REVIEWS

Barbara Dancygier, *Conditionals and prediction: time knowledge and causation in conditional constructions* (Cambridge Studies in Linguistics **87**). Cambridge: Cambridge University Press, 1998. Pp. x + 214.

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There exists a rich and varied literature on conditionals. Especially the last two decades have seen numerous publications addressing semantic, pragmatic, cognitive, and formal aspects of conditionals in English and other languages. It is therefore a rather bold undertaking to add to this a whole monograph on English conditionals of the '*if* p, q' type, all the more so when this monograph is claimed to offer 'a unified analysis of the form and meaning of conditionals' (4). Fortunately enough, Barbara Dancygier had the courage to tackle this tricky task. Pulling together different strands of current cognitive research, she succeeds in shedding new, interesting light on the interdependence of the form and interpretation of conditionals and thus makes an original contribution to the theory of conditionals. Key figures among those who provided theoretical inspiration are Charles Fillmore (Construction Grammar), Eve Sweetser (3-domain approach to adverbial clauses) and Gilles Fauconnier (Mental Spaces). Indeed, West Coast cognitivism and functionalism, specifically of the Berkeleyan brand, is written all over this book, as is also indicated by other frequently mentioned names. Other cognitive theories the author draws upon are Rosch's Prototype Theory and Sperber & Wilson's Relevance Theory.

In the opening chapter (1–24) Dancygier outlines the central assumptions underlying her study, its major goals and aims, and what she takes the individual theories to contribute to a fresh analysis of English conditionals. This is the picture that emerges:

(A) Following the basic assumptions of Fillmore's Construction Grammar (as outlined, for example, in Fillmore 1988), it is possible to give a full and motivated account of conditionals. Such an account hinges on the study of systematic correlations between their form and their meaning (or interpretation). Relevant formal properties include, above all, the use of different connectives, verb forms, clause orders and intonation patterns, and are individually addressed in later chapters (verb forms in chapter 2, clause orders and intonation patterns in chapter 5, connectives in chapter 6). All of these, Dancygier argues, determine or at least affect the semantic and/or pragmatic properties of conditionals. Ultimately, again following Fillmore in

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this point, she subscribes to the compositionality of conditionals and the possibility of motivating even non-compositional aspects of the meaning of conditionals with the help of their formal characteristics.

(B) Conditionals of the *if* p, q type form a single cognitive category (hence the chapter title 'Conditionals as a category') for which it is possible to identify a single common function (see C). This cognitive category is heterogeneous, as described in standard accounts of Prototype Theory. Central and peripheral members of this category, i.e. central and peripheral uses of this construction, share this common function. They differ with regard to the nature of the formal and contextual factors which interact with this common function to yield the interpretation of each individual conditional. For central conditionals, which Dancygier calls PREDICTIVE CONDITIONALS (see below on chapter 2), there is as it were a tighter fit between form and meaning, whereas for peripheral conditionals the fit between form and meaning is rather loose and requires more context-based knowledge and inferencing (see D).

(C) The common function of *if* p, q conditionals is not clearly identified as such, but appears to be that the proposition in the conditional clause is presented as unassertable in the Searlean sense, i.e. does not count as an expression of the speaker's belief. This is of course due to the connective *if* itself, which Dancygier characterizes as a lexical marker of non-assertiveness. But given what she says in later chapters about conditionals involving other or even no connectives, non-assertiveness really seems to be the one function shared by all types and uses of conditional clauses.

(D) A full account of the form and meaning of conditionals cannot afford to ignore the context and its role in the interpretation of conditionals via pragmatic inferencing. Context here is to be understood as in Sperber & Wilson's Relevance Theory (1996), i.e. as a dynamic concept which draws on the entire knowledge of addresser and addressee, including the knowledge (or set of assumptions) that develops in the unfolding discourse. Correspondingly, it is the optimally relevant interpretation of conditionals that Dancygier is interested in when adopting this inference-in-context approach to conditionals.

(E) Beyond the inclusion of the role of context in the interpretation of conditionals, a cognitive account of conditionals needs to explore 'the ways in which linguistic communication is involved in building extra-linguistic cognitive structure' (20). It is for this purpose that Dancygier implements Fauconnier's theory of mental spaces (1994). These mental constructs are best suited for local and partial 'space-building' in the unfolding discourse,

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and thus fully compatible with Sperber & Wilson's concepts of context and optimally relevant communication. From this perspective, the most general function of *if* is that of 'a space builder for conditional (hypothetical) spaces' (23).

In chapter 2 (25–71) the reader is introduced to a new classification of conditionals, in particular to the central members of the category, namely predictive conditionals:

(1) If it rains, the match will be canceled.   (non-distanced predictive)
(2) If it rained, the match would be canceled. (distanced predictive)
(3) If it had rained, the match would have been canceled.
                                        (distanced predictive)

Prediction in conditionals is a kind of reasoning involving (a) the setting of a hypothetical (typically future) mental space and (b) an attempt at predicting its consequences. The conditionals in (1) to (3) all qualify as predictive conditionals since 'they represent predictive reasonings, and they are therefore marked with *if*-backshift in the protases [i.e. ''the time marked in the verb phrase is earlier than the time actually referred to''; 37] and have a predictive modal in their apodoses' (61). This characterization makes it clear again that Dancygier considers as a conditional the whole construction (*if* p, q) rather than the conditional clause alone (*if* p). In putting conditionals as in (1) to (3) all into the same class, Dancygier abandons the well-established classification of conditionals in terms of open (or: real, factual, neutral, etc.) conditionals (traditionally (1)) vs. hypothetical (or: closed, unreal, counterfactual, etc.) conditionals (traditionally (2) and (3)). The established typology is based on the speaker's belief state and attitude towards the fulfillment of the proposition in the protasis, which is reflected in the choice of hypothetical or non-hypothetical verb forms. By contrast, Dancygier's typology is primarily based upon the temporal reference of the verb forms in protasis and apodosis, since she takes the choice of verb forms in conditionals to have the 'primary function of signaling the predictive or non-predictive character of the construction' (68). This is also why the constructions in (4) and (5) qualify as non-predictive conditionals. They are neither backshifted (i.e. their verb forms refer to the time they indicate) nor are they constrained by the sequence of tense rule (consider especially (5) in this respect).

(4) If it's raining now, let's cancel the match.   (non-predictive)
(5) If she is in the lobby, the plane arrived early. (non-predictive)

The clauses in non-predictive conditionals are temporally rather independent, just as, in general, the assumptions expressed by them appear to be more

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independent from each other. Most clearly this can be seen from the fact that, other than for predictive conditionals, protasis and apodosis in non-predictive conditionals neither follow each other in time (and thus frequently exhibit a non-iconic clause order) nor stand in a cause-consequence relation. Generic conditionals, like *If I drink too much milk I get a rash*, constitute a third (but minor) class in Dancygier's typology, which shares properties with both predictive and non-predictive conditionals.

It will not come as a surprise that Dancygier considers predictive conditionals as the central members of the category of conditionals. This also emerges clearly from chapter 3 (72–109) in which she explores the basic types of relations that may hold between protasis and apodosis. The theoretical basis of this chapter is Sweetser's (1990) well-known 3-domain approach to the interpretation of adverbial clauses (content, epistemic and speech-act domain), which Dancygier slightly refines, for example by introducing the domain of metatextual (perhaps better known as metalinguistic) relations (103–109), as in *When did you last see my husband – if I can still call him that*. The crucial point concerning the prototypical exemplars of conditionals, i.e. predictive conditionals, in this chapter is that they 'are invariably interpreted in the content domain, as expressing relations between events or state of affairs' (79). This is also why only for predictive conditionals there is generally a temporal (typically iconic) sequence of p and q as well as a causal link. Indeed, it is the kind of causality, i.e. real-world causality, that we can observe in predictive conditionals which Dancygier identifies as the central type of conditional meaning: causal predictive conditionality. Epistemic, speech act, and metatextual conditionality, all of which are typically expressed by non-predictive conditionals (84), can be considered as semantic extensions from this central type. Similarly, the links between the varied range of peripheral members of the category of conditionals (e.g. non-predictive 'if p, q' conditionals, generic conditionals, conditionals with other conditional connectives than *if*) can be accounted for in terms of extensions from the prototype (187 and the concluding Chapter 7 in general).

This is the basic story of this book. Chapters 4 to 6 also offer interesting discussions, analyses, and suggestions, but add nothing essential to what constitutes the major contribution of this study to the theory of conditionals. Chapter 4 (110–137) is concerned with the kind of contextually acquired knowledge that is quintessential for non-predictive conditionals. It is here that notions such as givenness, accessibility, topicality as well as the relevance-theoretic concepts of manifestness and (dynamically constructed) context figure prominently. Among Dancygier's major claims in this respect are the following two: (a) conditionals are topical only in the restricted sense of shared accessibility by speaker and hearer; (b) concerning the kind of contextual knowledge that is to be assumed for the protases of predictive as opposed to non-predictive conditionals, it is the speaker's perspective that is more important for the former, while the hearer's perspective is more

important for the latter. In chapter 5 (138–159) the author takes a look at several formal characteristics of conditional constructions: elliptical protases, different sentence types (i.e. declarative, interrogative, imperative) in the apodosis and, for the main part, the order of protasis and apodosis and the resulting discourse (-organizing) functions of conditionals. Unlike previous discourse-oriented studies of adverbial clauses, for example, Dancygier does find postposed protases, especially those with continuing intonation, serving important discourse-organizing functions such as signalling a change of subject. Chapter 6 (160-183) deals with concessive and concessive-conditional *if*-clauses, *unless*-clauses, and the status of *then* as a connective that can introduce the apodoses of many conditional constructions of the '*if* p, q' type (and is thus unfortunately labeled CONDITIONAL CONJUNCTION in this chapter). No conclusive answer is given though as to whether *then* is to be viewed rather as a resumptive pronoun or a marker of sequentiality.

The most attractive feature of this book is the new overall approach to conditionals it offers and the way it is embedded in recent cognitive theorizing. Besides, it includes a discourse perspective (e.g. when exploring the ways in which hypothetical conditionals can be put to use in narrative fiction (58–61)) and presents claims that can be generalized beyond conditionals in English. For instance, predictive conditionals can truly be taken to represent the prototypical conditionals in all languages (184). On the other hand, one may wonder whether the prototype suggested by Dancygier for conditionals is not rather unusual. Normally the core of a cognitive category is relatively small whereas in the case of conditionals predictive conditionals make up the bulk of this category (at least when considering, as the author does, only conditionals of the '*if* p, q' type). But this is only a thought, not a criticism. If there is one major drawback from which this book suffers it is the fact that too few authentic data have been systematically analyzed with the help of the huge corpora that exist for English. One would have liked to see more empirical substance for individual ideas and arguments. Many examples are constructed or taken from earlier publications, and even where a discourse perspective is adopted the discussion and conclusions are based on the analysis of a mere handful of randomly chosen novels. This makes certain claims appear rather bold, especially when they are said to contradict previous research. There are also sections which could have been shorter: why, for example, are there nine pages (94-103) on metalinguistic negation in English and Polish?

Not all readers will agree with the analyses and judgments offered by Barbara Dancygier, and not everything suggested in this book, despite a new wording, has the greatest newsvalue. But without a doubt this is a major contribution to the theory of conditionals. It provides much discussion of earlier literature and, where critical, offers alternative, thought-provoking accounts couched in terms of current cognitive theorizing. This makes it not only obligatory reading for specialists in conditionals in English and other

languages, but also a book profitable to read for anyone interested in a cognitive approach to the study of grammar.

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R. M. W. Dixon, *The rise and fall of languages*. Cambridge: Cambridge University Press, 1997. Pp. vi + 169.

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Drawing frequently on his rich and extensive experience with the languages of Australia and Oceania, author Dixon has written a book that is filled with claims and assertions that are sure to be as controversial as they are thought-provoking; indeed, practically every page of this book had me making notes and comments, though not always nodding in agreement. Dixon's general topic is language change, especially what we can surmise about language development in the distant past, and he puts forward a central thesis as well as some related subsidiary claims that some linguists will find quite provocative.

The thesis Dixon presents most forcefully in this work is that the punctuated equilibrium model of Eldredge & Gould 1972, originally conceived of as a model of biological evolution, can be applied fruitfully and insightfully to an understanding of the way languages have developed. By way of elaborating and defending this thesis, Dixon, after an introduction and chapter entitled 'Preliminaries' in which he discusses his views on the nature of language, offers chapters on 'Linguistic areas and diffusion', 'The family tree model', 'Modes of change', 'The punctuated equilibrium model', 'More on proto-languages', and 'Recent history', before closing with a chapter on 'Today's priorities', one entitled 'Summary and prospects', and an Appendix ('Where the comparative method discovery procedure fails').

As suggested by the title of the Appendix, a subsidiary claim put forth

here, and one tied to his central thesis concerning punctuated equilibrium, is that the utility of the 'Stammbaum' ('family tree') model for language development and language relationships, as well as that of the Comparative Method for reconstruction, is restricted only to certain types of situations, and is not universally applicable to all types of linguistic development. As he puts it: '"family tree" is only one of several interrelated models needed to explain linguistic relationships and development over the past 100,000 or so years. It is applicable to situations during periods of punctuation' (140).

One further subsidiary thesis – more a goal, really – that is developed in many places throughout the book is the political/practical aim of encouraging the exploration and description of human linguistic diversity, especially through field work 'documenting the diversity before it is – as it will be – lost' (5).

I discuss below the content of several of these chapters, and offer some reflections on the claims contained therein, together with some general observations about the book.

I should start, though, by saying that the author does not define his audience appropriately. On the one hand, much in this book is of great interest to the professional linguist, but such an audience will also find much to disagree with and question. On the other hand, parts of the book suggest it is aimed at the interested lay person. For example, the basic claims concerning the comparative method and the putative value of a punctuated equilibrium model to language change make most sense directed at scholars, whereas statements such as 'there is no necessary connection between literature and writing' (81), or 'there is nothing that could be called a "primitive language" (with just a few hundred words and only a little grammar)' (65), or 'it is a common belief that all languages have three tenses – past, present and future. This is far from being so' (118) are surely more meant as correctives to views that a nonlinguist reader may hold. Even the presentation of his subsidiary aim of encouraging field work vacillates between being aimed at professional linguists and being directed to a general readership. On the one hand, Dixon seems to want to rally general support for the idea (note the subtitle 'Why bother?' for section 9.1 concerning the value of describing endangered languages, where he successfully counters the simplistic Darwinian view – 'survival of the fittest' – that many lay people take towards the survival of languages); however, any changes to be effected in the practice of linguistics must necessarily start with decisions by professionals to take up the author's challenges (and to ignore his sometimes blunt condemnations – for which he offers no apologies (6) – of their frank lack of interest in language description, despite what he characterizes as a lot of 'talk' (144 n.3) about language endangerment).

To some extent this (actually quite mild) 'schizophrenia' regarding audience is a function of the brevity of the book, with only 152 content pages in a rather small ($4'' \times 6''$ ($= 10 \times 15$ cm)) format. The presentation of serious

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claims thus generally comes through the medium of overly concise statements that mask important complexities. Still, Dixon's simple, direct and often boldly stated observations about language hold much for professional linguists to learn from, and to argue with, as becomes clear below as I enumerate some of the interesting and controversial claims, chapter by chapter, commenting on them from the perspective of the languages I know best.

In chapter 1, 'Introduction', we encounter the first discussion of the family tree model, as Dixon puts it (with similar statements in chapters 6 and 10): 'For some groups of languages – for instance, Semitic and Polynesian – the family tree model is entirely applicable. For others it may be less so; the similarities that have been taken as evidence for genetic relationship may really be due to areal diffusion' (1). This view, however, repeated later on e.g. in chapter 4 (29), seems to suggest that the family tree model and the 'wave' (i.e. diffusionary) model are mutually exclusive, when instead it is more reasonable to admit that each one responds to a different type of question or set of circumstances – that is, in cases of diffusion, such as the well-studied structural convergences found in the Balkans, the family tree model may not yield insightful results, but it provides the backdrop against which innovations found in one language can be judged as non-inherited. In a related matter, when he castigates (2) the common practice in which proto-languages as reconstructed 'tend to show tidy and homogeneous patterns' even though 'attested languages are seldom like this', Dixon is surely asking too much of standard methodologies. For one thing, reconstruction of variation is possible and sometimes even essential, e.g. when the offspring languages show great diversity (as perhaps with the thematic genitive singular ending in the Indo-European languages, some of which show *-os (Hittite), some of which show *-osyo (Indo-Iranian, Greek, Armenian, marginally Italic), some of which show *-eso (Germanic), and some of which show *-ī (Celtic, and, to a considerable extent, Italic)), or when they show similar but irreconcilable forms (as perhaps with the well-known *-bh- vs. *-m- in various oblique cases in Indo-European, though see Hock 1991: 585–586, 590–591 for discussion).

