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Patterns and productivity

Introduction

All three morphosyntax papers in this volume can be seen as attempts to tackle the following, perennial puzzle in historical linguistics – indeed in all linguistics: what patterns are speakers using as the basis of production of new words and sentences? The pre-theoretical term **pattern** conveniently covers all sorts of rule-based behaviour, subregularity and partial regularity. Chris Palmer, Don Chapman and Graeme Trousdale have gone about this puzzle in very different ways, and the following musings are prompted by their research. In response to a first version of this paper, Palmer revised his own contribution, Chapman submitted some follow-up comments, and Trousdale did both, and I have adjusted my contribution accordingly.

First let me summarise the papers. Palmer investigates the naturalisation of abstract noun-forming suffixes in late Middle English in two sets of records kept by trade communities. He devises measures of ‘local productivity’, including a quantitative measure of aggregation of new types (i.e. words) introduced in successive subperiods, while various formal and textual clues are weighed up as qualitative evidence of naturalisation. Chapman investigates four patterns of addition of the suffix *-er* to a phrasal or prepositional verb to form a noun, three of them currently productive: *picker-up*, *pick-upper* and *picker-upper*. Historical evidence comes largely from the *OED* citation database, current data from the internet. Trousdale discusses the gradual loss of the OE impersonal construction as it falls victim to the transitive construction. The framework is Construction Grammar, and there is reference to Roschian levels of categorisation and to grammaticalisation not of lexemes but of constructions.

Palmer on productivity and naturalisation

Palmer chooses to make a detailed textual investigation of two relatively small and undigitised corpora, each representing the language of a professional community over a period of century or so, though only three decades' worth are actually used. He distinguishes productivity from naturalisation for the possible case where an affix becomes productive in English with Latinate bases only. The measure of productivity of an affix preferred by Baayen (1992) is to count hapaxes, but Palmer shows that this is inappropriate: no available historical corpus constructed on a principled basis is big enough. Instead Palmer advocates the detailed study of even smaller corpora, making virtues of what might seem drawbacks: their small size, which means they can be read rather than having to be searched electronically, and their multilingual nature.

Palmer offers counts of tokens for eight nominalising suffixes in each corpus, but in the event, not much is made of token counts. He turns to counts of *types*, and better yet, the *aggregation* of types over five-year periods. His notion of local productivity attempts to address the impact of frequency on derivational change. Hybrid formations (native base + foreign suffix or vice versa) turn out to be too infrequent to be of statistical use – and they had been expected to provide the main evidence for naturalisation. What is more, since hybrids with a foreign suffix are vanishingly rare, the limited evidence of hybrids suggests that the native affixes are more productive than the foreign, a result directly opposite to that suggested by the aggregation measure. With numbers everywhere so small, only a limited amount of light has been shed on productivity and naturalisation in these corpora, despite the careful and methodical approach. However, what conclusions there are can be supplemented in an interesting way, as close reading of textual juxtapositions allows Palmer to make deductions about the independent status of certain affixes for speakers and hearers in those communities. We have, then, the beginnings of a fine-grained sociolinguistic account of word formation among a fairly small group of people in one place over a limited time.¹

Palmer cites Cowie (2000) as demonstrating that 'intentionality clearly did not preclude productivity'. In fact both morphological papers in this volume mention the slightly self-conscious aspect of some kinds of word formation – indeed the possible playfulness – which doesn't apply so readily to most other domains of language. Earlier Palmer had drawn attention to an idiosyncratic recent formation with *-age*, *ownage*, and the entirely playful *tippage*. I too can attest some playful new *-age* activity in the speech of student informants:

¹ There is detailed discussion of five noun-forming suffixes of French origin in ME and eModE in Lloyd (2005).

(1) chantage, faffage, foodage, liftage, peppage, sleepage, tun(e)age, workage, etc.

The words have an activity meaning and are often used with social peers in some such context as *There was some general Xage*. This creativity plays on the deliberate choice of the 'wrong' affix, yet used in the 'right' way insofar as attached to a suitable base. Consider *OED*'s definition of that suffix, parts of which are quoted below:

-age

suffix of abstr. nouns, originally in words adopted from Fr., afterwards a living Eng. formative. [...]

1. From names of things, indicating that which belongs to or is functionally related to, [...] passing into the whole functional apparatus collectively [...]
2. [...]
3. From verbs expressing action [...]

