REGULARITIES IN IRREGULARITIES IN ENGLISH INFLECTION

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Abstract

Irregular inflections in English are not firmly determined by the form of the base. The question is whether we can predict when a form which is most often inflected irregularly is likely to take regular inflection. Standard stories from the literature are tested against corpus data, and are found to be overly simplistic. There is more variation in inflection than is generally recognised.

1. Introduction[1]

Regular verbs in English are those that have four forms, the base form, the *-ing* form, the third-person singular *-(e)s* form which usually causes no phonological modification to that base, and a past tense form identical to the past participle form produced by adding *-ed* to the base form. All other verbs are irregular to some degree. Although forms like *does* and, for many speakers, *says* (/sez/ rather than /seɪz/) are irregular, in this paper the main focus will be on verbs that have past tenses and past participles produced by a process of ablaut.

Regular nouns in English are those that are made plural by adding *-(e)s* to the base form. There are various classes of irregular nouns, those of particular interest in this paper will be those with umlaut plurals (*foot, goose, louse, man, tooth, woman*) and those where the plural is formed by voicing the final fricative of the base before inflecting with *-(e)s* (words like *calf / calves*).[2]

There are some verbs and nouns which appear superficially to have both kinds of inflection. *Hang* is one such verb, which is subject to a great deal of normative comment, and *shear* and *spoil* are also variably regular and irregular, but without the same degree of normative comment. In the case of *hang* it might seem reasonable to postulate two different verb lexemes, HANG₁ and HANG₂, one of which is regular, the other of which is irregular (although in practice, the irregular form is often used for the verb denoting a manner of execution), but this solution seems less reasonable with the other verbs mentioned above, which might be seen as having a single lexeme with dialectally variable inflection. Where nouns are concerned, similar comments might apply: *indexes* and *indices* might be thought to be forms of separate lexemes, but *forums* and *fora* are too variable with a single meaning for that solution to be available

In this paper we will assume a single lexeme solution, and consider those instances where it might be possible, on the basis of the morpho-semantic context, to predict whether a regular or irregular form is required.

In the next section some general stories about the predictability of regular forms for otherwise irregular verbs will be presented. In subsequent sections, data concerning verbs and nouns will be considered separately, before an overall conclusion is reached.

2. The standard stories

There are standard stories told about the predictability of the inheritance of irregularity in the literature. In this section I will retell these standard stories without any evaluation. In subsequent sections, these stories will be evaluated. To make matters simpler, I distinguish here between what happens in verbs and what happens in nouns, though there is one interpretation where the overall story is the same for either.

2.1 Verbs
There are phonological, morphological and etymological constraints on what can be irregular verbs in English. A verb like *pontificate* must be regular for several reasons (it has a polysyllabic root, it is a verb with a regular derivational suffix making it a verb, it is Latin in origin, and so on). The main question here, though, is that once we have an irregular verb, can we predict when it will maintain its irregularity, and when it will become regular.

The fundamental observation is that verb retains its irregular conjugation under derivation or composition if and only if the verb remains the head of the construction. This means that typical prefixed versions of irregular verbs stay irregular: *come/came : become/became; hold/held : withhold/withheld; stand/stood : understand/understood; tell/told : foretell/foretold;* etc. Note that some of these prefixes are no longer productive, and the semantics of the derivation may no longer be clear, but the fundamental rule still applies.

Where a verb is created by back-formation (from a nominalisation, an agentive form or from a participle), the verb is still the head of the construction, and irregularity is maintained. Thus *baby-sit* from *baby-sitter* or *baby-sitting* still has the past tense *baby-sat* not **baby-sitted*.

In any other process in which the verb is derived from another part of speech, the verb is regular. So the verb-producing suffixes *-ate, -en, -ify, -ise* all produce regular verbs. Crucially, for the discussion here, so does the process of conversion. Thus *ring* as in *ring the bell* is irregular, but *ring* in *ring the city* is derived by conversion from the noun *ring*, and the past is regular: *ringed the city*.