Similarly in chapter 1, Dixon introduces his notion of equilibrium and what he sees as its linguistic correlates (all elaborated on in chapter 6). In a state of equilibrium in geographical areas with 'relatively easy communication…there would have been a number of political groups, of similar size and organization, with no one group having undue prestige over the others [and] each would have spoken its own language or dialect' (3). Dixon then claims that 'during a period of equilibrium, linguistic features tend to diffuse across the languages of a given area so that – over a very long period – they converge on a common prototype' (4). This claim may very well be right, but even so, some qualification is needed. It describes well the situation with classic Sprachbund cases, such as that found in the Balkans, where the

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'Pax Ottomanica', the period of relative stability in the Medieval Balkans during the time of the Ottoman Empire, gave rise to the conditions in which heavy structural borrowing could occur. However, equilibrium must surely be at best an indirect cause, in that it would foster bi- or multi-lingualism, imperfect in some instances, on the part of individuals, which, together with the sociolinguistic accommodation necessary in such contact situations and simplification in natural second language learning, would be the proximate cause of the spread of features and the structural convergence of languages.

Dixon's chapter 2 spells out several of his basic assumptions, all generally quite reasonable, in my opinion, though some are controversial. Thus while no one (probably) will argue with Dixon's claims that 'every language…is always in a state of change' (9) and 'the rate at which a language changes is not constant and is not predictable' (9), some (though not me) will take exception to the claim that 'there is no universal principle that core vocabulary…is less likely to be borrowed than non-core items' (10, a view that the author rightly points out vitiates glottochronology), and some will consider his claim that 'in the normal course of linguistic evolution, each language has a single parent' (11) simply wrong in the light of Thomason & Kaufman's (1988) discussion of Ma'a and Copper Island Aleut (both of which cases are countered, though, pages 11–13, and at any rate Dixon's use of the qualifier 'normal' provides the leeway he needs here). There are two other preliminary points in this chapter, however, that I must take exception with. In discussing the language versus dialect issue (7, more for the benefit of the nonlinguist audience, it would seem), Dixon says some very sensible things about political definitions (and in chapter 5, he emphasizes the role of such external factors (61–62)), and also about mutual intelligibility, but he then talks about intelligibility in percentage terms (speakers understanding 'very little (maybe 10 %)…or almost everything (70 % or more)') which gives an air of preciseness to something which most linguists, I would venture to say, would not consider quantifiable (or at least not easily so). Also, on page 13, the reader encounters the oft-drawn distinction between 'contact-induced change [and] changes due to the internal dynamics of the language', although perhaps all that is really at issue there, especially if change is defined by spread through a wider range of speakers (i.e., a speech community) and contexts (and is thus distinct from an 'innovation', the first point of entry for some novel element in a language), is how an innovation first enters an individual speaker's system.

Dixon closes chapter 2 with what he terms an 'anti-assumption', namely (14) to 'question the assumption that is frequently made…that all language development, and all types of proof of genetic relationship, must be like what happened in the Indo-European family'. The first part of that 'anti-assumption' continues Dixon's serious challenge to diachronicians, as it runs counter to the explicit claim of Bloomfield (1925: 130), an eloquent statement that is worth quoting in full:

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I hope, also, to help dispose of the notion that the usual processes of linguistic change are suspended on the American continent (Meillet and Cohen, *Les langues du monde*, Paris 1924, p. 9). If there exists anywhere a language in which these processes do not occur (sound-change independent of meaning, analogic change, etc.), then they will not explain the history of Indo-European or of any other language. A principle such as the regularity of phonetic change is not part of the specific tradition handed on to each new speaker of a given language, but is either a universal trait of human speech or nothing at all, an error.

Is Dixon suggesting that these principles are suspended, e.g. in Australia, or is his reference to 'language development' just vague enough to allow him to have his cake and eat it too?

The second part of Dixon's 'anti-assumption', however, seems a bit odd, considering that later, in chapter 4 (37–44), he comes down so hard on proponents of Nostratic and Proto-World, calling their claims of distant genetic relationships 'simply implausible' and methodologically flawed in their insistence, very much unlike traditional Indo-Europeanist practices, 'that the main thing to be considered when formulating a genetic connection between two languages is lexemes…[not] correspondences between grammatical forms, preferably grammatical paradigms' (39 n.9).[1] However, Dixon is not being inconsistent, since he states (40) that 'the error in all this work is not just in failing to take proper scientific care in comparing languages, but in relying on family trees as the only model of linguistic relationship'. His own 'integrated model…combining the family tree and diffusion models', Dixon claims, would remove any 'temptation to perpetrate anything such as "Nostratic"' (40).

In chapter 5, the concern is with the nature of change, and in part the question of whether change is sudden or gradual. Dixon claims that 'many types of change…are not gradual but rather happen fairly suddenly, often within the space of a generation or two' and, in keeping of course with his interest in punctuated equilibrium, likens change to a 'series of steps' rather 'than a steady incline' (54). Terminology may be a problem here, though, for in what sense is a change 'sudden' if it requires two generations to run to completion and be fully generalized? The distinction referred to above between 'innovation' and 'change' might be helpful here, for an innovation,

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[1] Dixon is rightly agnostic in chapter 5 with regard to whether 'language developed just once (monogenesis) or separately in two or more places (polygenesis)' (66, so also in chapter 10, 143), even though the Proto-World hypothesis, which Dixon clearly does not favor, would presumably lead one to posit monogenesis (on the impossibility of monogenesis for ALL languages, see Salmons & Joseph (1998: 3, n.7), who note that signed languages such as ASL are full-fledged languages in all relevant respects that have an entirely different origin from any non-signed language).

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almost by definition, will always be sudden but a change, if it depends on spread, will necessarily have some degree of gradualness (though the spread can be quite rapid). He may of course not be talking about spread through a speech community but rather the emergence of patterns in a subsystem of the grammar, but even there gradualness can be found. The replacement of infinitival complementation by finite clauses in Post-Classical Greek, for instance, took over a thousand years to affect all verbs in the language fully, and Dixon's claim that it is unlikely that one person out of a person/number paradigm for pronouns 'would first become an obligatory bound clitic, while other pronouns remained as free forms' is counter-exemplified by the creation of a weak subject pronoun in early Modern Greek for third person only (and only for two predicates).

As should be clear, Dixon is as much interested in linguistic prehistory as in linguistic history,[2] and he makes numerous assertions about the prehistoric linguistic situation in several parts of the world. In chapter 6, for instance, he elaborates more fully on his punctuated equilibrium model, describing periods of equilibrium and their linguistic ramifications (i.e., Sprachbund-like convergence, see above), the effects of sudden events – mostly non-linguistic in nature (e.g. due to natural causes, aggressive conquests, etc., acts continuing into the modern era as Europeans spread all over the globe, as Dixon reminds us in chapter 8) – that disturb and fragment the stable state of equilibrium, leading to splitting of political groups and thus the development of new languages, all with 'the original genetic relationships … progressively blurred, due to the diffusion of linguistic features throughout the [preceding] equilibrium period' (73). Thus for Dixon, the linguistic diversity in the Americas is a relatively recent phenomenon, 'quite compatible with a 12,000–20,000-year period' (94), a viewpoint which the author himself characterizes as 'diametrically opposed' to that of Nichols 1990 who posits a longer time-span, c. 35,000 years, as an essential ingredient of such great linguistic diversity. Such views are interesting and provocative, to be sure, but inherently quite speculative. Dixon sums up his chapter by stating that 'language split is almost always accompanied by expansion into new territory' (96), though he immediately is at pains to explain away the counterexample of the Nakh-Daghestanian family of the North-east Caucasus area, suggesting that the long-standing diversity there in a self-contained area 'could probably only happen in mountainous country'. Perhaps, but again, we seem to have mostly speculation.

There are many more comments to be made on a variety of other topics, such as Dixon's views on language contact (chapter 3) or his comments on the origin of language (chapter 5, but note also his reference to the emergence

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[2] And, we might say as well, as in linguistic future, given his very strong statements about the need for documentation and description of dying languages.

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of language as 'the first punctuation associated with language' (73)), but space considerations demand that those areas be left to individual readers' judgments.

It should be clear that in many ways, this is a highly personal book, one in which Dixon had an opportunity that most academics would die for, namely a chance to expound one's views relatively unfettered. He was thus able to be at once a proselytizer and a provocateur, and to stake out strongly stated positions, yet be selective as to what he wants to highlight, which languages to discuss, which issues to focus on, etc. The result is a most interesting book; it is not always correct and certainly not as right as the author himself may believe. I remain unconvinced that the Comparative Method fails in the way Dixon suggests in his Appendix, and the speculative nature of much of what he says about prehistory relegates these views to the domain of the interesting but unproven in my mind. Similarly, despite the attractiveness of applying notions of biological evolution to language and language change – a view that has a long history and is based on the idea that language is (like) an organism – I see the parallels more as metaphorical and not substantive.[3]

Undeniably, though, this book makes one think! And perhaps that is the surest measure of a successful book, whether or not one is convinced by the content.

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[3] See Janda & Joseph 2001 for discussion of this very point, where reference is made to the trenchant observation of Bonfante (1946: 295) that 'languages are historical creations, not vegetables'.

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R. M. W. Dixon & Alexandra Y. Aikhenvald (eds.), *The Amazonian languages* (Cambridge Language Surveys). Cambridge & New York: Cambridge University Press, 1999. Pp. xxviii+446.

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The Amazon and Orinoco basins comprise one of the most complex language areas in the world. Sadly for linguistics, the indigenous languages of this vast area continue to remain among the world's most incompletely documented even as many of them fall under increasing threat of extinction. Despite a steady trickle of high-quality studies of individual languages during recent years, notably a fourth volume of the excellent *Handbook of Amazonian languages* (Derbyshire & Pullum 1998), many gaps in the overall linguistic picture of South America persist unfilled. The appearance of this long overdue book will significantly improve the situation. Edited by the director and associate director of the Research Centre for Linguistic Typology (La Trobe University, Melbourne, Australia), *The Amazonian languages* joins several similar surveys published in the same series, notably *The languages of Australia* (Dixon 1980) and *The Papuan languages of New Guinea* (Foley 1986). Each of these books presents the first comprehensive overview of an important and highly endangered slice of the earth's linguistic diversity. Most of the 300 or so native languages of Lowland South America will likely not endure as naturally functioning systems of communication beyond the 21st century. Since the arrival of European explorers and settlers 500 years ago, many dozens if not hundreds of other Amazonian languages have vanished unrecorded, a fact that severely impairs all future attempts to comprehend the region's linguistic history. The loss of even a portion of the remaining languages before thorough documentation can be accomplished would compound this tragedy, since Amazonia contains numerous unusual typological features capable of revealing new insights into the human language faculty. Although the book aims at a complete survey, the editors have had to settle for simply listing some languages by name alone, as little else about them has yet been ascertained: Awaké, Hoti, Irantxe, Kanoé, Puinave, Sape and the Katukina group (20). The work of documenting these languages, as well as improving the descriptions of their better-known neighbors, should be considered of paramount importance to modern linguistics. Inspiring such research is a central aim of the present book.

The Amazonian languages affords a cogent overview of what is known about the typology and genetic affinities of all the indigenous languages of Lowland South America from the Caribbean coast and Orinoco basin to the Andes foothills and south through the watersheds of the Amazon's tributaries in Bolivia and Central Brazil, an area that could be called 'Greater Amazonia'. Certain languages and language families receive greater coverage than others, but this unevenness is useful in that it demonstrates which

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specific areas most urgently require field work. Genetically, the languages of Greater Amazonia represent at least 20 separate families and more than a dozen isolates. What is more, the members of each family tend not to lie in contiguous proximity but instead are mixed in wildly random patterns which the editors compare to a Jackson Pollock canvas (1); a more scientific-sounding description would have done the linguistic map of South America less justice. Although most of these geographically discontinuous families also contain members located in other parts of South America, Central America or the Caribbean, the region under consideration can justifiably be called a linguistic area on the basis of the numerous diffusional structural features found among its many genetically diverse languages. The editors list fifteen specifically 'Amazonian' traits (8–9) shared between the region's genetically unrelatable languages but absent or only weakly represented among sister languages found in more distant parts of the continent. These include the presence of extensive gender or classifier systems, the expression of tense, aspect, and modality through optional suffixes, the prevalence of oddly conditioned ergative splits in the verb-internal actant agreement morphology (with only a single argument normally marked on the verb), and a strong propensity for agglutinative polysynthesis and head marking.

The book's fifteen chapters are written by an array of specialists from South America, Australia, England and the United States. Each chapter ends with its own bibliography. The volume itself finishes with a comprehensive index of authors (431–435), languages and language families (436–444), and subjects (445–446). The editors have done a superb job in uniting the disparate contributions and their necessarily uneven presentation of material into a unified whole. The preface (xxiv-xxviii) and first chapter, the editors' introduction (1–21), introduce two crucial principles that underlie the book's overall organization. One is synchronic, the other diachronic. Though each is controversial in its own way, both will serve any reader interested in Amazon linguistics exceedingly well. Rather than adopting any special formalism for their grammatical and phonological descriptions, the editors employ what they call 'Basic Linguistic Theory', defined as 'the cumulative tradition of linguistic theory, that has evolved over the last 2000 years' (xxvi). This descriptive approach cannot be dismissed as 'theory-neutral' since it advocates a principled avoidance of the opaque terminology and cumbersome formalism that has rendered so many linguistics books rapidly obsolete over the years, as newer formal theories arrive down the pike. 'Basic Linguistic Theory' also succeeds, by virtue of its practical simplicity (a couple of clearly written pages in the preface suffice to explain the requisite terminology), in covering maximum detail without excessive verbiage. Throughout the book there flows a detectable negative undercurrent toward previous formal grammatical approaches such as tagmemics that have tended to spotlight their own pet systems of descriptive formalism rather than the data being described. Dixon & Aikhenvald's approach lightens the reader's burden

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considerably and will be applauded by many (including the present reviewer), but may not meet with equal enthusiasm in all circles, though it would be patently a shame if linguists interested in theories of universal grammar were to ignore Amazonian material simply because it has been presented without recourse to trendy theoretical frameworks.

The second principle is bound to be even more controversial, at least to those who advocate the establishment of deep family trees, as it cuts to the heart of the current debate over how far back in time genetic relationships can be demonstrated beyond reasonable doubt. Echoing the strong position recently articulated by one of the editors in his important essay, *The rise and fall of languages* (Dixon 1997), that there are no 'families of language families', the editors avoid all deeper-level genetic groupings, adopting instead a solid conservative approach toward linguistic taxonomy. But Dixon & Aikhenvald go much further than simply declaring the existence of a universal de facto time depth limit (their suggestion is 5–8000 years) beyond which accumulations of random changes in the data render the comparative method inoperable. While most linguists skeptical of the possibility of demonstrating deep-level groupings simply adopt some such limit a priori, a position amounting to nothing more than glottochronology in a negative guise, Dixon offers a powerful historical explanation as to why the comparative method may have genuine temporal limitations. He argues that the family tree model by its very nature is applicable only to such linguistic history as has occurred during rather brief periods of punctuated equilibrium – that is, during instances of rapid geographic spreading and splitting of languages triggered by special events such as colonization of uninhabited territory, or conquest fueled by some new technology, ideology or innovative lifestyle such as agriculture or pastoralism that gives the intruders a decisive edge over their indigenous competition. Presumably, during times when such expansions are not under way (Dixon calls them 'periods of equilibrium' and suggests they have been the rule rather than the exception throughout most of the existence of *Homo loquens*), the languages of a region, while developing and changing as languages do everywhere, naturally tend to converge with their neighbors through gradual diffusion of multiple linguistic traits. Such periods of equilibrium, which lack major family-tree producing expansions and splits, may endure for thousands or even tens of thousands of years. Because equilibrium situations tend to favor gradual convergence rather than sharp bifurcations, such periods do not yield family trees but instead serve to blur the original genetic boundaries between previously established families in a given area of linguistic interaction. Assuming the history of human language is at least 40,000 years old (Dixon suggests over 100,000 years), much of linguistic prehistory almost certainly involved long periods of equilibrium, which, if one accepts Dixon, led to barriers beyond which comparative linguistics cannot penetrate with anything rising above the level of speculation.

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Dixon & Aikhenvald hold that the theory of punctuated equilibrium has the following specific relevance for South America: the continent was rapidly populated by an incoming group or groups at least 12,000 (perhaps 20,000) years ago, and this initial expansion resulted in robust new family tree creation. After this initial expansion (which represented a period of punctuation) there followed several thousand years of equilibrium, leading to convergence between the branches of the original family tree (or trees – the data seems unable to resolve the question of whether South America was peopled initially by speakers of a single proto-language, as Greenberg asserts, or by several). Today's major indigenous South American language families are the product of later agricultural expansions (a second major punctuation) beginning as recently as 5,000 years ago. Each of the families that resulted from these newer expansions – Arawak, Carib, Tupí, etc. – nicely conforms to the family-tree model and can be substantially reconstructed using the comparative method. The region's isolates and small language families such as Makú, Nambiquara, Guahibo, Jivaro, etc., on the other hand, appear to be leftovers from the earlier long period of equilibrium that developed on the basis of the continent's first peopling by hunter-gatherers. If one accepts this scenario, then attempting to trace precise genetic connections among South America's widespread language families, or between them and the remaining residue of isolates and micro-families, appears by definition to be a near futile undertaking.

