

Editorial

Replaying Reuel Denney

By Randle W. Nelsen

As a poet, man of letters, and social analyst, Reuel Denney was engaged in semiotic and cultural studies long before this became fashionable in North America. His readings from the 1950s of cultural spectacles such as football games and common cultural practices such as owning and driving automobiles remain valuable in illuminating life in the twenty-first century. The following Denney appetizer is written with the hope that it will help create a renewed interest in his work and what can be inspired by it, an interest worthy of his insightful scholarship.

William Walters' (2003) recent review of Peter Pericles Trifonas' essay concerning Umberto Eco's work on English football focused my own long-standing interest in American and Canadian football as cultural practices. More specifically, and beyond the Friday night hometown Americana spectacles I participated in as a high school player, my thoughts turned to the 1950's writings of the late Reuel Denney (1913-1995). For most academics, if they have heard of Denney at all, it is usually as the lesser-known collaborator with the late David Riesman and Nathan Glazer in writing the best-selling sociological classic, *The Lonely Crowd* (1950). This book's well-known trio of tradition-directed, inner-directed, and other-directed types serves to describe and analyse social change connecting historical eras and societies as well as to reflect upon the dominant character or ethos typically produced in different societies.

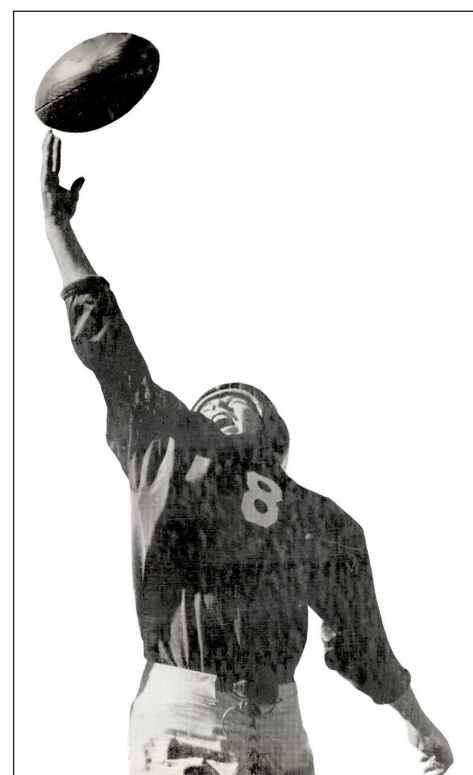
I first met Professor Denney as one of his graduate students in two American Studies seminars he offered at the University of

Hawaii during the 1965-66 academic year. Denney came to Hawaii in 1961, and stayed for the rest of his career, after spending fourteen years with the English, Humanities, and Social Sciences staff at the University of Chicago. Riesman had encouraged and sponsored his move there in 1947. Prior to this, since his graduation from Dartmouth in 1932 at the age of nineteen, he had worked on Wall Street, in a Buffalo, New York factory that manufactured automobile parts, and for five years (1936-1941) as a high school teacher in Buffalo. Denney became rather well-known as a poet and essayist, and by the time he received a Guggenheim Fellowship in 1941-42, had already published his first book of poems. During the war years of the early 1940s he wrote for both *Time* and *Fortune* magazines. He achieved some notoriety, and came into conflict with his conservative editors, with his stories on the 1944 world financial conference at Bretton Woods and on the California banker A.P. Giannini and his monopolizing Bank of America.

Denney's sports participation can be traced to his father's influence and tutelage, and his interests in the cultural and class aspects of sports were fostered by three generations of immigrant movement up the class ladder. After landing at Ellis Island Denney's maternal grandmother, who had earned her passage as a dairy maid, secured excellent employment as a parlour maid, while his grandfather complemented her good fortune by landing well-paid secure employment with the New York Fire Department. In brief, Denney's mother's parents lived (from Ireland to New York City and from the barn to the front parlour) both ethnicity and social class, and they knew and

taught him the problems and potentials associated with each.

On the paternal side there was some money and success in business enabling Denney and his parents to live in close proximity to, if outside the official boundaries of, Buffalo's wealthiest district. He rubbed shoulders and became friends with the children of that city's upper class.



This, combined with summers back among friends from the immigrant and first-generation German, Irish, Italian and Jewish families of the Brooklyn neighbourhood where he spent his first eight years, instilled in Denney a life-long interest in studying and writing on social class differences, sociability and leisure-time activities. In short, Denney's Buffalo high school experiences together with his participation on neighbourhood sandlot football and baseball teams and his tennis games, all taught a young Denney that the relationship between the social and the intellectual — a kind of sociability, if you like — might be worthy of exploration. They also gave him an abiding interest and a kind of faith in social democracy that is reflected in his musings on football and popular culture.

Some of Denney's writing on football can be found in his groundbreaking tour of American popular culture, *The Astonished Muse* (1957; 1964; and republished in 1988). He explains the speedy development as well as the early and quick acceptance by Americans of their variant of English rugby as a consequence of the new game's close fit with "other aspects of their industrial folkways." He analyses and describes football as a game becoming increasingly rationalized at the turn of the nineteenth century: "The mid-field dramatization of

THE SEMIOTIC REVIEW OF BOOKS

Volume 14.2 (2004)

Table of Contents

Editorial:

Replaying Reuel Denney 1-3
By Randle W. Nelsen

Telling Stories 3-7
By Peter C. van Wyck

Language's Beginnings 7-12
By Anne C. Zeller

Web Site: <http://www.chass.utoronto.ca/epc/srb>

Rates	Canada	USA	Others
Individual	\$30	US \$30	US \$35
Institution	\$40	US \$40	US \$45

General Editor: Gary Genosko

Associate Editors: Verena Andermatt Conley (Harvard) Samir Gandesha (Simon Fraser), Barbara Godard (York), Tom Kemple (UBC), Anne Urbancic (Toronto)

Section Editors: Leslie Boldt-Irons (Brock), William Conklin (Windsor), Paul Hegarty (Cork), Akira Lippit (UCal-Irvine), Alice den Otter (Lakehead), Scott Simpkins (UN Texas), Bart Testa (Toronto), Peter Van Wyck (Concordia), Anne Zeller (Waterloo)

Layout: Gail Zanette, Lakehead University Graphics

Address: Department of Sociology, Lakehead University, 955 Oliver Road, Thunder Bay, Ontario, Canada P7B 5E1

Tel.: 807-343-8391; Fax: 807-346-7831

E-mail: genosko@lakeheadu.ca or genosko@tbaytel.net

Founding Editor: Paul Bouissac, Professor Emeritus, Victoria University, Victoria College 205, 73 Queen's Prk Cr. E., Toronto, Ontario, Canada, M5S 1K7
E-mail: bouissa@attglobal.net

The SRB is published 3 times per year in the Fall, Winter and Spring/Summer.

line against line, the recurrent starting and stopping of field action around the timed snapping of a ball, the trend to a formalized division of labour between the backfield and line, above all, perhaps, the increasingly precise synchronization of men in motion" (Denney 1964:111). Efficient synchronization of a formalized labour force combined with the introduction of new rules and manners governing play, helped take local proclivities, local colour, and inequities out of the game. The result was movement towards a professionalized standardization and a business-oriented centralization of the sport. As Denney put it, Knute Rockne was the game's Henry Ford.

In an article written earlier Riesman and Denney (1951) provided a history of Rockne's game as it developed into an American cultural staple. The authors outline how the tenth and eleventh century English game became formalized in the United States as both entertainment and big business. They show how "the ambiguities" of the English versions of soccer (the kicking game) and rugby (the running game) were melded into Rockne's version — how Ellis of Rugby's 1823 faux pas of picking up the ball and running with it became a "mistake turned into innovation" as Americans added the forward pass and downs with minimum yardage-gain and offside rules to create a more exciting, quicker-paced game. In brief, football's United States version revealed much about the character of American culture — not only the taste for the excitement of action-driven entertainment but also a desire for the no nonsense standardization and centralization of business favoured by their rule-bound, legalistic approach.

American football's transformation into big and profitable entertainment also revealed "an element of class identification." The authors note that early football in Britain was played by an elite or upper stratum before lower strata audiences who were at least as much interested in carefully observing the players to be sure they demonstrated the "good form" of "gentlemen" as they were in keeping track of the score. The American experience and game was different; it was played by a collegiate elite, but watched by audiences with some experience in playing the game. As a result, the latter "were unwilling to subordinate themselves to a collegiate aristocracy" (Riesman and Denney 1951:318).

