado (forgotten) > *los olvidados* (the forgotten ones)

desmazelado (unlucky) > *los desmazelados* (the unlucky ones)

Thus, we have irregular meanings in both derivational (*-oso*) and inflectional (*-ado*) categories in JS. Furthermore, the inflectional *-ado* is clearly akin to English *-ing*, *-er*, and *-ed* inflections in its capacity to straddle derivational and inflectional boundaries.

In the end, Bauer concludes that “if we are willing to postulate enough homophonous suffixes, or if we are willing to talk in rather coarse terms when it comes to defining meaning, we can probably claim that every affix has a regular meaning. Under such circumstances, this criterion becomes vacuous” (98). I don’t think that he has demonstrated his claim, though—his examples are drawn from derivational suffixes which support the claim that derivational suffixes lack regular meanings; he does not cite any inflectional suffixes that I can see. He resists “talk[ing] in coarse terms when it comes to defining meaning” (98). Such “coarse terms” sounds very much like what typologists term statistical universals—i.e. general trends—that are generally considered reliable indicators of language traits. Again, he seems to want airtight solutions to morphological uncertainties. The JS data that I have adduced show some category-transgressing capabilities that would no doubt irk Bauer. Here too, though, most of the evidence that I could muster was from the derivational realm, suggesting that, although inflection may be capable of irregularity of meaning, it is a somewhat rarer occurrence than with derivational morphemes, again emphasizing the rule-bound—i.e., grammatical—nature of inflectional morphology.

2.4. Inflection is productive, derivation semi-productive: As defined by Bauer, productivity refers to the generalizability of a particular morphemic variant: thus, the English plural forms *-s/-es* are quite regularly added to new nominals that come into the language (338). Bauer cites

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chapter 5 in which he demonstrated that “derivation is more productive than is generally thought” (98). He cites the examples of the French infinitive *quérir* as an inflected form with very restricted distribution.⁹ However, it is not really the *-ir* marker in *quérir* that is unproductive but the lexical root *quér-*. He thus effectively distracts us from the real argument, which is the anomalous nature of this example. I can think of no similar examples in English or any other language that I have familiarity with. The limited distribution that Bauer is referring to is a result of semantic bleaching, an historical process, leading to fossilized lexemes. To claim as Bauer does that the exception disproves the rule seems to be overstatement.

As an analogue to *quérir*, Bauer cites English modals which do not have “special third person singular present tense form, no present participle, no past participle and no infinitive” (98)—however, productivity is derivational and modals are more properly viewed as syntactic and not morphological items per se. Like *quérir*, they are fossilized; unlike *quérir*, they are products of the diachronic process of grammaticalization, and thus more closely allied with inflection than derivation. As for JS, I do not know the language well enough to make judgments about productivity of certain morphemes, but its general concordance with Spanish suggests that it too would adhere to this criterion. The only possible exceptions might be the borrowed Hb inflectional morphemes used in high registers; however, I would not consider this a genuine intrusion into the morphological system as the Spanish inflectional morphemes are used in most all other environments.

2.5. Derivational affixes are nearer the root than inflectional forms: This criterion is self-explanatory. Bauer offers counterexamples from German, Dutch, and English. However, I question the validity of his English examples: e.g., *interestedly*, *exaggeratedly*, etc. The *-ed* ending might imply an inflectional use (past tense) but it has clearly undergone a functional shift to create adjectives—*He is interested*, etc. in which the *-ed* forms a word which is clearly not a past participle

in function, albeit in form. Once a term is perceived as an adjective, the speaker quite naturally appends the *-ly* adverbial ending (as suggested by Pinker's *Words and Rules*, this "natural" tendency might more strictly be seen as a default property of the mental hardware, as it were). If anything, this seems to show the availability of inflectional morphemes to certain derivational processes (category shift), as with the Eng *-ing* suffix or the Sp *-ado* suffix. At any rate, I would argue that the English examples that he cites are not really instances of inflectional affixes being closer to the root than derivational ones but inflectional affixes having undergone category shift and then availing themselves to closeness to the root.

