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Christiane Dalton-Puffer, *The French influence on English morphology: a corpus-based study of derivation* (Topics in English Linguistics **20**). Berlin & New York: Mouton de Gruyter, 1996. Pp. xiv + 286.

Reviewed by MARK AMSLER, University of Delaware

The Norman conquest had profound effects on the English language. That much is taken for granted. After 1100, the English lexicon included many original French words from law and administration, the military, and aristocratic court culture. But we also know that languages in contact with one another, as English and French were in later medieval England, can affect one another in a number of different ways besides loanwords. In this new computational study, based on her 1992 University of Vienna dissertation, Christiane Dalton-Puffer carefully examines English and French derivational morphology during the Middle English period (here, 1150–1420) to determine just how much French morphology influenced the morphology and lexicon of English. Her study is based on the Helsinki Corpus of Historical English, a database first developed at the University of Helsinki which includes more than 1.6 million written words divided into 100-year periods (850–1720) drawn from examples of public, official writing, poetry, private correspondence, and diaries. (Since her initial study, the Helsinki Corpus has become more readily accessible on CD-ROM, and there is now a University of Pennsylvania/University of Helsinki Parsed Corpus of Middle English.)

Dalton-Puffer deepens and concretizes our understanding of linguistic structure and language change in medieval England by systematically describing the Middle English derivational system from both taxonomic and quantitative perspectives. Using the Helsinki Corpus database, she describes the types of Germanic and Romance derivational morphology in Middle English, and more importantly, their relative frequencies. The ratio of types and frequencies of Middle English derivations is a crucial part of Dalton-Puffer's analysis, in that she uses a Natural Morphology framework to understand the relative morphotactic and semantic transparency of individual derivational morphemes. Dalton-Puffer's empirical, computational study identifies the functionally productive features of Middle English derivations, at least as they were used in written sources. She combines structural analysis of nominal, adjectival and verbal Middle English suffixes with a deeper functional analysis of the derivational categories, whose productivity became even more important as the Old English inflectional system was disappearing. Dalton-Puffer concludes that Middle English had a 'mixed derivational system' (118), combining the inherited Germanic derivational system with the more recently contacted French system. Further, her frequency study indicates that the later Middle English period (after 1350) witnessed the greatest occurrence of Romance suffixes, except adjectival -ly (manly), even though the linguistic influence of French was declining in England after 1300. The reasons for Middle English's mixed derivational system are complex and a bit hazy, sometimes having to do with a language's natural processes, sometimes having to do with the sociocultural contexts. Dalton-Puffer's study focuses not so much on language contact or bilingualism as on the morphological system of Middle English and the functionality of morphotactic and semantic relations as described by Natural Morphology theory.

The core of Dalton-Puffer's study is her description of the noun, adjective and verb suffixes from both the Germanic and Romance systems as they occur in the Helsinki Middle English corpus. I'll summarize just one of her analyses, that of abstract noun suffixes, to give a sense of how she approaches the data. Based on the instances in the Helsinki corpus, Dalton-Puffer argues that the Germanic abstract noun suffix *-ung/ing* remained productive through the Middle English period as a deverbal formative, whereas some suffixes (*-lac* and *-reden*) dropped out almost entirely by 1400 when they overlapped with other, more frequent suffixes (*-ness, -hede*), and others (*-ship*) developed specialized meanings but failed to be productive by attaching to new English or non-native words. Dalton-Puffer shows clearly that instances of Romance abstract noun suffixes (*-acioun, -acy, -age, -erie, -ment*, etc.) 'exploded' after 1350. Examining the semantic competition between Germanic and Romance suffixes (*-ness, -dom* vs. *-ment, -acioun*) in Middle English, Dalton-Puffer reveals through careful form-function mapping that

'among the Germanic suffixes, Nessendi producers dominate...[while] Among the Romance suffixes the producers of Nactionis dominate' (122). The effectiveness of the Germanic abstract noun suffixes declined between 1150 and 1420, while the corresponding Romance abstract noun suffixes acquired additional semantic functions during the same period, especially after 1350. Dalton-Puffer carries out similar analysis of other Middle English derivational suffixes – concrete (agent) nouns, adjectives, and verbs – and assesses their relative productivity.