American football as a kind of democratization in the world of entertainment is part of, subsumed by, a larger theme central to Denney's sociology: The battle of capitalism and its attendant, standardized professionalism as it intersects with democracy and its emphasis upon a less-regulated, craft-based discipline grounded in amateurism. Denney was especially insightful on the matter of how differences between amateurism and professionalism are related to social class. He perceptively analyzed the often lower-class youth amateurism of hot-rod culture as threatening to the middle-class professionalism and respectability of the Detroit auto-makers who sought to normalize and standardize the amateurs. "Not a few people seemed to feel, without quite saying so, that the duty of young Americans was to

buy cars, not to rebuild them. To rebuild a car, it appeared, was an attack on the American way" (Denney 1964:145). Put another way and to incorporate a 1990's advertising pitch, to mess around or tinker with the Chevy in the backyard was to mess with capitalism, "the heartbeat of America."

Buying and not tinkering with the Detroit model pits corporate restraint against the tendency towards individual freedom. That democracy as freedom for both individual and community might be engendered by upward social mobility (i.e. the purchase of a new, factory-built car) was another concern and a theme familiar in Denney's writings and to his students. We soon learned to look beyond the automobile or the material good itself to share his awareness that cultural capital walked hand-in-hand with monetary capital and was often the advance guard for crossing class, gender and ethnic barriers. On the latter point he writes: "For the second-generation boy, with his father's muscles but not his father's motives, football soon became a means to career ascent. So was racketeering, but football gave acceptance too — acceptance into the democratic fraternity of the entertainment world where performance counts and ethnic origin is hardly a handicap" (Denney 1964:117). As for changing performance standards and the cultural requirements of today's game, suffice it to say that recruiting a good linguist, once a prized asset when in the 1890's arguments with the referee occurred as a matter of routine after most plays (see Riesman and Denney 1951:317), is no longer a top priority of today's big-time university programs.

What Denney's writings on football teach us is to look past the borders and the boundaries of the field of play and the game to see what lies beyond — to deconstruct football in order to see something else, to see more of what C. Wright Mills called "the big picture" as it changes. Walters (2003:12) in his criticism of Trifonas and his treatment of Eco notes that what is absent is "a sense that football is subject to social and cultural changes. It is not a static system of signs, but historically dynamic and changing." Witness the road we, in Canada and the United States, have travelled from the first game played, Harvard meeting McGill in Rugby football in 1874; to the early Americanization of the game and the different game developed in Canada in the late 1800s and early 1900s; to countless high school and college homecoming game spectacles (see Friedenbergh 1963, 1965:158-162 for a classic description of one such 1963 event) which solidify both individual and community identity and status; to the militarized business orientations of university football programs (see DeLillo 1972; Shaw 1972); to today's high-stakes gambling wars where millions live all weekend (and Monday nights too) in a technological bubble of flat-screen digital television pictures reporting the progress of heavily-armoured and electrified warriors doing battle in domed stadiums that put a technologically-sophisticated end to such embarrassments as the 1962 Grey Cup known as "the Fog Bowl" played in the pre-Sky Dome days at Exhibition Stadium (see Gillmor 2003). Denney's work helps us read football as cultural narrative(s) (see Oriard

1993).

As I write we are entering the third month of the college and professional football seasons. Saturday's and Sunday's "Big Games" across the United States bring the car and football, gridlock and gridiron, together in the popular cultural practice known as "the tailgate party." Here the car becomes not only the warm-up for radio and television's play-by-play coverage but also kitchen, bar, music centre and so on — literally the centre of the party. In its transformation it is transformative, an extension of the stadium to the parking lot and in some ways a levelling, a sort of democratic counterpoint, to the difference between the box seats on the fifty yard line and the cheap seats in "the nosebleed section."

Denney taught his students to become attuned to such transformations, specifically the historical changes in cultural meanings attributed to material artifacts. His work is replete with models to be emulated in this regard. For example, in sketching the history of the car as both democratic possibility and media extension Denney (1964:142) writes: "sometime between 1920 and 1945, roughly, the auto had passed through a stage of its existence symbolized by the comic strip 'Gasoline Alley'. As auto it had lost much of its old novelty as transportation; in order to retain its glamour it had to become, in differentiated forms, a kind of daily apparel." As this beautifully constructed metaphor reminds us, we as a culture have been changed by the auto and as changed beings we do our best to make our own modifications, pushing the boundaries of the medium as both message and massage.

Football and the Sunday drive have merged in stadium parking lots across the United States. Canada is not yet known for its tailgate parties but Grey Cup, like Super Bowl, parties and the attendant corporate profits are plentiful enough. The point is that Denney's work recognizes the importance of football as a window, perhaps even a mirror, of cultural identity. Studying football tells us something about our Canadian identity and what may remain of our inferiority problem when we compare ourselves and our culture to the Americans and their notions of cultural superiority. Think of the denotative/connotative differences between Grey and Super. Football as it is financed, played (including differences in rules, size of field and ball, number of players and so on), watched and reported upon in the CFL vs. the NFL may even offer some insight into value and belief differences between the two countries regarding acceptance of the business-industrial system as exemplified in Eisenhower's famous warning concerning the increasing domination of the military-industrial complex; regarding deference and submission to legal and governmental authority; regarding the mix of populism and elitism in our increasingly entertainment-oriented systems of education and our Hollywoodized popular cultures.

The popular culture promoted and sustained by Hollywood could serve as a focal point for extending Denney's work on both football and automobiles. Certainly the

violence and grandiose deeds of football fit well with the obligatory car chases and fiery car crashes of Hollywood movies. And as with half-time extravaganzas, whether we read these spectacular crashes as evidence of the apocalypse and cultural decay or of innocence and cultural renewal, or as evidence of something else, the point is the spectacle, the messages it conveys, the way it transforms us and we transform it through our understanding of its meaning. Denney's writings on football as cultural practice, as well as his musings on cars, deviance, social class and democracy, the connections between leisure and business, play and work, architecture and the mass media, continue to provide useful points of reference in our attempts to understand ourselves and our surroundings.

Randle Nelsen teaches sociology at Lakehead University. His most recent book is *Schooling As Entertainment: Corporate Education Meets Popular Culture* (2002). His study of Denney's life and work, "Remembering Reuel Denney: Sociology as Cultural Studies," appeared in the *American Sociologist* 34/4 (2003).

References

DeLillo, Don (1972) *End Zone*. New York: Houghton Mifflin.

Denney, Reuel (1957, 1964) *The Astonished Muse*. Chicago: University of Chicago Press.

Friedenberg, Edgar Z. (1963, 1965) *Coming of Age in America*. New York: Random House (Vintage).

Gillmor, Don (2003) "Yard Lines," *The Globe and Mail* (November 15).

Oriard, Michael (1993) *Reading Football*. Chapel Hill: University of North Carolina Press.

Riesman, David, Reuel Denney, Nathan Glazer (1950) *The Lonely Crowd: A Study of the Changing American Character*. New Haven: Yale University Press.

Riesman, David and Reuel Denney (1951) "Football in America: A Study in Culture Diffusion," *American Quarterly* 3: 309-325.

Shaw, Gary (1972) *Meat on the Hoof: The Hidden World of Texas Football*. New York: Dell.

Walters, William (2003) "Echo Chamber," *The Semiotic Review of Books* 13.2:11-12.

Telling Stories

Ian Angus, (Dis)figurations: Discourse / Critique / Ethics. London: Verso, 2000.

Ian Angus, Primal Scenes of Communication: Communication, Consumerism, and Social Movements. Albany: State University of New York Press, 2000.

