David Denison (Manchester)

Category Change in Late Modern English?

0. Introduction

The intentions behind this paper are twofold. It offers a range of linguistic changes, all linked by the common theme of category change, as a contribution to the discussion of Late Modern English. And as a preliminary to a forthcoming project on morphosyntactic categories and the boundaries between them, it aims to stimulate discussion of the theoretical issues that arise from consideration of such changes. I have brought together and added to a range of material which I had previously begun to explore (and in some cases already published in widely scattered papers).

This discussion paper will begin with the following topics: what categories are (section 1); sudden category change (section 2); synchronic problems with categorisation (section 3); diachronic problems with categorisation (section 4). The last two, brief sections are concerned mainly with modal verbs: in section 5 I discuss prototypes, leading to a final section on the idea that categories themselves are changeable (section 6).

Categories are basic to language. Almost everyone knows the terms Noun, Verb, Adjective etc.¹ Some categories at least are familiar in schools, being probably the first grammatical information given to children. Their existence is axiomatic in most linguistic models: they are stipulated to exist, and every word in every grammatical sentence belongs to one (and only one) category. Corpus linguists tag words with category labels. All in all, then, categories seem to be central to many kinds of linguistic endeavour.

1. Categories: What Are They?

School-level definitions are often notional: 'A noun is a naming word', 'A verb is a doing word', 'An adjective is a describing word' etc. University-level students are taught that such definitions do not actually work. Standard examples to demonstrate this include:

- (1) the demolition of the temple
- (2 She dreams every night
- (3) a boy band

Though just how extensive that 'etc.' is, is not a straightforward matter, as the number of parts of speech has never been universally agreed, nor the distribution of items among them. There is a long tradition here, discussed at length by Michael (1970), for example. For a modern treatment which explicitly diverges from traditional classifications, see Huddleston and Pullum (2002, 22 and *passim*).

In (1), for example, *demolition* is a doing word but a noun, not a verb. In (2) *dreams* is not a very convincing doing word, particularly in the sense of being visited by involuntary visions during sleep, yet it is certainly a verb. In (3) *boy* is a describing word, modifying *band*, but in modern structural descriptions it is generally taken to be a noun, not an adjective. Such descriptions prefer to use formal (structural, distributional) criteria for identifying categories, for example properties like (4)-(7) for identifying nouns (N) and their associated phrasal category, the noun phrase (NP):

- (4) N can be preceded by the.
- (5) (Most) N can be marked for possessive and/or plural.
- (6) N can be head of NP.
- (7) NP can function as subject, direct object, indirect object, complement, complement of preposition.

In my opinion, the point of categories is that they belong to our pattern-recognition abilities. Language users (unconsciously) economise by using or recognising the same structural patterns for many words of a single category. Linguists (consciously) use categories to capture generalisations. In that case, what is the status of category *change*?

2. Category Change as Sudden or 'Catastrophic'

Category change which takes place by reassignment of a word to a different category presents no theoretical problem. There are various well-known processes. Words may change category by the addition of an affix (usually a suffix):

(8) pedestrian n. (?1770-) \rightarrow pedestrianise v. (1811-)²

Category change can also occur by the process of conversion (or zero derivation):

- (9) pedestrian a. (1716-) \rightarrow pedestrian n. (?1770-)
- (10) invite v. (1553-) \rightarrow invite n. (1659-)

Such changes are clear-cut and instantaneous and simply produce a new word. Vocabulary increase does not disrupt the system. A nice example is provided by *sanction*, which has twice moved from Noun to Verb, as summed up in (11) and (12). The curious effect is to leave the language with homonymous verbs of more or less opposite meaning, as in (13) and (14). But there is no problem with the category labels.

- (11) sanction n. 'decree' (from late 16th c.) \rightarrow n. 'permission' (1720-) \rightarrow v. 'permit' (1797-)
- (12) sanction n. 'decree' (from late 16th c.) \rightarrow n. 'penalty' (a1633-) \rightarrow n. 'coercive action' (1919-) \rightarrow v. 'penalize' (1956-)
- (13) Einstein had signed a letter to Roosevelt in the belief that although Roosevelt might sanction the development of a bomb, he would never agree to its use against an enemy that did not possess such a weapon (*Science Year*, 2002)
- (14) U.S. urges U.N. to sanction Iran on nuclear issue (The Plain Dealer, 1 Sep 2005)

Dates given are first occurrences in the *Oxford English Dictionary (OED*; cf. Simpson and Weiner 1989). Emphasis in sentential examples (apart from *He* in [23]) is mine.

