Introduction

The book cover boldly promises a “radically new approach to morphology” by Andrew Spencer, previously author of *Morphological Theory* (Spencer 1991) and co-editor of *The Handbook of Morphology* (Spencer and Zwicky 1998). In *Lexical Relatedness*, Spencer re-examines the strained distinction in morphology between inflection and derivation, developing a formal model of a lexical entry capable of recognising canonical inflection (a change in form determined by other properties present) and canonical derivation (a change in form, syntax and semantics) as two out of fourteen types of “lexical relatedness” found in languages.

The concept of “lexical relatedness” in this book is thus less about sense relations between words such as homonymy, synonymy, etc. than it is about morphological relationships, although there are points of connection. An interesting example is the English verb *commit*, whose three senses *commit (a crime), commit (a prisoner to trial), commit (oneself to something)* which require three separate lexemes with different nominalisations, *commission, committal, or commitment* respectively (p. 218). Spencer’s lexical relatedness is also reminiscent of the lexical functions in the meaning-text theory of Mel’cuk (1996).

By working with lexical entries, this is a work of lexicology as well as morphology. The cover claims the book “will interest all morphologists, lexicographers, and theoretical linguists more generally,” but it can also inform and stimulate grammar and dictionary writers working in under-studied languages, as eventually said in the closing paragraph of the book (p. 415).

Summary

The first chapter (Introduction: Words and Paradigms) sketches the book’s proposals as it evokes a range of concepts that will be needed: words, lexemes, lexical entries, lexical relatedness, and paradigms. Lexical entries are proposed to consist of FORM, SYNTAX, and SEMANTICS attributes (as in the HPSG grammar framework, Pollard & Sag 1994), plus a LEXEMIC INDEX attribute, whose significance is unclear at first, but which is a device for distinguishing every lexeme of a language (a formal equivalent of assigning a word to an entry in a real dictionary). The main chapters are then organised in three parts.

Part I deals with some preliminary topics that need more detailed development. Chapter 2 (The lexical entry) examines a number of issues concerning what the attributes of a lexical entry should look like, including a predicate semantics. Chapter 3 (Lexical relatedness) surveys several types of lexical relatedness that are hard to classify by the inflection/derivation distinction: transpositions from one part of speech to another, meaningful inflections such as case, argument structure alternations such as passives and causatives, meaningless derivations (like English verb formation with *under-*), evaluative morphology, and “paradigmatic mixing” (such as in the Russian noun *stolovaja* ‘dining room’, that inflects like an adjective).
Part II is decidedly formal. Chapter 4 (Paradigm Function Morphology) reviews the theory of Stump (2001) in which functions map lexemes to their paradigms, including inflectional paradigms but also simple derivational paradigms for regular derivational affixes. Chapter 5 (Lexical entries and the generalized paradigm function) develops this theory to fit the model of lexical entries, proposing generalized paradigm functions (GPFs) that consist of four independent subsidiary functions defined on each of the four main attributes of a lexical entry, FORM, SYNTAX, SEMANTICS and LEXEMIC INDEX. Since GPFs can change any or all of the attributes of a lexical entry, they can in principle handle all types of systematic lexical relatedness, from inflection to derivation.

Part III presents the theory in action. Chapter 6 (Representing lexical relatedness) applies GPFs to various lexical relatedness types from chapter 3 but excluding the sizeable class of unsystematic derivational affixes (like English -ify) that are used to coin new words, which are not amenable to description by regular functions. Chapter 7 (The form and function of argument-structure alternations), Chapter 8 (Nominalizations), Chapter 9 (Further instances of transposition) explore in detail how these types of lexical relatedness can be handled. Chapter 10 (Lexical relatedness in Selkup) devotes a chapter to the morphology of Selkup, a Uralic language of northern Russia spoken by a few hundred people, that is typologically different from other major languages discussed in the book. Chapter 11 (Conclusion) re-summarises the proposed resolution of borderline inflection/derivation types by relating words in the lexicon to each other on four dimensions simultaneously, the four primary attributes of lexical entries.