All of the coinages I have listed are on the face of it possible words of English, formed by addition of *-age* either to a noun (sense 1) or to an action verb (sense 3) or to a stem which could be either.² Of course these nonce usages would normally be blocked by other formations on these bases which are already established, for example

(2) chat/chatting/chatter, faffing (about),³ feeding/food, lift(ing), pepping (up), sleep, work(ing)

The deliberate choice of *-age* in (1) is a social phenomenon, and yet it is possible that the special marking one can detect at present (such as in-group usage, playful style, etc.) could become lost over time, with some of the words entering the general vocabulary. My British informants employ it in a merely playful way, but I am told that a similar fashion for *-age* coinages was confined in one New England university in the late 1980s to drug-related contexts. If the current British student usage derives from that American one (and of course it may well be an independent development), then already some generalisation has taken place. It is probably quite common for an individual coinage or a coining pattern to spread outwards through social networks, accompanied in some instances by generalisation of

² Bauer's definition of **playful** (1983: 264-5, 2001: 57-8) is not appropriate to the present case, being more suited to formations which play on sound without invoking the normal morphosemantics of a formative, though I suppose it could be argued that in standard PDE, *Xage* does not mean 'activity of X'. More relevant to the present case are recent discussions of other coining fashions by Zwicky and Liberman on Language Log (e.g. <http://itre.cis.upenn.edu/~7Emyl/language-log/archives/004254.html>, <http://itre.cis.upenn.edu/~myl/language-log/archives/004489.html>). Bauer's discussion of creativity rejects the notion of intentional or conscious coining as a usable criterion (2001: 68) and winds up unable to draw a clear distinction between creativity and productivity.

³ *Faff* v. *intr.* To fuss, to dither. Often with *about*. Also as *n.*, fuss, 'flap' (*OED* s.v.).

meaning or of pragmatic context.⁴ It should be possible to find and document a present-day analogue for Palmer's discussion of medieval word formation tendencies within a limited milieu. And the importance of register is clear:

Bauer's monograph (2001) reveals no awareness of the possibility that morphological categories might be more productive in some registers than in others, and the potential consequences of such stylistic forces for the weight of structural constraints in explanations of productivity. However, the little work that has been done in this area shows unambiguously that, unsurprisingly, different genres recruit different morphological categories to very different degrees. (R. H. Baayen 2006: 20)

Chapman on nominalisations

Chapman is investigating a phenomenon barely attested in conventional corpora, so that searches must be conducted in improvised corpora, bringing in their wake all sorts of questions of reliability, with particular difficulties for frequency counts. Here the problem is not so much smallness of sample as uncountableness – certainly of the overall size of the sample, but even of the number of examples found as well. Chapman discusses some conventional measures of productivity, including *hapax legomena*, type or token frequency, first occurrences and elicitation tests. (For a fuller range of options, see Baayen (2006).) None seem to be wholly practicable in this case.

For a rough-and-ready historical source of data, Chapman uses the quotation database of the *OED*, stating that the *picker-upper* pattern occurs mostly in the 1940s and later (though the online version of *OED* has since been updated with citations of *picker-upper* from 1913 and 1937, and of *fixer-upper* from 1932).⁵ We can supplement this from the Google News Archive, which gives examples of *builder-upper*, *dragger-downer* from 1931; *lifter-upper*, *finder-outer*, *fixer-upper* from 1934; *helper-outer*, *picker-outer*, *waker-upper*, *warmer-upper* from 1935; *pepper-upper*, *stepper-upper* from 1936; *giver-upper*, *locker-upper*, *looker-oner*, *tearer-downer* from 1937; *opener upper* from 1938. It does look as if the pattern enters American newspapers in some force in the 1930s.⁶

⁴ Note in this connection Marchand's comment: '4.4.12. Derivatives in **-age** are technical terms in that they bear the mark of a special milieu, professional or otherwise, in which they were coined. This does not, however, prevent the words from having general currency. The "result" group is especially common in this respect.' (1969: 236).

⁵ Chapman is right that Marchand does not mention the relevant patterns, though among his haphazard examples of *-er* derivatives from syntactic phrases there is *stand-patter* (1969: 280).

⁶ There are possible citations of *picker-oner* in this archive from 1905 and *looker-inner* from 1914, but the context could not be checked (without payment of a subscription, anyway), and the newspapers in question are often very poorly scanned. Other antedatings are similarly suspect. The dated citations from the 1930s given in the text look fairly secure, however.

For present-day usage, Chapman conducts Google searches of the internet, ingeniously semi-automating the choice of search terms by gathering contiguous verb-particle sequences from the (tagged) British National Corpus (BNC) and then trying all four kinds of *-er* formation for each pair found. Regrettably, as he says, token counts on such material are not practicable. Now the historical section of the paper had explicitly included both phrasal and prepositional verbs (e.g. *pick up* and *look at*, respectively), which the lists of forms in his Appendix 1 confirm. For the contemporary investigation it was not clear what tags were searched for in BNC. The adverbial particle of a phrasal verb is classified in BNC as AVP, the prepositional particle of a prepositional verb as PRP, which is the general tag for a preposition (and an 'ambiguity tag' like AVP-PRP can be found when the tagger fails to give a clear analysis). Apart from a handful of *on* and *over* pairs which could be either, the vast majority of forms in his Appendix 2 are self-evidently phrasal verbs. Don Chapman has confirmed that his original internet search was effectively limited to phrasal verbs, that being the construction readily picked out by the BNC tagging, but he has since examined some verb-preposition combinations too; see the Appendix below.