By Peter C. van Wyck

Communication loves to tell stories about itself. Stories about beginnings, and histories and filiations. And, according to taste, such stories are about positing, retelling, inventing, contesting, elaborating, deconstructing, systematizing, unmasking, and so on. To be sure, some of these stories are more potent than others. I think of two recent examples. First, John Durham Peters' book, *Speaking into the Air: A History of the Idea of Communication*. He tells a primal story of communication. His version is a wonderfully inventive combination involving, on the one hand, the synoptic Gospels and the figure of Jesus on the hillside, and on the other, the Eros of dialogue (and general graphobia) of the *Phaedrus*. For Peters, these two positions, in their characteristic modes, exemplify abiding, trans-historical anxieties with respect to the meaning of communication. In the first case, "Socrates' model of the proper and the pathological forms of communication," writes Peters, "resounds to this day" (1999: 50). That is, we are "still prone to think of true communication as personal, free, live, and interactive" (Ibid.).

Communication for the *Phaedrus*, when it goes well, can be the mutual discovery of souls; when it turns bad, it can be seduction, pandering, missed connections, or the invariance of writing, 'signifying the very same thing forever' (Ibid.).

In other words, here dialogue is good, and dissemination bad. On the other hand, in the Gospels we find a different abiding model. Here it is precisely the model of dissemination that is operative. In the second case, the parable of the sower (casting seeds to the side) becomes the hyper-analogy, enacting its meaning in the manner of its utterance ("it exemplifies the operation of all parables" [1999: 52] — a manner of public

address in which the interpretive problem is shifted squarely onto the audience, the receiver"). One must cast many seeds to the wind, only some of which will find fertile soil, and some of which will perhaps multiply. "Those who have ears to hear, let them hear" (1999: 51). But the parable is also a kind of narrowcasting, for only the fertile soul of the *proper* ear could hear it. The parable, unlike the Socratic dialogue, does not contain the instructions for its use or interpretation. Casting seeds is, after all, an act of faith.

Peters takes these two models and follows them (or perhaps the better word is *leads* them) through a remarkably idiosyncratic history, and he makes some discoveries. Ghosts, mostly. Ghosts, that is, in the form of hauntings in our technologies and our ideas about them. And, having wandered through the Gospels; Augustine and Locke; the traditions of Scholastic angelology (Aquinas, et al); and Mesmer, the ectoplasmics of Spiritualism; the strange business of ether and telepathy; Hegel, Marx, and Kierkegaard, the deathly ambiguity of nineteenth century communication technologies; Emerson; Comstock and the Dead Letter Office (*contra* Lacan); Maxwell, James and Cooley, and Turing—Peters leaves us with this parable of epistemological hauntings, perched, waiting on the shore.

In an incredible act of ventriloquism, the final word is given to the dolphins — for unlike us, "they are naked, and not ashamed" (260), he tells us. They live the *topos* of a pure oceanic communism, the undersea agora. For the dolphins, there is no difference in scale between hearing and speaking. Peters' work here gives a lament, a melancholy communication, a state of perpetual disconnect, marked by a longing for a meaningful proximity together with an acknowledgement of an impossible distance.

Peters has done amazing work to convoke a back-story to a certain version of the contemporary communication studies scene. But, and at the risk of putting too fine a point on this, it is such an incredibly American piece of work. Even though ultimately it offers a model in which miscommunication, the failure, the gap, the infinite remoteness of bodies, may indeed be a feature and not a failure, it is still about speech (dolphins notwithstanding). Almost nary a whiff of a sign in sight, nothing post-anything, or really inflected at all but by such concerns the new; it just draws a new line through a history that unproblematically persists behind us. We are left to surmise that for Peters, contemporary theoretical preoccupations are merely swept up in the same dialogue/dissemination history; that they simply narrate an ongoing story within the oscillations between speaking and broadcasting. Powerful metaphor it is, but it strikes me that the story he invents is ultimately unable to address itself to what we may call the contemporary theoretical scene; that is, the new humanities, the *sciences humaines*, the threads upon which linguistics, shall we say, has made its turn(s).

But Peters is certainly not the only recent attempt to clarify this domain, and to tell the story of communication differently. Brianke Chang's book, *Deconstructing Communication* (1996) is a very different take on the whole business. In a way he merely (or boldly, depending on how you look at it) dives headlong into the breach that is lamented by Peters. Chang's strategy is to enact a deconstructive drive-by shooting on the very idea of communication as an oceanic, transcendent ebb and flow of overcoming of difference. That is, he proceeds outward from the constitutive paradox of communication: communication understood as both an enunciation itself, and

the theory of enunciation. Chang's opening insight is that the big problem with communication theorists is that they tend to view communicative events as

moments within a teleological process, as foreclosing dialectic, eventually leading them to their unquestioned valorization of identity over difference, of the selfsame over alterity, of dialogue over polylogue, and most important, of understanding and the determination of meaning over misunderstanding and undecidability (1996: xi).

All of this to say that the "ideology of the communicative," undergirded by the "idealist-transcendental economy," as he puts it, is to become the object of both a faithful, and transgressive reading of communicative history. If Peters gives us a parable of proximity and its hauntings, Chang offers up communication as a radically undecidable proposition; it is simultaneously impossible and ceaseless, even in its utter negativity. Speech on the one hand, and writing on the other. In a way, the two positions as set out by Peters and Chang are such welcome contributions to a domain — communication studies, let's call it — because they come at a time when this domain seems to suffer its own preoccupations with its constitution, with the manner of its own constitution. It is marked, I think, by a certain degree of anxiety; an anxiety arising from the very indistinctness of the boundaries of this domain, from its troubling generality, and also perhaps from its points of hybridization from other general domains such as "cultural studies" (whatever it is that it turns out we mean by that). It is also that we find so little in terms of theoretically adequate accounts that would provide a stable, if temporary, clearing.

Deep Innis

Ian Angus, a professor of communication at Simon Fraser University, has recently made an interesting set of interventions to all of this, let us call it, philosophy of communication. Weary (or perhaps just politically and ethically mistrustful) of certain readings of the discursive turn in philosophy and the human sciences, Angus returns to and reinvents — in certain respects, at least — the material basis of communication media. Accordingly, he reaches for a different metaphor. Not the disseminative sower of Peters, but rather that of Harold Innis: "the basic metaphor of Harold Innis' communication theory of society is transportation, the traversal of space" (*Primal Scenes*, 3). How it is, in other words, that one thing carries over from one place or situation to another. This, as Angus notes, is also the intersection between Innis' communication theory and the root metaphor of metaphor itself: *carrying-over*. It's a long portage, but it works; he calls it comparative media theory.

He sets this all out in three sections, the first on the materiality of expressive forms, concerning the logic and operations of comparative media theory; the second section deals with the loss of mediation in

consumer society as the point of origin for comparative media theory; and the concluding section is on the possibilities of social movements. Each section of this work is itself an elaboration of the same constitutional paradox that occupied Chang's work.

They [the sections] answer the questions: *What theory? Why this theory now? And why/how does one become aware of this phenomenon now?* (*Primal Scenes*, 190)

In a stylistically confused opening section (at points oddly pedagogical, in explaining the meaning of rhetoric, and then laboriously theoretical), Angus sets out the field in which the discursive turn is to be understood as both performative (i.e., Austin, Ricoeur, Volosinov), and relational (i.e., Saussure, Levi-Strauss, Wittgenstein). What he is trying to establish is a way to think of "a medium of communication as both the transmission of a certain content, and more importantly, as the primal scene instituting social relations" (*PS*, 4). And the implications of this are several, as he notes. First, discourse is not to be understood in a correspondence with a reality or as an index of truthfulness. Second, the constitution of social institutions through speech acts can be understood to produce obligations, or what he calls "institutional ethics," a manner of ethics that is immanent in the discursive practices of an institution. Third, the discursive turn implies that the social can only be understood as a function of a field of discourses; there is no coherent meta-narrative to reconcile the cacophony, nor to create the appearance of a non-discursive reality to prop things up. And finally, the plurality of discourses is precisely what constitutes a world, a form of life, and so on. That is, it's discourse all the way down (*pace* Thomas King).