JS offers an interesting comparison with the above in the case of the *-ado* suffix.¹⁰ As mentioned previously, it is the past participle forming suffix in Spanish, but clearly extends semantically to an adjectival function in *desmazarado* (unlucky). Also mentioned earlier was the tendency in Spanish to form nouns from adjectives simply by appending an article: *los desmazarados* (the unlucky ones). Thus, depending on one's interpretation of the *-ado* suffix as inflectional or derivational in the above context, we have *root + inf + inf* or *root + der + inf*. The former interpretation is similar to Bauer's citing of the English *happenings* (*root + inf + inf*). In any event, I would venture that some of the above confusion is attributable to the conflation of form with function; Bauer seems to want them to be one and the same.

2.6. Derivatives can be replaced by monomorphemic forms: This criterion is also self-explanatory. It essentially seems to refer to paradigmatic or word class replacement: "Patriotism is good for a nation" vs. "Oil is good for a nation" (101) where *patriotism* (bimorphemic or possibly trimorphemic in English¹¹) and *oil* (monomorphemic) are interchangeable because both are nominals. Interestingly, this is the only derivational form that Bauer cites that meets this criteria—he offers no evidence of derived forms that cannot undergo monomorphemic replacement, although he does offer some (questionable) examples of inflected

forms that undergo monomorphemic replacement (see below). He also offers English examples of inflectional bimorphemes replaced by monomorphemes to show the error of this criterion: “They always arrive · d [bimorphemic] on time” versus “They always come [monomorphemic] on time.” And “She is bright · er [bimorphemic] than I am” versus “*She is bright (monomorphemic but ungrammatical] than I am” (102).

The problem with the “They always come on time” example is that Bauer has ignored the fact that a semantic change has occurred with the main verb to make the example work: *arrived* is simple past and *come* is present universal. The correct realization would thus be “They always *came* on time,” which is an example of ablaut or internal vowel change to indicate grammatical tense: *come* (present) > *came* (past). *Came* is thus bimorphemic—*come* + past tense ablaut—and thus Bauer’s example does not work. Thus, one cannot say that *arrived* can be replaced by a monomorphemic form if one is to retain the essential meaning of simple past.

The second example “bright” would work in a periphrastic construction: “She is more bright than I am.” Similarly, “I bought a dear · er (bimorphemic, comparative] watch” versus “I bought a dear [monomorphemic, attributive adjective] watch” (102). This last example too can be made to match the meaning (although one might quibble about register) via periphrasis: “I bought a more dear watch.” However, it is clear that a strict monomorphemic replacement criterion shows that inflections cannot be replaced by monomorphemes.

It is my suspicion that this criterion works best probably for analytic languages such as English—Bauer stresses the fact that the criterion sometimes fails “in many highly inflected languages because it is hard to find monomorphemic words at all” (102); he offers Russian examples as evidence of this. Similar to Russian, a more consistently inflecting language like JS presents more discrepancies than agreement. Of the 13 derivational JS morphemes that I tested, I only came up with one solid *yes*, two hesitant *yesses*, and 10 definite *nos*. (Of course, this could also

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be attributed to my lack of awareness of workable Spanish or JS monomorphemic alternatives than what my admittedly limited vocabulary would allow.) The morpheme *-oso* as in *Es mazloso* could conceivably be replaced by *Es feliz*, but I am not sure that *feliz* is monomorphemic; I do know that the synonym *contento* as in *Es contento* is bimorphemic—the epenthetic *-o* marks masculine gender. *Feliz* falls into that class of Spanish adjectives that do not mark masculine or feminine gender: *grande, inteligente, etc.* (I won't venture to chart the treacherous waters of whether a zero morph is in fact to be assumed after the root morpheme proper.) The only definite fit with this criterion is the diminutive *-iko* as in *bibiliko*—e.g., *El bibiliko kanta* (The little nightingale sings). The monomorphemic replacement here could be to simply drop the diminutive *-iko*, as in *El bibil canta*. One could also use a completely unrelated monomorpheme: *El hombre canta, La mujer canta, etc.*