Having determined the range and frequency of Germanic and Romance derivational suffixes in Middle English Dalton-Puffer then takes up the question of hybrid words and reconsiders the influence of French morphology on English from the perspective of semantic and morphotactic transparency: when and how did speakers analyze types of French loan words as base + suffix, such that a derivational suffix could be attached to new Middle English words, whether native or borrowed? The evidence Dalton-Puffer presents for hybrid words is scanty, and she usually qualifies her conclusions in the face of a small number of instances. But she argues that 'On the whole,...the Germanic suffixes have produced considerably more hybrids than their Romance counterparts' (214). French derivational suffixes were productively attached to Germanic bases mostly to form abstract nouns, but overall, Dalton-Puffer concludes, Romance suffixes were not very productive during the Middle English period. In particular, Dalton-Puffer finds that Romance suffixes did not combine with Romance bases to form new Middle English words not borrowed or found in Old French. Her analysis of hybrid words and her conclusion that autonomous Middle English derivational morphology was uncertainly productive qualify the way we understand the 'explosion' of Romance suffixes in English usage after 1350. Dalton-Puffer's conclusion sharply challenges the claims by many historians of English that French exerted a great influence on the English language. Whatever influences French did have on Middle English derivations were scattered at best and must be accounted for by a concatenation of morphotactic and semantic processes, not by any single explanation or even by any one statistical sample.

In the course of her study, Dalton-Puffer takes on two of our major sources for understanding Middle English morphology: Marchand (1969) and the *Middle English dictionary*. Both inventories provide frameworks for comparing English morphology with Middle English usage, but Marchand's taxonomy comes off better than the *MED* in Dalton-Puffer's analyses. Her empirical study, grounded in form and semantic function analyses, provides us with a good check on the morphological typologies in Marchand and the *MED*. For example, because she carefully distinguishes *-ly* as an adjectival *from -ly* as an adverbial derivation in her frequency analysis, Dalton-Puffer concludes that the adjectival *-ly* suffix was not very productive in Middle English, contrary to the *OED* and *MED* editors. Elsewhere, Dalton-Puffer smartly emphasizes semantic criteria rather than spelling to reanalyze Marchand's and the *MED* editors' descriptions of the Romance abstract noun suffix *-acioum*. By including alternate spellings and less transparent formations (*corrupcioun, vexation*) in her corpus of abstract noun suffixation, Dalton-Puffer gives a more nuanced, complicated account of the morpheme's productivity, or lack of it, in Middle English.

Dalton-Puffer's analysis of Middle English derivations is provocative and careful, but it would have benefited from more detailed attention to the regional dialect differences in the textual database. Organized chronologically, her study shows clearly the explosion of Romance suffixes in English after 1350. But where in England did these derivations first take hold? I quickly reviewed some of the sources for the different derivational morphemes and found that in some cases northern texts provided the earliest instances, in other cases southern texts did. The provenances of texts in the Helsinki Corpus could be cross checked with her data to determine the geography as well as the chronology of language change.

Geography and individual inferences aside, Dalton-Puffer's book is filled with challenging and accessible empirical data and cogent analyses of morphological processes. In addition, many of Dalton-Puffer's claims can be re-examined by comparing them with other Middle English texts not included in the Helsinki database to determine whether her frequency measures are accurate. Her chronological arguments can be coordinated with regional studies of Middle English suffix usage. Most important, because of Dalton-Puffer's careful, thoughtful study of Middle English derivational morphology, historians of English can not assert with calm certainty that French greatly influenced Middle English, at least not in terms of the derivational morphology of English.

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Elly van Gelderen, Verbal agreement and the grammar behind its breakdown. Minimalist feature checking (Linguistische Arbeiten 364). Tübingen: Max Niemeyer Verlag, 1997. Pp. xiv+222.

Reviewed by CHRISTER PLATZACK, Institutionen för nordiska språk, Lund University

The purpose of this book is to examine cases where full agreement varies with deficient agreement, trying to determine the underlying grammatical factors. van Gelderen, working within the Minimalist framework, assumes overt agreement to be due to either a Spec-Head relation, or a government relation. The Spec-Head type is illustrated by the Standard Arabic example in (I), where the verb agrees with the subject in person, gender and number; similar cases are found in other languages.

