

## Reviews

*The Language Instinct: How the Mind Creates Language.* Steven Pinker.  
New York: Harper Perennial, 1994. 496 pp.

*Reviewed by*

Robert Blaisdell

Monterey Institute of International Studies

Since the fall of the behaviorist paradigm at the hands of Lenneberg, and Chomsky's irrefutable poverty-of-stimulus argument, innateness theories about the nature of human language have gained considerable ground. A great deal of theory and research has developed over the decades and the fires of debate around the innateness-versus-empiricism issue have burned at varying levels of intensity. Steven Pinker's voice rings out powerfully for the view that human beings are structurally designed by nature to develop and use one of our most definitive characteristics, language.

Pinker's *The Language Instinct* is a tour de force exposition on the nature of language. Arguing that language is an innate capacity of human beings, Pinker demonstrates through observation, reason, and theoretical research that language must be more deeply rooted than a mere set of behaviors which has accumulated through exposure to environmental input. Although his conclusions may side strongly with the innateness school, Pinker attempts to reconcile historical arguments by stating that even though language is encoded in the human chromosomes, it is nevertheless dependent on environmental stimuli to be triggered and patterned.

The book goes beyond a treatise on linguistics and selection theory. What adds to its force is that the medium is as much of the message as the content. Pinker's style is accessible, creative, contemporary, often contentious, and, above all, highly informed. He succeeds in bringing difficult arguments down from the ivory tower and making them available to the reader. Although this book is challenging, it delivers substantial rewards to those interested in languages, linguistics, and what the human brain and human language reveal about each other. Classroom pedagogues are left to themselves to apply the content of the book, but anyone interested in languages on any level will benefit from reading it.

*Testing in Language Programs*. James Dean Brown. Upper Saddle River, New Jersey: Prentice Hall Regents, 1996. 324 pp.

*Reviewed by*

Ian G. Gleadall

Tohoku Bunka Gakuen University

Books on testing generally fall into two categories: those dealing with the practical aspects of constructing and evaluating tests and those reviewing theories of test construction and development. *Brown's Testing in Language Programs* (TILP) is a new departure, providing comprehensive coverage of the theory but also going deeply into the appropriate usage of many of the statistical functions commonly used in evaluating language tests (see also Brown, 1989). The text is generally very clear and easy to read, especially with its unusually large typeface, but the section on measuring and displaying data contains some errors which (evidently repeated from a pedigree of other EFL texts) are particularly cause for concern in such a basic book.

TILP's nine chapters begin with an overview of the content and end with a summary, often in list form, followed by consolidation questions and application exercises. The Table of Contents presents only the chapter titles, whereas the inclusion of subheadings would have been useful given Brown's central theme of criterion-referenced testing (CRT) versus norm-referenced testing (NRT) and the consequent subdivision of most chapters into these sections.

The NRT versus CRT organizational approach to testing has obvious advantages in dealing with the statistical analyses of different types of tests, but Brown's discussion of the properties of these two categories might be considered too simple. For example, other classifications (e.g., subjective versus objective; long versus short) are included in the debate as if they have the same demarcation as CRTs and NRTs, which they do not. Brown (p. 8) also tries to fit the four primary language testing functions into the CRT/NRT scheme, claiming that they "correspond neatly" with NRTs (for proficiency and placement decisions), and CRTs (for achievement and diagnostic decisions). His separation of CRTs and NRTs involves acceptance of the assertion that CRTs measure "specific, objectives-based language points," while NRTs measure vaguely defined "general language abilities or proficiencies" (see Table 1.1 on p.3). However, Cartier (1968) has characterized NRTs as testing a sample of the course objectives, while CRTs ideally should test all the objectives (hence the 'subjective' versus 'objective' comparison, for example, is inappropriate); and Brown's contention that NRTs are "long" and CRTs "short" is just the opposite of what Cartier (1968) claimed.