I mention here a handful of minor quibbles with Chapman's paper. The opening paragraphs are a little unclear as to whether the *-er* suffix under investigation is always agentive, though Chapman's later discussion of Ryder (2000) includes many non-agentive uses – Chapman confirms that all senses were included. It is by no means just *in* and *on* which can appear in both phrasal and prepositional verbs, as implied in the paper: in fact all of the particles listed as occurring in prepositional verbs – *about*, *along*, *around*, *round*, and *through* – can appear in phrasal verbs too. On this point see now the Appendix below. Incidentally, double marking can be attested in nominalisations involving *over*:

- (3) Situation: one person runs by and shows [*sic*; *read* shoves *DD*] another person such that the second person knocks into an elderly person and causes this person to suffer a broken hip. The "shover" keeps running is not caught, but the "knocker-overer" is caught.
(http://gfp.typepad.com/the_garden_of_forking_pat/2004/10/hard_determinis.html, 22 Apr. 2007)
- (4) That's right, I'm a motorcycle-knocker-overer.
(<http://www.poundy.com/2006/03/31/thats-right-im-a-motorcycle-knocker-overer/>, 22 Apr. 2007)

Chapman's note 11 had suggested to me that he thought *overer* impossible, though in fact he had meant only that it was less frequent than *over*.

Having presented the historical and contemporary evidence he has gathered, Chapman speculates on the historical development, suggesting that the *picker-upper* pattern may be a transitional stage on the way from *picker-up* to *pick-upper*. That is certainly possible, but I want to canvass another option which invokes phonological factors.

For legitimate phrasal verbs in typical sentence patterns, the sentential stress distribution between verb and particle is roughly equal, though clause-final position as in (6)b, a focus position, tends to elevate the stress on the particle.

- (5) Jim was picking up his daughter.
 (6) a. Jim can pick up the beer.
 b. Jim can pick the beer up.

Both verb and particle have primary word stress.

As far as the **formation** of phrasal verbs is concerned, a rhythmic template has developed which demands (roughly speaking) that the verbal formative be monosyllabic or an initial-stressed disyllable (Fraser 1976: 13, 1966, Kennedy 1920: 29), hence the expected absence of *annoy off*, *resuscitate back*.⁷ The phonological constraint on the form of the verb has not always played such a large part in phrasal verb formation: I have shown that it was absent or at least very much weaker in the fifteenth-century *Paston Letters* and in my own Corpus of Late Eighteenth-Century Prose (Denison 1981: 148, 2007: 124), so it is probably quite a recent development. In fact one can plausibly argue that phrasal verbs in present-day English are coming to represent a construction with its own syntactic, lexical, morphological, pragmatic, stylistic and phonological effects, but it is the rhythmic factor I wish to stress here.

It does not seem fanciful to suppose that a similar rhythmic template might be developing in the derived agent nouns, first disfavouring *up-picker* and now increasingly *pick-upper* too, both of which force primary stress onto the particle (and incur stress-clash too).⁸ Then *picker-up* could come to the fore as a nominal formation with a similar distribution of stress between deverbal stem and particle as is found in the source phrasal verb. The current tendency to supplant even this formation with the doubly-marked pattern, *picker-upper*, would then satisfy a new rhythmic template, one in which the relative weights of verb stem and particle are respected as well as the need to have *-er* as final element of an

⁷ Except that they are not entirely absent: *annoys me off* gets thousands of Google webhits, and *resuscitate back* gets a few dozen. Internet data can be rather inconvenient for assumptions about what is possible in language.

⁸ As noted above, prepositional verbs were silently dropped from Chapman's original discussion in moving from the *OED* to internet data; the pattern *laugh-atter* would be even more awkward phonologically for a prepositional verb. Table 1 subsequently provided by Chapman (see Appendix) shows that some such forms do occur.

agent noun (which is both a rhythmic and a formal matter). Evidence in support of the rhythmic template comes from *OED*'s very first citation for *picker-upper*:

- (7) 1913 *Chicago Sunday Tribune* 30 Nov. VI. 6/1 For every fling-arounder..there is a busy little picker-upper.

Notice that there is no need for double marking on the parallel *fling-arounder*, since an unstressed dip between verb-stem and particle is effectively provided by the first syllable of *around*.⁹

Of the two possible replacements for *picker-up*, on this analysis *picker-upper* is more comfortable rhythmically than *pick-upper*, even with the apparent redundancy of double marking. Notice too that the alternating 'x'x does not incur the stress-clash of 'x'x'.¹⁰

Whether these rhythmic factors will be enough to ensure that *picker-upper* wins out, who can say? One indication that it might, is that beside that doubly-marked construction, there is even a form with triple marking, not mentioned by Chapman. There are a modest number of attestations on the internet¹¹ compared to the hundreds of thousands for *picker-upper*, for example:

- (8) "Its employee, Mr Cockburn, was driving a tractor fitted with a 'plastic picker upperer' implement, which rolled up plastic that had been laid in rows in a ...
(<http://www.findlaw.com.au/article/13040.htm>, sampled 18 Apr. 2007)
- (9) yes i agree – complain, my dad works as a pool fixerupperer and tell them to put more acid solution/ph solution i forget which one in to balance it out asap.
(<http://malaysia.answers.yahoo.com/question/index?qid=20070205213726AAqIQjN>, sampled 21 Apr. 2007)
- (10) I nominate me for late catcher-onerer of the year!
(<http://www.vbforums.com/archive/index.php/t-193614.html>, sampled 22 Apr. 2007)

This too must be factored in. It seems to me that such usages are simultaneously quite natural (since I can and do use them myself!) and yet somewhat self-conscious, in that they so

⁹ McIntyre (2004) credits Rosta with a rhythm-based explanation for the duplication in *picker-upper*. Discussions of double marking to be added to Chapman's bibliography include McIntyre's summary on LINGUIST (2004), cited by Elenbaas (2006).

¹⁰ Schlüter has presented evidence of a general tendency towards rhythmic alternation of stressed and unstressed syllables (Schlüter 2003: 88-100, 2005), although not specifically of phrasal verb nominalisations. She points out, however, that such alternation does play a part in word formation processes, citing '*solid* vs. *so'lidi,ty*; **cor'rup,tize*, etc. (p.c. 8 Nov. 2007).

¹¹ For example, *upperer* – chosen over *offerer*, *outerer* as more likely to exemplify the kind of nominalisation in question – gets 'about 910' Google hits (22 Apr. 2007); 25 of the first 30 examined were triple-marked agent nouns, and the remainder included such a phrase as *a secret office washing upperer*, which at least has the double termination on *up*.

obviously violate norms of usage involving *horror aequi* or avoidance of haplogy (Rohdenburg 2003) – and note the scare quotes in (8).

In fact Bauer states flatly that 'in English no suffix can be added to a base that already ends in the same suffix' (1983: 92). Bauer's claim seems on the face of it reasonable, so long as 'the same' is interpreted strictly to cover one form in one function. Thus in the selection of examples in (11) and (12) it is perfectly possible to add agentive or comparative *-er* to bases which happen to end in a non-morphemic *-er*,¹² but an *-er* comparative is not usually possible for an adjective which already contains a final *-er* which is etymologically comparative, even though the possibility of a superlative *-est* proves that the adjective is not synchronically comparative, as shown in (13):

- (11) blabberer, botherer, chatterer, offerer, sufferer, wanderer
- (12) bitterer, cleverer, ?eagerer
- (13) *innerer, innerest, *outerer, outerest, *utterer (as adjective), utterest

But the double termination of (8)–(10) shows that the claim cannot be upheld as an absolute block.

Why add yet another *-er* on the end when a form has two already? And if that is possible, why not double up the final *-er* on *pick-upper*? – as far as I know, *pick-upperer* is very rare indeed (one hit for that particular form on Google). I have argued that a rhythmic need for an unstressed dip in second position has been gathering strength (which despite my analysis of *fling-arounder* in (7) does not preclude double marking in the attested *messer-abouter*, *mucker-arounder*, where the dip covers two syllables). Absence of a dip will then help explain the rarity of *pick-upperer*. Rhythm doesn't exclude *picker-upperer*, but it doesn't explain it either. One can only speculate. If a speaker is already intent on producing a doubly-marked form like *picker-upperer*, does the occasional final addition of yet another *-er* syllable happen unconsciously through some kind of involuntary articulatory reduplication, or (semi-)consciously from a desire to distinguish a noun formative from a homophonous comparative adjective (*upper*, *inner*, *outer*, *rounder*)?

Chapman's paper raises the fascinating problem of what speakers do when faced with two potentially contradictory pulls.¹³ Sometimes one or other has to be favoured, as with the competing demands for clause-initial position of negative imperative *don't* and first person

¹² See also Marchand (1969: 277-8) on the *-erer* suffix of *fruiterer*.

¹³ Of course, the resolution of competing tendencies is the basis of Optimality Theory.

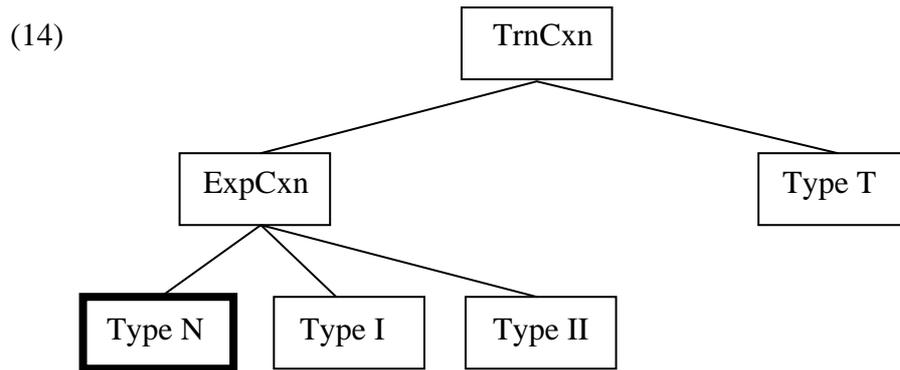
imperative *let's* (Denison 1998: 253-4). Sometimes neither can be satisfied, as argued in Hudson's explanation for the absence of *amn't* from most varieties of English:

