'interdisciplinary semantics' (137), as B calls it, can be. This reviewer has read some dreary accounts of color words in historical texts. Not only is B's work not dreary, but it is also designed to lift practitioners of semantic color studies up from the fog of mere description by providing them with a metatheory and a methodology whereby their studies can go deeper.

In 'Prehistoric colour studies' (Ch. 11), B argues that one can exploit comparative modern and historical evidence in juxtaposition to a commitment to Berlin and Kay's evolutionary sequence, in order to make inferences about the likely color categories present in the minds of prehistorical speakers. The least specific and therefore the most likely version of the evolutionary sequence (Kay & Maffi 1999) proposes that languages with only two basic terms distinguish light from dark, with terms for red/yellow/white and black/green/blue. Languages with three terms will differentiate as follows: white (or light), red/yellow, and black/green/blue (or dark). Red/yellow, then, is the first purely chromatic term that emerges according to the evolutionary hypothesis (which reconstructs a universally applicable schema from a cross-cultural, mainly nonwestern corpus). Comparative evidence from successor (daughter) languages might suggest a common root for 'red', say, and this could be construed as evidence for a reconstructed red term and/or category. (B makes an interesting case for such a reconstruction of a red category in Proto-Indo-European). The reasoning in this chapter exploits a range of speculative work: a modularist evolutionary psychology (Mithen 1996), the difficult 'vantage theory' (MacLaury 2002), and a particular brand of cognitive prototyping (Wierzbicka 1996). This makes Ch. 11 quite speculative, but it is also the most theoretically original discussion in the book.

In its first half, *The semantics of colour* provides an accurate and up-to-date account of research into basic color terms and categories. The second half of the book uses this conceptual framework in its articulation of various approaches to historical color semantics. While one can find discussions of research in the tradition of Berlin and Kay and many good studies of color nomenclature (some by B herself, not surprisingly), this book is unique in the way it links the two. It is also unique in its explicit emphasis on methodology and its original examples of historical color semantics: theory and practice are united. For researchers interested in the historical semantics of color, this book has no peer, and it will be their basic resource. For other readers, *The semantics of colour* is a first-rate interdisciplinary trip through the linguistics, history, psychology, and anthropology of color language and color concepts.

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Introduction to pragmatics. By BETTY J. BIRNER. Malden, MA: Wiley-Blackwell, 2013. Pp. x, 326. ISBN 9781405175838. $44.95.

Reviewed by NANCY HEDBERG, *Simon Fraser University*

This book is a textbook, so my remarks focus on how effectively it works for that purpose. I used it very successfully in my fall 2012 pragmatics class, a combination of an advanced under-

graduate and beginning graduate class. This is the first major North American pragmatics text-book since Green 1996, and it is very welcome.

The book is organized into chapters on topics such as implicature, reference, presupposition, and speech acts, in the style of Levinson 1983. While Ariel 2010 criticizes the topic-centered approach to defining pragmatics as being simply stipulative rather than explanatory, pedagogically it is useful to be able to examine the topics separately as well as in relation to each other. Birner adds chapters on information structure, inferential relations, and dynamic semantics to the topics covered by Levinson.

The first chapter, 'Defining pragmatics', situates the book's focus as the boundary between semantics and pragmatics. B gives a brief introduction to lexical and sentence semantics within the truth-conditional approach, including propositional and predicate logic. It was a useful review for the students who had had a semantics course, but also worked for students who had not taken semantics. B introduces the border issue by focusing on the roles of context dependence and truth conditions, showing that these two criteria are sometimes in conflict. Thus, anaphoric pronouns are context-dependent but essential to truth conditions, while conventional implicatures are context-independent but arguably non-truth-conditional.

Implicature is discussed in two chapters. Ch. 2, 'Gricean implicature', is an introduction to Grice 1975. I presented my own introduction to scalar and clausal implicatures as worked out in the 1970s by Laurence R. Horn and Gerald Gazdar, taken from Levinson 1983. That, in conjunction with reading Grice's original paper, meant that we did not have to discuss this chapter during class, although the issue of what constitutes truth in court stimulated interesting discussion.

Ch. 3, 'Later approaches to implicature', introduces neo-Gricean theory and relevance theory. The focus is on contributions to the study of scalar implicatures by Horn (e.g. 1984), such as his Q- and R-principles, and his division of pragmatic labor. Levinson's (2000) theory is introduced briefly, but it would have been useful to have more discussion on how his theory of default meanings differs from Horn's views. It would also have been useful to have more emphasis on relevance theory (Sperber & Wilson 1995). As an integrative thread, B explains that all three theories propose that language use reflects a resolution of a tension between minimization of effort and maximization of effect. B holds the interesting view that for neo-Griceans, the tension is based in the different interests of speaker and hearer, whereas for relevance theorists the tension is internal to the hearer.