Even if one does accept Dixon's hypothesis of punctuated equilibrium, however, there are factors that suggest the possibility of new family trees (or even families of family trees) yet to be discovered. First, as Dixon & Aikhenvald themselves stress, there are Amazonian languages and even small families still almost unstudied; logically, some of them may conceal genetic surprises, if not on a deeper level, then at least on the level of their shallower family affinity. Second, and most important, since languages change at different rates and some languages for cultural or structural reasons may resist diffusional processes more steadfastly than others, it remains impossible to predict how long a period of equilibrium would have been needed to erase the telltale signs of genetic relatedness in every given case. Dixon's hypothesis does in fact allow for these facts, and their reality does not damage his overall premise (at most, his hypothesis about the development of ancient convergence areas during periods of equilibrium would have to more seriously consider a variety of idiosyncratic ethnic information about speakers of languages in geographic proximity). Third, the notion that equilibrium blurs ancient genetic distinctions within a linguistic area does not entirely preclude the possibility that comparing parallel linguistic features in geographically and genetically disparate areas of the world (say, for example, Amazonia and Eastern North America, two regions with no demonstrable historical contact, but which have been postulated by Greenberg to contain genetically related branches of 'Amerind') may ultimately prove capable of

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revealing something tangible about very deep linguistic connections. Finally, in the specific case of South America, it is also theoretically possible that as yet undetected punctuations could have occurred during the several thousand years between the time of the initial peopling of Amazonia and the rise of food production among some of the region's inhabitants (though a plausible punctuating event triggering the creation of large new family trees during this long period would have to be postulated).

For all these reasons, there may yet be credible linkages awaiting discovery among Dixon & Aikhenvald's separate genetic units – and likewise between well-established families elsewhere in the world. This means that engaging in deeper-level linguistic comparisons beyond the various suggested time-depth ceilings (a practice some linguists infelicitously call 'long range' comparison) cannot be regarded out of hand as a fruitless searching for linguistic El Dorado (the reviewer's, not the editors', metaphor). One such putative South American 'family of language families' – Macro-Jê – is contemplated by the editors themselves (18), though here too they seem to favor the likelihood of a proto-Sprachbund over a proto-family origin. Perhaps Fortescue's (1998) concept of a 'language mesh' could be usefully applied in such a situation, where geographically disparate languages seem to show more than coincidental similarity, yet lack the requisite body of evidence needed to determine whether the parallels in question are areal or genetic in origin. What is crucial here is the editors' assertion that the correct choice between such possibilities is practically unknowable, given the nature of overall linguistic prehistory and the known rhythms of language change. And the main lesson for comparative linguistics in general is that the editors have provided a theoretical basis justifying not only the historical plausibility of the language families they accept, but also a strong hypothesis that cogently predicts the impossibility of demonstrating any deeper linkages between these groupings. Opponents of Dixon's hypothesis will have to counter with a better one of their own which illustrates how originally separate language families or branches of a single family could have maintained their genetic distinctiveness through millennia of interactive development in relative equilibrium. So far, none seems to be in the offing. The once celebrated lexicostatistical technique of bean-counting core vocabulary (using the Swadesh List or any similar lexical roster), though often useful, has proven untenable as a universal tool, since languages for cultural reasons may readily replace basic words with new ones. This has been amply demonstrated for parts of New Guinea and Australia (Dixon 1997: 9–10), and the possibility of core vocabulary attrition in prehistoric Amazonia, a similar region of small indigenous language groups, cannot be discounted either. The argument for grammatical or typological parallels is also problematic (unless perhaps the evidence in question is extensive enough to include entire paradigms and shared morphological idiosyncrasies of the type favored by Meillet), since even languages that culturally resist lexical borrowing may

readily allow diffusion of grammatical traits and patterns (if not morphemes) from neighboring, genetically unrelated languages. For Amazonia, Alexandra Aikhenvald has convincingly documented exactly this scenario among genetically unrelated languages in the Vaupés region of eastern Brazil (391–406; see also Aikhenvald 1999).

Buttressed by Dixon's hypothesis of 'punctuated equilibrium', most of the volume's material is organized around Amazonia's well-documented language families. The editors studiously avoid any further mention of 'stocks', 'phyla', or 'superfamilies' of any kind. Most individual chapters are devoted to one or another of the continent's major genetic groupings; a few discuss micro-families and isolates or linguistic convergence zones of special interest. Each chapter contains clear, detailed sections on sociolinguistics, genetic affiliations, and typology. All major aspects of phonology, morphology and syntax are covered as best as can be expected given the current state of knowledge of each individual language. The impression gained is that while much remains to be done in Amazonian linguistics, the work accomplished so far is more voluminous and impressive than has often been believed. The grammatical descriptions, all written in 'Basic Linguistic Theory', include numerous glossed examples from each language, or, in the case of a large family, from prominent representative languages. Also accompanying each chapter is a line map showing the location of the languages under discussion. Families represented in Amazonia by only a small minority of their members receive no separate discussion, while families with many or most of their members located in the area are given extensive attention. Chapter 2 (23–64), by Desmond Derbyshire, for instance, is devoted to a detailed genetic and typological overview of Carib, South America's second largest family. Chapter 3 (65–106), by Alexandra Aikhenvald, presents a similarly thorough discussion of Arawak, which, with its 40 living members (a conservative numerical estimate), probably represents the largest remaining indigenous family south of Mexico. The original dispersals of both Carib and Arawak, whose members once dotted much of South America and intruded into Central America and far up the Caribbean, are linked to early agricultural expansions. It is important to note that Aikhenvald avoids the super-stock term 'Arawakan', and uses Arawak for the closely-knit family that super-comparativists call 'Maipuran'. In general, family names in this volume lack the '-an' suffix commonly used by North American linguists for families and more speculative higher-level linkages. 'Cariban' is thus 'Carib', 'Panoan' simply 'Pano', etc. This practice of using single language names as family designations causes less confusion than might be expected, since context normally identifies the meaning intended. It is also more in keeping with naming practices current among South America's linguists.

The remaining chapters cover the following genetic groupings: Tupí (chapter 4, by Aryon D. Rodrigues, 107–124), Tupí-Guaraní (chapter 5, by

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Cheryl Jensen, 125–164), Macro-Jê (chapter 6, by Aryon D. Rodrigues, 165–206), Tucano (chapter 7, by Janet Barnes, 207–226), Pano (chapter 8, by Eugene E. Loos, 227–250), Makú (chapter 9, by Silvana Martins & Valteir Martins, 251–268), Nambiquara (chapter 10, by Ivan Lowe, 269–292), and Arawá (chapter 11, by R. M. W. Dixon, 293–306). Some of these families have as few as three members. The next two chapters are devoted to micro-families and isolates, many of which are severely endangered and poorly documented. Chapter 12, 'Small language families and isolates in Peru' (307–340), by Mary Ruth Wise, gives basic typological and sociolinguistic data (including native-speaker estimates) for about half a dozen genetic units located in northern Peru and adjacent countries. Chapter 13, 'Other small families and isolates' (341–384), by Alexandra Aikhenvald & R. M. W. Dixon, provides similar information for the remainder of Amazonia, noting along the way the locations and names of several languages as yet undocumented. The description of many languages discussed in these chapters is incomplete in important respects, a fact that poignantly attests to the urgent need for fieldwork. The final two chapters showcase special linguistic areas rather than genetic groupings. Chapter 14, 'Areal diffusion and language contact in the Içana-Vaupés basin, north-west Amazonia' (385–416), by Alexandra Aikhenvald, discusses the intense diffusion of grammatical traits but not lexical items among the genetically unrelated East Tucano (now the region's dominant indigenous language), Tariana (a North Arawak outlier) and Makú languages spoken by hunter-gatherers who have become economically subordinated to the former two agricultural populations. Because one's native language was until recently considered a badge of ethnic identity in the Vaupés region, Tariana and Tucano speakers traditionally engaged in an exogamous interrelationship in which lexical borrowing was actively discouraged as a violation of exogamy. However, the bilingualism that necessarily developed among these two speaker groups has produced extensive phonological and grammatical convergence. This can be plainly seen, for instance, by comparing Tariana with Arawak languages outside the Vaupés region (Aikhenvald 1999). Such a sociolinguistic situation has important implications for theories of language change and it challenges certain assumptions commonly made by comparative linguists (see above). Finally, chapter 15, 'The Upper Xingu as an incipient linguistic area' (417–430), by Lucy Seki (translated by the editors from the author's original Portuguese), discusses ongoing processes of convergence among 17 native groups living in the watershed of one of the Amazon's major southeastern tributaries in an area long isolated by rapids and other natural barriers to European incursion. Seven of these groups have been located in the Upper Xingu for less than a century, and this special study provides a revealing glimpse into the genesis of a linguistic area rather than its long-term result, as areal studies usually do.

  This beautifully written and brilliantly edited volume, with its intricate yet

user-friendly grammatical descriptions, detailed but clear maps of language distribution, and wealth of never-before published field data will undoubtedly become the standard linguistic reference to Lowland South America for years to come. Nevertheless, the editors are clearly motivated not by a wish to have the last say in Amazonian linguistics, but rather by a fervent desire to encourage new research that will add entire new chapters to future editions of their book. In this connection, they ruefully note several unfortunate trends in the present state of Amazonian linguistics, in addition to the endangerment of most of the languages. First, up to the present there has been little cooperation or constructive exchange between missionary linguists working in the field and specialists from local universities. Second, South American linguists have tended to busy themselves in applying each successive North American formalism to the prestige languages Spanish and Portuguese, while neglecting the vast indigenous wealth in their own backyard. In fact, at the time this book went to press, no Brazilian resident had published a monograph on an indigenous Brazilian language since 1595(!); fortunately, such work is currently well under way (see Seki, forthcoming) and many of the results are showcased in the present volume. Finally, the editors enumerate the many benefits to the linguistics profession that would quickly accrue 'if everyone who calls themself a linguist – from South American countries and from overseas – were to devote a year or so to field work' in the Amazon and publish their results in a straightforward fashion (19). If *The Amazonian languages* does succeed in attracting new scholars to the task of documenting the region's disappearing languages, then this pioneering volume may in retrospect come to be viewed as one of the most important linguistics books of the late 20th century.

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Alessandra Giorgi & Fabio Pianesi, *Tense and aspect: from semantics to morphosyntax* (Oxford Studies in Comparative Syntax). New York & Oxford: Oxford University Press, 1997. Pp. xv + 319.

John Hewson & Vit Bubenik, *Tense and aspect in Indo-European languages: theory*, *typology*, *diachrony* (Current Issues in Linguistic Theory, **145**). Amsterdam & Philadelphia: John Benjamins Publishing Company, 1997. Pp. xii + 403.

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Despite their similar titles, these books differ markedly in approach and scope. Giorgi & Pianesi 1997 (henceforth G&P) work within the minimalist framework (Chomsky 1995) while Hewson & Bubenik 1997 (henceforth H&B) adopt a cognitive framework (drawing on Johnson 1987) and cite Guillaume (1929, 1945) as their main source of inspiration. G&P's approach is synchronic, whilst H&B take a diachronic perspective which views historical changes in tense/aspect systems as teleological. G&P discuss a wide variety of European languages, focusing on English and Italian but also looking at Latin, Portuguese, Sicilian, French, Dutch, German, Icelandic and mainland Scandinavian languages. The scope of H&B's study covers every Indo-European language family, tracing developments in the complete verbal systems of over a dozen languages through a period covering some four thousand years.

In view of these differences of emphasis, I will provide separate overviews of H&B and G&P, each taken on its own terms. Since H&B's approach is less widely known than G&P's it will be described in greater detail. I will then present the treatments of the 'present perfect puzzle' in the two books, this being one of the few areas where direct comparison is possible. However, this comparison can only be suggestive given that G&P devote a whole chapter to this problem whilst H&B's arguments take only six pages.

H&B develop the idea of CHRONOGENESIS (Guillaume 1929, 1945), which proposes that verbal systems are stratified, and that both child language development and the historical development of linguistic systems follow the same general patterns (see also Ziegeler 1996).

The first stage in the chronogenesis of Indo-European verbal systems is the 'quasi-nominal mood', comprising three contrastive elements: the representation of the passage of time (the Imperfective), the representation of events as complete (the Perfective), and the representation of events that leave a lasting result, notably verbs of perception and bodily position (the Retrospective). This gives rise to a system of three aspects, all in the present tense:
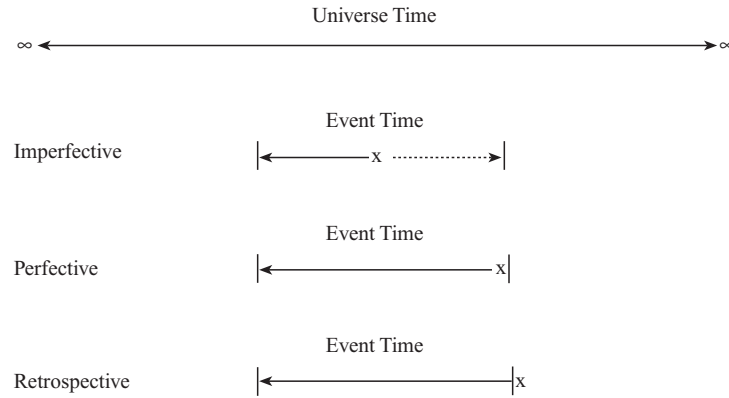
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Universe Time

∞ ⟵───────────────────────────────⟶ ∞

Event Time

Imperfective |⟵────── x ·················⟶|

Event Time

Perfective |⟵────────────── x|

Event Time

Retrospective |⟵──────────────|x

Figure 1
Aspectual distinctions in early PIE (H&B, 352)

H&B suggest that this three-aspect system developed into two basic tense systems. The route followed by Hellenic, Indic, Slavic, Albanian, Armenian and Tocharian is to view time as flowing past the observer; the present moment becomes part of memory and fades gradually further into the past. This they term Descending Time, in which the Imperfective develops into a present and an imperfect, the Perfective is reanalysed as an aorist (representing a whole event) and the Retrospective as a perfect. The alternative route forms a single past tense (a preterit) from the aorist and the perfect, leaving the Imperfective for present time only. In this system, it is the observer who progresses from the present into the future, so that a projected event proceeds towards its conclusion (Ascending Time). Once concluded, all events are past, giving the past/non-past distinction found in Germanic and Hittite. Italic, Celtic and Baltic have undergone both processes, resulting in mixed systems.

This is the thesis that H&B attempt to illustrate throughout the book. In addition to an introduction and conclusion, the book is divided into five sections. The first four sections are based on variations within the model of chronogenesis sketched above: languages with the original three-aspect system, present-aorist-perfect (Ancient Greek, Vedic and Classical Sanskrit); languages with the original present-aorist system and innovative perfect (Classical Armenian, Old Church Slavonic, Albanian, Tocharian); languages with a three tense system (Baltic, Celtic, Latin); and languages which merged the original aorist and perfect into the preterit (Gothic and Old English, Hittite). The final section looks at later developments (modern Greek, Indic, Slavic, Iranian, Romance and Germanic).

The analyses of the verbal systems of different languages are well balanced. Lesser known languages such as Tocharian and Hittite are treated at a similar level of detail as Ancient Greek and Latin, and the reader is introduced to their basic characteristics, sources, and status in the Indo-

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European phylum. On occasion the argumentation concerning the better known classical languages is incomplete and conclusions are simply assumed ('Since the aspectually unmarked past tense of Greek has traditionally been called the imperfective, there is no need to present evidence to demonstrate its status as an Imperfective' (30)). Each chapter contains clear tables of verbal paradigms and concludes with a diagrammatic representation of the chronogenesis of the verbal system of the language (or one of the languages) investigated in that chapter.

As an example of the kind of teleological argumentation H&B employ, consider the following. They note that in contrast to the numerous changes in the Romance, Indic and Slavic verbal systems, modern Germanic languages have the same two tenses as we find in the earliest sources, with the preterit often replaced by an analytic perfect (see below). Only English and Icelandic have developed a Perfective versus Imperfective distinction (and the English Progressive only appeared in the mid-seventeenth century), and future forms were not formed in Germanic until the Middle Ages. All of these phenomena can be explained, according to H&B, if we treat tense in Germanic languages as operating in Ascending Time.

> Ascending Time […] is based upon the memory of recall, where the memory is surveyed to find the location (to use a computer analogy) of an event that begins at a given moment in the past. The representation, therefore, is of a complete past event, a unit that begins at moment X. This is an external view of the event. In this representation the interior of the event is not available: the representation is a complete package beginning at moment X. (220)

In Ascending Time 'the contrast between Perfective and Imperfective is not so urgently needed' (220) because this yields representations of complete events whose interior structure is unavailable. In Descending Time, where there is a representation of the interior of an event, 'the Imperfective versus Perfective contrast becomes almost a necessity, a requirement', if we are to know whether an event has completion or not (220). Finally, the non-past in Ascending Time is suitable for both present and future reference, as in both cases an event is represented as progressing towards its conclusion, 'so that the need to create a contrastive future is also less imperative' (221).