With a clearing established in which the non-discursive no longer looms on the outside to trouble a theory of discourse, Angus moves into what I feel is the most interesting part of this text: his faithfully unfaithful reading of Innis (a reading from behind, so to speak, to recall Deleuze). The main significance of this reading, he says, is "a way of introducing the materiality of expression in the discursive formation of contemporary philosophy and human science" (*PS*, 20). And this of course requires a particular reading of Innis. For example, to Innis' idea of "empire" as a social formation that has a capacity to balance spatially and temporally oriented media, Angus resists a Kantian structure of real versus phenomenal; this is simply consistent with Angus' refusal to allow discourse to be set out in opposition to something on the *outside* of itself. Instead, he moves Innis into a phenomenological and Marxist framework according to which space and time are "*constituted* through media of communication, and media of communication are formed and developed by human praxis":

Space exists only insofar as it is traversed in some manner, and time exists only through the means of transmission between generations. Communication media thus constitute, through human labour, the

limits of what is experienceable, and the *manner* in which it is experienced, in a social formation... In short, media of communication institute a social order, a regime (*PS*, 21-22).

A medium, then, is not just about a certain contents, nor about its physical characteristics (e.g., stone or paper, heavy or light), nor the object conveyed; rather, it is the *manner of carrying*. The particular bias of a medium unfolds in its particularity in part through its situatedness in a given environment. And yet, as Angus notes, the specific conceptual relations between a medium's characteristics and its environment, were not specifically elaborated by Innis. This is important, because it is the point at which Angus begins to make Innis take a different shape. Focusing on Innis' contradictory use of orality (on the one hand as a balancing, therapeutic, time-biased antidote to contemporary Western civilization, and on the other as a fundamental, integrative mode that underlies all media), Angus observes an animating mechanism in Innis' work. It is not only orality that is infected in this manner; the same contradiction is present in Innis' conception of space as well (between a quantified space, and a differentiated space of traversal). And this contradiction itself is symptomatic of the historical situation his work seeks to address. In other words, it is precisely an artifact of the contemporary situation of reflexivity — "the difficulty of assessing the quality of a culture of which we are a part" (Innis, quoted in *PS*, 26) — variously termed the twilight of humanism, the end of history, and so on. As a result, the "therapeutic intention of communication theory"

cannot be properly fulfilled through the notion of balance. It is better served through the metaphor of excavation, of digging down to the fundamental unity, from which communicative capacities have been abstracted, at the same time a doubt that this excavation is uncovering a fundamental unity — a suspicion that this fundamental unity only appears as such through a historical bias that is in the process of disappearing... (*PS*, 34)

One notes here a certain paranoia within this operation of disavowal; *I know it's true, but all the same...* It is like Foucault's paranoia — that our very anti-Hegelianism is Hegel's last trick (1972: 235). In other words, one must always be suspicious of one's situatedness, and the manner in which this will necessarily inflect any discourse about balance, and yet one must also, perhaps ceaselessly, invent a discourse in which the question of balance may be posed.

Now all of this is quite fascinating, at turns a bit confusing, and at times very instructive. Angus is a very careful reader of Innis, and he has a surprising capacity to *brush him against the grain*. But it is not until we get to the third chapter of this text that Angus starts to develop what he really means by his comparative media theory. But he makes the reader work for it. First we must contend with a kind of manifesto of communication studies:

From the standpoint of the relation between philosophy and the human sciences, the constitution of perceptions, institutions, and thought by media of communication is *the thesis proper to communication studies* (PS, 35).

Indeed. The feared object here is the tyrannical idea of communication that follows from the work of Shannon and Weaver. Angus' project could be described as an endeavour to reformulate a communication studies that does not fall prey to the conceptual and ideological errors of the linear "transportation model" (PS, 84, 128). In particular, he does not imagine messages that simply move from mind to mind. Communication under the transportation model is understood as "simply the transfer of content from one location to another" (85). One needn't be troubled by the status of sources or receivers, as such things simply pre-exist the message and the transfer. Angus sees in this model — and ones he likens to it: e.g., Lasswell, Jakobson — three assumptions that render its vision of communication unworkable.

The first assumption has to do with the conceptual status of a channel. In the Shannon and Weaver universe content and channel are completely unrelated. Indeed, as Angus points out, the only possible contribution of the channel is noise (and its contradictory relation to "information" [PS, 128]). Secondly, the subjects of communication are not troubled by the communicative act; they are simply sites of a transaction in which their status *qua* subjects pre-exists. And finally, questions with respect to the effect of communication are reduced to the effects of individual messages. In other words one cannot speak about a general social effect of communication, nor of a social effect that may derive from the emphasis of particular media (PS, 85-86). And for Angus, what allows this model its continued and pressing theoretical significance is that, under conditions of a closed "code of monopoly capitalism" (83), it conceals the fact of a precipitous reduction in forms of social mediations (qualitatively and quantitatively). Hence, on the one hand, Angus's interest in a theory of discourse that can cope with the so-called extra-discursive—the *exo-semiotic*—and on the other hand, his interest in how contemporary social movements, by constituting new mediating institutions (e.g., "community organizations, civil rights pressure groups, environmental protest organization, women's groups") are agents of social transformation (PS, 86-87). This aspect of Angus' argument might well have provided a pathway into the entire project. That is, rather than framing comparative media theory in relation to the discursive turn in philosophy and the social sciences, he might have flipped things and begun with the problematics of communication.

The Site

In any case, as one follows Angus through the various arcs and pedagogical digressions of this work, one may come to wonder how it is that, having made the

obligatory post-foundational moves, he manages to operate with such theoretical force. It can seem as though the reflexivity is only to be discovered, sought-out, excavated, to use his metaphor, but I can see too little evidence of his suspicion. It is a difficult line to walk, to be sure, and perhaps it is in part about a writing as drawn to Husserl as it is to Innis — neither of whom, one might observe, are paragons of theoretical clarity. But it perhaps also points to a more profound situation for theory. One might say simply that his writing, his theorizing, is occasioned by the very situation within which it finds itself. Which is to say, that on his account, a comparative theory of media gets exactly the theory it deserves; a recapitulation of the same reflexivity paradox that returns repeatedly. But this seems an alibi of far too much convenience. Elsewhere, he has put things somewhat more clearly:

Every saying occurs at a *site*, a historical location whose institution as a primal communicative scene sets up social relations... every communication act is an 'institution' in a double sense. It is a rhetoric within a given communication medium through which it is a saying within the cultural complex of institutions that define a world and as such defines a politics that takes place within an already-instituted primal scene. It is also an *instating act*, whereby a given form of expression is brought into being and sustained as such, as a formation of the site. In this sense, it implies a rhetoric of media forms in which a historical epoch appears with a certain perceptual, social and cognitive emphasis. Every communication act occurs within a given cultural complex, and is thus a 'choice' to promote a certain view of expression... . ((Dis)figurations, 259).

The implications here are the constitutive elements of his comparative media theory. The comparative dimension is simply acknowledgement that one is always and already immersed in and influenced by particular media of communication — critique must contend with this. "Comparative media theory is concerned with various dimensions of continuous translations in the media environment..." (PS, 38). Thus, universal claims always run aground on the shoals of the particular. That which is representative and that which is constitutive exist, at least discursively, in a strange loop that Angus calls a "rhetoric of oscillation" (PS, 39-42). Adding another term to an already weighty table of values, this rhetoric is less to do with the sense of one's yielding to a persuasive content, than it is with "a deeper persuasion, inherent in every expression, to assent to the form of awareness that is manifested through the content" (D, 41). (Think *language game* as itself an abstraction of practice.) And it is in this manner that Innis appears for Angus as a poststructural and, interestingly, a postcolonial hero. The critique of modernity is not just about its abstractions and fractures. It is, for Angus' Innis, that very understanding of the crisis of contemporary times, its relations to space and time,

industrialization and orality, is itself a product of the very bias that facilitated and produced a global in the image of a Eurocentric project.

To this initial outline of the reflexivity of comparative media theory, Angus just keeps on adding things to the pot. At the outset, this means appeal to McLuhan, Husserl, and Bateson (PS, 41-51). But particularly Husserl, or a version of him, with whom Angus clearly has a fondness, despite the fact that Husserl's thoughts on communication must be overlooked (PS, 67-74). Yet for the reader, this reader, things by this point are becoming difficult. We have body, discourse, expression, and material, technology and institution. We have these things swept up in particular configurations of media; media that are both expressions of such configurations, but also, in a significant sense, the specificity of the configurations such as they are. Again, this is the seat of the constitutive paradox, the reflexivity, and so on. And finally, comparative media theory steps up as theoretical practice to begin to articulate communication in a manner appropriate to its situation; that is, as a material envelopment that has tended to behave toward human endeavour as water toward fish, until, that is, epochal changes are at hand, at which point such otherwise invisible arrangements come to be discernible. This is good. And it's produced in a compelling fashion. But there is an odd oscillation within the text itself, and in a way it suffers from waves of its own iterations, each one aimed at a re-diagnosis of the same crisis.