(I) al-banaat-u Darab-na Zayd-an the girls hit-PAST-3F. PL Zayd

When the subject follows the verb, there is no number agreement.

(2) Darab-at l-banaat-u Zayd-an hit-PAST-3F. SG the-girls Zayd

van Gelderen assumes the verb in (2) to be in Spec-Head relation to an invisible expletive with singular phi-features, but no features for gender or person. Hence the verb agrees in number with the singular expletive, whereas its agreement in person and gender is determined by the NP via covert feature attraction to I^{0} .

The empty expletive hypothesis is also used in accounting for the deficient agreement in the French example (4); compare (3), with full agreement and presumably a trace of the subject in Spec-Head relation to the participle:

- (3) Il les a repeintes.
- he them has repainted-PL
- (4) Il a repeint les chaises. he has repainted-sG the chairs

The deficient agreement in the Dutch example (5) cannot be explained in terms of an invisible expletive, since Spec-CP is not available. When the subject is in front of the verb, full agreement appears, see (6).

(5)	Vand	aag	geef		jij	gebak	jes	weg.	
	today	7	give-s	SG	you	cakes		away	
(6)	Jij	geeft		va	ndaag	geba	kjes	weg.	
	you	give-	2.SG	to	day	cake	s	away	y

van Gelderen suggests that languages may choose Spec-Head and/or government as ways to check features. In (5), where government is evoked, the verb checks its phi-features in an indirect way with the features of C; the deficient agreement is seen as depending on a property of C,

namely that it cannot be specified for second person in Dutch. A similar type of agreement breakdown is found in older stages of English.

In existential clauses, there is crosslinguistic variation with respect to agreement: the verb either agrees with the expletive or with the post-verbal NP. For French, which has agreement of the first type, the expletive *il* is assumed to check the phi-features of the verb in addition to the strong D-feature in IP responsible for the Extended Projection Principle. For English, having agreement of the second type, expletive *there* is assumed to check the strong D-feature in IP, whereas the phi-features of the verb are checked by invisible raising of the corresponding phi-features of NP.

In constructions with expletive *it* the verbal agreement is determined by the CP. According to van Gelderen, the expletive *it* is raised to check the strong D-feature of I° . Since *it* is merged in the specifier of CP, and as a consequence carries the same features as CP, there is no need for the features of CP to move.

An interesting case of agreement breakdown in Dutch is illustrated in (7). Here the verb agrees in number with the accusative and not with the subject *het* 'it'.

(7) Het waren huyn (maar) it were-PL them (but) 'It was them.'

Het in this construction has argument properties. Similar cases are found in French and in Chaucer's English. According to van Gelderen, minimalism provides a straightforward description of this type of deficient agreement: assuming *het* lacks number features, the verb can only check its person features in Spec-Head agreement with it: the number features need to be attracted from the postverbal NP.

Further instances of deficient agreement discussed in this book concern cases involving *wh*-structures, the indefinite pronoun *man*, *mon*, me(n) in older stages of English, and different types of coordinations.

The nature of agreement and its role in grammar is of great importance for our understanding of how syntax and morphology are related, and van Gelderen deserves credit for her valiant exploration of this important but complicated field. Her book contains a lot of interesting observations and refers to facts from many different languages: more than 50 are mentioned in the Index of Subjects, although the main part of the book is about Arabic, Dutch, English (including older variants and dialects), French, and Swedish.

Having said this, let me declare that there are many things in this book that I do not like. In a way it is a slipshod piece of work: besides references to papers not mentioned in the list of references and several printing errors including lost and doubled words, there is a Spanish quote on p. 40 which is not translated, and a footnote on p. 54 that refers to something other than it is supposed to do.

More important is that the account of agreement that van Gelderen offers can be accused of sloppiness, conceptually and empirically. From a conceptual standpoint, it is an impairment that she uses both GOVERNMENT and the Spec-Head relation, thereby making her framework too permissive. From an empirical point of view, some of the central analyses are not comprehensive enough. Consider, for example, the description of the Standard Arabic facts of (1) and (2) above, that is, full agreement with the SV word order, partial agreement with the VS word order. Recapitulating, van Gelderen assumes the verb in the VS case to be in Spec-Head relation to an invisible expletive, which has singular phi-features but no phi-features for gender or person. This is peculiar, since overt pleonastics in Standard Arabic show no agreement at all (Mohammed Rahhali, p.c.). In addition, the account also fails to explain why the subject receives a specific interpretation in the SV construction, but can be both specific and non-specific in the VS construction (24). A superior analysis, proposed in Rahhali (1996), takes the SV construction to be a Clitic Left Dislocation construction where the apparent agreement marker is a clitic; this description explains the agreement variation and the specificity facts without having to evoke an invisible expletive with properties different from visible expletives. As a matter of fact, the possibility that agreement sometimes is due to cliticization is not discussed, indicating that there are no alternative analyses not considered in the book.