The word concerned needs to be an example of the negative of the present tense of BE, which (by default) is *aren't*; but it also needs to be an example of the first-person of the present tense of BE, which is *am*. It cannot have both of these forms at once, so the conflict must be resolved; but we cannot resolve it in the normal way, by giving priority to the more specific alternative, because neither pattern is more specific than the other. Therefore the conflict remains unresolved, we don't know how to pronounce (or write) the word, and we can't use it. (Hudson 2000: 298)

Sometimes the outcome is one of evasion, as apparently in the favouring of *never* as negator for *used to*, avoiding an awkward choice between *didn't use(d)* and *use(d)n't* (Denison 1998: 197). Sometimes it involves trying to satisfy both desiderata simultaneously, as with the sixteenth- and seventeenth-century *not say* pattern, interpretable as a compromise between the older pattern of negation without an auxiliary, *say not*, and the incoming pattern of negator before the lexical verb, *do not say* (Ukaji 1992). It is this last possibility that seems most relevant here: that is, it is plausible to regard double marking with *-er* as a compromise between opposing demands. (Double *-er* does not seem explicable as emphatic reinforcement, as some kinds of linguistic doubling certainly are.)

Trousdale on impersonals

Trousdale's paper is rather different from the other two under consideration, being on syntax and on loss – of the OE and ME impersonals. Since the loss is attributed to the strengthening of another construction, again we have a choice between rival patterns and the need to explain the way that choice plays out. Trousdale presents a partial Construction Grammar analysis in which only four actual clause types are listed for Old English. What they have in common, as is eventually revealed, is that all involve precisely two argument NPs and are therefore, presumably, to be regarded as a reasonably self-contained subsystem of the grammar of OE. In the hope of clarifying the nomenclature, I give here a simplified version of Trousdale's Figure 3:



The overarching two-NP type is the Transitive Construction, **TrnCxn**. This abstract schema has just two subtypes, **ExpCxn** (unlabelled in Trousdale's diagram, but referred to subsequently) and **Type T**. ExpCxn is the Experiencer Construction. It in turn sanctions three subtypes usually involving impersonal verbs. One of them is the most prototypical exemplar of ExpCxn – hence the emboldened box around it – namely **Type N**, the (true) impersonal construction; the others are extensions of Type N, namely **Type I** and **Type II**. To illustrate the four types I use Trousdale's examples (5) and (7) as the basis of (15) – (18) below:

(15) **Type N**

Case of **Experiencer**: Dative or Accusative

Case of **Source**: Genitive

him	ofhreow	bæs mannes
3SM-dat	pity-3SPast	the-gen man-gen
to-him	pitied	because-of-the-man

'He pitied the man'

Or: 'The man caused pity in him'

(*ÆCHom* I XIII.281.12)

(16) **Type I**

Case of **Experiencer**: Dative

Case of **Source**: Nominative

him	ne ofhreow na	bæs deofles hryre
3SM-dat	not pity-3SPast not	the-gen devil-gen fall
to-him	not pitied not	the devil's fall

'He did not pity the devil's fall'

Or: 'The devil's fall did not bring about pity in him'

(*ÆCHom* I XIII.281.14)

(17) **Type II**

Case of **Experiencer**: Nominative

Case of **Source**: Genitive

se mæssepreost	bæs mannes	ofhreow
the-nom priest-nom	the-gen man-gen	pity-3SPast
the priest	because-of-the-man	pitied

The priest pitied the man

Or: 'The priest felt pity because of the man'
(COE) *ÆLS* (Oswald 262)

(18) **Type T**

Case of **Agent**: Nominative

Case of **Patient**: Accusative

he acwealde *þone dracan*
3MS-nom kill-1/3SPast the-acc dragon-acc

'he killed the dragon' (*Ælfric Homilies* (Supp.), XXI, 455)

The 'impersonal construction' is referred to by Trousdale but is not represented on any of his diagrams. The box which I have chosen to label as 'ExpCxn' in my (14) is not co-extensive with the impersonal construction, since some of its instances are not impersonal (see Trousdale's (4) = my (19) below). I take it, therefore, that 'impersonal construction' refers generally to Type N, the prototypical instantiation of ExpCxn.

Having long ago looked at OE impersonal and non-impersonal patterns myself (Denison 1990), where I considered relating them by means of Quirk's serial relationship, I later suggested that '[t]hese ideas might now perhaps be reframed in terms of Prototype Theory or Grammatical Construction Theory' (Denison 1993: 96)! Since precisely those two approaches lie at the heart of Trousdale's paper, I welcome the opportunity to see how well they fare. I have a number of comments, some of them more in the way of suggestions for future work than criticisms of what is still only an indicative sketch.