Thus the following examples (all from the Corpus of Contemporary American English, COCA, see reference list) are typical of what is expected. *Fly* (in baseball) is derived from *a fly, to grandstand* is derived from *a grandstand*, while *overfly* retains *fly* as the head of the construction (Kiparsky 1982: 10)

(1) White Sox third Quentin **flied** out. Kotsay walked. Pierzynski singled, Kotsay to second. Kotsay was out

(2) President Obama **grandstanded** in announcing that he would shut down Guantanamo

(3) During one mission a Pioneer **overflew** a group of Iraqi soldiers

2.2 Nouns

The story for nouns is very similar, in that any irregular noun maintains its irregularity under derivation or composition if the noun remains the head of the construction. However, there are two conflicting stories told about when nouns lose their irregular morphology.

The first story is that, just as with verbs, nouns become regular if they are found in an exocentric construction. Thus, given *foot* with an irregular plural, we expect *web-feet*, with the same irregular plural, because *web-feet* are a type of *foot*, and we find (4) in the BNC, which supports this view.

(4) when you're in the water you want **web feet**

However, there are two stories about when the inheritance of irregularity fails. The first (Pinker 1999: 156) is that it fails in names. Thus we find in COCA the example in (5) where *Minnie Mouse* is a name, and so is regularly inflected.

(5) unfolded a daisy chain of **Mickey** and **Minnie Mouses**, and
      smoothed it out on her lap.

The other example used to support this view is the name of the Toronto ice-hockey team, the *Mapleleafs*. We would expect *leaf* to have the plural *leaves*, but *Mapleleafs* is a name, and so has regular inflection.

In this case (and perhaps in the *Minnie Mouse* case, too), there is an alternative view: *Mapleleafs* is an exocentric compound, and *leaf* is not the head, because the *Mapleleafs* are not a type of *leaf*. That being the case, headedness may be the relevant factor rather than the question of whether something is a name (Kiparsky 1982: 10). In the example in (6) below, either explanation might hold, but in the example in (7), only the exocentric solution can hold (both examples from COCA).

(6) A woman tells the Nativity tale to the **Blackfoots** holding her and her
      family hostage.

(7) to suit sweet **tooths** and savoury lovers alike

3. Data analysis

I shall analyse the data by looking at verbs first and then nouns, before looking for general conclusions. There are various types of data available for considering what is going on in this area of inflection, and the types do not necessarily agree. Examples are largely from COCA, but occasionally from the *OED*.

3.1 Verbs

The main type of evidence here is obtained from denominal verbs derived by conversion from compound nouns. The construction as a whole is rare with irregular verbs, so there is not a great deal to report on.

Table 1 shows the numbers of relevant forms found in COCA. For those where COCA gives no information, an asterisk indicates the form preferred in

the *OED*. The analysis of these as verbs derived through conversion is taken from the *OED*. It should be noted that in COCA as a whole *dove* is preferred to *dived* as the past tense of *dive*, with approximately twice as many instances of *dove* as of *dived*.

Table 1: Denominal converted compound verbs in COCA

REGULAR	N	IRREGULAR	N
Free-falled	0	Free-fell	2
Nose-dived	51	Nose-dove	0
Jump-cutted	0	Jump-cut	2
Butterflied†	3	Butterflew	0
Dog-fighted	0	Dogfought*	0
Crashdived*	0	Crashdove	0
Creeped out	89	Crept out	0

†: There are many more adjectival uses of this form.

Here, although individual items may prefer one pattern over another, there is no obvious pattern as to which way the individual items will behave.

Parenthetically, I note that although the verb *weed-eat* (created by backformation from *Weed-eater*[3]) might be expected to be regular by the rules given earlier, it shows variation: *weed-eated, weed-ate* and even *weed-eatered*.

There are also a few cases of irregular forms which are found on simple verbs which are derived from conversion, contradicting the basic predictions.