Summarizing, this book deals with a central issue in grammatical theory, bringing up a lot of data from many languages to shed light on the phenomenon. However, the account is not convincing. Hopefully this book will provoke further studies of agreement variation.

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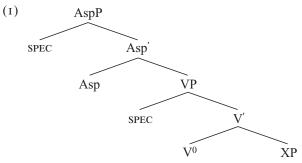
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Gillian Catriona Ramchand, *Aspect and predication: the semantics of argument structure*. Oxford: Clarendon Press, 1997. Pp. ix + 247.

Reviewed by CATHAL DOHERTY, University College Dublin

This monograph is an important contribution to several areas in formal linguistics. Primarily concerned with aspect, argument structure and the syntax-semantics interface, it argues that aspectual relationships and event structure are directly reflected in phrase structure and proposes a profound and far-reaching re-interpretation of verbal predication. This work is therefore of obvious and general interest to both formal semanticists and syntacticians. As the main language of investigation is Scottish Gaelic (henceforth, SG), the book also represents a significant milestone in theoretical work on Irish/SG and is the first major publication on the semantics of this language group for almost twenty years.

The author's proposals are not parochial, however. On the contrary, she proposes a universal decomposition of the notion of verbal predication: specifically, that the phrase usually termed 'VP' consists of a substantive verbal core (corresponding to the verbal noun in SG) and an aspectual shell:



This is reminiscent of the similar decomposition of nominal structure into a nominal core (NP) and a referential shell (DP) under the DP-hypothesis.

SG is chosen as the language of exposition because of its many aspectually-specific periphrastic constructions in which the proposed Asp° is morphologically overt, e.g. the traditionally termed 'perfective', 'prospective' and 'progressive' constructions, headed by the aspectual morpheme *air*, *gus* and *ag/a*', respectively:

(2)	Tha Calum air na craobhan a ghearradh.	(p. 135)		
	Be-PRES Calum air the tree 3RD cut-VNOUN			
	'Calum has cut the trees.'			
(3)	Tha Calum gus a' chraobh a ghearradh	(p. 72)		
	Be-PRES Calum gus the tree 3RD cut-VNOUN			
	'Calum is about to cut the tree.'			
(4)	Tha Calum a' gearradh nan craobhan.	(p. 135)		
	Be-PRES Calum ag cut-VNOUN the trees-GEN			

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'Calum is cutting the trees.'

In many other languages (e.g. English), Aspº is not realised independently. Verbs themselves are aspectually specific, as are verbs in non-periphrastic tenses in SG, such as the past:

(5) Gheàrr Calum craobh.

(p. 69)

cut-PAST Calum tree-DIR 'Calum cut the tree.'

Another central claim is that there is a difference in interpretation between the two object types of SG (genitive objects, as in (4) above, and direct case objects, as in (2), (3) and (5)). It is shown that this plausibly reduces to the general distinction between 'weak' and 'strong' structural Case in other languages. Strong parallels in interpretive properties are drawn between genitive objects in SG and the partitive Case of Finnish, for example. Furthermore, a crosslinguistic investigation of weak and strong objects reveals that only the latter are true, referential objects, type e, while the former are more appropriately analysed as predicate modifiers, type ((e, e)) t, (e, t) (drawing on data from Bengali, English and SG). This distinction in interpretation also correlates with a positional distinction: genitive objects (which are always postverbal) are realized as complements to V, while direct case objects (which can be preverbal or postverbal) are realised in the specifier of VP, in (1) above. The postverbal position of the direct case object in (5) and its preverbal position in (2) and (3) follows from the assumption that only finite verbs raise to Iº in Irish/SG.