This is another lexicalist criterion that does not fit the data: the examples shown indicate that in most cases inflectional morphemes cannot be replaced by monomorphemic forms; as for the possibility of derivational morphemes being replaced by monomorphemic forms, the JS data would tend to cast doubt on this too. Thus, it is apparent that inflectional morphology holds stronger ties to grammar than lexis (at least in some languages).

2.7. Inflection uses a closed set of affixes: This criterion addresses the impossibility of “add[ing] a new inflectional affix to a language or tak[ing] one away” (102). Bauer also notes that this is a synchronic observation, not a diachronic one (e.g., the grammaticalization of Latin periphrastic future to present day Romance synthetic future markers). Conversely, Bauer asserts that “[i]t is possible, on the other hand, suddenly to start using a new derivational affix” (103).

Bauer gives the (presently somewhat moribund) *-nomics* affix as an example of derivational creativity. More current examples of this criterion can be seen by the new derivational affixes derived from the internet: *e-* as in *e-mail, e-bay, e-book, cyber-* as in *cyberspace, cyberchat, cyberjunkie, net-* as in *netspeak, netiquette, etc.* Bauer continues: “Furthermore, it is usually said

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that the set of inflectional affixes will be considerably smaller than the set of derivational affixes” (103). As refutation of this contention, he cites Maori, which apparently has roughly equivalent numbers of inflectional and derivational affixes and is not adding many new derivational ones (perhaps due to the language’s substratal status vis-à-vis the dominant New Zealand English) (103). Bauer also offers Finnish as an example of a language with many inflections, ostensibly competing in number with derivational affixes. He concedes that this criterion works most of the time for English.

JS clearly contradicts this criterion in one conspicuous respect: e.g. the Hb plural markers *-imes*, *-im* which exist alongside the Spanish *-s/-es*. One could argue that these are only superficially the same morpheme, for as Harris and others report the two morphemes are not in free variation. The Hebrew is clearly the high register marker, generally reserved for religious occasions and environments. Something similar might be seen in the extremely limited semantic distribution of the English *brethren* which once was the general plural but is now restricted to religious settings, usurped by *brothers* with its *-s* plural for general usage. (The irregular connection to *-en* in *brethren* became so weak that it eventually gave way, as Pinker notes [52].) Thus, a strict analysis would reject *-im* as an addition to JS inflection, which supports the anti-lexicalist/pro-grammar view; however, a looser analysis would accept *-im* as an inflectional addition, thus giving more ground to the lexical hypothesis. In any event, the *-im* incorporation into JS would appear to be a highly unique instance (also showing how external factors occasionally impinge on facets of the linguistic system, i.e. inflectional morphology, previously thought more or less impervious to outside influences); I would venture to say that the criterion stands more or less as it is.

2.8. Inflectional morphology is what is relevant to the syntax: This criterion depends on how one interprets “relevant to the syntax.” It appears to be claiming that inflectional morphemes must

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cohere with extra-lexemic factors, as it were: i.e., morphosyntax. The most obvious example of this in English is agreement marking on verbs; it does not account for the kind of nominal or case marking that occurs in synthetic languages. (The only remnant of nominal marking in English would appear to be pronominal cases of nominative, accusative, and genitive: *I, me, my*.) This example is clearly central to a lexicalist hypothesis argument—i.e. “[I]nflection is a part of syntax, while derivation is a part of lexis”; furthermore, “[r]ules for inflectional morphology are (. . .) a part of the same system as syntactic rules, while derivational rules are (. . .) in the lexicon” (91).

