1. INTRODUCTION

The title of this chapter is, of course, deliberately provocative. How can generative linguistics be psycholinguistics? Both sciences test mentalistic hypotheses about language, but their differences go beyond the cliché that linguists study competence while psycholinguists study performance. Instead they represent two different cultures, with linguistics more deductive and rationalist, psychology more inductive and empiricist. Psychologists, who are concerned with “cause and effect” (as Miller, 1990, p. 321, observes), run carefully designed experiments, conduct quantitative analyses, and write papers with explicit method sections. Generative linguists, who (Miller says) prefer “simplifications as explanations,” don’t.

And what is “generative morphology”? Isn’t morphology lexical knowledge, and isn’t grammar what permits one to go beyond rote lexical memory? Chomsky (1957) put regular interactions between word and sentence structure into the syntax, not the lexicon, and Chomsky and Halle (1968) put regular interactions between word and sound structure into the phonology; even today, most generative linguists are syntacticians and most of the rest are phonologists. As for those few who specialize in morphology itself, Marantz (1997, p. 202) complains that “when morphologists talk, linguists nap.”

Yet my title is no oxymoron. Generative morphology, like the rest of generative linguistics, is indeed psycholinguistics, albeit methodologically sloppy psycholinguistics. Moreover, the lack of canonical pronouncements on what generative morphology is supposed to be is actually fortuitous, since it forces us to think hard about the notion of “generative grammar,” and this is essential if we are to see grammar as psychological and psycholinguistics as grammar-oriented.

I start in section 2 by introducing the central notion of competence-performance linking models and explaining their relevance to morphology. Special focus is given to the theory of Distributed Morphology (Halle and Marantz, 1993; Harley and Noyer, 2003), not
because I have any special fondness or animosity towards it, but because it is arguably the “most generative” of morphological theories. In section 3, I apply competence-performance linking models to a specific morphological question: Is there any difference between affixation and compounding in Chinese, and more to the point, how could we tell? I then analyze three sources of new evidence bearing on the question, each requiring its own linking model: two traditionally “linguistic” (native-speaker judgments and corpus analyses) and one traditionally “psycholinguistic” (reaction times in lexical decision tasks).

2. COMPETENCE AND PERFORMANCE IN MORPHOLOGY

Far from defining the border between linguistics and psychology as often assumed, the competence-performance distinction of Chomsky (1965) actually provides the conceptual basis for fitting the study of mental grammar comfortably into the broader study of language in the mind. In this section I show how, focusing on morphology.

2.1. Competence-Performance Linking Models

Generative linguistics is given its most succinct definition on page 4 of Chomsky (1965). There Chomsky states that “linguistic theory is mentalistic, since it is concerned with discovering a mental reality underlying actual behavior,” that is, “a description of the ideal speaker-hearer’s intrinsic competence.” Competence is defined as “the speaker-hearer’s knowledge of his language,” that is, mental grammar, as opposed to performance, which is “the actual use of language in concrete situations.” A linguist’s grammar is called “generative” if it is “perfectly explicit — in other words, if it does not rely on the intelligence of the understanding reader but rather provides an explicit analysis of his contribution.”

This passage has had a rather controversial history, but if we translate the linguistese into psychologistese, the concepts actually transfer quite well. The most obvious cognate is mentalism; nobody wants to return to the bad old behaviorist days, when the mind was dismissed as unscientific. Less obviously, the “ideal speaker-hearer” (particularly notorious among sociolinguists) also plays a starring role in psycholinguistics: S/he hovers in the Platonic statistical space over the heads of the actual experimental participants, the population mu to their sample x-bars. Similarly, psychologists believe in “universal psychology” just as much as generative linguists believe in “universal grammar”; how else could a study on Chinese lexical access have any bearing on theories of lexical access more generally?

Moreover, the goal of “discovering a mental reality underlying actual behavior,” which is at the core of the competence-performance distinction, is what cognitive psychologists aim for every day. Psychologists know not to confuse overt behavior with the underlying mental operations themselves. In the same way, syntacticians know that acceptability judgments, their favorite data source, are partly contaminated by parsing effects (Phillips and Lasnik, 2003), and phonologists know that dictionaries, their favorite data