Social movements, actual social movements, about which *Primal Scenes* is subtitled, are surprisingly scarce in Angus' analysis. Nor is the reader really told what such a thing is. Is it really possible to speak of feminism as a social movement in the same way that one might speak the peace movement? Perhaps, but it is only clear why this might be the case if we understand that the reason social movements are of interest to Angus from the outset is that in the very process of voicing a claim, an emergent social expression with a locus somewhere in the social, a new and strategic mediation is created. And the mediation is not merely a copy of something that subsisted prior to being voiced; the claim that is voiced creates with it new subjects, a new state of affairs. Whereas the tendency has been to understand social movements as the expression of something previously suppressed, Angus's point is that this is precisely wrong, and furthermore, it obscures through the "the hegemony of liberal individualist discourse" (PS, 151), the "co-constitutive" process by which a social movement calls forth new subjects, and new subject positions. Angus' argument in the last third of *Primal Scenes* draws out the implications of this, drawing particularly on a reading of Laclau and Mouffe.

The essays grouped together in *(Dis)figurations* also track through themes explored in *Primal Scenes* — the constitutive paradox, the discursive turn, doubling, the problems of universality versus particularity, reflexivity, and so on. The essays in *(Dis)figurations* are in fact a set of curatorial

documents, or prefigurations, that help the reader to situate some of the turns taken in *Primal Scenes*. The title essay in this volume sets out the thematic trajectory that is taken up in *Primal Scenes* in much the same terms, with the significant exception that it sets things out in more overtly ethical language, and in doing so issues notice of the continued relevance of philosophy to social critique; in a way, answering the question as to why the discursive turn is not presented in the first instance as a communicative problem in *Primal Scenes*. And this I think gives us a clue to understanding why Angus has published two texts that are so thematically close. In a way this is not about communication, nor about bringing material into discourse, nor about simply understanding the doublings and reflexivity of modernity. Rather, I think it is really about finding a place for philosophy and finding a philosophy for (our) place. The materiality of communication, of discourse, is a matter (so to speak) that must in the end be secured, and for Angus, this is accomplished by philosophy — “that without belief or armor” (PS, 191) as he put it in the very final gesture of *Primal Scenes*. Philosophy alone is capable of engaging the history of expressive forms, and philosophy alone is capable of refiguring (via a reflexive *disfiguring*) the primal communicative scene (the saying, the said, and the site [D, 23], or the poetic, the rhetorical and its representation [D, 258]). Not a philosophy of balance, of course, because, as we’ve seen, he’s already offered a figure of excavation.

So is one to presume that philosophy as a discourse that “hovers over the human skin,” (D, 191) is really in a supervisory position at the site of the excavation, at the dig? Yes and No. Philosophy wants to account for discourse at the very historical moment that it pulls up short and becomes revealed as a metaphor. But in order to do this, we return, oddly, not to the site of the world, or the dig — this would be but the domain of the *example* — but rather we return with Angus to the very site of philosophy (his version of it) to re-experience and (once again, the paradox) re-write the possibilities of its re-constitution. But at the same time Angus marks philosophy as precisely “not a discourse, but a distinctive and radical type of move within discourse” (D, 247). For Angus it is a matter of understanding how it is that philosophy can persist in the wake of the various scenarios and articulations of its demise; whether through neglect, proclamation from the “inside,” or from an undecidable position that he calls “simultaneously from inside and outside” (D, 215). In the essay “Critique of General Rhetoric,” Angus is attempting to figure out how philosophy can get buried in the first place. (And the interesting thing about burial — a repetitive figure in these texts, and a necessary back-story to the problematics of excavation, one might add — is that it really can come to pass in different ways.)

Rhetoric, Madness and the Excavation(s) of Philosophy

Anyway. The situation for philosophy, which I contend is really at the core of these

writings, is that it is brought under a kind of scrutiny by general rhetoric. Angus puts it this way:

The core of the philosophical tradition is summed up and given a radical formulation in Edmund Husserl’s discovery of the transcendental reduction — the suspension of belief in a world subsisting independently of anyone’s perception of it. Such belief is not denied, but it is simply suspended, in order that it may be held up for inspection and its pervasive influence described. This is the contemporary, radicalized, form of Greek ‘wonder’ that was taken to be the origin of philosophy and which motivated the inquiry into truth that came to be constitutive of the philosophical tradition. This, the explication and development of the theory of the transcendental reduction is a central theme for a contemporary defense of philosophy (D, 220).

The return of the linguistic turn, then, is the moment at which a self-consciousness emerges that language is not in the business of description, but rather in the event-making of discourse. Rhetoric then stages a rather interesting return itself. No longer restricted to procedures and gestures of persuasion, a “general rhetoric,” a rhetorical criticism emerges within the very plurality of postmodern discourse. The continuous translation performed on discourse by this rhetoric is taken as ongoing testimony of the lack of foundations in the field of discursivity. Whatever coherence is generated within and between discursive fields (as meaning, and boundary) is thus constantly eroded. And here Angus develops an attractive argument about the relations between plurality, rhetoric and madness:

Since translation reduces boundaries, other discourses, and the discursive field itself, enter every discursive formation. Madness, which is the unfixity of meaning, invades each utterance within a discourse from its outside. General rhetoric is thus haunted by madness. Rhetorical criticism re-establishes plurality of discourses and therefore unfixity of meaning within discourse. Unfixity pervades the field of discourse and therefore the practice of rhetorical criticism itself (D, 243).

Madness, he tells us “appears as both product and practice of rhetoric” (D, 243). I find this a very interesting formulation. Now one might take issue with such a general sense of madness as the unfixity of meaning. One might say, for example following Becker (1973: 75-81), that a world of unfixity of meaning, like a world of *insufficient necessity*, is a world understood through the optic of not madness per se, but more specifically paranoia. This is Kierkegaard’s “infinite’s despair,” says Becker. And in a way this makes perfect sense; it takes us right back to the suspicious hermeneutics of excavation mentioned above; uncovering the disavowal, and the suspicion. It is perhaps against this that we might consider the place of the world configured differently, the world as too

much constraint, a sickness of finitude one might say; a world, says Becker, of depressive psychosis. At the risk of pushing the metaphor beyond all usefulness, we might see philosophy — at least for Angus — as figuring this way. An oscillation between post-foundational sickness of infinitude, and its twin, the madness of a philosophy that can imagine nothing at all, a philosophy trapped under the impossible weight of necessity.

But in any case, both philosophy and rhetoric have their tricks for holding madness at bay. We are not constantly struck mute by an infinity of possibilities any more than by an infinity of constraint restricting any possible move. In each case, we could say, after Burke — whose ghost looms large over Angus’ work here — that it is about establishing a constitution which makes no claim beyond a set of motives, “a given set of customs and values, from which similar customs and values are deduced” (Burke, cited in Charland 2003: 123). But this is not quite how Angus imagines it. General rhetoric, he suggests, even in its (although in a way, *because* of its) capacity to constantly recover plurality, cannot help but succumb to its own inability to “monopolize the activity of translation” (D, 244). That is, “[g]eneral rhetoric engages in the continuous translation that defines postmodernity, but, in the same moment, succumbs to the dynamism of postmodernity” (D, 244). In other words, the madness of general rhetoric is but leakage from the madness that is the “postmodern condition itself” (D, 245). And yes, philosophy returns for Angus. And it is directly in the wake of rhetoric revealing its ultimate inability to know itself (being prone to babbling madness), that philosophy stages its return. Quips Angus, “Now that we have discovered the Sophists as our contemporaries, may we not discover Socrates too?” (D, 246). I suppose, but the epicycles are adding up in this unwieldy philosophical machine that Angus is building for us. Here Platonic philosophy steps in to pause, and to stall through its silence — yet only briefly — the unfixity of meaning, thereby performing meaning. It is not a tool, not a discourse, but a way of life, in which, to return to *Primal Scenes*, “we do not simply live *within* a communicative form, but can engage new projects of instituting” (PS, 190).