The first half of Chapter 2 (pp. 21-35) introduces the major theoretical and practical issues in testing and is well written in a series of short, concise sections. Theoretical issues include language teaching methodology, skills, competence and performance, and discrete point versus integrative testing. These are followed by two useful checklists for evaluating testing programs. However, the lack of examples of (or even parts of) actual tests is a missed opportunity to consolidate the characteristics of CRTs and NRTs.

Chapter 3 deals with developing and improving test items, with checklists summarizing the guidelines for most item formats and an analytic scale for rating composition tasks. The application exercises at the end of this chapter are very useful and working through them will provide a firm grounding in what this chapter has to teach about item analysis. However, some small inconsistencies in the usage of terms could confuse the neophyte: "correct answer" and "key" are both used, with no mention that they mean the same thing; similarly with "miskey" (which presumably means a distractor, not the key, that was chosen by the testee) and "missed the item" (p. 79).

Chapters 4 and 5 cover the arithmetical concepts required to understand the topics of correlation, validity, and reliability covered in Chapters 6-8. Chapter 4 deals with counting and measuring, presentation of statistical data in tabular form, displaying data, and central tendencies. Chapter 5 ("Interpreting test scores") uses probability to introduce the normal distribution, and presents a concise explanation of standard scores, including  $z$ ,  $T$  and CEEB (as used, for example, to report TOEFL scores). However, using stars and crosses to illustrate bar charts and histograms is confusing and unnecessary in this age of computer-aided chart construction. More important, though, is the failure to clearly distinguish 'continuous' from 'discontinuous' data, and consequently to distinguish histograms from bar charts (e.g. Fig. 5.1, p. 125): errors that require urgent correction. It is also inappropriate to use the number of languages a person speaks to illustrate a "ratio scale" (pp. 97-98), since it has an absolute zero but no one speaks "zero" languages; or to use decimal places merely for neatness (Table 4.7, p. 111), for example where "N" is the number of students who took a given test (integers/students cannot be divided into hundredths, which is what two decimal places implies).

Chapter 6 is very lucid, particularly the section on correlation coefficients for random numbers, and the discussion of the importance of considering the relative magnitude of the correlation coefficient in different situations. Brown's discussions of reliability (Chapter 7) and validity (Chapter 8) are also clear and thorough. However, ANOVA and omega squared analyses (Tables 8.2 and 8.3) are tantalizingly mentioned

while stating that they are “beyond the scope of this book” (p. 242). Brown should have omitted them, or explained them fully.

The final chapter places testing as a central issue in curriculum planning. This is followed by the key to the application questions. However, I was frustrated not to find answers to some of the review questions (such as that on p. 147, asking the reader to calculate probabilities). The final reference section is an extensive bibliography. There is neither glossary nor appendices (e.g. statistical tables, formulae, or examples of test formats).

There are some surprising omissions from TILP: The words “computer” and “software” appear only on pp. 42 and 91. In a text of this nature, one would expect some discussion of statistics software packages, or at least a mention of spreadsheets, and also a list of suitable software products and references for their use by the digitally challenged. The communicative paradigm is only briefly mentioned by Brown, who could have been more informative about recent developments. Most surprising of all, however, I could find no mention of the important concept of washback in TILP (cf. Brown, 1997). Communicative testing and washback are important current issues in language testing and should be included. There is also no discussion of the meaning and fundamental importance of objectives in the construction of both syllabuses and tests, despite the inclusion of terms such as “course objectives” (p. 14), “specific instructional objectives” (p. 15), and the subheading “goals and objectives” (p. 272). In a text emphasizing the reliance of CRTs on the effective stating of objectives, I would expect to see a brief section on the writing of behavioral objectives or at least some references to guide the reader.

To summarize, TILP provides a readable approach to statistics as used in language testing and deals thoroughly with the practical, technical aspects of test evaluation that should be addressed by those responsible for assessment in and evaluation of language programs. However, attention to the omissions and small errors is required in a revised second edition, with the detailed arithmetic perhaps moved to appendices. Otherwise, my only hesitation in recommending this very useful book is its over-simplistic division between CRTs and NRTs.