3. Synchronic Problems with Categorisation

In morphology (the form and structure of words), it is normal to accept that members of a category may vary in their typicality. Consider the category Adjective. Prototypical adjectives can premodify a noun, postmodify a noun under certain conditions (such as when coordinated or when taking their own complement), head a predicative phrase, show gradability and be modified by adverbs (cf. Huddleston and Pullum 2002, 528). Thus *heavy* is a very 'good' adjective, while *alive* is a less good, less typical one:

- (15) a. the heavy cases
 - b. the cases heavy but movable; something heavy
 - c. The cases are heavy.
 - d. This case is heavier.
 - e. an extremely heavy case
- (16) a. *the alive hills
 - b. the hills alive with the sound of music; something alive
 - c. The hills are alive.
 - d. ?These hills are more alive.
 - e. ?*These hills are extremely alive.

In syntax (the form and structure of sentences), it is normal to treat category membership as Aristotelian: clear-cut, an either-or matter. Linguists appear to be saying that even a not-very-good category member behaves syntactically *as if* it were a fully typical member of that category. The analogy of modern computer desktops may be helpful here, whose settings often allow either for icons to be dragged smoothly to any position (cf. morphology) or for them to 'snap to grid' at certain fixed points (cf. syntax). But why should syntax differ from morphology as far as category fuzziness is concerned? Category membership as a prototype phenomenon is discussed by Taylor (1995, 183-196), with references to earlier work which had considered the possibility of non-Aristotelian category membership for word classes.

Then again, category membership may be unclear, as with the nouns kind and sort.

(17) There are two main sorts/kinds of red wine.

Increasingly, these 'nouns' occur with of in patterns where their category is less certain:

- (18) When thanks is not forthcoming, we feel a kind of emptiness.
- (19) You can't trust those sort of offers.
- (20) You're being kind of melodramatic, aren't you?
- (21) I kind of admire what he's doing.

Now, examples like (18)-(21) present a challenge to the assumption that every word in every grammatical sentence belongs to (just) one of a limited number of categories. One possible solution – to argue that a whole phrase has become lexicalised, e.g. *those sort of* in (19) – raises a whole new set of questions: how many words should be included in the putative new lexeme? – what is the category of the new lexeme? – in exactly what circumstances can we say that lexicalisation has taken place? – and so on. Further examples reveal widespread gradience not just between the straightforward

noun usage of (17) and the troublesome idiomatic examples, but between different idiomatic usages. We have merely shifted the controversy from the orthographic word *kind* or *sort* to a longer stretch of language, but wherever we locate the decision, the data remain resistant to arbitrary black-or-white choices – essentially grey. I have framed this set of problems as a challenge for the synchronic analysis of English, but the same or similar questions beset a diachronic analysis too.

4. Diachronic Problems with Categorisation

The trouble is that some historical category changes are graded rather than instantaneous and clear-cut. They appear to proceed by graduated steps, and it is not always clear when the category transition has taken place. Consider two related meanings of the transitive verb *attach*. One, recorded by *OED* between 1765 and 1853, is glossed "[t]o join in sympathy or affection *to* a person, place etc. Often in pass. *to be attached to*":

(22) How she kept her father's house in order ... how she *attached* her little brothers *to her* (1833 Martineau, *Brooke F*.)

The other meaning, "win or attract the attachment of", seems to be similar to the first but lacks the *to*-phrase; it is recorded between 1811 and 1865:

- (23) ... somebody ... who will love you as warmly as ever *He* did, and who will so completely *attach* you, that you will feel you never really loved before (1817 Austen, *Letters*)
- (24) It is a rare thing for a Minister to have an opportunity of so *attaching* & gratifying a whole people as he may now do ... (1843 Martineau, *Letters*)

OED chooses to list the participial adjective *attached* as a separate headword. There are quotations for it in various senses from 1552, and from 1793 onwards in the relevant sense "[j]oined by taste, predilection, affection, or sympathy *to*; partial, fond, affectionate, devoted". Nowadays the active meaning seen in (23)-(24) has disappeared, while *attached* 'fond' is wholly adjectival, as seen by the ready modification by *very* and complementation not by *by* but by *to*:

- (25) Although he is *very attached to* the Kennedys, I thought we had established a certain simpatico relationship with him (1964 Mrs. L. B. Johnson, *White House Diary* [OED])
- (26) *Although he is *much attached by* the Kennedys, ...