Another central proposal of this work is the definition of a novel set of aspectual roles (roles which are explicitly related to the time structure of the verb): i.e. Patient-Partition (Patient_), Patient-Move (Patient) and Patient-Change (Patient), associated respectively with objects of creation/consumption verbs, direct objects of verbs of motion and with change of state verbs. The non-aspectual role 'Mod' is also proposed: strong objects are associated with an aspectual role, while weak objects (predicate modifiers) are associated with the Mod role. The traditional Vendlerian classes of state, achievement, activity and accomplishment are shown to follow from this system in combination with other information, such as the denotation-type of the object. This provides the basis for an account of the long-noted problem that nominal denotations affect the aspectual character of predicates.

The subject position of SG is also examined in detail and two external roles are proposed: an aspectual role, Θ_{ert} , and a stative role 'Locatum', which in combination with the author's other proposals allows for a re-interpretation of the stage/individual-level contrast.

It has been proposed elsewhere that VP is contained in a functional shell such as AspP or AgrOP (e.g. Travis 1991, Adger 1993). However, Ramchand's proposal is radically different in that the proposed AspP is not semantically contentless (like AgrOP), but makes an indispensible contribution to verbal semantics: the aspectual head is the locus of the argument structure (stated in terms of aspectual roles) which is unified with the lexical conceptual structure introduced by the substantive core (verbal noun), as in the following representation of the argument structure of *cut*, where *e* represents a Davidsonian event variable (155):

(6)	Verbal Noun	CUT: Arg1 produces a change in
	Lexical Conceptual Structure	material integrity of Arg2
	_	Argi Arg2
	Aspectual Head	$\langle \Theta_{ext} \text{Patient}_{+/-} \rangle$ e

If Asp^o has argument structure, then we might expect to find both transitive and intransitive forms of Asp^o. This is borne out in SG: the aspectual morphemes *air* and *gus* are both transitive and assign an internal aspectual role to the (non-genitive) object in specifier of VP, while ag is intransitive and fails to assign an internal aspectual role. It cannot, therefore, appear with a preverbal object:

(7)	*Tha	Calum ag an car spàrradh.	(p. 154)
	Be-pre	s Calum ag the car push-vnoun	
	'Calum	is pushing the car.'	

In sum, there is much to recommend this book. It is ground-breaking work in the syntaxsemantics interface and in Irish/SG studies. Many observations about SG and Irish appear in print for the first time here, to my knowledge (e.g. the observation that simple past tense sentences such as (5) admit only telic interpretations). In common with much literature on minority languages, however, little information about the author's informants is provided and so it is not obvious whether judgements hold of speakers in diverse locations or whether they

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are specific to one area. Overall, however, this book represents a significant advance in theoretical work on these languages.

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Jae Jung Song, Causatives and causation: a universal-typological perspective. London & New York: Longman, 1996. Pp. xiv+295.

Reviewed by LINDSAY J. WHALEY, Dartmouth College

This book proposes that causative constructions fall into one of three categories: COMPACT, AND or PURP. The categories are defined by the formal expression of the causing event (hereafter CAUSE) and the caused event (hereafter EFFECT). The COMPACT category is comprised of causative constructions in which the morpheme (or predicate) denoting CAUSE and the predicate denoting EFFECT are contained within a single clause and are contiguous, at least in the typical instance. The AND type of causative is one in which CAUSE and EFFECT are depicted in two separate clauses. These clauses are either linked with a conjunction (or some other coordinating morpheme) or the two clauses are juxtaposed. PURP causatives are not defined solely by formal properties; the criterial feature is that the EFFECT be marked by some element indicating 'purpose' in a broad sense, e.g. dative, goal, or purposive case markers, future tense affixes, irrealis mood affixes or special particles. Commonly, the linguistic realizations of CAUSE and EFFECT occur in separate clauses in the PURP category, but this need not be the case.