The oldest instance of this is the verb *string* (*string/strung/strung*) derived by conversion from the noun *string* (*OED*). The prediction would be that this is a regular verb, but according to the *OED* (sv. *String*)

> The 'strong' conjugation in imitation of *sing* (compare *ring*) has prevailed from 1590 onwards, though a few examples of the weak form *stringed* occur in the 16–19th cent.

The other example attested here is from a modern New Zealand source, a 2013 interview on New Zealand's National Radio.

(8) They're skun [sc. Deer carcasses] (Radio New Zealand National, This Way Up, 6 July 2013.)

In the face of lack of comprehension from the interviewer, the interviewee amended *skun* to *skinned*, but later in the interview reverted to *skun*, which was clearly the natural form as far as he was concerned. To *skin* ('remove the skin from') is clear related by conversion to the noun *skin*, just as *dust* 'remove the dust from') is related to the noun *dust*.

Such examples suggest that the proposed generalisations are simply illusory. Relevant examples are rare, but they do not always follow the predicted patterns.

3.2 Nouns

The first type of evidence with nouns comes from a category which has not yet been mentioned, the case of nouns used figuratively (but see Pinker 1999: 177). Here we find quite a number of examples with regular plurals, as illustrated in the examples below.

(9) Sperano says Bluetooth can eventually be used to disconnect keyboards, **mouses** and printers, among other things.

(10) Our **gooses** were constantly getting bumped.

(11) a long series of interrelated tales about assorted losers, lovers and **louses**.

(12) The bottoms or **foots** of oil. (*OED*)

Unfortunately, while such instances are not uncommon, irregular plurals are also commonly found, as in the next examples.

(13) the anti-tobacco politicos had cooked their **geese**.

(14) pointing with fingers rather than **mice**

(15) HP Wi-Fi Mobile Mouse connects quickly to a laptop's Wi-Fi receiver- and unlike Bluetooth **mice**, it doesn't require you to constantly pair it again with your notebook.

(16) Sure they're vice **lice**, but where's the fraction in evolution in action?

(17) A normal hemistich contains two metrical **feet**.

(18) he led his men into the **teeth** of the best entrenched, most fiercely defended segment of the Confederate line.

These examples again suggest a lack of pattern, with both regular and irregular plurals attested.

Perhaps oddly, we also find occasional regularisation of perfectly literal examples, as shown below. The first of these is from a woman describing her own pregnancy, and it might be an instance of baby-talk, but the second is not open to such an interpretation. It could be, of course, that both are simply performance errors, but it would be risky simply to assume that.

(19) All these **foots** and hands and hiccups and lovely.

(20) Newt Gingrich couldn't have said that about gays or **womans** or Latinos and, and, and had any political future in this country.

With exocentrics, there are two patterns: those with an ablaut noun and those with a noun in which a voiceless fricative in the singular form is changed into a voiced fricative in the plural forms. Of this latter group, the only ones that can be searched for in written corpora are those where /f/ > /v/, as in *leaf / leaves. Paths* is written the same way whether pronounced with /θs/ or with /ðz/. We certainly find some of the expected regulars, as in (5)–(7).

Where fricative voicing is involved, if we look in reference works we find the results given in Table 2 (taken from Bauer et al. 2013: 131). Similar results obtain with ablaut plurals.

Table 2: Plurals of exocentrics with potential fricative voicing

LEXEME	REGULAR PLURAL?	IRREGULAR PLURAL?
Broadleaf (plant)		
Cloverleaf (junction)	✔	✔
Cottonmouth (snake)		✔
Frogmouth (owl)	✔	✔
Loudmouth (person)	✔	✔
Lowlife (person)	✔	✔
Waterleaf (plant)	✔	
Wrymouth (fish)		

Such data does not say anything at all about relative frequency. If we go to Google to find some way of counting that, we get the results in Table 3. Note

that Google data are always suspect, since the same site can result in multiple hits and there can be errors of all kinds in the totals (for instance, the form *cloverleafs* includes not only road junctions, but also the names of sports teams). Nevertheless, where there is an overwhelming answer, the results may be interpreted as indicative. Those indicative answers are shown by bold-font totals in Table 3.