And then

Things have become somewhat tangled. Angus is not what one might call a demonstrably *clear* writer. However, by this bit of empirical observation I mean no particular criticism of his work. Clarity has no *necessary* place of privilege here. Rather, if I were to measure the success of this work, it might be in the manner that he has managed to gain my complicity. And he has. In part. That is, I too worry about such things as philosophy and its place, and I too think about how the emergent qualities of the new are not merely actualizations of prior possibilities, but rather creative pieces of production. Theory, the question of theory, the manner of its constitution, its place in the academy; these I would urge are issues of pressing concern. Or they ought to be. Indeed the state of theory today, its domain,

and the manner in which it may function as a mediated mode of social engagement, these are issues central to the theoretical endeavour, and, I would add, to the substance of our politics and our pedagogy. That said, Angus' work, particularly *Primal Scenes*, suffers under the weight of its own constitution. It is an elaborate and at times awkward machine, and although its architecture is made more engaging through the essays collected in *(Dis)figurations*, the reader, this reader found himself wishing to see more of the machine set in motion. Having told us what it means, we now want to know what it can do. Yet what he writes here is more about a kind of theoretical triage. An intervention aimed at securing a phenomenological, quasi-Innisian philosophy, than about understanding the gaps, articulations and pauses of social movements, or really for that matter, a comparative media theory.

In the end, what we end up with is too much of a cipher. Its rich and often baroque figurations — that is, his manner of *carrying-over* — can eclipse the very material world that motivates the project from the start.

Peter Van Wyck teaches in the Department of Communication Studies at Concordia University. He is the author of *Signs of Danger: Trauma, Waste and Nuclear Threat* (2004) and *Primitives in the Wilderness: Deep Ecology and the Missing Human Subject* (1997).

References

Becker, Ernest (1973) *The Denial of Death*. New York: Free Press.

Burke, Kenneth (1962) *A Grammar of Motives*. Cleveland: Meridian Books

Chang, Briankle (1996) *Deconstructing Communication: Representation, Subject, and Economies of Exchange*. Minneapolis: University of Minnesota Press.

Charland, Maurice (2003) "The Constitution of Rhetoric's Tradition," *Philosophy and Rhetoric* 36:2:129.

Foucault, Michel (1972) "The Discourse on Language," Rupert Swyer trans, in *The Archaeology of Knowledge*. New York: Pantheon Books.

Peters, John Durham (1999) *Speaking into the Air: A History of the Idea of Communication*. Chicago: University of Chicago Press.

van Wyck, Peter (2004) *Signs of Danger: Trauma, Waste and Nuclear Threat*. Minneapolis: University of Minneapolis Press.

Language's Beginnings

Barbara J. King, ed. (1999) *The Origins of Language: What Nonhuman Primates Can Tell Us*. Santa Fe: SAR Press.

By Anne C. Zeller

Arguments about when, how and why human language originated have bedevilled researchers for over 150 years. The answers will require input from a wide variety of disciplines, since aspects of anatomy, neurology, linguistics, cognitive development, ontogeny and primate behaviour must be considered. The question of language origins deals with both what is language, and how we produce it, and looks to evidence from the past and the present, both naturalistic and experimental. B.J. King, the editor of *The Origins of Language*, decided to assemble such a multidisciplinary group through the School of American Research Advanced Seminar Series to engage in a discussion of this age-old topic. The participants included primatologists King, Snowdon and Maestriperi, linguists Burling and Wilcox, ape language researcher Savage-Rumbaugh, primate neurologists Gibson and Jessee, and child language specialists McCune and Davidson. They began by recognizing that there were two major theoretical positions concerning language origins. One is the nativist approach supported by Chomsky's idea that the brain structure of the developing child holds an innate, rule-based system of grammar derived from the genetic specialization of the human brain. This approach "is not concerned with the perceptual or pragmatic aspects of language comprehension and use" (Tomasello 1995 in King 1999: 4). The other position accepts an evolutionary background for the development of the anatomy and mental abilities that language requires, linking them in a feedback loop with the gradual increase in mental abilities which vocal language systems allow, such as planning abstract thought and complex deception skills; the kinds of abilities that are subsumed under the idea called "Theory of Mind" (Premack 1988).

A number of modifications of these two positions exist, including, in particular, Pinkerton and Bloom's idea that the genetic change that causes language arose through natural selection in the hominid lineage as a specialized biological system only present in modern humans, thus supporting the discontinuity position. King and her colleagues were more interested in asking and answering questions about what language has in common with the communication systems of non-human primates, and also with their non-linguistic behaviour.

Approaching the question this way will also eventually allow researchers to assess what is similar about these systems. In addition, this approach provides a focus on the communication systems of our closest living relatives and comparative work may allow us to extrapolate into the past, looking for origins of human specializations. King is critical of those who try to approach this topic with little understanding of the characteristics of primate communication (which were, after all, the basis of how our earliest ancestors communicated).

In order to address substantial issues concerning the similarities and differences between primate communication systems and human language, the topic must be broken into a series of sub-questions. These include such questions as "To what degree does primate vocal and gestural communication unfold in a flexible manner, according to experience and interaction, instead of according to prespecified, biologically determined structures and processes?" (8) "How do events during ontogeny contribute to the development of language?" (8) and "Are there (or were there) linguistic and/or behavioural precursors to language in non-human primates, including the hominids?" (8).

When struggling with the issue of defining language, it seems clear that the theoretical position from which you begin will define the questions asked. From an innatist's perspective, who sees language as an inborn uniquely human trait, questions of the presence, origin and function of syntax as the organizing fundamental of language will loom large. From the evolutionary perspective you might look at language as a set of functional subsystems, such as classificatory ability, controlled vocalizations, and the ability to build up calls or gestures, from a combination of available elements. The primate precursor systems can then be examined for evidence of such abilities, or of even more complex ones, such as the understanding of relationships among patterns which can show up in complex social interactions where differential responses are directed to individuals who have different types of relationships with the sender.

These kinds of observations on primates depend on long-term detailed studies of both free ranging and captive groups. Free ranging studies are particularly important because of the complexity of social organization in undisturbed groups which provides evidence of how animals in them classify their relationships.

In addition, detailed study of the structure of face and body gestures, as well as vocal communications, provides evidence for how these systems operate and whether there are indications of a basic underlying syntax or at least a level of meta-communication. King, in particular, states that she sees language not as a static set of features, but as a dynamic interactive system of production and reception.

King's first chapter begins with a discussion of Bickerton's viewpoint about the importance of syntax as a defining feature of

language. Immediately this means that data from primates is not a productive place to look because, according to Bickerton, primates can only communicate about emotion, not about specific features of the environment. He agrees that other animals can infer meaning from the first (as in a predator alarm) but argues that there is a huge difference between that function of communication and an intended meaning to warn others about a dangerous feature. He also argues that primates do not show variable responses to particular calls, and thus maintains that there is a separate cognitive base for animal communication.

King argues with this viewpoint because she states that monkeys and apes have relationships — not just interactions — and that these relationships involve attending to the other, such that if a mother calls to an infant she means that it should come, and will go and retrieve it if it does not respond. This is particularly evident in captive and enculturated apes interacting with humans, or with other apes, where they visibly wait for a response after making a communicative gesture. King discusses Wallman's approach to language origin issues by noting that his observations support both the continuity and the discontinuity theories because he suggests that differential monkey vocal alarms are "plausible precursors of words" (35) while concluding that primates do not evince language-like principles in their natural systems of communication. He comes to this conclusion because he does not find many language-like features such as duality of patterning and vocal learning in primate systems. In fact, vocal learning is now widely accepted for a variety of primates, e.g. Snowdon (this volume) and bonobos direct particular gestural movements towards infant bonobos, that depend both on the context and the responses of infants, in a clearly communicative way. Another good example of call modification is the development of co-calling and counter-calling in gibbons, where mates gradually align their calls to form a unified duet. King argues that looking at what primates really do, before imposing constraints based on standards of human behaviour, will help us learn a great deal more about primate communication systems than starting with human standards which apes may not match.

