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DAVID MCNEILL, *Gesture and thought*. Chicago: University of Chicago Press, 2005. Pp. xii, 318. Hb $38.00.

Reviewed by LEILA MONAGHAN
*Anthropology, University of Wyoming*
*Laramie, WY 82071, USA*
*LMonagha@uwyo.edu*

I am a visual and tactile learner myself, and so David McNeill's latest work, *Gesture and thought*, makes bone deep (or perhaps, following McNeill, brain deep) sense to me. His main argument is that language and gesture are inextricably entwined. He sees "gestures as active participants in speaking and thinking. They are conceived of as ingredients in an imagery-language dialect that fuels speech and thought" (p. 3). He looks closely at how gesture and speech coexist in narrative, presents transcription methods suitable to capturing their interdependence, and, perhaps most importantly, lays out the intellectual framework for why a dynamic, double vision of language is essential to understanding the nature of interactions.

The book is divided into three main sections and has an extensive appendix that lays out how the transcripts presented here were created. The most interesting aspect of Part I, "Preliminaries," is the discussion of the different ways in which gestures can vary. The focus of McNeill's work is gesticulation, the waves of your hand you use while talking (or using sign language, for that matter). These are the gestures that are least conventional, least grammatically central, and most likely to be used with speech. He argues that varying dimensions, rather than set categories, are the best way to differentiate gesticulations from one another, and suggests that all gestures can be more or less ICONIC, METAPHORIC, DEICTIC, or reflecting of the BEAT of speech. Different dimensions are more or less salient in different kinds of discourse. For example, in descriptions of living space, deixis and iconicity seem most common.

It is in Part 2 that McNeill really explores the creation of gestures. As a trained psycholinguist, he takes an experimental view of this new world. One of his windows onto the interconnections between gesture and thought is multiple iterations of explanations of a "Sylvester and Tweety" cartoon that includes Sylvester climbing a pipe, Tweety Bird dropping a bowling ball on Sylvester, and then Sylvester rolling around with the bowling ball inside him until we see the outside of a bowling alley and hear pins crashing inside. As this piece has no words



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and a great deal of complicated action, verbal retellings involve a lot of gesticulation. The majority of the cases in the book come from carefully transcribed retellings of this cartoon and other short examples of live narrative. For me, the most interesting insights come from the variations among the retellers.

One of the early retellings presented is by Viv., who I presume is a female adult native English speaker from the United States, though no biographical information is presented in this section. McNeill uses a detailed transcription of Viv.'s version to illustrate his notions of GROWTH POINT and CATCHMENT. McNeill gives the phrase "**it do**wn" and its accompanying gesture in the following transcription as an example of a growth point, "the minimal unit of an imagery-language dialectic" (105).

(2) Tweety Bird runs and gets a bowling ba[ll and drops **it do**wn the drainpipe #]
*Symmetrical: 2 similar hands move down*
(p. 113, first line is transcription of speech, second line is transcription of gestures, boldface indicates where in the phrase the gesture actually occurred, square brackets indicate preparation and finish of gesture).




**Fig. 4.2.8.** Comparison of the crucial bowling ball gesture (in two phases) to its iconogenic original in the stimulus.

Here Viv. aligns the verb of the sentence "drops" not with a gesture but instead with the direct object of the verb *it* and the satellite *down*. The explanation McNeill gives is that the growth point *it down* refers to the idea of the "antagonistic force" of the bowling ball. A growth point, therefore, is something larger than a particular spoken phrase or gesture by itself. It is a visual/verbal idea that we can see being manifested, a dynamic breeding ground for all narratives. Because even people blind from birth will use such gestures when talking, McNeill considers this imagistic-linguistic dialectic is an inherent part of being human.

Gesture and spoken language are also organized at higher levels than the growth point. The catchment is one such organizational feature and reflects an



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idea and gesture repeated throughout a narrative or discourse. In Viv.'s retelling, the double-handed gesture she uses to indicate the bowling ball dropping down the pipe reoccurs when she talks about Sylvester rolling through the streets. Even the final crash of the pins is indicated by a symmetrical gesture reminiscent of the original bowling ball gesture.

It is in the final part of the book that McNeill steps back from the specifics of the construction of the imagery-language dialectic and compares features used by different subjects. At the end of Part 2, he looks at the interactions between speech and gesture in children and suggests that the double verbal-gestural nature of language does not develop until after the age of two years. Earlier speech and gesture is "complimentary, not co-expressive" (183). Between ages three and four, however, there is an explosion in the use of gesture. Cross-culturally, after age four children gesture at almost the same rate as adults. The kinds of gestures that children under four do are also different from adult forms. Whereas adult forms exhibit both manner and path (for example, a rolling ball going in a specific direction), young children's gestures usually have manner but no path (Sylvester clambering up the pipe, but without upward motion). He also links this to the self-awareness that develops at approximately the same time. The use of gesture also varies cross-culturally. When English and Spanish speakers' versions of the cartoon are compared, interesting differences in the use of manner and path forms emerge. English speakers were more likely to use more different path descriptions than the Spanish speakers tested. There is also variation in the types of gestures used in a particular situation.