Table 3: Google frequencies for some forms with potential -ves plurals

LEXEME	REGULAR PLURAL?	IRREGULAR PLURAL?
Broadleaf (plant)	20,600	**138,000**
Cloverleaf (junction)	**67,000**	43,000
Lowlife (person)	**618,000**	266,000
Waterleaf (plant)	**14,000**	11,600

Examples (5) and (6) are not only exocentric, but names. When we look specifically at names, we find examples such as the *Timberwolfs* (a US veteran's association) with the predicted regular form, but also the *Timberwolves* (an nba team) with an unexpected irregular plural. What is interesting is what happens when we have names which are endocentric, as with *Batman*, who is a man.

(21) These are my superheroes. These are my **Batmans**, my Robins.

(22) you don't have **Supermans** or Batmans but you keep the same course

Batmen and *Supermen* never refer to the comic book heroes in COCA, and we seem to find the same pattern we find with the pluralisation of standard surnames, as in the example below.

(23) the **Steadmans** had made the adjustments that allowed more light into the heart of the house.

Thus there is a distinction to be made between *freemen* ('released slaves') and *Freemans* ('people with the name Freeman').

4. Conclusions

When we look more closely at data from corpora or from reference works, it becomes clear that the generalisations made at the beginning of this paper are too simple. They all assume that there is a single determinate outcome in every case, while the examples from corpora show that there is variation in the outputs. This type of variation awaits analysis in terms of the paradigms of variationist sociolinguistics, so we cannot yet say whether the variation is stratified in any way at all.

Where verbs are concerned, there is plenty of evidence of variation, but little evidence that it correlates particularly well with exocentricity. Where nouns are concerned, we found an extra category of variation in non-literal use of irregular nouns. Of the two solutions for compounds, it seems that the category of names is a better predictor of regularity than the category of exocentrics, but neither category shows the predicted pattern with any degree of certainty. Overall, there is far more variation than is generally recognised.

We do not know where this will finish. In the longer term we may be seeing the very beginnings of a move of all nouns to the regular paradigm, but it too early to conclude that at the moment, and there is little sign that there is any rapid shift taking place at the moment. Alongside the regularisation we have seen here, we find Mr Jinks, the cartoon cat from Hannah & Barbara's 1950s Pixie and Dixie cartoons, introducing new irregularity when he says that he 'hate[s] those meeces to pieces'. Where there is greater variation between regular and irregular plurals, there may also be greater potential for the coining of new irregulars.

Notes

1 This paper was first presented at the New Zealand Linguistics Society Conference, 20–22 Nov 2013.
2 Although foreign plurals make for clear exemplification just below, they are ignored in the body of this paper because many of them seem to indicate code-shifting as much as morphology, so that variation in output is to be expected for reasons that have nothing to do with morphology. Plural marking with -en, which is relevant, is too rare to provide useful data.
3 Originally a trade name, and still used as such, but used as a generic word in New Zealand, rather than the term *strimmer* (< *grass trimmer*) used in some other parts of the world.

References

Bauer, Laurie, Rochelle Lieber & Ingo Plag. 2013. *The Oxford Reference Guide to English Morphology*. Oxford: Oxford University Press.

BNC, Davies, Mark. 2012. *The British National Corpus*. http://corpus.byu.edu/bnc/.

COCA. Davies, Mark. 2008. The Corpus of Contemporary American English. http://corpus.byu.edu/coca/.

Kiparsky, Paul. 1982. 'Lexical morphology and phonology'. In The Linguistic Society of Korea (ed.), *Linguistics in the Morning Calm*, Seoul: Hanshin. 3–91.

OED Online. Oxford University Press. <http://www.oed.com>.

Pinker, Steven. 1999. *Words and Rules*. London: Weidenfeld & Nicolson.