Similar argumentation can be found in relation to the development of Romance futures (317–320).

Let us turn now to G&P. Although firmly based in the minimalist paradigm, G&P assume very little prior knowledge on the part of their readers. Their arguments are clear and illustrated with well chosen examples from a range of languages and dialects. After describing the syntactic and semantic background to the study, G&P describe and compare the temporal systems of Italian, Latin and Portuguese, showing how similar temporal systems arise from languages exhibiting such different morphological

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properties. Chapter 3, the longest, discusses the present perfect (see below), chapter 4 compares the present and imperfect in Germanic and Romance, and chapter 5 describes the Italian subjunctive. The final chapter is a brief addendum on the DOUBLE ACCESSIBILITY READING, a phenomenon of embedded present tenses. I will begin by discussing their semantic framework, which is based on a revision of Reichenbach's model, before turning to their account of the present perfect.

H&B argue against a Reichenbachian approach on the grounds that 'there is no clear cut way [in such an approach] of distinguishing between tense and aspect, and forms such as *I have read* are described as "past tense" when the auxiliary is actually a non-past tense, and there is a tense contrast with the past tense form *I had read*' (21). They also state that the Reichenbachian approach ignores the fact that tense forms are mutually exclusive whereas aspects are not, as in (1):

(1)   He will have been speaking. (H&B, 22)

G&P's revised Reichenbachian framework pre-empts some of H&B's objections. Following Comrie (1985) and Hornstein (1990), G&P divide the possible relations between Reichenbach's S (speech time), E (event time) and R (reference time) into two sets, T1 and T2, as follows (where a comma represents temporal overlapping):

(2)   T1: S_R   future   T2: E_R   perfect
          R_S   past   R_E   prospective
          (S, R) present   (E, R) neutral

This provides a partial division into tense (T1) and aspect (T2). In this framework *I have read* is characterised as $(S, R) \bullet (E\_R) = E\_S, R$, which is distinct from *I had read* as $(R\_S) \bullet (E\_R) = E\_R\_S$.

The revised Reichenbachian framework is not exhaustive; additional mechanisms (discussed in G&P chapter 4) are required to characterise the progressive aspect for example, and to account for multiple aspects. Thus (1) is a future perfect: $(S\_R) \bullet (E\_R)$, plus progressive. Being based on a set of binary relations between three primary objects, G&P's framework does, however, impose some necessary limitations on the co-occurrence of aspects and on the number of possible 'morphologised' tenses.

H&B (331–333) and G&P (chapter 3) both discuss the problem of crosslinguistic variation in the present perfect, known as the PRESENT PERFECT PUZZLE. Space precludes a detailed evaluation of each book's solution to the present perfect puzzle, so I will simply summarise both arguments and offer a few observations. European languages divide into two groups with respect to the properties of the present perfect. What G&P refer to as Type A languages, including English and mainland Scandinavian languages, disallow the co-occurrence of the present perfect and punctual temporal adverbials:

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(3) (a) *John has left at four.
     (b) *John er gaaet klokken fire. (Danish)

Type B languages, including Romance languages, German, Dutch and Icelandic, allow such constructions:

(4) (a) Ich bin um vier abgefahren. (German)
     (b) Gianni è partito alle quattro. (Italian)

The restriction on Type A languages does not hold for other perfect forms: past perfect, modals (*John may have left at four*), infinitives (*I believe him to have left at four*) and gerunds (*Having left at four…*). With non-punctual temporal adverbials, Type A languages must use a present perfect where Type B languages use a non-past tense (H&B, 334):

(5) (a) I have been speaking for ten minutes.
     (b) Ich spreche seit zehn Minuten. (German)

G&P argue that the morphosyntactic characteristics of verbal forms in a language determine the properties of the present perfect in that language. Their argument focuses on the morphosyntactic properties of non-past auxiliaries in languages of Types A and B, and on how these properties effect interpretation.

Against current accounts based on the Split-Infl hypothesis, which consider AGR and T to be always separate heads, G&P (68 ff.) argue that in English (in contrast to Type B languages) either tense or agreement is morphologically marked, but not both. In (6a) agreement and tense are marked respectively, whilst (6b) and (6c) demonstrate that it is impossible for both to be marked simultaneously:

(6) (a) He loves/loved.
     (b) *He loveds.
     (c) *He wills love. (G&P 68)

Rather than stipulate a rule prohibiting the co-occurrence of tense and agreement morphemes in English, G&P propose that English projects a single syncretic category, AGR/T, in which a value of the agreement features implies a value of the temporal feature. Thus [±3rd person] in AGR implies [−past] in T, but [+ past] in T has no implication for the values in AGR.

Whilst Type A languages have a syncretic AGR/T category, the Type B languages, which have Split-Infl, have no T category in the present:

(7) (a) am-o   (Italian)
         love-1ST PERSON SINGULAR
     (b) am-av-o
         love-PAST-1ST PERSON SINGULAR

The result is that in the present perfect of Type A languages the present temporal feature is present in the syncretic AGR/T category, whilst in Type

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B languages it is absent. G&P also argue (from consideration of the Mapping Hypothesis) that AGR/T, but not T alone, has the feature T-DEF (temporal definiteness). Since in Type A languages the present perfect includes the definite temporal relation S = R, it is incompatible with punctual temporal adverbials which place R at some time before the speech time. In Type B languages, S is merely included in R, so there is no clash with punctual temporal adverbials.

As we would expect, H&B's account of the present perfect puzzle (331–337) is quite different. They begin by stating that the present is conceptualised 'as a threshold between past and future that involves both immediate memory, the omega field, and immediate imagination, the alpha field' (331–332). They propose that in the linguistic system of English, the beginning of non-past is marked as an α-moment, whereas in German and Dutch it is an ω-moment. This means that when a past participle is attached to a non-past auxiliary in English, the event represented by the past participle begins at the ω-moment of the psychological present, leading to the feature of 'present relevance' in the English present perfect. Because the past participle contains the omega field when used in combination with a non-past auxiliary, it cannot be used with punctual temporal adverbials that indicate that the event represented is disconnected from the ω-moment. In contrast, the non-past auxiliary in German and Dutch contains the representation of both α and ω moments, so the past participle in these languages does not contain any representation of present time, and is therefore free to represent specific moments in the past, to be modified by punctual temporal adverbials, and ultimately to replace the preterit (a process completed in Afrikaans and Yiddish).

Both accounts place the locus of the problem in the way different languages represent present time, but beyond that there are few points of correspondence between the two explanations, and indeed between the two books.

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Harry van der Hulst (ed.), *Word prosodic systems in the languages of Europe* (Empirical Approaches to Language Typology; Eurotyp **20-4**). Berlin & New York: Mouton de Gruyter, 1999. Pp. xxix + 1050.

Reviewed by T. A. HALL, University of Leipzig

This sizeable volume (henceforth WPS) is one of a series of nine publications containing the results of the European research project 'Typology of languages of Europe' (EUROTYP). WPS addresses various aspects of word prosody in a large number of languages spoken in Europe. The term 'word prosody' is intended to subsume what most linguists understand to be 'stress' (or 'accent'), 'tone' as well as 'pitch accent'. As van der Hulst notes in the 'Preface and acknowledgements', WPS is not intended to be an exhaustive treatment of word prosody in ALL of the language families in the European area. Nevertheless, the number of languages and language families dealt with in depth in the volume is substantial (e.g. Germanic, Romance, Slavic, Baltic, Greek, Basque, Caucasian); hence, for this reason alone WPS is an excellent typological study. The book is also an outstanding reference work on stress systems in general and will therefore be of interest not only to phonologists working on Metrical Phonology and Autosegmental Phonology but also to phoneticians concerned with establishing phonetic correlates for stress and pitch accent.[1]

WPS contains two types of studies, reflected in the organization of the volume into two separate parts. First, there are thematic chapters dealing with various aspects of the phonetics and phonology of word prosody, and second, there are case studies of the word prosodic systems of individual languages or language families. In this review I give a brief summary of each of the fifteen chapters.

As noted in the preceding section WPS is divided into two parts. Part I ('Thematic chapters') and Part II ('Case studies') consist of six and nine chapters, respectively. The titles and authors of the fifteen chapters are:

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[1] For a book this size the number of errors is relatively small. I list here some of the mistakes I found:

p. 27: Halle & Vergnaud should be Vergnaud & Halle; p. 35: (48g) should read (49g); p. 36: Idsardi 1991 should be Idsardi 1992; p. 48: Van der Hulst & Lahiri (1988) and Halle, O'Neil & Vergnaud (1993) are not listed in the references; p. 49: Grijzenhout (1992) is not listed in the references; p. 88: Hays should be Hayes; p. 101: Halle (1979) is not listed in the references; p. 102: Bolinger 1986 is not listed in the references; p. 112: Levins should be Levin; p. 170: pursueing should read pursuing; p. 184: Notive should read Notice; p. 189: polysallabic should read polysyllabic; p. 191: Hammond 1987 is not listed in references; p. 270: Pierrehumbert & Beckman 1980 should read Pierrehumbert & Beckman 1988; p. 281: ill-mannared should read ill-mannered; p. 307: alanysis should read analysis; p. 331: Harris 1993 should read Harris 1983; p. 337: Suphi 1988 is not listed in references; p. 443: Haarmann (1977) and Lewy (1964) are not listed in references; p. 479: the the should read the; p. 494: Kager 1985 is not listed in references; p. 495: Borowsky 1989 is not listed in references; p. 512: Allen (1975) is not listed in references; p. 532: is it should read it is; p. 569: phonotactis should read phonotactics.

chapter 1 ('Word accent' by Harry van der Hulst), chapter 2 ('Stress domains' by Marina Nespor), chapter 3 ('The rhythmic organization of compounds and phrases' by Ellis Visch), chapter 4 ('Word prosody and intonation' by Carlos Gussenhoven & Gösta Bruce), chapter 5 ('The phonetic manifestation of word stress' by Grzegorz Dogil & Briony Williams), chapter 6 ('Diachronic prosody' by Aditi Lahiri, Tomas Riad & Haike Jacobs), chapter 7 ('A survey of word prosodic systems of European languages' by Harry van der Hulst, Bernadet Hendriks & Jeroen van de Weijer), chapter 8 ('Word-stress in West-Germanic and North-Germanic languages' by Wim Zonneveld, Mieke Trommelen, Michael Jessen, Gösta Bruce, Curtis Rice & Kristján Árnason), chapter 9 ('Word tone in Germanic languages' by Gösta Bruce & Ben Hermans), chapter 10 ('Stress in the Romance languages' by Iggy Roca), chapter 11 ('Slavic languages' by Grzegorz Dogil, Jadranka Gvozdanović & Sando Kodzasov), chapter 12 ('Baltic languages' by Grzegorz Dogil), chapter 13 ('Greek word accent' by Gabriel Drachman & Angeliki Malikouti-Drachman), chapter 14 ('Basque accentuation' by José Ignacio Hualde) and chapter 15 ('Caucasian: Daghestanian languages' by Sando Kodzasov). Ancillary materials include separate indices for authors, languages and subjects.

In chapter 1 van der Hulst provides a very detailed overview of word prosody in general, in which the contributions to WPS are synthesized with various approaches to Metrical Theory (e.g. Hayes 1995, Halle & Vergnaud 1987 as well as some of van der Hulst's own work). The emphasis in this chapter – and indeed in all but one of the phonological contributions to WPS – is on rule-based approaches to word stress assignment, although van der Hulst does include a brief section on stress in Optimality Theory. The chapter is very well presented and will prove to be very useful to future readers interested in approaches to Metrical Phonology. In connection with his discussion of catalexis, van der Hulst could have referred to Giegerich's (1985) use of 'zero-syllables' in his approach to German word stress. In the section on Spanish (1.3.8.3) and Dutch (1.3.8.6) the author discusses words in these languages that deviate from the general stress patterns. The analysis would have been more transparent if the regular stress rule for these languages had been dealt with.

In chapter 2 Nespor discusses the ways in which different types of compounds in various European languages map onto phonological words. Specifically, she argues that [stem + stem] compounds (e.g. Dutch *psycholoog* 'psychologist') map onto a single phonological word, whereas [word + word] compounds (e.g. English *blackbird*) are parsed into two separate phonological words. This analysis is supported by the corresponding stress patterns: [stem + stem] compounds undergo the 'normal' word stress assignment rules for the respective language, whereas [word + word] compounds are characterized by their own independent stress pattern. The second part of Nespor's article deals with 'stress readjustments' in larger

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phonological domains, namely host+clitic(s) sequences and sequences of two or more words in a phonological phrase, e.g. English *thirteen men*. Many readers might be interested in Nespor's article because she presupposes the prosodic constituent 'clitic group', which many phonologists assume to be superfluous.

In chapter 3 Visch presents a metrical analysis of rhythmic phenomena of embedded words in phrases or compounds. The data are drawn primarily from English and Dutch, e.g. the compound English *law degree requirement changes* and the phrase *mighty oaks fell*. The bulk of the article is devoted to a comparison of various approaches to Metrical Theory (e.g. metrical trees, bracketed grids). Ultimately, the author argues that two rules are responsible for the stress shifts required to account for compound and phrasal stress, one of which adds an x and the other moves an x in representations with bracketed grids.

In chapter 4 Gussenhoven & Bruce present a formal account of pitch accent in Stockholm Swedish and the Venlo dialect of Dutch. In their analysis they show that the lexical tones in these languages can only be understood fully by examining intonation contours.

Drawing on experimental data from Polish, Lithuanian, German and Welsh, Dogil and Williams analyze the phonetic correlates of word stress in these four languages in chapter 5. The authors show that the phonetic realization of word stress is language specific. For example, German word stress is signaled by the duration of the designated syllable, while stressed syllables in Lithuanian are manifested by a 'hyperarticulated' spectral structure.

Chapter 6, written by Lahiri, Riad & Jacobs, provides a detailed treatment of word stress from a diachronic perspective, concentrating on changes in stress patterns as well as stress-related sound changes in Germanic and Romance. One of their important claims concerns changes in quantity in Germanic: in this language family consonant quantity and vowel quantity conspired to achieve a bimoraic stressed syllable. The authors additionally argue that various parameters changed in the development of both language families. For example, a shift occurred from left word-edge stress to the right word-edge between Preclassical Latin and Classical Latin and between Common Germanic and the modern Germanic languages.

In chapter 7 van der Hulst, Hendriks & van de Weijer provide a useful survey of the stress systems in the European languages covered in other chapters in WPS and in European languages not discussed in the volume. Some of the latter languages include Armenian, Albanian, Romany, non-Daghestanian Caucasian languages and Uralic languages. The chapter concludes with several useful maps in which languages are indicated according to various dimensions in Metrical Phonology, e.g. weight-sensitive systems, weight-insensitive systems, unbounded systems, etc.

Chapter 8 presents analyses of word stress in West Germanic and North

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Germanic; the languages dealt with are English, Dutch, German, Norwegian, Swedish, Icelandic and Faroese. In the first two subsections Trommelen & Zonneveld provide a brief synopsis of 'standard' treatments of English and Dutch stress. The analysis of English is the one proposed by Chomsky & Halle (1968) and further refined by later authors (e.g. Kager 1989). Unfortunately, no reference is made to the analysis of English presented by Burzio (1994), which differs from the standard treatment in various respects. In the section on Dutch, Trommelen & Zonneveld propose that in words stressed on the antepenult like *apollo* the penult is closed phonologically (499), i.e. [a.pol.o], and then receives penultimate stress by virtue of the fact that it is closed – an analysis that requires a mechanism resyllabifying the relevant consonant into the following onset. An alternative is to say that these consonants are ambisyllabic (see van der Hulst 1985 for an analysis along these lines). Trommelen & Zonneveld basically argue that Dutch is a clear example of a language with a quantity sensitive system. This assumption was criticized by Booij (1995: 101ff.), who holds that the Dutch main stress rule is not quantity sensitive. (Trommelen & Zonneveld do not refer to Booij 1995.) Jessen's contribution on German stress successfully describes several generalizations concerning noncompound and compound stress in that language and synthesizes the competing analyses on this topic. The article is an excellent summary both of the facts of German word stress and the literature on this topic. The three remaining subsections in chapter 8 analyze word stress in Norwegian, Swedish, Icelandic and Faroese. Rice's contribution on Norwegian is noteworthy because it is the only optimality-theoretic analysis included in WPS.

In chapter 9 Bruce & Hermans provide an analysis of word prosody in various pitch-accent languages and dialects in Germanic, specifically the Scandinavian languages and a Limburgian dialect. The chapter provides an excellent synthesis of the literature on this topic and of the Scandinavian and Limburgian data.

Chapter 10, written by Roca, is a very detailed treatment of stress in the Romance languages. The chapter begins with a brief phonological analysis of quantity sensitive stress in Latin and then shows how the modern Romance languages reflect this older system in their synchronic phonology. The chapter is impressive because of its breadth: all major (and some minor) Romance languages are dealt with. Also included is a useful appendix of phonetic inventories and orthographic conventions of all of the Romance languages discussed in the text.