Discussion

For many involved in language description, the lexeme-based view of morphology in *Lexical Relatedness* is less familiar or less central than the morpheme-based view. However, a morpheme-based view leads to dictionaries with entries for roots and affixes, and in synthetic languages where most roots appear with at least one affix this approach entails that very few head entries are actually words of the language. Such morpheme dictionaries will be difficult to read if it is right that words are more cognitively accessible than their constituent morphemes, as has been argued in lexicalist research that has come to underlie current ideas on phonological depth in orthography design (Snider 2014, Mohanan 1986), and which is potentially underscored further by questioning of the morpheme itself in the morphology literature. A word-based approach (pp. 8–13) is surely a stronger basis for dictionary work, but it raises the question, how do we identify the derivation of a new lexeme that, theoretically, would justify its own separate entry?

Readers looking for a comprehensive review of traditional inflection/derivation criteria will not find one here, indeed the fullest available list of criteria (Plank 1994) is not among the references. Nevertheless, the book’s focus on model-building draws on a remarkable range of data on the topic. The text often illustrates its points from English or Russian, but other examples are drawn from around the world, and the empirical range is nicely expanded for an English-speaking audience by use of a number of grammars written in Russian.

Conceptually, the book can be a challenging read. The title *Lexical Relatedness* is doubly abstract, abstracting first over lexical relations and functions, and these in turn associate individual lexical entries to each other. Yet despite the complexity of this overarching idea it is not in the index. Also, the concepts of lexeme and lexical entry, on which all else is built, come from two theoretical traditions, the lexeme-based approach to morphology and the lexicalist approach to grammar respectively (p. 25). These are inevitably a stretch if one does not work in either approach, although the synthesis of lexemes with lexicalism (which provides the rich structure of lexical entries that is so useful here) is a notable theoretical achievement of the book.

Indeed, the book’s answer to the inflection/derivation dilemma by “factorising” lexical relatedness over the different attributes of lexical entries is broadly satisfying. Since generalized paradigm functions (GPFs) may change any or all of the four main attributes, we at last have a rigorous treatment of the fact that inflection/derivation criteria are notoriously not absolute. For example, the criteria for derivation in the *SIL Glossary of Linguistic Terms* are hedged: “typically produces a greater change of meaning from the original form,” “often changes the grammatical category of a root” (Loos 2003 - italics added). In Lexical
Relatedness these options of semantic or syntactic change in derived words are encoded directly in GPFs, transforming uncertain criteria into useful typology.

This is made to work by drawing two further promising theoretical lines. First, a distinction is made between unsystematic derivations used to coin words (English *bowdlerize* ‘to remove supposedly indecent passages of a text, in the manner of Thomas Bowdler’, p. 215) and the kind of systematic derivation that is regular, productive and transparent (English *email-er, un-cool*), which is therefore amenable to description by general functions and thus more similar to inflection. Second, the distinction between inflection and derivation is developed into a workable distinction between filling out the cells of a paradigm of an existing lexeme and creation of a new lexeme. At first, awarding derived lexemes a new LEXEMIC INDEX by their GPF seems quite arbitrary, for if both inflections and derivations can now alter FORM, SYNTAX or SEMANTICS, then what in fact justifies creating a new lexeme rather than mapping to a new cell in the paradigm of an existing lexeme? The answer is provided by a new Derived Lexical Entry Principle that “seeks to limit … the extent to which the properties of a base are inherited by the derivate” (p. 200). This clean-slate effect in the altered attributes of derived lexemes requires some detailed formal and empirical work, but grows in significance as the book goes on, in particular for transpositions. Some transpositions create new lexemes with all the properties of a new part of speech, but many display mixed morphosyntax in which the properties of the original word class have not actually been erased (as in *Tom’s continually placing the books on the wrong shelves*, where *placing* shows both noun and verb properties, p. 58). By identifying this difference across a range of languages and constructions, the book implies that the inflection/derivation distinction is not simply about semantic or syntactic change as such, as traditional criteria have suggested, but rather comes down to a new empirically researchable criterion of whether or not properties of the base lexeme are erased when another word is formed from it.