Returning to the issue of the semantics-pragmatics boundary, B contrasts the views of Griceans, neo-Griceans, and relevance theorists on distinguishing different aspects of nonnatural meaning. Grice distinguished what is said (semantic) from what is implicated (conventionally or nonconventionally—pragmatic), neo-Griceans distinguish conventional (what is said or conventionally implicated—semantic) from nonconventional (pragmatic) meaning, and relevance theorists distinguish what is encoded (semantic) from what must be inferred (pragmatic) and within the latter what is explicated (truth-conditional) from what is implicated (non-truth-conditional).

I would like to see some discussion of relevance theory's procedural meaning vs. conceptual meaning pertaining to lexical items like discourse particles, to round out the discussion of conventional implicatures, which focuses solely on 'but'. Without such discussion, my students were not convinced that conventional implicatures are not truth-conditional. The fact that some theorists do view conventional implicatures as truth-conditional (e.g. Bach 1999) is not mentioned, although it would have been very relevant.

Ch. 4 is on reference. A section on deixis presents a list of examples of deictic expressions. There could have been more emphasis on the need to resolve indexicals to arrive at truth conditions, especially on how extensive inference is required to resolve many deictic expressions: a short list of contextual parameters is often not enough. Another section discusses definiteness, and contrasts familiarity theories with unique identifiability theories. B takes neither familiarity nor identifiability to be necessary for definiteness. She points out examples that she says are unique but not familiar, which is not controversial; but she also points out examples that she says are familiar but not unique, which is more controversial since many theorists who hold the identifiability position take familiar definites to be a subclass of uniquely identifiable definites. The

examples B gives of familiar but nonunique definites are not convincing. When a hotel concierge tells a guest to 'Take the elevator' when there are multiple elevators, on a uniqueness view reference goes through successfully despite lack of objective uniqueness because narrowing reference down to a particular elevator would not be relevant, so the elevator that the guest will take counts as unique. Furthermore, there is no need in this situation for any of the elevators to be familiar to the guest. In general, this chapter would benefit from more integration with the implicature chapters in order to highlight the importance of factors such as relevance in explaining aspects of reference.

Another place in this chapter where I would recommend such integration is the section where B discusses the givenness hierarchy framework of Gundel, Hedberg, and Zacharski (1993). Following Kehler and Ward (2006), she criticizes that theory for overpredicting reference-oriented implicatures. For example, use of an indefinite article typically implicates that a referent is unfamiliar, but does not implicate merely nonuniquely identifiable or nonreferential, even though uniquely identifiable and referential are higher cognitive statuses than type identifiable, which is associated with the indefinite article. It could be argued, however, that the reason such implicatures fail to arise is because they likely are not relevant. Furthermore, Gundel and colleagues call upon the tension between the first and second part of Grice's quantity maxim to explain the givenness-hierarchy implicatures that do arise; but B does not mention this, nor does she relate it to her implicature chapter discussing the explanatory importance of opposing pragmatic principles.

The chapter closes with a discussion of anaphora, with a valuable introduction to centering theory (Grosz, Joshi, & Weinstein 1995), and then an interesting discussion of the attributive-referential distinction of Donnellan 1966, based on the criticisms of that account in Birner 1991. B points out that on a mentalist view, in which reference is explained as pertaining to discourse referents in a discourse model, even 'attributive' definite descriptions have discourse-model referents, so there is no distinction to be made here.

Ch. 5 is on presupposition. This was an excellent chapter to cover in class lectures because it discusses the relation between presupposition and entailment in a way that is compatible with how we teach presupposition in our semantics course (based on Chierchia & McConnell-Ginet 2000). Second, the coverage is thorough, introducing the most influential approaches to presupposition in semantics and pragmatics. B covers the classical views of Gottlob Frege, Bertrand Russell, and Peter Frederick Strawson, as well as Lauri Karttunen's distinction between holes, plugs, and filters, Horn's metalinguistic negation, Dorit Abusch's distinction between hard and soft triggers, Robert Stalnaker's common ground, Gazdar's potential presuppositions, and David Lewis's accommodation. My additional discussion of Gazdar's (1979) theory, which claims that presuppositions can be canceled by entailments and scalar and clausal implicatures, related presupposition back to the discussion of implicature and forward to the discussion of dynamic semantics and the construction of discourse models.