Chapters 11 and 12 deal with word prosody in Slavic and Baltic languages, respectively. These languages are particularly interesting typologically because, although closely related genetically, their accent systems differ radically. In both of these chapters a formal treatment of stress in many of the Slavic and Baltic languages is offered employing the grid notation along the lines of Halle & Vergnaud (1987) and Idsardi (1992).

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The final three chapters discuss word prosody in Greek, Basque and the Daghestanian languages, respectively. In the chapter on Greek, Drachman & Malikouti-Drachman discuss word stress, stress in compounds, the stress patterns of cliticized forms and the relationship between stress patterns and morphology. While the authors clearly assume a parametric approach to word stress along the lines of Hayes (1995), they do not propose a formal treatment with representations and instead concentrate on describing the facts. In the chapter on Basque, Hualde covers the various word prosody systems in morphologically simple and morphologically complex words in a number of different dialects. A particularly welcome contribution to WPS is the chapter on the Daghestanian languages since, as Kodzasov notes, word prosody has been neglected in many existing publications on this language family.

To summarize, WPS is an outstanding reference work on word prosodic systems in the languages of Europe.

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Ray Jackendoff, Paul Bloom & Karen Wynn (eds.), *Language, logic and concepts: essays in memory of John Macnamara*. Cambridge, MA & London: MIT Press, 1999. Pp. xxvii+470.

Reviewed by Cliff Goddard, University of New England, Australia

John Macnamara was an extraordinary scholar, who, as the editors say, 'wrote about an extraordinary range of topics, from the nature of free will,

to the demise of Freudian psychoanalysis to what formal logic says about the Holy Trinity' (xii). This collective tribute to Macnamara, who died in 1996, pursues a selection of his interests: philosophical and logical approaches to knowledge and cognition, conceptual aspects of early language development, and the psychology of ideals. There are sixteen chapters, plus an introduction by the editors and a bibliography of Macnamara's publications. The chapters are evenly divided between those which are linguistic/psycholinguistic in character and those which are logical/philosophical. This review concentrates on the former. Broadly speaking, they share Macnamara's rationalist orientation. Many address questions arising from one of his favourite exemplars, the sentence *Freddy is a dog*, as said by a young child about the family dog – issues such as the semantics of proper nouns, the nature of sortal concepts (such as *dog*) and the count/mass distinction.

Sandeep Prasada's chapter is titled 'Names for things and stuff: an Aristotelian perspective' (119–146), and it is refreshing to see Aristotle (who was Macnamara's favourite philosopher) being taken seriously for a change. One point which Prasada rightly emphasises is that:

> the essence, for Aristotle, is not a set of necessary and sufficient properties or a probabilistic cluster of properties. Instead an Aristotelian essence is a cause that defines something as what it is… Aristotle does *not* require that all members of a given kind actually possess a specific set of properties, because actual members of the kind are subject to other causes that might introduce other properties, fix parameters left open by the essence, or even remove essential properties. (128–129)

Prasada does not say so, but his exposition runs counter to the vulgarised Aristotle we hear so much about in linguistics, who is the supposed *locus classicus* of categories defined in terms of necessary and sufficient conditions. Though valuable, the chapter is not without weak points. It glosses over the differences between natural kinds and nominal kinds, and relegates to a footnote the serious problem (for Aristotle) of how to account for things such as rocks and clouds, which are not the result of processes (either biological or intentional) directed at creating the structures which the entities have.

The theme of complexity in (apparent) simplicity is pursued, with a stronger empirical dimension, in D. Geoffrey Hall's chapter 'Semantics and the acquisition of proper names' (337–372) and in Yuriko Oshima-Takane's 'The learning of first and second person pronouns in English' (373–409). Hall gives a useful review of previous research on young children's knowledge about proper names, and goes on to describe four experimental studies of his own. Although they are well-designed, I found these studies less engaging than they might have been because most of the children Hall tested were so 'old'. That 4-year olds have a category of proper names with properties much like those of adults is not likely to surprise anyone who has experience

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with young children. Comparable studies on 2-year olds and 3-year olds would be much more interesting.

Also, though it would be unkind to single out Hall for criticism on this score, it is disappointing that so many studies stick with an idealised concept of proper names, to the neglect of various interesting properties of 'real' proper names, such as that several individuals can have the same name, that many names imply some descriptive content, e.g. by being gender-specific, and that many things besides persons, e.g. places, pets, products, and institutions, are perfectly good name-bearers. Though such facts are well known even to 3-year olds it is surprising how marginal they are in the linguistic literature (cf. Lehrer 1992).

Oshima-Takane's chapter discusses more interesting original data, from younger children. She argues that mastering first and second person pronouns is facilitated by overhearing, and understanding, third parties using these pronouns. There are several reasons for this; for example, that child-directed speech does not provide clear evidence that *you* is not a proper name (since in child-directed speech it always refers to the child him- or herself); and that only in overheard speech can the child witness that the referents of *me* and *you* shift systematically depending on who is speaking. It is interesting to see attention being paid to overheard speech, given that, as Oshima-Takane observes, most Western child language research has focused on child-directed speech.

One of the most valuable chapters is Susan Carey & Fei Xu's 'Sortals and kinds: an appreciation of John Macnamara' (311–335). Though it is overall a homage to Macnamara, the authors tease apart various subtleties glossed over in Macnamara's own thinking on sortals, which may have been over-influenced by his allegiance to the 'strong continuity hypothesis', i.e. the assumption that 'a child's mind resembles an adult's – unless there is evidence to the contrary' (Macnamara 1986: 56). The chapter is a good digest of a series of ingenious experiments (by Carey, Xu, Waxman, and others) which shed light on when infants start to employ sortal concepts, as opposed to simply recognising similarity between things. According to their results, this change can – for the most part – be quite precisely dated: it takes place between 10 months and 12 months of age. Despite this finding, the authors suggest that even very young infants have constructed at least one complex sortal concept, namely, 'physical object', in the sense of 'bounded coherent rigid objects' that can move along spatiotemporal paths. The chapter also raises the possibility that 'word learning plays a role in the construction of the sortal' (331).

In an ambitious and original chapter, 'The natural logic of rights and obligations' (67–95), Ray Jackendoff investigates the conceptual/semantic structure of English expressions such as (*have*) *a right* and (*have*) *an obligation*, aiming for a formal account which will dovetail with his (1990) *Semantic structures*. Jackendoff is to be congratulated for his efforts to get

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ethical and moral concepts onto the semantic agenda; but though he shows clearly enough that such notions are 'remarkably complex and subtle', there are a number of debatable points in his analysis. To give a flavour of the work, we can look at the formulas in (13) below. The key elements are the primitive operators RT and OB, which are introduced as equivalents to the English modals *may* and *must*, and ACT, which stands for Action. The top lines of (13a) and (13b) therefore translate into ordinary English as 'X has a right to do Action' and 'X has an obligation to do Action', respectively. VALUE is a function that maps two arguments, a Stimulus and an Experiencer, onto a Value – either positive or negative. Thus, (13a) can be translated into ordinary English as 'X having a right to do a certain Action defeasibly presupposes that X's doing this Action has a positive value for X'.

(13) (a) HAVE (X^α, RT (ACT (α))) defeasibly presupposes
        VALUE (ACT (X), X) = +
    (b) HAVE (X^α, OB (ACT (α))) defeasibly presupposes
        VALUE (ACT (X), X) = −

Some people welcome formulas like these, with their promise of bringing rigour to semantic analysis, while others find them tedious or unnecessary since, in the end, anything that can be said in a technical formula must be transposable into ordinary English. It can even be argued that it is better to conduct semantic analysis directly in terms of a standardised minimal subset of ordinary language than in terms of 'abstract' semantic formalisms (cf. Goddard 1998: chapter 3). Theoretical issues aside though, Jackendoff's formalisms can enable him to gloss over problematical issues. For example, though he acknowledges the conventional distinction between an 'active' right (i.e. a right to do something) and a 'passive' right (i.e. a right to receive a benefit), this distinction becomes invisible in the formalism because Jackendoff simply declares that he will call the rights-bearing person an Actor, and the complement an Action, 'with the understanding that this includes as a special case passive rights, which do not involve an Action in the standard sense' (72). This manoeuvre amounts to ignoring what one cannot work out.

Much of this chapter is devoted to spelling out the inferences which license punishment or retaliation in response to violations of rights and obligations. Jackendoff asserts that '[i]t is the need to regulate modes of retaliation in response to violations of social/contractual obligations and rights that leads to the development of legal and judicial systems in society. So these inferences lie at the foundation of social/cultural cognition' (83). It is rather breathtaking to see such a large claim advanced on the basis of a handful of English sentences; but since 'notions of rights and obligations appear to be universal in human societies' (68), Jackendoff is prepared to speculate that

'these concepts are largely if not entirely innate, a specialised "way of thinking" wired into the brain by the human genome' (90). These statements will seem naive to those with a background in anthropology or political philosophy, for though the notion of 'obligations' (in a broad sense) may have some claim to cross-cultural validity it is widely agreed that the same cannot be said of 'rights'. Political philosophers have traced its genesis in Western thought in the writings of Thomas Hobbes and John Locke, and its ascendancy in the wake of the French and American Revolutions (cf. Freeden 1991, Tuck 1979).

In the chapter 'The nature of human concepts: evidence from an unusual source' (221–261), Steven Pinker & Alan Prince argue, as they have done in a series of articles, that English verb morphology shows the psychological reality of two distinct category types – 'classical' categories (regular verbs) and 'family resemblance' categories (irregular verbs) – and that these distinct category types attest to the existence of two distinct kinds of mental processes: a formal rule system and a memorised, partially structured list of exemplars. (The possibility that the sharp dissociation between regular and irregular verbs is exaggerated by idiosyncratic properties of the English language is not mentioned by the authors, nor the counter-claim (cf. Orsolini 1999, Dąbrowska 2001) that the 'dual-mechanism model' is problematical in relation to languages such as Italian and Polish.)

Why should there be two such different kinds of categories in the mind, Pinker & Prince ask. Their suggestion is that categories of these two kinds exist objectively in the world, and that they exist in the mind because the mind has evolved to allow us to grasp and make predictions about the world. For this argument to make sense, the categories in question would have to be about the world, i.e. they would have to be conceptual categories, not language-internal morphological ones. Hence the final section of Pinker & Prince's chapter leaves phonology behind and makes an excursion into the function of conceptual categories and their correspondence to real ontological types, the two themes being connected by what one might call speculative evolutionary theory. Linguistics meets metaphysics.

There are several linguistic chapters which, for reasons of space, I can do no more than mention. They are David R. Olson, 'Truth and its negation: Macnamara's analysis of the place of logic in a cognitive psychology' (109–117); Alison Gopnik, 'Some evidence for impaired grammars' (263–283); and Paul Bloom, 'Solving the bootstrapping problem' (285–309). It remains to enumerate the seven chapters which are primarily logical/philosophical: Anil Gupta, 'Meaning and misconception' (15–41); Michael Makkai, 'On structuralism in mathematics' (43–66); Stors McCall, 'Deliberation reasons and explanation reasons' (97–108); Steven Davis, 'The unity of science and the distinction among syntax, semantics, and pragmatics' (147–159); Leslie Margaret Perrin McPherson, 'Scientific theories that unconceal being: intentions and conceptions in their genesis' (161–220); F.

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William Lawvere, 'Kinship and mathematical categories' (411–425); and Marie La Palme Reyes et al., 'Count nouns, mass nouns, and their transformations: a unified category-theoretic semantics' (427–452). There is also Richard Kearney's (1–14) essay on 'Language and nationalism', with its special reference to Ireland, the country of Macnamara's birth.

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René Kager, Harry van der Hulst & Vim Zonneveld (eds.), *The prosody-morphology interface*. Cambridge: Cambridge University Press, 1999. Pp. ix + 442.

Reviewed by BARBARA E. BULLOCK, Penn State University

Ten of the sixteen papers presented at the 1994 workshop on prosodic morphology in Utrecht make up the contributions to this book. There is also an introduction by two of the volume's editors, a short preface describing the motivation behind the workshop and some helpful indices on subjects, constraints, languages and authors. An inside blurb claims that the book represents a survey of theoretical approaches to word-formation and prosody from the 1970s forward but most of the contributions are resolutely couched in the framework of Optimality Theory (henceforth OT).

The 'Introduction' of Kager & Zonneveld does provide an overview of

phonology prior to the 1990s (or prior to OT). K&Z recount how autosegmental and metrical approaches supplanted strictly linear ones by allowing for a more robust representation of prosodic units. From there, they move toward an in-depth discussion of 'original' OT and its improved variety, correspondence. This transition is confusing as it implies that the integration of prosody and morphology only arises with OT. Perhaps a mention of the contributions of lexical phonology and the classical problems posed by level-ordering and cyclicity that OT responds to would have smoothed over the bumps in the introduction.

Stuart Davis' chapter, 'On the moraic representation of underlying geminates: evidence from Prosodic Morphology', defends the view that geminate consonants are lexically moraic, unlike singleton coda consonants. Specifically, he examines allomorph distribution in Hausa and Sinhala and concludes that syllables closed by geminates in these languages are moraically distinct from syllables closed by other consonants. However, readers should not neglect to read the copious footnotes to this article, where two interesting admissions are made. First, it is clear that the issue of syllable weight in these languages is more opaque than the analysis would suggest and second, syllable weight in Hausa seems to depend on rule ordering to be calculated correctly under this analysis.

Laura Downing analyses reduplicative infixing and prefixing in 'Verbal reduplication in three Bantu languages'. She argues that the template for the reduplicant cannot be defined purely in the prosodic terms demanded by the current theory but instead must be morpho-prosodic, 'the canonical verb stem' (84). Distinguishing the prosodic stem from the morphological stem allows her to reintroduce the notion of extraprosodicity. Under her account the morphological stem is impervious to the phonological constraints (no initial vowel) that determine the prosodic stem; thus, it contains a sanctioned extrametrical element.

Bantu verbal stem reduplication is also the subject of Larry Hyman & Al Mtenje's chapter 'Prosodic Morphology and tone: the case of Chichewa'. They provide a dizzying amount of data to show that tonal transfer in this language is compatible with a parallelist view of the prosody-morphology interface. The problem for a level-ordered analysis involves an infinitive prefix that assigns a next-vowel H(igh) tone on the initial vowel of a stem but not on the initial vowel of the reduplicant, suggesting prefixation applies before reduplication. However, when a reflexive prefix is also present with the infinitive, the effect of the next-vowel H is copied in the reduplicant; thus, the opposite order is required. After leading their readers through a maze of data to get them to this point, H&M simply leave them there. The odd conclusion seems to be that since a derivational analysis runs into an ordering paradox, Chichewa must instead be compatible with OT.

Sharon Inkelas' contribution 'Exceptional stress-attracting suffixes in Turkish' examines the two stress patterns of Turkish (stems with word-final

stress and Sezer stems which are all weight-sensitive place names) and their interaction with stress affecting morphemes. She argues that the best account of the stress facts of Turkish is one favoring underlying metrical structure. Essentially, a lexical foot will prevail over a stress-affecting morpheme. In the absence of a foot in the input, stress-affecting morphemes override stem stress. Inkelas' account is elegant and mercifully well-written and it is explicitly pitted against the contemporary OT current to abandon templates for generalizable grammatical constraints, found in McCarthy & Prince (discussed below). The problem with her analysis, underlined by Inkelas herself as a point in favor of her approach, is that the lexically specified foot is exactly the foot required by the grammar elsewhere. This may suggest that it is actually not free from general constraints but subject to the same markedness conditions as the rest of the grammar, a point which undercuts her own argument.

Junko Itô & R. Armin Mester, in their chapter called 'Realignment', propose that mapping of segments to syllables be recast as constraints on alignment. This move would allow for segmental (rather than syllable) alignment constraints in which vowels would be optimally right-aligned with a syllable and consonants would be syllable-initial. Multiply-linked structures, like geminates, which could pose a problem for alignment theory are argued in the second half of the chapter to satisfy alignment but instead violate CRISP-EDGE. The advantage of segmental alignment seems to be that it could replace constraints penalizing syllable complexity (clusters, long vowels, diphthongs, codas, etc.) with conditions that are more internally consistent with the theory. Their belief that 'segments should be prominent' (199) leads them to speculate about sonority and demi-syllables in an interlude that is not well integrated with the rest of the chapter.

By far, the most commanding contribution to this volume is John McCarthy & Alan Prince's (henceforth M&P) lengthy 'Faithfulness and identity in Prosodic Morphology', excerpted and revised from a similar work that can be found on the Rutgers Optimality Archive [ROA-60, http://ruccs.rutgers.edu/roa.html]. Here they argue that the same mechanisms are at work in prosodic-morphology processes (like reduplication, infixation, word minimality, etc.) as in the phonology proper. The goal of this paper is to demonstrate that there is no need for specific templates in prosodic morphology; rather, it is the grammar that constrains the typical categories that arise in interface contexts like reduplication. They achieve their desired results by extending the same kind of faithfulness relationships that hold of the input and output to identity between the base and reduplicant within a general theory of Correspondence. The key data in their analysis involves backcopying, where phonology derived in the reduplicant is replicated in the base. Accounting for this kind of overapplication calls for a parallel evaluation of the phonology of the reduplicant and base-reduplicant identity. Most important, backcopying suggests that it cannot be templates that

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constrain shape since the prosodic size of the reduplicant never seems to affect the corresponding shape of the base. The appearance of canonical templatic shapes in a language's reduplicative morphology turns out to be an illusion of markedness, or rather, of the emergence of the unmarked.