Chapter 2 (17-72), which Song devotes to elucidating this typology, is one of the highlights of the book. After a brief description of one of the categories, numerous examples are provided which both clarify the prototypical instance of the category and explore the variation which arises within it. The author takes care to draw data from a set of genetically diverse languages, thereby lending some typological credibility to his categorization scheme. For example, in the sections devoted to COMPACT causatives (20-35), Song begins by providing data from Bilaan and Abkhaz to exemplify a COMPACT causative that employs a CAUSE prefix and is immediately adjacent to the verb root (which indicates EFFECT). This is followed by data from Basque and Swahili, both of which manifest the equivalent structure, but with CAUSE suffixes. Languages such as these represent the 'most frequent' kind of COMPACT causative. Then the author explores languages which diverge from the norm in some way, e.g. languages with CAUSE circumfixes (Georgian) and infixes (Nancowry), or languages in which semantically empty morphemes intervene between CAUSE and EFFECT (Bandjalang). As a finale to the section, Song argues that the COMPACT category is not restricted to morphological causation as it is usually understood: independent lexical verbs indicating CAUSE and EFFECT also represent COMPACT causation just so long as they abut within a clause. As a very effective demonstration of this point, he draws on data from several languages which reveal a certain bondedness between the CAUSE and EFFECT verbs such as the sharing of agreement or tense affixes. Finally, the author identifies a few languages which violate the requirement that CAUSE and EFFECT be strictly adjacent in COMPACT causative constructions.

Beyond the causative typology itself, Song also discusses the historical association between types. Most significantly, he argues that causative affixes (i.e. the morpheme indicating CAUSE

in the COMPACT type) are often derived from the purposive morpheme in PURP causatives. The analysis is of the standard grammaticization sort: a non-causative construction expressing purpose begins to be used to express causation in a language; the causative use of the construction becomes so common that the predicate expressing CAUSE can be omitted in some instances, but the purposive marker is not; the number of instances expands such that eventually the original causative verb never appears, the purposive marker having replaced it; finally, the erstwhile purposive is semantically bleached and maintains only its causative sense.

Song furnishes some convincing evidence for the first three steps along this grammaticization path. Indeed, he dedicates a full chapter (chapter 4, 110–132) to demonstrating how the Korean purposive construction is undergoing transition to a causative with the expected semantic and syntactic transitions. Using the theory of clause linkage developed within Role and Reference Grammar (Van Valin & LaPolla 1997), he shows that the PURP causative construction has a tighter degree of fusion between CAUSE and EFFECT than the related purposive construction. For this and other reasons, Korean is a good candidate for a language in which the first step of grammaticization toward a COMPACT causative has occurred.

Although the author puts forth a good case for the first three stages of grammaticization, his efforts to justify the final step, where the purposive marker has become a prototypical causative affix, are somewhat less successful. This is due, in large part, to the fact that there is no textual evidence available for any language which shows the complete process to have occurred. Thus, Song's only recourse is to languages where there is a degree of homophony between a COMPACT causative affix and some purposive marker in the language (which, as noted above, can be anything from a dative case marker to a directional affix to a subjunctive mood inflection). In many cases, he draws his observations about a possible historical connection from the grammars he consults, which provides a sense of confidence in the claims. However, he is not always so constrained. Take, as just one example, the evidence he provides from Abkhaz (taken from Hewitt 1979: 42). The causative prefix is r-, and subordinate purpose clauses are flagged by the suffix -ro, -razo, or -rano. On this basis, Song opines: 'It is noteworthy that the common part of these three [purposive] markers is the same as the causative prefix' (95). Perhaps, but this sort of loose phonological association, which could easily be the result of chance, is just the kind of evidence which has engendered so much wrath among historical linguists in recent years as they sort out the wheat from the chaff in the great Amerind and Nostratic debates.

There are many other elements of this book which are bound to frustrate typologists, even if they find the general proposals attractive. Perhaps more than anything, it comes as a disappointment that Song utilizes a language sample borne out of convenience rather than one which controls for genetic and areal biases. He is working with an admirably large data base (613 languages; 408 include enough information on causatives for his use) and was well positioned to develop a reliable sample. He works to justify his decision not to do so (17-19), and in the process regrettably misrepresents some claims about sampling which have been provided in the literature, but in the end, he fails to recognize that notions such as 'prototypical', 'usual' and even 'most common' lose much of the force they might have had.

The legacy of this book is a useful typology of causative constructions which moves away from classification based solely in terms of whether causation is expressed lexically, derivationally, or otherwise, by making it explicit what 'otherwise' entails. It also provides evidence for a previously unexplored source of causative affixes. These characteristics make it one of the more exciting works on causatives from a typological perspective in many years.

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