By factorising lexical relatedness over four attributes of a lexical entry, the book generates a new typology for morphological and lexicographical description. Below is my version of the summary of this typology (pp. 273, 275, *my alterations and additions in italics*), adding examples from the book of the different types. Each of the four attributes may be changed between related lexical entries, generating sixteen logical possibilities, where ‘+’ marks a change to an attribute, and ‘–’ marks no change to an attribute. Since the type 1’s in both parts of the table do not depict any linguistic pattern, this leaves fourteen possible types expected to occur in language.\(^1\)

<table>
<thead>
<tr>
<th>Type (Inflection)</th>
<th>LI</th>
<th>SYN</th>
<th>SEM</th>
<th>FORM</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. identity relation</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td></td>
</tr>
<tr>
<td>2. contextual (canonical) inflection</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>agreement, core case</td>
</tr>
<tr>
<td>3. weak polysemy</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>−</td>
<td><em>(English ‘dig’)</em></td>
</tr>
<tr>
<td>4. inherent (meaningful) inflection</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>+</td>
<td>plurals, diminutives, Hungarian case, tense/aspect</td>
</tr>
<tr>
<td>5. m-inert transposition</td>
<td>−</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>English departicipial nouns, Tagalog predicate nominals</td>
</tr>
<tr>
<td>6. transposition</td>
<td>−</td>
<td>+</td>
<td>−</td>
<td>+</td>
<td>Selkup relational adjectives, many action nominals</td>
</tr>
<tr>
<td>7. m-inert meaningful transposition</td>
<td>−</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>Russian/German departicipial nouns</td>
</tr>
<tr>
<td>8. meaningful transposition</td>
<td>−</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>Russian abilitative nouns, Yukaahir proprietive verbs, Selkup locative &amp; similitudinal adjectives</td>
</tr>
</tbody>
</table>

\(^1\) It is helpful to clarify here that FORM changes in this model include stem formation and changes in inflectional class, so these are no more lexeme-forming in themselves than SEMANTICS or SYNTAX changes. Unchanged FORM seems to recall conversion in which a change in function is not marked by any morphology, but Spencer reminds us that unchanged FORM entails both no new affix and no new inflectional paradigm, whereas conversion is change in word class which takes on the inflectional paradigm of the new word class, which is a change in FORM (p. 272).
The typology suggests various ideas for further study of inflection and derivation. Some lines in the typology are “not grammatically realized” (p. 274), and appear only in unsystematic examples shown in brackets, unless systematic examples can be identified. I suggest, for example, that perfect synonymy (derivation type 2) goes beyond unsystematic word taboo systems to the systematic formal changes to words found in secret languages and language games. The typology also draws attention to the fact that, when describing a language, it can be challenging in practice to distinguish whether a new lexeme is created or not: there is the familiar lexicographical problem of weak vs. strong polysemy (type 3’s), but similarly also inherent inflection vs. syntactically inert derivation (type 4’s), transposition vs. transpositional lexeme (type 6’s) and so on. For example, does evaluative morphology ever create new lexemes, or is it always a kind of inherent inflection, as Spencer leans towards (pp. 113ff, pp. 263ff)? Then transpositions, reflecting their occupation of a large proportion of the book, occupy quite a few types depending on which other attributes change along with the word class. This includes questions of whether some transpositions will be found to carry additional meanings (meaningful transpositions), or fail to adopt the inflections of the new word class (morphological inertness or paradigmatic mixing), and which of the various possible syntactic mappings are found in a language: verb-to-noun, adjective-to-noun, verb-to-adjective, noun-to-adjective, noun-to-verb, adjective-to-verb. One idea to consider here is whether predicate nominals, adjectives, etc. can be analysed in some languages as the transpositions noun-to-verb, adjective-to-verb, etc. retaining properties of nouns, adjectives, etc.