Joe Pater's 'Austronesian nasal substitution and other NC effects' examines the various strategies languages use to eliminate sequences of nasal stops followed by voiceless consonants. As demonstrated by Pater, the reranking of a set of similar constraints captures the various strategies deployed to eliminate the marked nasal+voiceless consonant sequence (deletion, vowel insertion, post-nasal voicing, denasalization) as long as the markedness constraint penalizing nasal+voiceless obstruents is ranked fairly high. Nasal substitution entails the replacement of a root initial voiceless obstruent by a nasal that is homorganic with it, a case where rule-ordering has been traditionally invoked. Pater instead sees substitution as the coalescence of nasality and place, a one-step fusion rather than a two-step process. An output structure with fused input segments violates LINEARITY. For some languages, this violation is relatively low-ranked at certain morpheme boundaries, allowing unimpeded fusion. But to guard against rampant nasal substitution within roots, Pater must advance a companion constraint, ROOT LINEARITY. Unfortunately, while it effectively blocks nasal substitution within words, this constraint does not resolve the problem of non-fusion across other morpheme boundaries. This issue is left unaddressed.

Sam Rosenthall's chapter on 'The prosodic base of the Hausa plural' covers some of the same empirical data as the chapter by Davis and explores the same theoretical terrain as the chapters by Inkelas and M&P although he does not make this link himself. He argues that root augmentation across both sound and broken plural classes is constrained by a prosodic requirement that the base of attachment must equal an iambic foot. Different classes require variations on the shape of the iambic foot and some in curious ways. For instance, CVC broken plural roots taking an *aaCee* plural template not only require an iambic root but one with a final ambisyllabic consonant as well.

Grazyna Rowicka applies the insights of Government Phonology and OT in an interesting examination of 'Prosodic optimality and prefixation in Polish' focused on the realization of *yers*. She proposes that if a verb root begins with a *yer* headed syllable, no foot can be left aligned with a Prosodic Word (PrWd). In these cases, the PrWd is restructured to include the prefixes so alignment is adjusted to the stem rather than to the root. Her analysis captures the difference in prosodic structure between roots containing *yers* and those containing only full vowels.

The final contribution to the volume is Suzanne Urbanczyk's 'Double reduplication in parallel', examining data from the Salish language, Lushootseed. In this language, two reduplicative affixes can co-occur in various orders on a number of noun stems. Depending on the order of

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attachment of affixes in double reduplication, the surface realizations of the morphemes alter their shape. To account for these shape (and segmental) mutations, previous accounts held that reduplication must be necessarily cyclic. Here, Urbanczyk argues in a similar vein to M&P (see above) that double reduplication can be done in parallel. She demonstrates that one affix always maintains faithfulness with its base while the other is always unfaithful, regardless of order. According to this analysis, what appears to be a case of obligatory cyclicity is instead a case of overapplication of fixed segmentism, enforced by the Base-Reduplicant-Identity constraints that hold of the more faithful affix.

Given the amount of data, representations, and tableaux contained within this volume, it is well edited. The one major flaw in its presentation is the typesetting of the small cap constraint names, which is at times awkwardly disjointed. The only major style quibble that arose for me was the use of the term 'pedifiable' (33) to mean 'capable of being parsed as a foot' in the book's 'Introduction'. While the derivation works etymologically, it is seriously non-euphonic in English.

There are some important theoretical contributions in this collection, most notably the lengthy article by M&P that probably should have been presented first in the volume. The works by Inkelas and Urbanczyk also stand out as thought-provoking, well-argued contributions that should inspire future research on the issue of sub- or co-phonologies. But not all of the chapters here seem to be appropriately geared to the interface theme of the book. This exposes the major shortcoming of this book – as a collection of papers resulting from a distinguished workshop on a single theme, this book is a disappointment. Only a few of the authors seem to notice connections between their work and the work of others at the workshop. For instance, Davis and Rosenthall actually treat identical data, yet Davis does not cite Rosenthall's workshop paper. Rosenthall maintains a templatic approach to his data without even a mention of the debate over the necessity of templates played out between M&P and Inkelas within this volume. Given the surprisingly long amount of time that elapsed between the workshop and the publication of its results, one would have wished the editors had recommended revisions and the authors had read one another's contributions. Unfortunately, little of the benefits of scholarly exchange are evident here. The result is that the volume presents some interesting stand-alone papers that, when read together, present a conflicted view of the fundamental issues of prosodic morphology today.

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E. F. K. Koerner, *Linguistic historiography: projects and prospects* (Studies in the History of the Language Sciences, **92**). Amsterdam & Philadelphia: John Benjamins, 1999. Pp. viii + 236.

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The present volume contains a selection of essays written between 1995 and 1999 by a scholar who has been a major force in organizing, promoting and practising the historiography of linguistics during the past thirty years. Most of the pieces in this volume have been published previously and appear here in altered form. The core of the volume is divided into an introduction and two thematic parts, each consisting of five essays. The first part focuses on topics in the historiography of linguistics while the second part concentrates on the work of individual scholars. Interspersed throughout the volume are nine representations of some of the linguists under discussion and a photograph of the author with sculptures of Jacob Grimm and Arthur Schopenhauer. Extensive bibliographic information directing readers to the texts central to each topic under discussion is conveniently provided at the end of each chapter.

The introduction foregrounds the usefulness of the history of linguistics for the field of linguistics and discusses Koerner's own typology of histories of linguistics. For Koerner, the history of the discipline serves as an introduction for novices to the 'object of investigation and the methods and concepts' of linguistics (4). Historical knowledge of the discipline separates scientists from laboratory assistants. The former know the origin and limitations of the techniques employed whereas the latter 'have […] only control of the mechanics of the trade' (6). Equipped with historical knowledge, linguists are in a better position to judge new theories and claims critically. Linguists may also be more careful in laying claim to 'novelty, originality, breakthrough, and revolution' (8), thereby possibly reducing polemics within the field.

Koerner identifies four types of histories of linguistics. 1) Summing-up histories provide synopses of previous achievements and are typically written by practitioners convinced that their discipline has reached a level of maturity, characterized by an established framework of investigation and a methodology which allows only for MOPPING-UP OPERATIONS. 2) Propagandist histories take for granted that knowledge in the disciplines whose histories they depict has developed cumulatively, ultimately culminating in the achievements of a particular historian's school of linguistic thought. Their focus on historical figures and developments that are perceived as having fostered progress towards these achievements characterizes Whig-histories, which seek to legitimize their authors' respective schools of thought. 3) A *PROBLEMGESCHICHTE* is characterized by its 'less partisan' stance towards previous achievements (12). Without privileging the author's own framework, the development of linguistics as a science is outlined and indebtedness

to previous work is acknowledged. 4) Koerner's own vision of an adequate history, the historiography of linguistics, views linguistic history 'as an integral part' of linguistics that is based on sound methodological and theoretical principles 'rival[ing] those of "normal science" (Kuhn) itself' (12).

Koerner is not in favor of approaches that allow for plural versions of history. For instance, Brekle's (1985) conclusion that each generation of linguists will write its own history is considered as 'a free-wheeling attitude' that 'would lead [...] to Whig history, not to the kind of history I have in mind' (13). For Koerner, a hermeneutically informed position like Brekle's automatically and inevitably seems to lead down the slippery slope to Whig-history. Unfortunately, Koerner does not tell us why he thinks this is the case and why non-whiggish histories of linguistics that differ from previous historical accounts of the development of the discipline are ruled out.

The first chapter of part one has as its topic the achievements and continuing challenges in the history of linguistics. Koerner gives a brief overview of the history and consolidation of the field and a redundant exposition of his four types of linguistic histories. He urges scholars to 'remain vigilant' to prevent the history of linguistics from developing into a discipline separate from linguistics (34). Other challenges identified are the role of problematic notions like INFLUENCE and METALANGUAGE in linguistic historiography and the ongoing efforts to legitimize the field within linguistics.

The next chapter is dedicated to the topic of linguistics and ideology in the historiography of the past two centuries. Stimulated by Hutton's (1998) work on German linguistics during the Third Reich, Koerner further tries 'to dispell [sic] the frequently reiterated claim that linguistics in the Third Reich was markedly different of [sic] what was said and done before 1933' (48). He focuses on the hierarchical ranking of languages in linguistic classifications and typologies and on linguistically based evaluations of peoples and cultures, practices that were already common in linguistics in Germany and other western countries before the Third Reich. This is followed by a survey of the political, religious, cultural, and racial motivations underlying various proposals for the Indo-European *Urheimat* predating the Third Reich and a critique of the more recent claims by Gamkrelidze & Ivanov (1985).

In chapter 3 Koerner reconsiders his own traditional view of the transmission of the idea of linguistic relativity from Wilhelm von Humboldt (1767–1835) to Edward Sapir (1884–1939) and Benjamin Lee Whorf (1897–1941) in light of recent work by Joseph (1996) and Lee (1996). Joseph (1996), for example, identifies the 'metaphysical garbage' view of language held by European analytical and positivist philosophers as one of the immediate sources of the Sapir-Whorf hypothesis. Koerner argues that these views and his own 'are not necessarily mutually exclusive, but that an allowance should be made for the presence, latent or keenly felt, of two

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distinct but at least loosely connected layers of influence' in North American linguistics (62). Koerner provides an overview of the Humboldtian tradition of linguistic worldview in Europe and North America before the arrival of Franz Boas (1858–1942). This is followed by sections focusing on the role of Heymann Steinthal (1823–1899) and the concept of INNER FORM in the work of Boas and on Humboldt's world-view idea in the writings of Sapir and Whorf. Koerner states in a footnote (67) that there are no references to Steinthal in Boas (1940). However, this is not the case. In his discussion of morphological devices, Boas (1940: 214) indicates that the term '"material" concepts' has to be understood 'in Steinthal's sense'.

The fourth chapter addresses the issue of REVOLUTIONS in linguistics. Koerner emphasizes that he does not tackle the problem from a philosophy of science perspective 'but more from the point of view of what actually happened in linguistics over the past 180 or so years' (87). Koerner argues that the traditional view of Franz Bopp's *Conjugationssystem* (1816) as marking the beginning of comparative grammar is misguided because it was not immediately perceived as significant at the time. On the other hand, the first volume of Jacob Grimm's *Deutsche Grammatik* (1819) was described as a 'master piece [sic]' and his *Phonology* (1822) was compared 'to Linnaeus' work in botany' (89). Koerner also counteracts the view of August Schleicher as 'the "mopper-upper" of the Boppian "paradigm"' (90) by stressing that it was Schleicher who synthesized the comparative, historical, and typological lines of investigation, developed the method of reconstruction, and stressed the role of phonology and the idea of sound laws. For Koerner, the prime example of a breakthrough in linguistics is provided by Saussure's *Cours de linguistique générale* (1916).

The chapter concluding the first part of the book is concerned with the concept of reconstruction and its history in comparative-historical linguistics and adds some more detailed information to the topics in chapter 4. Koerner provides a short 'pre-history' of the development of the concept from Friedrich Schlegel (1772–1829), who inspired by comparative anatomy first conceived of the idea of reconstructing older language stages, to Schleicher, 'who first established the practice of reconstruction' (101). The rest of the chapter gives an overview of various older and modern positions concerning the reality of linguistic reconstructions (Schleicher, de Saussure, Meillet, Hjelmslev, Pulgram, Hall, Katičić, and Dyen). Koerner ends the chapter with the pessimistic observation 'that the question of what the historical linguist is really doing has still not been satisfactorily answered' (111).

The majority of chapters in the second part of this volume concentrate on various scholars' reactions to and dependence on Saussure's *Cours*. The opening chapter discusses Otto Jespersen's (1860–1943) critical views of the *Cours*. Jespersen believed that Saussure's ideas had not advanced linguistic theorizing and that he overrated arbitrariness at the expense of symbolism. Saussure's distinction between *langue* and *parole* was unacceptable to

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Jespersen, who considered a language as 'an "ensemble des activités linguistiques des individus" who speak the language' (126). To him no clear distinction between langue and parole could be drawn: the two were inseparably connected. Against the Saussurean emphasis on the distinction between the synchronic and diachronic study of language, Jespersen maintained that to understand synchronic and diachronic aspects of language scientifically both had to be studied together, not separately.

Chapter 7 is dedicated to the sources inspiring Roman Jakobson's (1896–1982) linguistics. Jakobson's extralinguistic roots in visual art and Slavic literature and poetics are acknowledged, while any major influence of Edmund Husserl's (1859–1938) phenomenology on Jakobson's thinking before 1939 is considered doubtful. As far as linguistic influences are concerned, Jakobson's interest in diachrony seemed to be stimulated by the work of the Moscow School, while his views on phonology were inspired by the work of the Kazan School and Saussure's *Cours*. Koerner further believes that, in spite of Jakobson's critical reception of the *Cours*, Saussurean ideas constituted the most important influence on Jakobson's achievements in general linguistic theory.

The subsequent chapter discusses the influence of Saussure's *Cours* on the linguistic theory of J. R. Firth (1890–1960). Koerner suggests that there are Saussurean, anti-Saussurean, and non-Saussurean elements in Firth's work. For instance, Firth's discussion of '*collocation* and *colligation*' in his treatment of 'syntagmatic and paradigmatic relations' and his use of the technical expressions '"system", "term", "sequence", [and] "value"' identify him as a Saussurean (162–163). The difference between Firth and Saussure lies in their inductive and deductive approaches respectively. Koerner further believes that Firth was anti-Saussurean in his opposition to the concept of *langue* and non-Saussurean in advocating the '"*empirical* analysis of meaning at"' different linguistic levels of a text within a given '"context of situation"' (160–161).

Chapter 9 examines Einar Haugen's (1906–1992) interest in the history of linguistics and his use of modern metalanguage in his reading of the *First Grammatical Treatise* (Haugen 1950), a medieval text on Old Icelandic orthographic reform. Koerner takes Haugen to task for reading the *Treatise* as an early phonological theory of Old Icelandic in light of concepts borrowed from European structuralism. For example, Haugen translated Old Icelandic *grein* '"branch (of a tree)" or "division"' as '"distinction"' (174). Koerner argues that such reliance on modern theories and concepts 'is at best an obstacle to discovery and at its worst leads to nonsense' (178). Reading old texts with modern concepts in mind may produce problems in these texts that are not really there but are a result of a historian's reliance on a particular modern theory.

The final chapter traces the origin of the familiar description of language as a 'système où tout se tient'. Koerner briefly reviews the history of previous

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unsatisfactory and undocumented attributions of this phrase to Saussure and surveys its occurrence in the work of Saussure's student Antoine Meillet (1866–1936). By taking into account Meillet's statements on Saussure's influence on his own work and by documenting the presence and importance of the concept of s*ystème* in Saussure's *Mémoire* (1879 [1878]), Koerner suggests that Meillet acquired 'the idea and probably also the felicitous phrase during Saussure's courses in Paris during the 1880s' (193).

This collection of essays is not rounded off by a conclusion pulling everything together but by Koerner's brief personal reflections on his own career as a scholar. These reflections are followed by an addendum reporting on an interview Koerner had with Noam Chomsky in 1978, an appended bibliography of Koerner's papers produced between 1995 and 1999, and indices of authors and subjects.

The essays assembled in this volume are representative of Koerner's approach to and views on the history of linguistics. They will serve as an excellent introduction to his work and thinking on theoretical and methodological topics and problems he has been concerned with throughout his career.

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Emiel Krahmer, *Presupposition and anaphora*. Stanford, CA: Center for the Study of Language and Information, 1998. Pp. ix+255.

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This book deals with the issue of presupposition and compares various approaches, such as Montague Grammar, File Change Semantics, Discourse

Representation Theory, Partiality and Determinedness. In my opinion, the most interesting and promising chapters are those on Discourse Representation Theory and Determinedness. These are also the strongest. The book shows great erudition and competence in discussing rival theories. It also places the study of presupposition on a better footing by considering the analogies between anaphora resolution and presupposition resolution. I personally find this book very instructive and well-constructed, one of those books which can be read with great interest in so far as it raises important questions. In the following, though, I will discuss it from my own point of view.

The book starts with some apparently uncontroversial background on presupposition, mainly the tests that enable us to detect a pragmatic presupposition (survival under negation or under modal embedding, etc.), but then moves on to more controversial and dangerous waters, such as the Russell/Strawson dispute about referential expressions. Instead of welcoming Stalnaker's (1974) ingenious attempt to extricate the issue of presupposition from questions of truth and falsehood, Krahmer takes sides with Strawson and defends a semantic view of presupposition. In his discussion of Strawson's notion, however, there appears no mention of Kempson's and Wilson's defence of the opposite view or of the more recent discussion of the issue by Lycan (1986). It is my impression that Lycan's discussion is more important than is generally recognized. More importantly, as Krahmer himself seems to recognize, he does not offer a knock-down argument. An example on the basis of which he purportedly refutes Russell's view is the following:

(1) Is the largest even number greater than five?