A more consistently inflecting language such as JS better demonstrates this criterion than the more analytical English. Of the rather limited pool of inflectional affixes that I could use to test this criterion, most conformed to it: *-s* and *-es*, the plural markers, required in most cases a similarly plural definite or indefinite article and, if required, adjective agreement. The plural markers would also dictate the form of the main verb. Thus, *Los bibilikos lindos cantan bien* (The little nightingales sing well) in which all words but the final one show evidence of plural agreement. The same would also seem to be true for the borrowed Hebrew morpheme *-im*; Schwarzwald notes that such morphemes are generally made to fit into traditional Spanish grammar (40).

As for *-ado*, it is relevant to the syntax in its perfect uses: *Yo ha hablado* requires the auxiliary form of *haber*, etc.; even in its adjectival manifestations, as with *desmazalado*, this would be the case. For example, it would be required to change gender with a feminine subject as in *La chica desmazalada*. The only morphemic variant that is irrelevant to syntax would be the infinitive marker *-ear* in certain environments, such as infinitive phrases: *Yo quiero bidzirear en mi vida* (I want to succeed in my life) (see 2.2). This can quite easily be replaced with no syntactic impact on any of the surrounding lexemes: *Yo quiero felicidad en mi vida* (I want happiness in my life); *Yo quiero amor en mi vida* (I want love in my life), etc. I would argue, however, that in such cases the infinitive has undergone shift to a nominal function; thus, one cannot truly say that it is behaving

as an inflection. Bauer's counterexamples, *extremely* and *advancement*, (104) similarly show inflectional-derivational capabilities, although to my awareness the *-ly* and *-ment* suffixes are traditionally not conceived of as being in any way inflectional.

Conclusion:

The JS data provide significant evidence that inflection is mainly grammatical, not lexical. Of the 8 criteria that Bauer cites, at least 6 of them appear to have direct relevance to the lexicalist morphology hypothesis. Of those 6, the lexical/derivational ones came up short (about 33% of them seemed to work in my analysis) while the grammatical/inflectional ones did notably better (67% cohesion—see appendix). Thus, any consideration of JS within any lexical morphology claim would have to conclude that the weak version of the hypothesis is confirmed.¹² Derivation is clearly handled by the lexicon; at most, certain aspects of inflection (Sp *-ado*, Eng *-ing*, *-ed*) appear available to lexicalist influences, but most inflection seems to fit squarely within inflectional categories and is thus governed by grammatical (systemic, rule-bound) forces.¹³

With respect to the above, then, I would thus not discard the inflectional/derivational distinction as some linguists are apparently wont to do. The distinction may require further analysis, as others apparently suggest,¹⁴ but its essential validity seems assured.