When did the new word *attached* actually gain independence from *attach*? And more importantly, can that question be answered in principle with a specific time? In the late eighteenth and nineteenth centuries, *attached* could certainly be modified by *much* and even perhaps complemented at least by an instrumental *by*-phrase:

- (27) In the southern part of the colony and in North Carolina, they are *much attached to* Quarter racing (1784 J. F. D. Smyth, *Tour in U.S.*)
- (28) He was *strongly attached by* sympathy of manners to the Princes (1777 Watson, *Philip II* [1793])³

These characteristics are more typical of verbs. The past participle *attached* may well have undergone the transition $Verb \rightarrow Adjective$, then, but to specify any particular

One reading of (28) makes it a passive corresponding to the active pattern seen in (22).

moment of transition would be artificial. It seems more like a *period* of transition, and during that period not all instances can be referred with complete confidence either to the verb or to the adjective alone.

Another example of a graded transition between categories is given by a group of related adjectives which develop determiner properties (though their adjectival usage is not lost). I mention just one of the items undergoing the change Adjective → Determiner: various. Among the lexical meanings that OED offers for various are two related and subtly different ones, senses 8 and 9. Sense 8 is glossed "[w]ith pl[ural] n[oun]. Different from one another; of different kinds or sorts" and is found from early-to-mid seventeenth century. Sense 9 is "[i]n weakened sense, as an enumerative term: Different, divers, several, many, more than one", found by the end of the seventeenth century. OED comments on sense 9: "It is not always possible to distinguish absolutely between this sense and 8, as the meaning freq[uently] merges into 'many different': cf. divers a. 3." Now sense 8 is a development of the historic meaning 'varied, variable' and is largely adjectival. Sense 9 is more typical of a quantifier and thus of determiners. So, there are two rather different lexical senses of various which can be argued to be categorially different as well. A piece of evidence in favour of a different categorial assignment for some examples of sense 9 is that in syntax, the partitive construction is typical of Determiner, not Adjective. Here an example from the Brown Corpus of Standard American English:

(29) *Various of* the apartments are of the terrace type (*Brown Corpus*, A19 189-190)

The partitive construction with *various* only appears to date from the mid-nineteenth century, and in the twentieth century to be more American than British. Once this construction becomes available, we have stronger grounds for claiming that the word appears to have turned into a determiner. Yet there are many early examples which are equivocal. Given that the graduated nature of semantic change is reasonably widely accepted, why not allow that morpho-syntactic change may proceed by small steps too?

Note that 'graded' ≠ 'gradual'. This is not necessarily an argument for *slowness* of change, merely for graduatedness of at least some changes. One of the insights of Rosch's work on human categorisation (e.g. 1978) is that where possible we tend to strengthen perceived categories, so that hybrid or uncertain categorisations may be disfavoured and hence of relatively short duration in the history of a language (unless exceptionally, like the donkey of Æsop's *Fables*, speakers find equally strong attractions in each direction and the intermediate status persists over time, as apparently with *near* − equally Adjective and Preposition). It may well be, therefore, that some − perhaps many − of the changes discussed here have gone through quite quickly. What I have been arguing is merely that changes of this kind are not instantaneous switches from one state to another. They may involve either a sequence of intermediate steps or else a period in which the analysis is genuinely uncertain or underdetermined. Which of the two scenarios we should advocate is the subject of future research; the answer may differ for different changes.

A third example of category change is Noun \rightarrow Adjective in words like *key*. Consider this example:

(30) I think my key point is going to be this: girls are not wired to do that kind of stuff ...

Example (30) illustrates one of the equivocal patterns (pre-modifier of N) which has allowed *key* to develop increasingly adjectival features (cf. Denison 2001, 128-129). Since the time when that paper was completed, it has become easier to find examples of the fully adjectival use of *key*:

- (31) Jowell added: "We will have some of the most inspiring and visionary facilities in the world and making sure they are delivered successfully is an *absolutely key* task." (BBC, 4 Sep 2005)
- (32) Mennonite lifestyle shows everyday activity *more key* to fitness than sports (*The Medical Post*, 23 Aug 2005)
- (33) [containing (30)] I think my key point is going to be this: girls are not wired to do that kind of stuff ... And an *even keyer* point is the definition of 'stuff' (Blogzkrieg, 19 Apr 2005)
- (34) Keyest paragraph in the papers ... (abc News, 17 May 2005)