Trousdale apparently regards the historical change in the morphosyntax of case marking not as a contributory cause of the decline of the impersonal construction but as a symptom of the grammaticalisation of the transitive. I think it fair to say that no explanation is given for why the impersonal construction should have declined when it did: all that is claimed is 'the gradual disfavouring of a set of constructional subtypes', which is merely an alternative way of describing the change, and that the decline is 'associated' with the grammaticalisation of TrnCxn. There is some discussion of how patterns could become reclassified, with an interesting comment on 'the ambiguous – and sometimes non-existent – force dynamics of the processes associated with impersonal constructions' as explanation for alternative outcomes with different verbs. The value of the paper lies in new insight not so much into the impersonal as the history of transitives. If the whole process can be related to grammaticalisation, then grammaticalisation and Construction Grammar are shown to interact fruitfully and each receives a measure of support by its successful application to a new set of data.

A fuller account on these lines will need to resolve a number of questions. One is the role of word order. It is not made clear whether Figures 3 and 4 in Trousdale's paper specify

the word order of constructions. All constructions are represented by formulas of the type NP-V-NP, but the definitions seem to be semantic and morphological: 'one of the arguments is the experiencer of some sort of psychological state or process' (Type N); 'the NP functioning as patient is case-marked as accusative. The verb denotes an action involving the transfer of physical energy' (Type T). Trousdale's examples (4) (OE) and (12) (eModE), reproduced below, are both apparently Type I:

- (19) hu him se sige gelicade
 (20) [...] to gete that thee and thyne behoueth

The order of both is NP-NP-V, which implies that construction types merely stipulate argument structure.¹⁴ Yet a crucial element in Allen's (1995) analysis, cited by Trousdale, concerns Experiencers that are preposed. To what extent, then, is word order criterial for the construction type(s) under discussion here?

Which level is basic at a given period? In ModE apparently the TrnCxn is increasingly a superordinate category, showing 'mutual distinctiveness with respect to other superordinate categories' like the copula construction: 'while the copula allows non-NP subjects (*Over there is fine*), few verbs [note omitted] in the TrnCxn do'. In his first version Trousdale had written 'no verbs in the TrnCxn do', in response to which I offered (21):

- (21) a. Over there *suits* me fine.
 b. Travelling slowly always *irritates* me.
 c. That the sun seems to move doesn't *disprove* Copernicus's theory.

His note 9 now addresses my quibble. More to the point, if the TrnCxn has been becoming more schematic, are we to assume that it was (more of) a basic level category in OE or merely more substantive? Presumably the latter, since we are told that the basic level categories of OE were ExpCxn and Type T, not TrxCxn. There seems to be some unclarity as to which transitive construction is being followed: 'By Modern English, the range of distinctive constructional types has reduced, and the TrnCxn licenses an increasingly larger [sic] range of tokens' – but TrnCxn is also defined for OE. And why is the overarching two-NP construction of OE called TrnCxn, when one of its two apparently equal subtypes – neither has an emboldened box to suggest prototypicality – is not transitive or agentive at all? That seems to be anticipating the diachronic outcome which is presented for post-OE times.

¹⁴ Note too that it is the first NP which is Experiencer in (19) but the second in (20). And no reason is given for classifying (20) as Type I rather than Type N: the pronoun *that* is not unambiguously subject of the nominal relative clause.

Another problem concerns the relationship between prototypical subtypes and extensions. In OE it is said to be ExpCxn which has both kinds, whereas Type T has only the former. In ModE it is TrnCxn which has developed extensions. These claims look on the face of it rather simplistic. Only one solitary instance of Type T is given for OE, and that is described as prototypically transitive. However, Type T has variants in OE too, and it would be interesting to know whether these would be described as non-prototypical extensions, or what. Here is one (many more could be given):

- (22) Gif he geeuenlæcð deofle on manlicum dædum (*ÆCHom* II, 13 129.74)
if he imitates Devil[DAT] in sinful deeds

The NP *deofle* in (22) is only glancingly a Patient, and it is not marked accusative, while the action is not telic or punctual (though it is volitional and actional). Trousdale mentions the fact that verbs like *lufian* 'love' are not covered by his classification. We could muddy the waters much more, unfortunately. How are we to classify common examples like the following?

- (23) þa hæþenan ... mid anum swencge slogon him of þæt heafod. (*ÆLS* (Edmund) 123)
the heathens ... with one blow struck him[DAT] off the head[ACC]

Example (23) is about as prototypically transitive as can be, yet there is a dative, *him*, which – if not analysed as a possessive within the Patient NP – may be called a dative of disadvantage, which is closely akin to an Experiencer. Once again we need to know how this will be classified. In my discussion of the difficulty of separating impersonals from non-impersonals in OE (Denison 1993: 93-6), I drew attention to such facts as *lystan* 'desire' (impersonal), *gitsian* 'covet' and *friclan* 'desire' (non-impersonal) all taking a genitive of the Source object; *sceamian* 'shame' (impersonal) sharing a genitive Source object by coordination reduction with *fægnian* 'rejoice in' (non-impersonal); likewise *egl(i)an* 'ail' (impersonal) sharing a dative Experiencer/Patient object with *derian* 'harm, injure' (non-impersonal).