McNeill's examples in Part 3 come from subjects with various kinds of aphasia. Injuries that affect speech production also affect gesture production. In Broca's aphasia, both speech and gestures are hesitant and disfluent but meaningful. Larger discourse functions reflected in catchments may also remain. The speech and gestures from a patient with Wernicke's aphasia, however, are fluent but make little sense. The recurring gestural imagery of a catchment that would be part of a normal retelling ends up leading to what McNeill describes as a "LACK of coherence" (219): Rather than a specific gesture reflecting the bowling ball, Tweety, or Sylvester, one Wernicke's patient used gestures for a repeated "to it" that added no information .

These cases and others let McNeill ask the ultimate question of the book – "*Why* is imagery part of language?" (233) – and lead him to a biological answer, "that the evolution of language crucially depended at one point on gestures and imagery" (233). By tying his argument in with biology, McNeill connects a wide range of theorists, including the linguist Ferdinand de Saussure, the Soviet psychologist Lev Vygotsky, the linguistic anthropologist Benjamin Lee Whorf, and the evolutionary biologist Terrence Deacon.

McNeill argues not from the familiar Saussure found in the *Course in general linguistics* (1966 [1915]) taken from students' notes, but from recently found and translated original notebooks from the turn of the 20th century (2006 [2002]).[1]



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McNeill compares his own approach with that of this new material from Saussure: "Words and their meanings exist . . . only in the awareness we have of them" (80, quoted from Harris 2002:30). It is this awareness that McNeill associates with gesture, thought, and speech and with his notion of the growth point. These newly found writings reveal that Saussure was interested in the "dual essence of language" and recognized both the static *langue* and the dynamic *parole*. McNeill connects this with a Vygotskyan "processural" view of language (Vygotsky 1986 [1930s]). In Vygotskyan terms, growth points are PSYCHOLOGICAL PREDICATES that "are 'unpacked' into surface linguistic forms," both linguistic and gestural. The patterns of unpacking, such as the differences between English and Spanish speakers, are culturally specific. For McNeill, "languages can shape the visuospatial cognition of their speakers AS THEY ARE SPEAKING," which connects neatly to the weak version of the Whorf Hypothesis (Whorf 1956 [1941]). These varying dynamic visions of language production are in turn connected with the evolution of the capacity for language in humans, and with a dual imagistic and linguistic-social view of language. Language is the ongoing process of imagining, gesturing, and speaking.

This book, as McNeill disarmingly admits, is not an easy read, but it does lay out a series of fascinating arguments. His discussion is on its most solid ground when he is analyzing transcripts. "Sylvester and Tweety" again and again provides real insights into how people create narrative. His final section on language evolution feels rushed – he races through 5 million years of evolution in a handful of pages – and yet I found it the most provocative part of the book. Although he presents a limited case for the connections he draws between evolution and his proposed model of language and gesture, he makes good use of the work of Deacon (1996), the general argument makes sense, and his conclusions concur with more biologically based approaches not mentioned, such as Martin Sereno's (1991) work on the relationship between vision and language in primates.

This book is highly recommended to anyone trying to understand the relationship between gesture and language, including anyone trying to transcribe video information. As with the work of Emmanuel Schegloff and his colleagues in Conversation Analysis (e.g., Sacks 1972, Schegloff, Jefferson & Sacks 1977, Schegloff 1987), McNeill presents a set of techniques for transcription that are useful for a range of questions that he does not himself address. On a broader note, the book is also important for all who are interested in the tug-of-war between cultural and biological explanations of the world. In an era when anthropology departments split over such debates, it is useful to have nuanced, well-documented work that lays out connections between the human ability to make meaning and the human forms we inhabit.

## NOTE

[1]Many thanks to Kerim Friedman for a copy of the Roy Harris review of Saussure.



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ROBERT D. GREENBERG, *Language and identity in the Balkans: Serbo-Croatian and its disintegration*. Oxford: Oxford University Press, 2004. Pp. x, 188.

Reviewed by LUKAS D. TSITSIPIS
*Department of French, Aristotle University of Thessaloniki*
*Thessaloniki 54124, Greece*
*Ltsi@frl.auth.gr*

This book is an important contribution to the field of Serbo-Croatian and Balkan studies, as well as to general sociolinguistics. In a world that is reconfiguring its identities quite drastically, Greenberg targets one of the most complex, sensitive, and politically charged areas, that of the former Yugoslavia. The whole book attends closely to the unfolding drama of a people whose linguistic fate has followed various controversial attempts to keep the Serbo-Croatian language united, ultimately leading to its disintegration and the emergence of the languages of the relatively recently established new national entities. These are the outcome of the breakup of Yugoslavia: Serbia-Montenegro, Croatia, and Bosnia-Herzegovina (not to mention the predominantly non-Slavic-speaking ethno-geographical units).

In his analysis, Greenberg combines a detailed examination of the Serbo-Croatian data, in which he is very well versed, with an infusion of major sociolinguistic theories, particularly those that are related to issues of language planning and models for unified languages. He proceeds by mapping the Serbo-Croatian material and the controversies surrounding the issue of one united language vs.



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