The word *powerhouse*, also noted in Denison (2001, 127), is on the same trajectory:

(35) "Our lead singer is like a young McCartney," he says. "It's a *very powerhouse* sound." (Pete Best, quoted CNN, 7 Jul 2003)

My final example of a category change which is neither instantaneous nor clear-cut is a little more complicated. It involves certain uses of non-finite *have*, for which the occasional (but of course non-standard) spelling <of> is a major clue, as in:

- (36) Soposing seven hundred and sixty [servants] to *of* advertised and the same number not to *of* advertised (1837 W. Tayler, *Diary*)
- (37) I never would *of* married in the world, ef I couldn't *of* got jist exactly suited (1844 *Southern Lit. Messenger*)

These are the earliest citations of the phenomenon in the first two editions of *OED*, which patronisingly described the usage as merely 'jocular'. I found an earlier one in Keats, (38), and the online *OED* recently antedated that by a few years, (39) – and changed the style label to read "Freq[uently] in representations of non-standard speech":

- (38) Had I known of your illness I should not *of* written in such fiery phrase in my first Letter. (1819 Keats, *Letters*)
- (39) I never could *of* thought that force Could turn affection in its course. (1814 J.H. Reynolds, ⁴ Safie [OED³])

In fact I can now antedate the usage by another forty years or so from people of a different location altogether (North Cheshire / South Lancashire):

Incidentally, that Reynolds and Keats should share a relatively new and wholly non-standard spelling is probably no coincidence, given the following information: "In October 1816 Reynolds met Keats at Leigh Hunt's house in the Vale of Health in Hampstead. The two young men had much in common: born within a year of each other, they were from similar backgrounds and shared a fervent, idealistic commitment to poetry" (*Oxford Dictionary of National Biography Online*, s.v. Reynolds, John Hamilton).

- (40) the servant to the old Lady I sho~ld not *of* thought of after what had past, but I wonder at no thing (1773 Ann Legh)
- (41) I should be very happey to of seen mrs. Orford at Leek (?1774 D Langham, ?female)

These examples and the corpus they come from are discussed in Denison (forthcoming, 2007). Now although the social history of the usage is a fascinating topic, my purpose in mentioning the usage here is in the context of category change. What is the significance of the morpheme *of* derived from *have*? I suggest it is as follows. If the pronunciation represented by <of> is [əv], it is only weakly suggestive of dissociation between this morpheme and the verb *have*. The spelling has often been used by literary authors for eye dialect, as an indicator of illiteracy without any implication that the speaker's pronunciation of that word would differ from that of an educated speaker. If pronounced [pv], however – as certainly happens for some speakers of Present-Day English – then the morpheme is clearly no longer a verb: it is then unambiguously, I suggest, an invariant particle with a grammatical meaning to do with non-fulfilment or unreality. There are further manifestations of enclitic *have*, whether under the spelling <of> or <have> or <'ve> or <a>. Examples (42)-(44) show it behaving as an enclitic, attached to the verb to its left in defiance of the standard ordering:

- (42) What would've you done?
- (43) a sentiment he would *have* probably denied (*Brown Corpus*, G65 188)
- (44) 'I should've never went on a stupid blind date. They never work out.' (1992 Armistead Maupin, Maybe the Moon)

There is further discussion of the above types of example in Boyland (1998). In (45)-(46) there is an apparently superfluous occurrence of *have* which violates the normal rules for the formation of sequences of auxiliary verbs:

- (45) Little Dombey was my friend at old Blimber's, and would have been now, if he'd *have* lived (1848 Dickens, *Dombey*)
- (46) If I had've been [sc. a biographer] ... (2005 AS Byatt, att. DD, 19 Sep.)

These too suggest that we have to do with a non-verb, a clitic. If so, there has been a category change, but one with no clear transition.

5. Modals and Prototypes

The modal verbs of English are *can/could*, *may/might*, *will/would*, *shall/should*, *must* and maybe *ought*. They have many peculiarities of morphosyntax and semantics and are widely agreed to form a category of their own. Other verbal items share some of their properties and may be considered marginal members or near-members of the category Modal (cf. Krug 2000). Examples include (*had*) *better*, *have to* and *want to*.