Ch. 6 is on speech acts. B introduces the classical works of John Langshaw Austin on performatives and locutionary, illocutionary, and perlocutionary acts, and of John Searle on felicity conditions and indirect speech acts. This is a good location for this chapter because the Gricean chain of reasoning for indirect speech acts is therefore readily understandable, although students criticize such reasoning chains as tedious and unnecessary to actual interpretation. To address that, I would suggest adding some discussion of 'short-circuited' implicature (Morgan 1978).

Ch. 7 is on information structure. The emphasis here is on work by Ellen Prince, Gregory Ward, and Betty Birner. A lot of wordy, naturally occurring examples from written discourse that are awkward to present in lecture format are included in the chapter. It consists of a useful summary of this approach to information structure, including notions of open proposition (Prince 1986), discourse status and hearer status (Prince 1992) and their applicability in explaining constituent order in preposing, postposing, and argument reversal (Birner & Ward 1998), and functional compositionality (Birner, Kaplan, & Ward 2007).

My criticism here is that other approaches to information structure are neglected, in particular, approaches distinguishing topic and focus. There is a surprising lack of discussion on how focus can affect truth conditions. Also, the aboutness notion of topic is, in my view, inappropriately re-

jected. The topic tests of Jeanette Gundel and Tanya Reinhart, such as the question test and the 'as for' test, are unfairly criticized. These tests cannot be taken as substitution tests, as B does in claiming that the test in 2 fails to confirm the store building as the topic of the italicized sentence in 1.

(1)   The first house erected, after the town was laid out, was by Thomas Langford, who was then living just a little way north of the station. This was a store building, and *into it he placed a stock of general merchandise*, and kept it for sale.

(2)   #This was a store building, and as for it, he placed into it a stock of general merchandise and kept it for sale.

Example 2 violates discourse conditions on the use of *as for*, which can only be used to mark a reactivated or contrastive topic. If a proper context is assumed, as in 3, the *as for*-sentence comes out felicitous and confirms the store building as the sentence topic.

(3)   This was a store building. [Intervening material] As for the store building, Langford placed a stock of general merchandise into it, and kept it for sale.

Notions of topic and focus are also important for understanding theories of the left periphery in syntax (e.g. Rizzi 1997)—in other courses students may be exposed to work on syntactic topic and focus phrases, as well as morphological topic and focus markers. It would also be natural to relate topicality to the notion current in formal semantics of question under discussion (e.g. Roberts 2004). This would strengthen the integration of the present chapter with the chapter on dynamic semantics.

   Ch. 8 is about inferential relations, which, at the entity level, means types of bridging inferences. B here introduces her interesting idea that inferrables are discourse-old but hearer-new. At the propositional level, she mentions Mann and Thompson's (1988) rhetorical structure theory but elaborates mostly on Kehler's (2002) inferential theory of coherence relations.

   Ch. 9 discusses the recent integration of pragmatic topics into formal theories of dynamic semantics. B presents an introductory exposition of discourse representation theory (Kamp 1981), emphasizing the need for pragmatic inference in building discourse representation structures.

   To me, the primary value of this book is how it relates pragmatics to semantics, with its coverage of topics from truth tables to dynamic semantics. There is excellent discussion of how discourse models (and discourse referents) provide a balanced resolution of the internalist/externalist debate in the study of meaning.

   The book is readable by undergraduates from a variety of disciplines, but is still interesting for graduate students to read as background material to original articles. The order of the chapters is well thought out, although I would like to have seen more integration of material between chapters. However, this can be done in class discussion. The chapters are self-contained, so the order can be varied. Each chapter ends with numerous study questions, some more ambitious than others. Instructors can select questions in accordance with their goals.

   In sum, this textbook is a timely introduction to pragmatics as defined relatively narrowly in a way that fits well with courses on truth-conditional semantics. I highly recommend it.

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Prosody and meaning. Ed. by GORKA ELORDIETA and PILAR PRIETO. (Interface explorations 25.) Berlin: De Gruyter Mouton, 2012. Pp. v, 383. ISBN 9783110260076. $140 (Hb).

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There have been few groundbreaking works on the meaning of intonation. Bartels's (1999) book or Pierrehumbert and Hirschberg's (1990) famous paper and the response to it by Hobbs (1990) are the most cited examples of such studies. Truckenbrodt's 2012 article on the semantics of intonation is too recent to be widely cited, but may well become another classical article on the meaning of prosody. Although not all ten papers of *Prosody and meaning* can compare to these, a few very useful and innovative studies are grouped together, and this renders the book important. Prosody and tonal structure are modules of linguistics that are lagging behind most others; this is