The logic of the book’s proposals is sometimes questionable. It is wrongly claimed that it is “logically impossible” for a GPF to change the LEXEMIC INDEX but no other attribute (p. 7). In fact, logic allows this, but it creates an identical duplicate lexeme (p. 275). Since one would never want duplicate lexemes in a theory of the lexicon, the theory needs to exclude this GPF, but the principle of Occam’s Razor (rather than logic) will do the job: entities (in this case, lexemes) are not multiplied beyond necessity. Of greater concern, given the book’s aims, is that the text can take us in different directions on whether the inflection/derivation distinction is being retained or not. When the text commits to a lexeme-based view of morphology, it does seem that this dichotomy is simply unavoidable (“inflection creates forms of lexemes, while derivation creates new lexemes”, p. 39), and that any problems on the borderline between the two will simply have to be resolved. This is indeed borne out by the later appearance of the Derived Lexical Entry Principle that governs the derivation of new lexemes, and the view that transpositions which retain properties of their original word class are word-class-changing inflection rather than derivation (p. 77). Interestingly, the latter notion is defended by noting that grammar writers often put action nominals in their verb chapter rather than their noun chapter, due to their retention of verb properties. Yet, in other passages, transpositions are carved out as a distinct class from either inflection or derivation (p. 138). This line of thought is more perplexing, because transpositions share with all other types of lexical relatedness in the book the fact that they are classified in part by whether they create a new lexeme or not, which is the concrete expression of the inflection/derivation distinction.

The issue is pertinent to the current SIL Glossary of Linguistic Terms definition of inflection, which holds that inflection “does not result in a change of word class” (Loos 2003). This is unusual for inflection/derivation criteria in its strict formulation, without any hedging. The view that inflection never changes word class was already challenged by Haspelmath (1996), but Lexical Relatedness is
ambiguous on this point. If transposition is a distinct class from either inflection or derivation (p. 138), then the claim that inflection never changes word class still stands. If, however, transpositions are subsumed under the classification of lexical relatedness types as either lexeme-creating derivation or non-lexeme-creating inflection (p. 77), which is surely the more systematic way to construe them, then it is indeed possible for inflection to change word class, even if some core class of canonical inflection does not.

Along with this belated discomfort with the possibility of syntactic change in inflection, the temptation surfaces to fall back on semantic change as diagnostic of derivation (pp. 272–275), when it ought to be a separate factor in the factorised typology shown in the table above. In particular, in chapter 7 on argument structure alternations, causative verbs are taken to look derivational because they introduce a new semantic predicate (and in some languages they must be derivational because they are irregular), whereas passive verbs are taken as inflectional because they do not introduce a new semantic predicate (and in some languages they are inflectional because they are integrated into broader inflectional paradigms). This resorts to older inflection/derivation criteria that were seen to be an incomplete guide in the earlier chapters of the book, and we are no further forward on whether or not passives or causatives create new lexemes. This is not least because chapter 7 resorts to a different formalism than the rest of the book, and I conclude that the analysis there is rather preliminary.

*Lexical Relatedness* makes a remarkable contribution in its survey of transposition types and the results obtained concerning when transpositions do or don’t create new lexemes. However, there is clearly more to think about when it comes to lexical relatedness between words of the same part of speech before we can be clearer on when these might be creating new lexemes. Traditions within descriptive linguistics, likewise, remain inconsistent on whether word-class-preserving categories such as passive, diminutive, and ordinal are derivational or inflectional. Spencer actually diagnoses this as a problem area early on (p. 60), but it remains unknown whether *Lexical Relatedness*’s Derived Lexical Entry Principle is of any help in identifying word-class-preserving derivations.
References