The next theorist King discusses is Gibson, who as a continuist, looks on brain structure and communication skills as basic to primates and expanded in humans. She sees language as essentially an emergent property built up out of components, as a mosaic of features to allow interaction and social information donation, rather than focussing on single utterances. Other features of language, such as voluntary control of utterances, and combining two calls to make a new meaning, are present in primates in a rudimentary form according to her. Thus, Gibson argues that human language is not unique, even though it has distinctive features based on the increased intellectual abilities of humans. The key claim in this approach is that small neurological changes can explain the incremental changes in communicative abilities in primates such that the differences

between apes and humans should be seen in quantitative rather than qualitative terms. King supports this argument by citing in her own work evidence of referentiality, vocal control, precursors for syntax and processors for turn taking. The evidence for precursors for syntax is supported by Armstrong, Stokoe and Wilcox (1995), who emphasize that continuity in the gestural-optical channel allow visible gestures to promote an understanding of sequential actions. An example is a raptor seizing a prey animal being modelled by a hand grasping an object; in other words an actor, a target and an action. Once the sequential organization of action is mapped onto meaning, then basic syntax can be said to occur.

Evidence for these levels of ability are difficult to discern in wild populations of primates, but enculturated apes can demonstrate an understanding of agent-action-object quite clearly. This is particularly true for language trained apes such as Kanzi, who can even deal with embedded clauses in a received sentence. Those who argue that apes only live in the present may not be interpreting their excellent memories for past acquaintances, or ability to move around their ranges to forage optimally, as evidence of an understanding of the past. Delayed redirected aggression, in which an animal attacks another who has a close relationship with the one who offended it the day before, also shows ability to remember the past and perhaps to plan future retaliation if the original attacker was too powerful to be challenged. Despite the many arguments from discontinuity theorists that enculturated apes show little or no use of language since the signing that they do is often "instrumental" (they are requesting something), or in response to being signed to, there are certainly many episodes of ape-initiated comments and rule governed productions of strings of signs. In her work with Kanzi, Sue Savage-Rumbaugh (1998) has tested his ability to comprehend novel sentences and found that without reward and on one presentation of each request, he was able to perform a variety of what must have seemed like odd behaviours, such as "put the grapes in the swimming pool." Her interest in focusing on comprehension permits a comparison with human language and a way to look for the key elements of language. Production without comprehension is not much use as an evolutionary strategy, so it seems likely that comprehension of signal forms was a major underpinning to the structuring of language and co-occurred with production.

Since detailed information on primate vocal and gestural systems is still being gathered, Maestriperi, in the next chapter, investigates how the social environment influences the cognitive abilities and communication systems of primates. In this work Maestriperi compared Rhesus, Pigtail and Stumptail macaques in terms of their dominance and kinship organization in relation to the complexity of their patterns of affiliative bonding and development of temporary alliances. The results of this study suggested that the less dominance oriented species, e.g. the Pigtail and Stumptail, have a wider repertoire of non-aggressive gestures

and more sophisticated communicative interactions. Rhesus macaques do not use many affiliative signals and use gestures mainly to express dominance and subordination. In particular, evidence from Stumptail macaques who are less organized by dominance and the impact of matrilineal kin, suggests that the need to co-operate with unrelated individuals requires clear signals of affiliative intent, since the variety of assertive and submissive gestures indicates a great potential for within-group conflict in the species. Therefore, expressions of reassurance and bonding are needed to maintain cohesion in their relatively large social groups. This is an interesting approach, especially if the results suggest that particular types of early hominid social organization might have influenced the sophistication of their communication system.

In particular, as Maestriperi notes, it is much more probable that pressures for complex communication were likely to arise in the context of social behaviour than in the context of external referents. The strategies of intra-group co-operation and competition in primate groups are more complex than seen among almost all other animals and have been suggested as the basis for increasing development of primate cognitive skills (Whiten and Byrne 1988; Tomasello and Call 1997).

Snowdon's chapter extends the range of this book to a discussion of the communicative capabilities of New World Monkeys. This is important from the phylogenetic perspective because New World forms have been separated genetically from Old World ones for over thirty million years. Thus, if there is a unified genetic basis to complex primate communication skills this must have developed a very long time ago. On the other hand, if what we see is parallel development, this suggests that the parallel features of primate social life and functional adaptations to group living are powerful forces in the development of complex communication skills. Snowdon maintains strong empiricist views and promotes the value of good empirical data to support his theoretical position. He begins by addressing Hockett's design features of language and discusses at what level these features are present in primate systems. After running through all the criteria, Snowdon claims that all of them are present in one primate species or another, although he does agree that no non-human communication system incorporates them all. He then discusses the uniqueness of human production and perception of sounds as speech, but concludes that other primates can categorically perceptualize human speech sounds. This discussion proceeds to evidence that primates have categorical perceptions of their own vocalizations, such as occurs in pygmy marmosets who categorize their trill vocalizations on the basis of call duration. Evidence for within-category discrimination occurred when pygmy marmosets would respond differentially to playbacks of short trills made by known individuals who usually made short trills, versus long trill playbacks of the same animal, and vice versa.

Snowdon uses this data to argue that there is nothing “special” about speech perception. It uses phylogenetically old perceptual contrasts, but in certain social situations within-group categorization of social factors such as age, sex and individual, impact the meaning of the actual linguistic signal. He goes on to deal with the concept of language universals, critical periods, word order learning patterns, and individual learner preferences. By examining language development in a variety of cultures, and in the bilingual learning situation, Snowdon argues that all of these frequently accepted truisms about language development do not hold globally.

He then moves to monkey vocal development. Comparison with isolation reared and deafened song birds suggests that the development of vocal production in primates is quite conservative, since they are less affected by isolation procedures than song birds (based on Seyfarth and Cheney 1997). However, the calls investigated were usually predator alarm or infant lost calls, which need to be ritualized and rapidly responded to for survival reasons. Vocalizations used in social relationships are much more plastic and influenced by learning. He supports this claim with data on affiliative vocalizations in marmosets and tamarins. Trill vocalizations of pygmy marmosets have traits that allow individual recognition. In the wild, as animals get farther away from the group, they alter the structure of their calls so they can be more easily located. The members of the group take turns calling and thus all group members know where everyone is. The development of captive pygmy marmosets indicated that the calls developed with age, becoming deeper and longer, as would be expected from maturational development. However, some were also shorter and higher pitched, so that the changes could not be accounted for by maturational factors. Social impacts also affected trill structure, as stranger and established animals both changed their vocalizations after being placed together for some time. When animals were newly paired they also changed their trill structure to converge with their new mate. This study was compared to the results of humans joining a new group and changing their speaking patterns (Giles and Smith 1979). Another parallel with humans that Snowdon discussed was the presence of babbling in infant pygmy marmosets. He is currently investigating whether adults respond differentially to infant marmosets when they are babbling, and if the adult’s reinforcement changes or directs the structure of the calls. Altogether, Snowdon was making three points in his chapter. First, he found it difficult to find explicit criteria that differentiate human language from the vocal communication of other species, except for the use of words and the concomitant neurological complexity and increased social dependence of humans. Second, the ideas supporting the innateness argument, such as universals of development and critical periods, may depend more on learning patterns and motivational processes than on a genetic basis. Third, the data derived from marmosets and tamarins on social impact, babbling and teaching of food associated calls

provide experimental evidence to support an argument that learning and cognitive variables are very important aspects of developing primate communication systems. In particular, language and communication are socially constructed. Communication signals are learned and shaped into adult modes of production usage and comprehension.

Savage-Rumbaugh begins her chapter by questioning whether the accepted scientific method of hypothesis and experiment is, in fact, the best way to understand what is going on in the minds of primates. In order to prove goal direction, intentionality and consciousness without being able to talk with an animal, what means can researchers use, since such mental attributes cannot be empirically proved for humans, except by self-report?

Savage-Rumbaugh clearly expresses the difficulties she has faced in attempting to scientifically prove that the Yerkish-using chimpanzees, particularly Kanzi, utilize language. Her argument maintains that a study based on replicable, countable linear events is not going to provide much of an indication about the mental abilities of apes. Data collection techniques can be structured to “make minds appear to be like machines. One can count and classify and lump, but one learns little by making a mind appear to fit the current mold of science” (119). New methodologies need to be developed and accepted to study the multiple phenomena that make up ape behaviour, because otherwise the kinds of questions we ask will not bring us answers relevant to understanding what apes are really like.