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*Using Corpora for Language Research*. Jenny Thomas and Mick Short (Eds.). London: Longman Group Limited, 1996. 301 pp.

*Reviewed by*  
Jim Ronald  
Hiroshima Chapter

*Using Corpora for Language Research* (UCLR) is a collection of sixteen papers relating to the use of language corpora (computer-based collections of written and/or spoken texts) in various kinds of language research. The papers are divided into four sections: an introductory section focusing on the importance of corpora in language research; a section on various corpus-based language studies; a section about technology-related applications of research using corpora; and a final section, perhaps of most direct relevance to language teachers, entitled "Wider Applications of Corpus-based Research."

UCLR claims to be for people who are interested in language work but who are not corpus specialists. As far as possible, I will consider this book from this non-specialist perspective by asking some general questions.

First, does the collection address basic theoretical and practical questions about using a corpus for language study? Related questions are "Why bother with a corpus? Isn't my intuition enough?" or "How, practically, can corpus work affect what a language teacher does?" or "How big should a corpus be?" Most of these issues are addressed, or acknowledged here, although they are not always easy to find. Sampson's paper (Chapter 2) provides a "road to Damascus" account of his conversion to corpus linguistics, from a generative grammar background in which examples of real language count for very little. He was persuaded of the value of corpus work by the undeniable evidence of the widespread, if still rare, use of a linguistic feature (central embedding) that theorists had intuitively decided should not exist. For those not from such a background, and perhaps more easily convinced of the value of corpus work, Alderson very simply states what a corpus offers: "Linguists can now have recourse, not just to their intuitions, but also to others' language use" (p. 248).

This brings us to the next question: "How, practically, can corpus work affect what a language teacher does?" The articles by Mindt on corpus linguistics and the foreign language teaching syllabus (Chapter 14) and Alderson on the possible uses of corpora in language testing (Chapter 15) together provide a good introduction to many of the theoretical and practical considerations relating to teaching applications of corpus work. Mindt, for example, compares the ordering and presentation of future time orientation, modals, and conditional in English text-

books in Germany with their relative frequency and typical use as measured using corpora of spoken English. He concludes that there is evidence justifying a number of changes in the textbooks' treatment and ordering of these structures. It should be noted that such research could not have been done before computers and software made the analysis of sufficient volumes of language possible, thereby producing reliable measurements of frequency and the typical use of aspects of general language.

Alderson (Chapter 15) speculates as to how corpora could be used in language assessment. He suggests possible applications of corpora, such as using them as a source of real texts in testing, identifying frequent lexical items for use in texts, or using a corpus of learners' texts to identify problem areas of language. It is surprising, however, that Alderson's paper is wholly speculative and that he should not have encountered actual instances of corpora being used in language assessment. The writer of this review is surely not alone in using a corpus or real examples from corpus-based resources in the testing of grammatical structures and lexical items.

"How big should a corpus be?" is a more complex question than it might seem, as this depends on the purpose of the corpus, what texts the corpus should comprise, and, if a corpus is composed of more than one type of language (e.g., American spoken, British written, newspapers), what proportions of each type should be included. For some purposes, most prominently computational lexicography, corpora of between 100 million and 300 million words are not unusual and are necessary to enable an accurate description of the typical use of less common syntactically variable lexical items. This issue is touched on by Della Summers of Longman Dictionaries (Chapter 16), but is somewhat slanted by the commercial orientation of her paper.

Elsewhere in this text, research is reported using surprisingly small corpora. For example, in one paper (Chapter 6), subcorpora as small as 8,000 words and comprising only four or five texts, such as letters or academic papers, are used to provide general statements about language use in that type of text. However, individual writing styles and topic choice are such that observations about language based on such small corpora cannot reliably be used to make generalizations about typical language use. While there is, undoubtedly, a case for smaller corpora (e.g., in ESP), the issue is not considered here at all.

With its wide range of topics, this collection appears initially to be providing an overview of the current state of corpus-based language research, or even to be demonstrating the truth of the first sentence in the book, that "Corpus linguistics has now become mainstream" (p. ix).