What is the significance of frequency? Trousdale cites Thompson & Hopper as showing that 'clauses which are canonically "transitive" – i.e. telic, punctual, volitional on the part of the agent, and so on – are surprisingly infrequent in naturally-occurring conversation' in American English and cross-linguistically too, as are two-NP clauses generally. How does this bear on the story being told about the history of English? It seems to imply that Type T should be infrequent in OE, and we are told that Type N was 'already

rare in Old English'. Between them they are the only two-NP constructions listed. If frequencies are so low, how does this relate to the claim that extensions tend to involve **high** type-frequency constructions? Some numbers would at least put the offered fragment of grammar in context.

Furthermore, are two-NP constructions really a self-contained domain? Some impersonal verbs can occur in one-place as well as two-place use:

- (24) Gyt me twynað (*ÆCHom* I, 4 72.30)
yet me is-in-doubt

The same goes for transitive verbs being used intransitively, though it is probably true that OE makes a clearer separation than does ModE between transitive and intransitive verbs. It has even been suggested that some impersonals may occur in three-place use (Denison 1993: 73)

A possible reaction to the difficulties of examples like (22) – (24) is to allow multiple inheritance (Goldberg 1995: 97-8) from more than one superordinate construction, rather than always having a given construction sanctioned by a single superordinate construction. Although Croft (2001) does not seem to comment explicitly on this, I take it, for instance, that an impersonal clause in the interrogative would have to be sanctioned by both ExpCxn and an Interrogative Construction:

- (25) Hu þyncð eow nu, cwæð Orosius, ... ? (*Or* 8.52.15)
how seems you[DAT] now, said Orosius, ...

However, introducing multiple inheritance could necessitate many changes to the grammaticalisation story. In any case a fuller diachronic account may not seem so monotonic as the 'gradual disfavouring' of impersonal constructions offered here, since some verbs only developed impersonal uses in ME before losing them again (Denison 1993: 71-2 and references given there). Would that be linked to a partial grammaticalisation too?

What I would advocate as a way of fleshing out this account is to use the Penn Parsed Corpora of OE, ME and eModE to make some estimates of the relative proportions of the different kinds of constructions in different periods, to see whether the transitive construction does indeed expand at the expense of ExpCxn in the way suggested.

As to self-conscious creativity, discussed above in relation to word-formation, this is not so easy to find in the realm of syntax. Or rather, it is very easy indeed to find in the style of an individual writer – for example, the zeugma of 'He left in high dudgeon and a hansom

cab' – but less easy to identify as a habit shared by a social network and spreading to the population at large. An often-cited example is final *Not!* added after a pause, sarcastically negating what precedes, at first a catchphrase of the show 'Saturday Night Live' (*OED* s.v. *not* adv. n. and int. C). A more general case might be the early diffusion of the progressive passive, although the sociolinguistic account of its origin does not insist on conscious awareness of its novelty on the part of early users (Pratt & Denison 2000). In Construction Grammar there is no principled difference between lexemes and syntactic constructions, so better examples might perhaps be adduced.

Category strengthening

Conscious creativity is an intriguing but probably minor part of language change overall. If we return to the more general points under discussion in these three papers, what emerges forcefully as a common theme is the notion of category strengthening, a sort of snowball effect or positive feedback whereby identification of a pattern by hearers leads to its productive use by speakers, which in turn further strengthens the pattern, and so on. Yet of course it does not always happen like that: either the snowball never starts rolling at all, or it may take off and then come to a halt or even (to push the metaphor to its limit) melt away. And remember too that none of the morphological and syntactic phenomena discussed in these papers are of particularly high frequency – if anything, the contrary. For the idea of category strengthening to have real explanatory value and not merely *post hoc* plausibility, we will need to know how to measure the 'strength' of a category and also what other factors can interfere with the process of strengthening.¹⁵

Evidence and heuristics

Finally, I consider the three papers in relation to the theme that runs through this volume. The choice of evidence in Palmer's paper is an interesting one, out of tune with the current predisposition towards large evidential databases and computerised searching and counting, though somewhat akin to recent historical research on social networks, on which see for example Tieken-Boon van Ostade (2000) and Fitzmaurice (in press 2007). Given the significance of register, given the unevenness of available records in late Middle English, and given Palmer's concern with developments within specific communities, the choice of corpus

¹⁵ In this connection Elizabeth Traugott reminds me of the recent dissertation by Hilpert (2007), which adds a historical dimension to the 'collostructional' model of Gries & Stefanowitsch (2006).

is understandable, and the data in turn impose limitations on the analytic methods that can be applied.

Chapman tries the conventional historical corpora in the ICAME collection and finds little of use: the nominalisations he is interested in are probably too colloquial and ephemeral to figure much in such corpora. His mining of the *OED* works quite well, at least as an indicator, and as we have seen, other historical collections are coming online in ever-growing size and numbers. For current usage the internet is the obvious source to turn to, despite the evident drawbacks of such an uncontrolled resource; useful references here include (Keller, Lapata & Ourioupina 2002), (Hundt, Nesselhauf & Biewer 2007, Rosenbach 2007). As a heuristic, the device of using the tagging of the BNC to help generate search strings for internet searches is ingenious, and the results are useful. As for triple marking by *-er*, who could have predicted such a bizarre form? You have to have the luck to stumble upon it, or to use it yourself.