Notes

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- ¹. Numerous changes occurred to allomorphy, particularly in the realm of morphosyntax, but of little relevance to the overall inflection/derivation discussion.
- ². The etymology of the term *Hakitia* is, according to Díaz-Mas, “uncertain.” She notes that “some take it to be a derivative of *Haquito*, the diminutive of *Itzhak* [Isaac], with the general meaning of ‘Jew.’ Others derive it from the Arabic word *hekaya* or *hakaita* [clever saying]. In either case, it is an affectionate term with humorous connotations, and so it reflects very well the attitude of the Sephardim—at least in times past—toward their language” (75).
- ³. The other processes the Schwarzwald cites include “no change” borrowing: *sedaka* ‘charity’ (H: *Cedaqa*), *mizva* ‘commandment’ (H: *miCwa*). Such loans appear to take no affixation and are borrowed more or less intact into JS. Schwarzwald also lists Hebrew lexical items undergoing semantic shifts in JS and JS calquing of Hebrew lexical items (31).
- ⁴. Haïm-Vidal Sephipha, a professed native speaker of Judeo-Spanish and Professor Emeritus of the Université Paris Sorbonne Nouvelle, claims that “[f]our percent of [JS’s] loans come from Hebrew, 15 percent from Turkish, 20 percent from French, two percent from Ladino [the Hebrew-JS literary calque language], etc., with all of these built on the foundation of the 15th century Spanish substratum” (Sephipha: 3).
- ⁵. As an analogue to this, in JS morphosyntax the Hb definite article, *ha*, is regularly replaced by the Sp *el*, *la*, *los*, *las*, even reduplicating in certain instances: *el birkat amazon* ‘the grace’ (H: *birkat* ‘the blessing (f) of *ha-mazon* ‘the food’) and *el am aares* ‘the ignorant’ (H: *‘am* ‘inhabitant (m) of *ha-‘areC* ‘the land’) (Schwarzwald: 37). It is thus similar to the more widely known example of the Spanish reduplication of the Arabic definite article: *el alfombra*, *el alhambra*, etc.
- ⁶. Unlike Hebrew and Turkish, lexical borrowings from French and Italian tended to undergo more thorough JS morphological and phonological transformations. French borrowings were so common that a new dialect was born: *Judeo-Fragno* = Judeo + French + Spanish (Díaz-Mas: 85-6). As sister Romance languages, this can be seen as perhaps more easily accomplished.
- ⁷. Traditional boxes containing religious inscriptions worn by Jewish males.
- ⁸. Whaley (123) notes that “portmanteau morphemes [e.g., Fr. *du*] never seem to combine inflectional and derivational categories” (123). Whether or not the *-im* morpheme is indeed a portmanteau would appear a weak argument at best, so one cannot say that it has truly violated this tendency.
- ⁹. While *quérir* might show restricted distribution in French [i.e., it only appears as an infinitive in compound verb structures and not as the main verb in non-compound structures and thus does not receive a full panoply of inflectional forms], it is quite fully functional in Spanish [and also semantically distinct]).
- ¹⁰. Most JS samples seem to conform to the criterion of root nearness, although the case of *-imes*

offers an interesting quirk. This is essentially a semantic reduplication of the Hebrew plural *-im* and the Spanish plural marker *-es*. My sources note that it is exceptionally rare, although the precise discourse environment in which it would occur remains unclear. At any rate, this kind of inflectional reduplication would seem to result from misanalysis, as with the Sp morphosyntactic reduplication in Arabic *al-* loanwords: *el alhambra*, *el alcázar*, etc. One wonders if Bauer would suggest that these examples are more evidence of the kind of “coarse terms” needed to describe languages that allow for the kinds of ambiguity and deviation that he eschews.

¹¹. *Patriotism* could be considered trimorphemic in English if one considers the bound root *patr-* in English lexemes such as *patriarchy* and *patriot* as a separate morpheme; thus, the English morphemic analysis would resemble a Romance language: e.g., It. *patria* + *-ota* + *ismo* = *patriottismo* vs. Eng. *patr-* + *iot* + *ism* = *patriotism*

¹². Bauer's discussion of the prototype theory seems a concession of sorts to the relative unpredictability of derivational and, to a lesser extent, inflectional morphology (105-6). As regards predictability, Whaley suggests some typological support for the relative predictability of inflectional categories cross-linguistically (122).

¹³. Whaley suggests further evidence of the inflectional/derivational split: Greenberg's absolute universal indicating that languages with inflection always have derivation, Anderson's contention that portmanteau morphemes never combine inflection with derivation, and work on aphasic patients who may lose capacity for inflectional but not derivational morphology (123).

¹⁴. Bauer suggests construction of inherent versus contextual inflectional categories that distinguish between morphosyntactic inflection and non-morphosyntactic (106-7). Schwarzwald suggests that adjectives, verbs, and + human nouns are clearly inflectional; however, all other nouns, in her estimation, are clearly more open to lexical influences (41). I remain not fully convinced but am willing to entertain further inquiry.

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