If this is its aim, it falls short of achieving it in a couple of important respects. This collection of articles has been assembled in honor of Geoffrey Leech, a central figure in corpus linguistics ever since this mainstream was just a trickle. Whatever the intentions of the editors, however, this book is not a demonstration of the “mainstreamness” of corpus linguistics, nor of Leech’s wide-reaching influence in this expanding field, as we might expect such a *festschrift* to be. Rather, it appears more as a claim by Lancaster University for preeminence in this area. This is evident, among other things, in the large proportion of articles here written by Lancaster University faculty and in the virtual exclusion of other important centers of corpus work. In addition, most of the studies reported in this volume are major projects by important figures in linguistics undertaken with funding from government or industry, and using very large corpora or involving detailed manual tagging. Although figures are not available, I would imagine that the majority of corpus-related research projects around the world are smaller, using fairly simple concordancing programs such as Johns & Scott’s *MicroConcord* (1993) with untagged corpora of tens or hundreds of thousands of words rather than tens or hundreds of millions, or using the resources of a publicly available (at a price) corpus such as COBUILD’s Bank of English. Including one or two accounts of smaller projects would have been helpful to those who are not specialists in the field.

For someone new to corpus linguistics the above weaknesses may not be too apparent. Their consequences, however, could be that the reader gains a distorted and incomplete picture of the world of corpus linguistics, perhaps being left with the impression that corpus linguistics is largely restricted to a small group of researchers based in one British university, or feeling that the means to undertake language research using corpora are beyond their reach. This would be unfortunate as neither impression would be correct. Corpus work is increasingly popular in many countries around the world, including Japan, and part of its appeal is that, both technically and financially, it is relatively accessible.

In terms of providing an introduction to corpus linguistics, there are a few papers in *Using Corpora for Language Research* that do address many fundamental issues relating to corpus work. As a whole, though, I would feel bound to recommend other texts to a colleague interested in knowing something about corpus linguistics. Aijmer & Altenberg’s *English Corpus Linguistics* (1991) provides a more rounded and accessible introduction to the subject. For those interested in actually developing and using their own corpora, and in classroom applications of corpus work, Wichmann, Fligelstone, McEnery & Knowles’s *Teaching and Language Corpora* (1997) is a good place to start.

## References

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*Teacher Cognition in Language Teaching: Beliefs, Decision-Making and Classroom Practice*. Devon Woods. Cambridge: Cambridge University Press, 1996. 316 pp.

*Reviewed by*

Kazuyoshi Sato, Nagoya University &  
Tim Murphey, Nanzan University

At the 1997 JALT Conference Devon Woods asked, "What do we mean when we say 'teaching'?" His talk was based on research reported in *Teacher Cognition in Language Teaching* (TCLT), a work which examines the relationship between teachers' beliefs and their practices.

In foreign language teaching the significance of research on teachers' beliefs with regard to practices has been only recently recognized, and little is known in general about how teachers make sense of teaching and how they actually teach in the classroom. Kleinsasser and Savignon (1991) claim that "little systematic inquiry has been conducted into language teacher perceptions and practices" (p. 291). TCLT addresses this lacuna by looking at three broad areas: (1) The teaching structures of eight ESL teachers; (2) their planning procedures; and (3) their interpretive processes.

TCLT is made up of 10 chapters. Chapter 1 presents a rationale for studying the teachers he chooses and identifies three research questions. Chapter 2 discusses the research methodology, which employs triangulation or multiple data sources such as ethnographic interviews, logs, video-based recall, and documents such as lesson plans. Woods derives his particular method from ethnography and cognitive studies. Chapters 3 and 4 examine the structure of teaching and review models of teachers' decision-making, which represent the cycle of planning, action, and interpretation. Chapter 5 delineates the planning process of teachers and presents a new dynamic model which includes both lower and higher levels of planning and decision-making. Chapter 6 uncovers teachers' decision-making or interpretive processes and emphasizes the role of experienced structures, which are related to teachers' beliefs. Chapter 7 presents an integrated view of the network of beliefs, as-