Trousdale's paper is more programmatic than the other two I have discussed, and the direct evidence in it is limited, the data being borrowed from the work of others. What Trousdale is working towards has more to do with **types** of explanation: as far as data is concerned, aiming to relate the loss of one pattern (impersonals) to the rise of another (transitives), and in theoretical terms, marrying one approach (grammaticalisation, diachronic) with another (Construction Grammar, synchronic). These too are heuristics, and commendable ones, but at a more abstract level.

Appendix: On the response by Don Chapman

I have made some adjustments to my discussion above of Chapman's paper in the light of his (unpublished) response to my first version. In three cases, though, he made rather detailed comments and even introduced some new findings which would not fit comfortably in the body of my paper. I reproduce them here with brief comment.

I had noted the discrepancy between the historical survey, which covered both phrasal and prepositional verbs, and the internet data. Chapman responds:

As prepositional verbs are notoriously difficult to identify – in many ways they constitute more a continuum of idiomaticity than a discrete category – I did not try to sort them out. For this response, I have examined a sample of fifteen such verb-preposition combinations:

	<i>picker-up</i> pattern	<i>picker-upper</i> pattern	<i>pick-upper</i> pattern	<i>uppicker</i> pattern
look after	x	x	x	x
aim at	x			
look at	x	x	x	
account for	x			
ask for	x	x	x	
look for	x	x		
pay for	x	x	x	
wait for	x	x	x	
benefit from	x			
depend on	x			
apply to	x	x		
belong to	x			
agree with	x	x		
deal with	x	x		
work with	x	x		x

Table 1: Nominalisations of prepositional verbs (Chapman)

As Chapman goes on to comment:

Several prepositions are examined in this sample that were not included in Appendix 2, namely *after*, *at*, *for*, *from*, *to*, and *with*. As the table shows, the *picker-up* pattern is the most used. Space limits further analysis.

I have been able to confirm with Google the existence of most, if not every one, of the combinations checked in Chapman's Table 1.

In response to my observation that in most cases the particles¹⁶ that occur in prepositional verbs can also occur in phrasal verbs, he writes:

But if one speaks of tendencies rather than categories, the division remains strong. O'Dowd (1998) examined the percentage of time that certain particles/prepositions were used in phrasal verbs versus prepositional verbs. When these percentages are added to the distributions of the particles/prepositions among the three nominalization patterns, the correspondences are striking. There is a strong tendency for those particles/prepositions that occur more typically in phrasal verbs to be more typical of the *picker-upper* pattern and those that are more typical of prepositional verbs to be typical of the *picker-up* pattern.

¹⁶ I use **particle** as a cover term for both transitive (prepositional) and intransitive (adverbial) uses, whereas Chapman confines it to the latter only.

particle / prepositions	% used in phrasal verbs	% used in prepositional verbs	<i>picker-up</i> pattern	<i>picker-upper</i> pattern	<i>pick-upper</i> pattern
about	0%	97%	4	0	0
along	-	-	1	0	0
around	66%	34%	2	0	0
back	-	-	7	22	6
down	94%	4%	18	37	21
in	18%	81%	16	19	10
off	79%	21%	12	20	10
on	15%	83%	13	11	3
out	98%	1%	31	74	23
over	73%	24%	8	1	0
round	-	-	4	2	2
through	31%	65%	2	0	0
up	98%	2%	33	84	67

Table 2: Correlation between nominalisation and use in verbal patterns (Chapman)

It is indeed interesting to find that agent nominalisations of prepositional verbs behave differently from those of phrasal verbs.

Finally in his response, Chapman agrees that the *-er* formations are infrequent. 'But why that should be so calls for explanation, since the input (multi-word verbs) and the process (*-er* nominalization) are both very frequent.' Perhaps the distinct nature of multi-word verbs plays a part. He checked on Google and found affixes other than *-er* (tense suffixes, past participle marking and *-ing*) repeated or misplaced on multi-word verbs. He offers these examples with *pick up*: *The pacing [...] picks up about a third of the way into the book; he pick ups whatever the trouble is; rental items pick-upped or returned; has to be picked upped and turned on its side; delayed from pick upping Mel; a lot of the picking-upping.*

These forms do not appear to be as frequent as the *-er* forms, but they still show that the *picker-upper* phenomenon is not limited to the *-er* suffix. Nominalization and perhaps even suffixation show what interesting constructions multi-word verbs are. Whatever leads speakers to *picker-upper* and *pick-upper* might lead further.

Indeed so. The uncertainty as to the attachment point for affixes that is evident in the nominalisation even manifests itself occasionally with the verb. That uncertainty plus limitations of register will presumably hold the nominalisations back.

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