The verb be + to-infinitive had the right semantics but the wrong morphosyntax for a modal:

- (47) You will be to visit me in prison with a basket of provisions (1816 Austen, Mansfield Park)
- (48) N.B. No snuff being to be had in the village she made us some (1818 Keats, Letters)

Nowadays *is to* is effectively tensed only (apart from such fossilised usages as *Whatever may be to come*). The loss of sentences like (47)-(48) implies attraction over the last two centuries towards a modal prototype. This in turn suggests that Modal may be a prototype category to which new members can be attracted, gaining partial or marginal membership before coming to conform more closely to the syntactic, semantic or morphological behaviour of core modals. It serves as a further argument against Aristotelian categories with clear yes-or-no membership.

6. Categories Themselves as Changeable

However, this attractive picture is not the whole story. Not all changes in the modal arena involve attraction towards a prototype. The 'core' modal *may* has lost contracted negation, one of the defining characteristics of the category, and there are strong signs that *might* and *shall* are losing it too. The marginal modals *ought* and *used* acquired contracted negation in the nineteenth century – just as might be expected if they were being attracted towards the modal prototype – but for most young speakers, both have now lost contracted negation again. *Better*, a new marginal modal which has been developing along the cline *had better* > 'd better > better, has a frequent use without subject (e.g. Better shut the door), which is very rare with normal modals. Will is now largely confined to purely temporal meaning, which is not really central to semantic modality.

So the recent history of modals is not an uninterrupted, unidirectional progress towards purer and purer modalhood. Rather, the nature of the modal category – indeed the modals themselves – may be subtly changing (cf. Cort and Denison 2005). Evidence includes the documented decline in frequency of the 'central' modals and growth in use of some 'marginal' modals (cf. Leech 2003).

Any category is the sum (or average) of its members. If speakers start to apply modal-like patterns to items which were originally not modals, and which retain many non-modal characteristics, then such items are to that extent perceived as modals – but their other characteristics then skew the overall perception of the category, and of the superordinate category Auxiliary.

The category Modal is developing in several directions at once. Many marginal modals involve be: not just is to, discussed above, but locutions like to be able, be supposed to, and so on. Anything involving be brings in inflection, since be is the most highly inflected verb in the English language. Yet one of the most salient characteristics of the core modals, true since the eighteenth-century loss of thou, has been the absence of verbal inflection. Another central characteristic of modals is that prototypically they only have tensed forms. Two of the most interesting candidates for recent marginal membership of the category, to⁵ and let's, are in fact untensed only. I have argued (De-

I refer here to the suggestion, due to Pullum (e.g. 1982), that it is less economical to treat the infinitival marker *to* as 'syncategoremic' (that is, outside the category system) than to regard it as a peculiar kind of auxiliary verb. The main justification is that by doing so we gain a neat

nison 1998, 210-212) for the development of invariance of form as the most salient characteristic of auxiliaries in the future, mentioning items such as 've, try and, etc. And if all this evidence is not thought sufficient to demonstrate the changing nature of the category Modal, here is the clincher: the whole Modal category is recent in the language.

Modal is not the only such category. Determiner too is only motivated in the recent history of English (and maybe not even then: cf. Spinillo 2004). It is reasonable to suppose, therefore, that it did not spring into existence – for the majority of linguists who accept its existence – both fully-formed and entirely stable, and in fact its instability is easily documented. The example of *various* discussed in section 4, above, shows that neither the inventory of the category Determiner nor the behaviour of its members is fixed, to which we could add similar Adjective \rightarrow Determiner words like *divers(e)*, *several* and *certain* (cf. Denison 2006), and indeed other long-standing determiners like *such*, *none*, *all* and *both* (cf. Denison 1998, 114-118).

As for larger, open-ended categories like Noun and Verb, these will change only imperceptibly when a single member changes, but even they change over time: the definitional properties of Noun in Old English are not the same as those in Present-Day English. Even during the Late Modern English period, Noun has changed slightly (Rosenbach 2006). Adjective has changed slightly, at least as far as comparison is concerned: *properer* (1821, 1852), *playfullest* (1820 Keats), *scornfullest* (1855-7 Dickens), *sociablest* (1852 Hawthorne). Verb has changed substantially, if only because of the development of Auxiliary and Modal.

A linguistic description which takes categories as (a) fixed and (b) central to the analysis may therefore be misguided. Categories can be regarded not as basic but as epiphenomenal, a position which is entirely at odds with that sketched at the start of the paper. If accepted, it has major consequences for our understanding of language. It would take us too far afield to follow up all the ramifications, but here is one possible interpretation. If individual lexical items cannot always be assigned to a category, while categories themselves do not possess some kind of axiomatic constancy, then it may be more fruitful to analyse not individual words but constructions, and in doing so, not to assume that all constructions are phrasal constituents which are projections of a particular lexical category. In other words, this can be taken as an argument in favour of a Construction Grammar approach.