sumptions, and knowledge (BAK) which teachers hold, and concludes that teachers structure their teaching depending on their BAK. Woods offers an in-depth analysis of one teacher's language learning and teaching experiences in order to exemplify the development of a BAK. He concludes that, "BAK develops through a teacher's experiences as a learner and a teacher, evolving in the face of conflicts and inconsistencies." (p. 212). Chapter 8 examines the influence of BAK on teachers' practices, curricula, and theory. The author claims that the pervasiveness of BAK influences "the teachers' organization of thoughts, decisions, and aspects of the course" (p. 249), indicating the strong relationship between beliefs and practices. Chapters 9 and 10 elaborate on teacher change and curricular evolution.

The strength of TCLT lies in the scrutiny of teachers' beliefs in relation to their practices, focusing on events, planning, and decision-making processes. In particular, Woods reveals the strong effect of previous teaching experiences on a teacher's BAK. He affirms that, "Teachers seemed to prefer and trust experienced structures and tended to avoid structures that were completely new to them" (p. 182). The importance of actual teaching experiences implies a need to reconfigure the traditional knowledge-transmission model of teacher education. The author proposes a "different way of thinking about teaching" (p. 297) in contrast to the research-driven top-down change. He claims that "teacher change can be encouraged but not mandated" (p. 293).

One weakness of TCLT lies in the scant empirical evidence attesting actual teacher change or development. The author acknowledges that seven teachers out of eight did not show any clear change. He attributes the lack of evidence of change to "the developing skill of the interviewers" and "the willingness of the subject to delve into background experiences" (p. 203). Are we to conclude, therefore, that beliefs formed by previous experience cannot be changed? Even in the case of teacher B, described as the 'best example,' L2 learning experiences and past teaching experiences influenced his beliefs, but there was no change reported in his beliefs during this study. Moreover, readers might wonder how new teaching experiences affect BAK. The author suggests that "teachers are in constant change" (p. 257), if they are offered "opportunities for reflection and interaction as a catalyst for change" (p. 297). While we intuitively agree with the conclusion, we did not see much supportive evidence in this study.

In addition to that, we feel that Woods has overemphasized internal processes and disregards the impact of external contexts that can help create and foster experimentation and internal changes. He maintains that, "Because this study is a study of individual cognitions and not of social

conventions, this is an empirical question I have not attempted to answer" (p. 115). Nevertheless, in his analysis, he refers to external contexts as significant factors several times, finally acknowledging that both internal and external elements are necessary for the change to occur. He suggests that internal elements include a teacher's "interest in change" and "conceptual readiness for change" (p. 294). The external elements are the teaching culture or social environments where teachers interact with other teachers, share views, ideas and materials, and have opportunities to experiment.

He finally concludes that, "Reflective teaching develops out of social environments in which experimentation . . . appear natural" (p. 298). This conclusion is a big leap from his original stance which did not include contexts. He notes (p. 297) that the teachers who did not report change might have felt isolated or been in less collaborative cultures, which are often the most common teaching cultures. In fact, some researchers point directly to the significance of institutional development for fostering an environment for teacher development (Fullan, 1991; Lieberman & Miller, 1990). Future research needs to clarify how teachers' beliefs and practices can develop within certain teaching cultures or contexts and how these environments can be structured.

Despite these weaknesses, Woods does clarify the complexity of teachers' decision-making processes in connection with their pervasive BAK. In particular, he stresses the significance of teaching experiences. Thus, TCLT encourages teachers to try new ideas, interact with other teachers, share ideas and materials, and develop curricula collaboratively, thereby creating supportive contexts for themselves and others. The shift from a 'static' view of top-down teacher education to one of 'dynamic' teacher development and curricular development involving the use of a teacher's evolving network of beliefs, assumptions, and knowledge is one we hope that more teacher trainers and teachers will make. This organic evolution is a result of "experiences that resulted in a conflict with the BAK's current state" (p. 248), and creating safe, collaborative environments for such experiences needs much more of our attention.

#### References

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