According to Krahmer, Russell would have to answer this question in the negative, while it appears to him that any normal individual would perhaps more reasonably refuse to answer this question. I am not sure that Krahmer's insights here are correct, since I could very well ask questions similar to the one above such as *Does the king of France exist?* or *Are you playing with the unicorn?*, which one can very well answer negatively although the *the CN* (common noun) phrases fail to refer. Krahmer, in fact, overlooks the fact that questions are exactly those contexts where presuppositions can disappear (e.g. *Does the king of France exist?*). Furthermore, a negative reply, in this case, must always be possible, although what is negated is the presupposition. If so, his example certainly does not refute Russell's theory.

This type of example illustrates the difficulties in understanding the issue and, interestingly, points to the viability of Stalnaker's view that makes presuppositions independent of the issue of truth and falsehood. Questions, in fact, following the standard speech act theory, are those utterances which are immune to issues of truth and falsehood (there are other views, of course, but Krahmer does not refer to them).

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Apart from the specific difficulties, it is not clear how Strawson's view significantly interacts with the issue of presupposition and anaphora, which, instead, originates from an interesting article by van der Sandt (1992) on this topic and, also, from the ramifications of quantification theory. Van der Sandt's approach to the topic can be summed up as follows. Consider

(2) If Jack has children, then all of Jack's children are bald.

The presupposition of the consequent can be bound by the antecedent; as a result of binding, the complex sentence does not keep that local presupposition. In the competing relevant literature (satisfaction approaches), binding corresponds to satisfaction; in other words, the presupposition is satisfied in the immediately prior local context and thus is not projected. Krahmer, although he sets out to compare the various theories, fails to note that binding as a method seems to offer a more explanatory treatment of conditionals, whereas satisfaction seems to offer a more explanatory treatment of conjunctions. In fact, conditionals are exactly those cases where the binding of a presupposition to an antecedent makes the presupposition evaporate; this is clearly the result of the dependence between the antecedent and the consequent in a modal context. Conjunctions are those cases where satisfaction is more appealing since conjunction ultimately results in a cumulative assertion and it makes sense to say that what is asserted is not presupposed. Disjunctions are those cases for which, by resorting to the equivalence with conditionals, binding is intuitively more appealing, since, again, some modal operator needs to be taken into account in establishing the dependence between the consequent and the antecedent. From these considerations, it should be understood that perhaps both methods ought to be employed in different cases. As Krahmer does not say this about the explanatory adequacy of the theory but simply confines himself to comparing the results of differing predictions, I believe that his discussion leaves something to be desired.

Let us now consider an example by Krahmer which he uses to discuss the notion of accommodation by van der Sandt (1992). For this purpose he uses the example in (3).

(3) If a farmer owns a donkey, he gives it to the king.

Using the representations of Discourse Representation Theory (DRT), namely Discourse Representation Structures (DRSs), i.e. rectangles representing semantic information at the discourse level, Krahmer explains that the presupposition represented within the sub-DRS rectangle corresponding to the consequent cannot be bound by the antecedent and is thus globally accommodated; that is, in this particular jargon, it becomes a presupposition of the complex sentence and thus is removed from the sub-DRS and represented within the main DRS.

Krahmer criticises van der Sandt's treatment of examples such as (4).

(4) Either there is no bathroom in the house or the bathroom is in a strange place.

Van der Sandt says that the presupposition of the second disjunct ('There is a bathroom in this house') is locally accommodated in the disjunct it originated in. Thus, the presupposition is bound and it is not projected to the complex sentence level. Krahmer, however, argues that van der Sandt's treatment makes the statement true in case there are two bathrooms in the house and one is in a strange place while the other is not, while for us it is obviously false. Krahmer says that van der Sandt's theory makes the wrong predictions. I am not sure about this, since van der Sandt could easily amend his treatment by including 'unique bathroom' in his presupposition. What Krahmer should say instead is that his treatment is rather loose since we don't quite know when to prefer local accommodation to global accommodation. His intuition is, clearly, that one should be guided by one's grasp of the meaning of the sentence.

Krahmer takes issue with another example of van der Sandt's, given in (5).

(5) Either Mary's autobiography hasn't appeared yet or else John must be very proud that Mary has had a book published.

According to van der Sandt, the presupposition of the second disjunct cannot be bound and thus must be accommodated globally. Krahmer, on the contrary, argues that the statement does not entail that Mary has had a book published. It seems that here Krahmer is equating presupposition with entailment. However, given that Krahmer accepts Strawson's view of presupposition he cannot coherently equate presupposition with entailment. Krahmer seems to return to Karttunen's local context satisfaction rules and he considers (5) and (6) equivalent.

(6) If Mary's autobiography has appeared, John must be very proud that Mary has had a book published.

Since Krahmer takes the antecedent to entail that a book by Mary has appeared, he thinks that the presupposition of the consequent is bound by the antecedent and, thus, no presupposition is globally projected. Things may be more complex, though. I find it convenient to distinguish between the PRIMARY ENTAILMENTS and the SECONDARY ENTAILMENTS of a sentence. The primary entailments determine what the speaker of that sentence has said. The secondary entailments determine what the speaker has committed himself to as a consequence of what he has said. The distinction between primary and secondary entailments is of the utmost importance, for example, in understanding Gettier's problem (1963), which I will summarize as follows. Smith has seen Jones drive a Ford. Thus he has come to believe that Jones owns a Ford. Then, given the inference *p : p or q*, he will be justified in believing that either Jones owns a Ford or Brown is in Barcelona. It then

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turns out, by mere chance, that *q* is true (Brown is in Barcelona), while *p* is false. Although Smith is justified in believing that *p or q* and it is true that *p or q*, surely one will not want to say that he knows that *p or q*. Chisholm has resolved the problem by amending the definition of knowledge. I think that the problem, in a dramatic way, throws light on the distinction between primary and secondary entailments, since I may believe *p* and thus have to commit myself to the truth of the inference *p : p or q* without allowing others to say that I have said that I believe *p or q*. Thus, the proposition *p or q* is a secondary entailment (Strawson, using a different terminology, was the first to draw attention to this problem in his textbook on logic).

Going back to Krahmer's problem, in this case we see that the presupposition of the consequent is bound by the secondary entailments of the antecedent (a book of some kind or other) but not by the primary entailments (autobiography), since the presupposition is 'a book of some kind or other was published', while we see that an autobiography is not exactly a book of some kind or other but a book of a specific type. Van der Sandt, armed with these insights, could appeal to the distinction between primary and secondary entailments to show that binding does not occur in one sense but does occur in the other sense. Possibly, the fact that binding occurs in one sense but not in the other is responsible for the ambiguity which Krahmer interestingly observes.

The last chapter, on determinedness, is particularly interesting and, in my opinion, the strongest. Krahmer notices that the uniqueness condition which is required by Russell's treatment of the referring expression *the king of France* need not be applicable to all phrases of the type *the CN* (common noun). Surely one cannot say *The King of France arrived. Another king of France arrived later*. This statement is contradictory in Russell's view. However, one could say *A man and his wife arrived. The man was happy. Another man arrived later*. Krahmer analyses various solutions that weaken the uniqueness condition and relativise it to the context. This, to put it crudely, amounts to saying that *The man* refers to the unique man relative to C. Thus, when we reach C′ and add *Another man arrived later* no contradiction is perceived. Krahmer, however, takes issue with this, since he feels that *the king of France* refers to a unique king of France in any context. Thus, the contextual parameter approach, for him, fails. Krahmer finds an alternative in the ambiguity view which he then dismisses in favour of other views which he considers preferable. What Krahmer, in my view, fails to notice is that if there is a distinction between *the man* and *the king of France* this is not linguistic but one that can be expressed in terms of world knowledge, a pragmatic difference in other words (see Stalnaker's (1999) treatment of NPs in modal contexts). We know of the king of France or of the Queen of England or of the Italian President that they are unique in any context. We also know that *the man* must refer to a man who need not be unique, as there may be more similar beings around. From the fact that

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world knowledge and pragmatics lead us to add conditions such as uniqueness, we need not feel authorised to build these conditions, especially in the most stringent form, into the language. Thus an understanding that *the CN* refers to the unique CN relative to context C suffices to take care of all uses of *the CN*. The weakening of the uniqueness condition seems to work well. Krahmer might now reply that we still have to account for the contradiction of *The king of France is bald and another king of France is bald*. We might now want to say that this statement is infelicitous for pragmatic reasons. While *The king of France is bald but not bald* is a contradiction, the previous statement is simply infelicitous due to contradictory pre-suppositions. But now we have seen that uniqueness is not so important as Russell believes and thus I ultimately agree with Krahmer, although for a different reason, that a more satisfactory treatment of the definite article is needed.

Krahmer essentially takes up some ideas by Lewis on salience and claims that a phrase like *the man* refers to the most salient man mentioned in the previous discourse. Analogously, *the king of France* refers to the most salient king mentioned in the discourse. The notion of salience renders sentences such as *The pig grunted but the pig with the floppy ears did not* innocuous, since, after all, uniqueness is no longer needed. What is needed is that the *the CN* phrase should refer to the most salient CN of that kind in the discourse. Krahmer's formalization of salience seems to be adequate:

$[[\text{Salient } (x, \Phi)]] + =$
$[g \mid \forall d \in \text{Val } (x,[[\Phi]] \, (d \neq g \, (x) \Rightarrow g \, (sw) \, (d) \prec g \, (sw) \, (g \, (x))]$, where sw is the salience weight.

Summing up, I am persuaded that Krahmer's book represents a good monograph on the issue of presupposition and anaphora, one that does not hesitate to delve into problems in an attempt to resolve them. I believe that this is an important chapter of linguistics and that many avenues of research can be opened up by it. Another interesting avenue of research is represented by clitics in languages such as Italian, Spanish, Portuguese, Greek, Serbo-Croat, Polish, Czech, etc., which certainly contribute to the understanding of the anaphoric nature of presupposition (Capone 1997, 1999).

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Jim Miller & Regina Weinert, *Spontaneous spoken language: syntax and discourse*. Oxford: Clarendon, 1998. Pp. xiv+457.

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The dominant forces in world linguistics have long paid lip-service to the tenet that spoken language is primary. It is a major aim of this fine book by Miller & Weinert (henceforth M&W) to redirect students of syntax to the study of spontaneous speech. Not all speech, however, is spontaneous in the sense of their title. They argue persuasively that the spoken language of the educated is heavily influenced by their experience of reading and writing. M&W therefore draw exclusively on transcriptions of the speech of individuals who have not (yet) had the benefit of higher education, chiefly in English, Russian and German. Their chief targets are those Chomsky-inspired theoreticians of first-language acquisition whose crucial examples are characterized by syntax which turns out to be untypical of spontaneous speech.

M&W align themselves with a neglected and disparate group of workers on spontaneous speech: Fernandez-West (Finnish), Sornicola (Neapolitan), Blanche-Benveniste (French) and Zemskaja (Russian). Whereas mainstream syntactic research has tended to assume 'an underlying, rather "crystalline" grammar, which then interacts in real speech with a distinct outer "psycholinguistic" component' (Heath 1985: 108, quoted on page 27), the work that has most strongly influenced M&W denies that impromptu speech is degenerate and derivative. Rather, its structures should be analysed in their own right. The patterns M&W uncover have evolved as a response to the circumstances of conversational interaction. What is more, these apply to all three languages examined, which argues against writing them off as performance phenomena.

Their second chapter boldly addresses the status of 'sentence' in syntactic theory. Since sentences are immediately recognizable in written language, it is not surprising that syntactic theoreticians, with their unwitting orientation to the norms of writing, have tended to ascribe a central role to the sentence. M&W show convincingly that the sentence is in fact a 'discourse unit whose composition and complexity is subject to cultural variation and rhetorical

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fashion' (41), exemplifying with English data from earlier centuries, as well as Classical Latin and Old French. They demonstrate that it is unreasonable to seek sentences behind the units of off-the-cuff discourse. It is rather the clause, as the 'locus of the densest dependency and distributional properties' (50), that is the most appropriate analytical unit for both speech and writing. In writing, clauses are combined in hierarchical fashion into sentential units; in speech, clauses tend to be simply juxtaposed, with the relations between them being discoursal rather than syntactic. The clear suggestion is that the syntactic conventions of writing are an explicitly learnt elaboration of those of speech, rather than speech being a distortion of a highly structured competence.

M&W are less radical than those analysts of speech who operate with information units and intonation units (Halliday, Chafe) and who thereby link the pragmatic quite directly to the phonetic. They retain the syntactico-semantic notion of clause as their primary focus, defining it in the style of Role and Reference Grammar, or indeed Dik's Functional Grammar. They detail a large number of constructions which are 'missing' in their data of spontaneous spoken English: gapping, indirect questions, conditional clauses signalled by subject-auxiliary inversion, accusative-and-infinitive constructions, gerunds with possessive subjects, initial participial clauses, infinitive clauses as subject, etc. They further observe that subordinate clauses are relatively infrequent. Here their data is largely from Russian, which appears to favour juxtaposition of clauses even more than spoken English. As a non-Slavicist, I had difficulty with certain details of the exposition; it occurred to me that the interpretation of some of the English data, too, could be confusing for readers who are not native speakers and for whom many of the examples may seem 'plain wrong'. The writers themselves admit in the chapter's concluding section that the preceding material does not make 'easy reading' (132). The conclusions are clear, however: not only does speaking lack certain properties of the written language, but speech has its own constructions, with specific properties that are adapted to verbal interaction. Thus 'shadow pronouns' are typically encountered in spoken relative clauses, where they enable the speaker to circumvent on-line the constraints of the Keenan-Comrie hierarchy – M&W exemplify for English, French, German and Russian.

Chapter 4 turns to noun phrases. The NPs of spontaneous speech are radically simpler than those of formal written texts: the complex NP will typically correspond to an entire discourse in speech. Whereas the discussion of the clause was purely qualitative, M&W now present a large number of quantitative data. They have counted NPs in English, Russian and German texts and transcriptions and present the results as percentages. It is unfortunate that the statistical significance of the contrasts they observe has not been calculated, especially since they make statements such as '[t]here is only one major difference in the proportions' (153) and on page 219 actually

use the word 'significantly'. There is, however, much of interest here, notably the split NPs of Russian speech, as in *interesnuju prinesi mne knigu* (interesting bring to-me book). M&W ultimately analyse such apparently scrambled constructions as an apposition of two NPs. Written Russian, they claim, is configurational, but spoken Russian is not. Less persuasive is their contention that the Russian attributive adjective, in both speaking and writing, is the syntactic head of the adjective-noun sequence (the expression Adjective Phrase is avoided, however). 'The crucial question is this', they write (187), 'does a phrase such as *bol'šuju tarelku* "big plate" denote a kind of big thing or a kind of plate?' The answer to this question, I would submit, is a matter of Focus-Presupposition distribution, and therefore cannot be regarded as relevant for syntactic analysis.

It is to a lengthy discussion of Focus that chapter 5 turns. Here again there are many nuggets of valuable information and analysis. Yet the chapter is clearly under-edited. The introduction is needlessly complicated and overwhelms the reader with multifarious approaches to the much-discussed notion of Focus; there is also a long section on ellipsis (i.e. the omission of non-focal material) in spoken Russian, whose relation to Focus remains unclear; the chapter tends to shuttle rather erratically among the various languages analysed; and the extensive discussion of each data item, although often revealing, equally often seems laborious. The major results are, however, interesting and valuable. What emerges most forcefully is that the spoken and written forms of various languages make regular use of particles as 'micro-focusers', and that this device is more general than clefting, which M&W identify as a typically Northwest-European phenomenon. Some of the results have interesting implications for theorizing within functional linguistics: of relevance for the opposition between Praguian Given-New ordering and Givón's Task Urgency principle is the finding that in Russian important information is placed clause-finally in the written language but clause-initially in speech (259 ff.). Another interesting matter studied is a class of constructions that highlight propositions, as in English (*the*) *thing is* or Russian *delo v tom, čto*.

Chapter 6 presents two case studies in Focus. Whereas the discussion in the preceding chapter was situated on the syntax-discourse interface, this chapter is strongly oriented to discourse. The first case study concerns clefting in English and German. The macro-textual function of the various cleft constructions is shown to dominate their more narrowly semantic characterizations. The *th-wh* construction (*that's what I mean*) has a strong attention-marking function, which M&W see as signalling a need to 'stop and reconsider' – this is clearest in the Map Task Corpus (see Anderson et al. 1991); in German, the corresponding construction has even stronger force. The second case study looks at the use of the particle *like*: not its quotative use typical of certain US speech (*He was like*: '...'), but its occurrence in clause-initial position (*like I knew that I couldnae apply for*

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Edinburgh) or clause-final position (*she has her wings like*). It emerges that *like* focuses non-contrastively on new or given information (M&W use an adapted version of Mackenzie & Keizer's 1991 typology of Focus), while clause-final *like* has the discourse function of indicating that an objection is being countered. Parallels are drawn between the Focus function of initial *like* and that of *und zwar* in German.