Finally, I wish to propose that category change should be seen as a component of linguistic change in general which deserves its fair share of attention. And on the strength of the data alluded to in this paper, especially in the last two sections, then at least for

generalisation about the items which can precede VP Deletion (also known as Post-auxiliary Ellipsis). Deletion sites are indicated by \blacktriangle in the following examples:

- (i) I don't like Sauerkraut, but she *does* ▲.
- (ii) I hadn't seen the film, but she had ▲.
- (iii) I can't go to the party but she $may \triangle$.
- (iv) I can't attend the meeting but she expects $to \triangle$.

one period of one language, we can say that category change has contributed significantly to the making of Modern English.

References

- Boyland, Joyce Tang (1998): "A Corpus Study of *would* + *have* + Past-Participle", in: *Historical Linguistics 1995*. Vol. 2: *Germanic*. Richard M. Hogg, and Linda van Bergen (eds.). Amsterdam/ Philadelphia: Benjamins, 1-17.
- Cort, Alison, and David Denison (2005): "The Category Modal: A Moving Target?", Paper presented at The First International Conference on the Linguistics of Contemporary English, University of Edinburgh.
- Denison, David (1998): "Syntax", in: *The Cambridge History of the English Language*. Vol. 4: 1776-1997. Suzanne Romaine (ed.). Cambridge: Cambridge UP, 92-329.
- Denison, David (2001): "Gradience and Linguistic Change", in: *Historical Linguistics 1999*. Laurel J. Brinton (ed.). Amsterdam/Philadelphia: Benjamins, 119-144.
- Denison, David (2006): "Category Change and Gradience in the Determiner System", in: *The Hand-book of the History of English*. Ans van Kemenade, and Bettelou Los (eds.). Oxford: Blackwell, 279-304.
- Denison, David (forthcoming, 2007): "Syntactic Surprises in Some English Letters: The Underlying Progress of the Language", in: *Language History from Below: Linguistic Variation in the Germanic Languages from 1700 to 2000*.
- Huddleston, Rodney, and Geoffrey K. Pullum (2002): *The Cambridge Grammar of the English Language*. Cambridge: Cambridge UP.
- Krug, Manfred G. (2000): *Emerging English Modals: A Corpus-based Study of Grammaticalization*. Berlin/New York: Mouton de Gruyter.
- Leech, Geoffrey (2003): "Modality on the Move: The English Modal Auxiliaries 1961-1992", in: *Modality in Contemporary English*. Roberta Facchinetti, Manfred Krug, and Frank Palmer (eds.). Berlin/New York: Mouton de Gruyter, 223-240.
- Michael, Ian (1970): English Grammatical Categories and the Tradition to 1800. Cambridge: Cambridge UP.
- Oxford Dictionary of National Biography Online. http://www.oxforddnb.com/
- Pullum, Geoffrey K. (1982): "Syncategorematicity and English Infinitival to", Glossa 16, 181-215.
- Rosch, Eleanor (1978): "Principles of Categorization", in: *Cognition and Categorization*. Eleanor Rosch, and B.B. Lloyd (eds.). Hillsdale NJ: Lawrence Erlbaum Associates, 27-48.
- Rosenbach, Anette (2006): "On the Track of Noun + Noun Constructions in Modern English", in: *Anglistentag 2005 Bamberg: Proceedings*. Christoph Houswitschka, Gabriele Knappe, and Anja Müller (eds.). Proceedings of the Conference of the German Association of University Teachers of English 27. Trier: Wissenschaftlicher Verlag Trier, 543-557.
- Simpson, John A., and E.S.C. Weiner (eds.) (1989): *The Oxford English Dictionary on CD-ROM*, 2nd rev. ed. based on the 1st ed. by J.A.H. Murray, H. Bradley, W.A. Craigie, and C.T. Onions, combined with *A Supplement to the Oxford English Dictionary*, ed. R.W. Burchfield and reset with corrections, revisions and additional vocabulary. Oxford: Oxford UP. [3rd ed. in progress; available at <www.oed.com>]
- Spinillo, Mariangela Galvão (2004): "Reconceptualising the English Determiner Class". Ph.D. dissertation, University College London.
- Taylor, John R. (1995): *Linguistic Categorization: Prototypes in Linguistic Theory*, 2nd ed. Oxford: Clarendon P.