After a brief chapter emphasizing the relevance of their findings for historical linguistics and language typology, the reader turns to the final chapter, which draws conclusions from the preceding chapters for the practice of linguistics, the study of first-language acquisition and the education of the young. Since the ideas presented here clearly informed the entire research project that is reported in the book, it might well have been better to place this chapter towards the beginning rather than at the end; in any case, this is not a chapter to skip. M&W take the view that the Chomskyan position on language acquisition is 'incorrect' (373), softening this later to asserting a case 'for re-examining key parts of the Chomskyan theory of language acquisition' (418). They observe that syntacticians have tended to work with 'magnasyntax', placing side by side an enormous range of constructions, from informal to formal and even archaic usage. What is more, grammaticality and acceptability judgements are based on the intuitions of the highly educated, who have been trained in the skill of making appropriate adjudications. M&W's point is that the norms of complex written language, to which syntactic work of this kind makes an implicit appeal, are simply irrelevant to the young child's acquisition of language. The spoken language that the child attends to is of limited complexity, with strict boundaries on embedding, NP structure, etc.; under these circumstances, it becomes more plausible to contend that the child learns from positive evidence.

M&W also find no signs in their corpora of the often-claimed degeneracy of spoken language. They do, however, find recurrent indications of formulaic language in the data (such as *the thing is*, mentioned above), which leads them to side with the increasingly popular view that linguistic competence involves a mix of computation and storage. This is currently less controversial than they lead the reader to believe; surely they go too far when they assert on page 410 that the 'UG language acquisition view purports to be the whole story'. The authors are aware that there are methodological problems with the alternative 'pragmatic account' (413) they offer for the non-occurrence of utterances like *Who do you love me and*? (Horrocks 1987: 156); they suggest, however, that the Popperian criterion of falsifiability is too demanding, is also not rigorously applied in formal work on syntax and language acquisition, and in any case has little relevance for Herb Clark's language user 'in the thick of events in the language arena' (413).

One of the many remarks in this rich final chapter is that '[t]exts for public consumption are carefully checked and changed where necessary by copy

editors' (417). I regret to report that this does not apply with full force to the volume under review. Here follows a selection of the more troubling errors: Nelleke Oostdijk should be referred to as 'she' (10); reference to a slash which is absent from the data in (4) (25); reference to *daß* absent from the data in (3.*vii*) (38); 'Lyon' for 'Lyons' (76); 'patter' for 'pattern' (99); 'Surbordinate' for 'Subordinate' (100); text missing before data item (39) (101); *dont on s'en sert* for *dont on se sert* (112); *je* for *ja* in (101.b) (255); *beans* omitted on p. 385; 'Haung' for 'Huang' (388); *three hundred and one woman* should surely be … *women* (406); the same book by Horrocks appears twice in the bibliography, once dated 1987, once 1988; Atkinson (1986) (419) is missing from the list of references.

These imperfections do not detract, however, from the value of the book as a whole. The authors display thorough knowledge and understanding of both formal and functional linguistics and have bravely taken on the mantle of bridge-builders. With their rich data base and close analyses, they show that the convergence of views which is detectable in contemporary linguistics can be profitably put into practice.

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Rodney Sampson, *Nasal vowel evolution in Romance*. Oxford: Oxford University Press, 1999. Pp. xv + 413.

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As the title suggests, this volume systematically examines the development of nasal vowels in all Romance varieties. Perhaps not quite as clearly expressed by the title, this book also delineates the effects which vowel nasalization has had on vowel systems more generally in the varieties concerned. Boasting an

extensive bibliography (approximately 25 pages in length) and drawing on a myriad of sources in order to recreate the contours of nasal vowel evolution in Romance, this work will clearly be an extremely valuable resource for those interested in vowel nasalization both in Romance and more generally. The author has successfully adopted an admixture of traditional philology and descriptive linguistics to report on the diachronic developments of Romance vowel systems and to outline the various synchronic outcomes.

This volume appears at a time when there seems to be an increased interest in the phenomenon of vowel nasalization. Other recent monographs on the subject include Hajek (1997) and Huffman & Krakow (1993).

I found three aspects of this work particularly striking. First, due to the sheer breadth of information collected by Sampson, this work represents a milestone in Romance linguistics and is clearly the fruit of incredible labour. Second, the author maintains a direct yet cautious tone throughout the book. He advances hypotheses with measured circumspection, due obviously to the sometimes precarious nature of corroborating evidence. This tone is at times slightly frustrating as it could be perceived as a lack of willingness to commit to any particular position. Third, the author's self-declared non-gallocentric approach to the topic of vowel nasalization has allowed the creation of a work which goes some way to presenting, in one volume, the spectacular linguistic variation to be found within ALL Romance varieties.

To summarize, the book is divided into 13 chapters and includes maps, bibliography, word, subject and localities indices. It opens with a chapter on the phonetics and phonology of vowel nasalization and nasal vowels. This is followed by two scene-setting chapters: chapter 2 dealing with 'Vowel nasalization in Romance' and chapter 3 with 'The Latin background'. Chapters 4, 5 and 6 explore Gallo-Romance, beginning with French, then other langue d'oïl varieties and finally Occitan. Two chapters are devoted to Ibero-Romance: Catalan and Spanish in chapter 7, and Galician-Portuguese in chapter 8. Rheto-Romance, Italo-Romance, Sardinian and Corsican, and Romanian (Balkan Romance) are the objects of discussion in chapters 9–12. A concluding chapter recaps and outlines remaining areas to be examined.

Chapter 1 opens with a rather technical physiological description of the interplay of acoustic factors in relation to nasal vowels. Turning to the acoustic characteristics of nasal vowels, Sampson points out that nasal vowels cannot simply be considered 'oral vowels plus a clearly identifiable superimposition of acoustic energy attributable to added bands of nasal resonance' (6). However, what exactly constitute the acoustic correlates of nasalization is something which has been under discussion for 40–50 years without a clear consensus having yet been reached. As to the perceptual cues of vowel nasality, Sampson highlights the importance of the hearer's linguistic background, points to some links between perceived nasality and increased duration, and notes that nasality has ramifications for the perception of vowel height: high vowels tend to be perceived as having a

lower target (and a centralized articulation), while low vowels perceptually raise. Sampson warns that this last perceptual factor is only a tendency since there are languages in which high nasal vowels have not all systematically lowered. In the treatment of specific varieties, one of the main diagnostics Sampson employs to identify historically high levels of vowel nasalization is the neutralisation of mid vowel contrasts. This is linked to perceptual shifts in vowel height triggered by nasality.

Sampson identifies five ways of interpreting the status of nasality:

1. Generic nasality
2. Universal phonetic nasality
3. Allophonic nasality
4. Phonemic nasality
5. Phonological nasality

Allophonic and phonemic nasality are the two phonological types relevant for Sampson's discussion of Romance vowel systems.

In this chapter, Sampson also touches on the relationship between nasality and other features in vowels. The most oft discussed case concerns nasality and vowel height. Sampson notes that according to conventional descriptions nasality results in the lowering of vowel height. French is cited as the example *par excellence*. However, this affirmation is actually based on the French case, so the circularity is immediately evident. Cross-linguistically, there is little support for the notion that high and high-mid vowels ALWAYS lower under nasalization. At best, this can be considered a tendency.

Other factors which have been linked to nasality are length, lip-rounding and backness. As far as length is concerned, Sampson finds that diachronically there was a link between length and nasality which, in synchrony, does not seem to be so strong. The relationship between long vowels and nasality has already been examined in great detail by Hajek (1997: 85) for Northern Italian dialects.

The links between lip-rounding and nasality, and backness and nasality are even more tenuous with Sampson denying the existence of 'any genuine correlation between nasality and lip-rounding' (24) and assuming 'no special association between nasality and the front-back dimension in vowels' (25).

Completing this first chapter, Sampson outlines the dynamics of vowel nasalization. He cites assimilation as the common factor in the creation of nasal vowel phonemes and sets out the following two-stage process:

$$\text{VN} > \tilde{\text{V}}\text{N} > \tilde{\text{V}}$$

This schema relates to regressive assimilation and the author notes that in the case of progressive assimilation the nasal segment is usually retained. Nasalization triggered by regressive assimilation is much more frequent in Romance than that caused by progressive assimilation. The two-step development above is affected by a number of other factors, such as the

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quality of the conditioning nasal consonant and of the vowel undergoing nasalization, the duration of the vowel, the degree of syllable stress, whether the nasal consonant is tauto- or heterosyllabic and the quality of any consonants which follow the nasal consonant. Also, before deletion, the nasal consonant may experience a number of weakening stages.

Nasal vowels may also arise spontaneously for other reasons without any conditioning from contiguous nasal segments. These cases are more rare and can be related to sociolinguistic motivations, grammatical factors (such as a demarcative function), or phonetic effects (like the adjacent presence of a consonant with high airflow).

A well-written and thorough exposé, this first chapter could be skipped by those not interested in the generalities of nasal vowels and the process of nasalization and who are perhaps more focused on the specific developments in Romance. In my view this would have little impact on the reading of the remainder of the book.

The important concept to grasp in chapter 2 is the distinction Sampson makes between nasalizing contexts in Romance. This is a key to his analysis of nasal vowel evolution. He identifies three contexts and refers to them as context (i), context (ii) and context (iii) forms throughout the work.

Context (i) forms involve the grouping /VNC/, where the vowel and nasal consonant are tautosyllabic and the nasal segment is followed by a consonant (NC could also be a geminate consonant). This context-type was widespread both in Latin and throughout the history of Romance.

Context (ii) forms are representable as /VN#/, where the vowel and nasal segment are tautosyllabic and the nasal consonant is word-final. This context-type abounded in Classical Latin but was progressively eliminated with loss of word-final consonants in Imperial times. After Romance apocope, the number of forms of this context-type was replenished across the Romance world.

Context (iii) forms contain the grouping /VNV/, where the first vowel and nasal consonant are heterosyllabic, not tautosyllabic as in the two preceding cases. This context-type occurred widely both in Latin and throughout the diachronic development of Romance.

Chapter 3 deals with vowel nasality in Latin and Sampson outlines the main lines of development commencing in the pre-literary period. Proffering a reanalysis of vowel nasality in Latin, Sampson indicates that despite a general refusal to accept that nasal vowel phonemes existed in Latin, 'the evidence for surface contrasts between nasal and oral vowels is strong and it suggests that at certain periods and in certain styles of speech nasal vowel phonemes may well have arisen' (50).

While the author states at the outset of the volume that he wishes 'to correct [the] ''gallocentrism'' and provide a more balanced view of nasal evolution across Romance' (v), it is immediately evident that the discussion of Gallo-Romance varieties occupies the most space in the text, 104 of 349

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pages. Sampson's discussion of vowel nasalization in French is very complex and, in my view, fails to bring any new light to bear on the topic. This could result from attempting a synthesis of sources with inherently opposing standpoints. Nevertheless, Sampson presents a wealth of diverse data which serves as an important resource.

The remaining chapters trace the effects of vowel nasalization on the various vowel systems both in diachrony and synchrony. I would like to finish this review by drawing attention to a number of problematic issues contained in Sampson's book.

First, at times it is unclear whether Sampson is setting out clearly attested stages in diachronic development or instead proposing a reconstruction of presumed stages. This is due to inconsistent usage of the conventional *. Tied to this is the tendency to categorically transcribe older graphies which contain sequences of vowel plus nasal consonant as if there were always nasalization. This is at odds with what is stated earlier on in the book:

> Where textual materials are available, the appropriate evaluation of the data which they contain often poses problems … it is clear that the use of a graphy consisting of a vowel followed by a nasal consonant does not by itself shed any light on whether the vowel was phonemically nasal or (weakly or strongly) allophonically nasal … (37)

Second, in some cases the data sets presented to illustrate an argument are confusing or do not support the claims made. One example of this is in the chapter on Rheto-Romance. Sampson states that an indication that vowel nasalization took place can be seen in the 'widespread neutralization of the contrast in stressed syllables between mid vowels' (222). The data set below supposedly shows that low mid vowels raised and merged with high mid vowels. A cursory glance at the data shows that it is more complicated.

	Bergün (C. Grisons)	Fassa (Ladin)	
TĔNDĔRE/EXPĔNDERE	'tɛndər	'ʃpener	'to tend, spend'
VĒNDERE	'vɛndər	'venər	'to sell'
RESPŎNDERE	re'ʃpwøndər	re'ʃponer	'to answer'
ABŬNDE/TŬNDERE	a'wønda	'toner	'enough, to cut'
BĔNE	bɛːŋ	bɛŋ	'well'
PLĒNUM	pleːŋ	pjɛŋ	'full (m.sg.)'
BŎNUM	(buŋ)	boŋ	'good (m.sg.)'
-ŌNEM	-uŋ	-oŋ	nominal suffix
TŎNAT	'toŋa	'tona	'it thunders'
CORŌNA	ka'roŋa	ko'rona	'rack, crown'

Also, the bracketed form (buŋ) appears to be built on analogy and should be excluded from the set and -uŋ shows free variation with two other reflexes, one being -oŋ. While there has indeed been merger of the expected vowel

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reflexes, a new reconfiguration of the data set reveals however that the various outcomes may be linked more usefully to the distinction between original free or checked syllables. In the Bergün data, front mid vowel contrasts have indeed been neutralized, while the type of back mid vowel neutralization depends on the original syllable structure.

Checked syllable	Free syllable
ŏ ŭ > wø,	ŏ ō > o
RESPŎNDERE > re'ʃpwøndər	-ŌNEM > -uŋ/-oŋ
ABŬNDE > a'wønda	TŎNAT > 'toŋa
	CORŌNA > ka'roŋa

The converse is true for the Fassa data which show complete neutralization in back mid vowels, but for front mid vowels display a similar distribution to that above based on etymological syllable structure.

Checked syllable	Free syllable
Ě Ē > e	Ě Ē > ɛ
EXPĚNDERE > 'ʃpener	BĚNE > bɛŋ
VĒNDERE > 'venər	PLĒNUM > pjɛŋ

Third, Sampson makes a number of contradictory claims regarding vowel length. Sampson states that experimental observation has shown that 'stressed vowels are longer the closer they are to the end of a word' (253). Through the author's silence on the matter, the reader is led to believe that this is the case for Italo-Romance. Instead, the length of stressed final vowels in Italo-Romance is anything but clearly understood. Hajek (1997: 112–113) discusses oxytonic vowels in Italo-Romance and demonstrates with experimental and other data the unstable nature of word-final vowel length: very short in some areas, long in others.

Sampson furthermore states that 'short vowels in blocked syllables have not normally lengthened' (346), yet he cites numerous examples where lengthening has indeed occurred. Examples of lengthening in blocked syllables are presented by Sampson in 10.5.2, where he notes that in the Emilian dialect of Novellara context (i) forms, that is checked syllables, systematically have long nasal vowels. Development of diphthongs in closed syllables also indicates lengthening and this appears to have occurred in the Subselvan dialect of Rothenbrunnen, although this variety has also supposedly been subject to the constraint on long vowels in closed syllables. Thus we find [tçawlt ku'rawnta] 'hot, forty'. The Bergün data above reveal that short vowels in checked syllables regularly diphthongized to [wø]. In Rimini, Parma and Tizzano the presence of a diphthong in context (i) forms points to an original long vowel.

A final comment must be made on Sampson's interpretation of Hajek's typological claim that long vowels are more likely to nasalize. Sampson appears to believe that Hajek is claiming that lengthening of short vowels is

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a universal precondition for nasalization. Hajek's claim is in fact that in Italo-Romance varieties '[s]hort tonic vowels must be lengthened before phonologization of nasalization is recorded' (1997: 88). This is rigorously supported by empirical data for the area in question. Hajek notes however that this same restriction may not apply elsewhere. Lengthening, even in closed syllables, is frequent and is independent of nasalization. The diachronic link between lengthening and subsequent nasalization is necessary but is completely accidental. The contradictory data presented in the previous paragraph illustrate that Hajek is in fact correct.

The final chapter constitutes a synthesis of the foregoing chapters which seeks to present a coherent picture of the often diverse and varied linguistic developments of vowel nasalization in Romance. Notions of universal patterns of nasalization are discussed in reference to the specifics of Romance. Sampson individuates two problem areas worthy of future detailed attention: the relationship between length and vowel nasalization (even though it would appear that Hajek (1997) has gone a long way towards demystifying this for Northern Italian dialects at least), and the interplay between denasalization and nasalization.

In conclusion, Rodney Sampson has produced an extremely useful resource for those interested in Romance phonology and nasalization in particular. The book provides a wealth of information on the diachronic developments of Romance varieties, as well as summaries of synchronic vowel systems, and includes useful suggestions for further research. I recommend this book highly to all serious scholars as a fine example of linguistic philology.

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