The chapter continues with a Platonic imaginary dialogue between Savage-Rumbaugh and an invented critic. They discuss many of the questions that are currently at issue. Savage-Rumbaugh gives examples of bonobos referring to past events, such as a fire. After the fire occurred, one of the apes led a caregiver out to the location of the fire, but arguments were put forward that since there are no past tense symbols on a Yerkish board, that we do not know if the bonobo just used the word and led the caregiver there because she wanted to see the place again, rather than transfer the information that a fire had happened. If this were the only event of its kind this reductionist level of explanation might be reasonable, Savage-Rumbaugh argues, but when there are hundreds of events over the years, they cannot all be chance or mindless occurrences. The main question that was repeatedly asked by the critic was “how can we ... be sure that what you (Savage-Rumbaugh) see in the apes is really there?” He argues that she cannot be objective about the apes because she participated in raising them, and therefore, she will interpret any situation as if it were evidence of comprehension. The problem with his question is that he *would* probably see something different than she because it takes a well-trained and experienced eye to perceive what is happening in ape communication. In her anecdote about getting her keys back from one bonobo who wouldn’t give them to her by asking Kanzi to tell Tamuli to give me my keys (136), she

agreed that the critic probably would not have asked Kanzi for help, and thus would not have had the opportunity to observe this three way interaction. What she is trying to say, as the Gardners and Fouts have already said, is, if you don’t think the animals are going to understand you, you will probably not see any *evidence* that they do. You may see manifestations but you could always say they were random or accidental responses and not true evidence. I have certainly seen, and have video of, apes who clearly understood what they were being asked to do and who were not trained for that particular situation. The critic in this imaginary debate ends by saying that he can’t imagine how primates can use referential communication because we do not know what is going on in their heads, and that the ape language researchers may be over-interpreting their results. The chapter ends with a discussion of the critic’s arguments. In particular, the critic has suggested that Savage-Rumbaugh is not objective and her reply is that all scientists have feelings about their work which will affect how they collect, classify, analyse and interpret their findings. To me, an objective researcher is one who is willing to accept whatever results the data show, whether or not the hypothesis is supported.

The other major issue was the difference between anecdote and experiment. If some ape communications such as greeting routines are standardized, they are not of interest to the linguist because they might be rote actions, or repetitive, and therefore do not reflect linguistic competence. On the other hand, a novel or unusual behaviour or incident that displays an intelligent solution is an anecdote and therefore not acceptable to science. Savage-Rumbaugh calls this a double standard because unique behaviours for humans are considered to provide evidence of intelligence, possible problem solving, and linguistic competence. First verbalizations, and even repetitions of “Mama” by infants, are considered evidence of preliminary linguistic skill.

The chapter ends with a description of how Panbanisha (a pregnant female bonobo) responded by pointing at her belly the first time she was asked “Where is your baby?” She also touched her stomach when the baby moved and she was watching it on a sonogram (which she had never seen before) and she did not normally touch herself when the fetus moved. For the observers it seemed clear that she understood the sonogram was a picture of her hidden baby. When the infant was born and she was asked “Where is your baby?” she always pointed to it, not to her stomach or vagina. This was her first pregnancy, but she had seen her mother, and a number of humans, when they were pregnant, and later with their babies. The conceptual ability to know that a baby is inside you represents a fairly sophisticated understanding of self and other, since she recognized the born object as her baby.

Kathleen Gibson and Stephen Jessee approach the language origins questions by investigating the “brains, anatomy and behaviour of humans and their closest phylogenetic kin” (194). They examine quantitative differences in the size of the brain and many of its parts. Their argument

is that larger brain areas in humans allow increased mental capacities, differentiation, conceptual schema, and advanced motor and object manipulation skills. This viewpoint supports the position that quantitative differences provide sufficient mental capabilities for what seem to be uniquely human traits.

Lieberman had suggested that apes could not articulate because their epiglottis was level with their uvula, but dissections of chimpanzees indicate that it usually lies just below the uvula. In humans, the epiglottis also lies below the uvula, but the distance below has a range of over 20 mm. Thus, there is a quantitative range between the distance of the epiglottis below the uvula in apes and human, but overall structure is not nearly as different as Lieberman had indicated.

These arguments do not mean to suggest that the differences between apes and humans are minimal, because they are clearly quite substantial. Most human brains are three times the weight of an average ape brain. Since brain and body size are highly correlated, the EQ or encephalization quotient is a common equation used to factor out effects of body size. High human EQs correlate with our perception of humans as having the highest brain/body ratio, but EQ levels do not correlate well with mirror self-recognition and tool use in non-human primates. Dunbar suggests that the ratio of neocortical brain size correlates with the size of social groups in his hypothesis, that social skills are the underlying basis of cognitive complexity. However, Gibson and Jessee feel that large absolute brain size with enlarged circuits, complex dendritic branching, and many interacting neural regions, is associated with long periods of learning and is important in mediating sensory motor and cognitive functions. They go on to suggest that linguistic skills are not mediated only by a developed Broca's area alone but by "coordinated changes in the sizes of many structures and tracts with diverse functions" (20).

Procedural learning is the development of habits and skills that become almost automatic (like riding a bicycle). Parts of the brain involved in this are larger in more taxonomically advanced primates. In humans, complex dance routines, piano playing, speaking and writing clearly reflect procedural learning, which makes its development an important role in learning vocabulary. The foraging lifestyle of primates would benefit from this type of learning and it has been experimentally demonstrated in monkeys and apes who have the enlarged hippocampus and frontal and temporal type circuits on which it depends. This learning is mediated by emotion and thus emotional control is an important aspect of taking advantage of this ability. The size of the neocortex relates to the complexity of the function of the part controlled rather than its size. The interconnectedness of motor neurons leads to an exponential growth of the number of movements controlled. Therefore, the need to combine and recombine the movements of lips, tongue, and oral cavity and to fine-tune mouth movements requires multiple parallel neural tracts working together. In humans, large

association cortices provide multiple simultaneous and sequential control over motor acts as is required for speech or writing. The level of cross-modal integration in humans allows smells and sounds to be reconstructed into a larger whole, such as "that's a predator."

After discussing the structure of ape and human brains and the advantages modern humans gain from their increased brain size, the authors discuss developmental process in children. They suggest that hierarchical and cross-modal connections are the basis of being able to comprehend "object-name" when an object is presented to an infant and the name is spoken, which are two separate information sources which must be combined. The child constructs a concept of the word, from seeing the object, a caretaker's reference to it, and the sound of its name. Words thus depend on mental constructional skills, as do phrases, sentences and stories. As they become more complex, they convey more information. Human language has an overall hierarchical structure, but it may not require abilities unique to humans to make it function. Language trained apes can merge or construct concepts by seeing objects and hearing their names even though their abilities to hierarchically construct multi-word utterances are much poorer than children over age two. It may be that the number of parallel circuits they have to keep a variety of concepts in mind simultaneously is just not sufficient to create complex verbal strings.

Early human minds may have started at the same place, but interactions of human skills and the development of complex procedural activities may have interacted to increase manipulative, social, and eventually linguistic complexity. As tool use and making emerged and developed, sensory motor, imitative, and planning skills, which are essential for making stone tools, would have emerged. Gestures and vocalization used to process foods, indicate travel direction or direct a youngster's attention to a foraging opportunity would have had serious selective advantages. By the time *Homo erectus* with a cranial capacity of 900-1000 cc (halfway between apes and modern humans) were in existence, they were making balanced, symmetrical, bifacially flaked stone tools for cutting, butchering, and perhaps throwing.

Modern pre-school children can communicate about actions, events and locations present in the environment, but amplify their descriptions with considerable use of gesture. Older children (age 7+) can communicate comprehensibly about absent objects, abstract ideas and previous events. By this time, their brains are larger than those of most *Homo erectus*. They develop the use of deictic devices which allows them to discuss distant events more accurately. If they were foragers they could talk about distant resources. The development of language skills seems to track the increase in brain size very well, and Gibson and Jessee argue that Lieberman's ideas about deficient Neanderthal verbal skills are not supported by this approach. In fact, they replicated the cranial base study on which Lieberman's hypothesis rested, and found that the cranial

base flexure in modern infants was well within the range of variation of verbal children. Moreover, the degree of cranial base flexion in the La Chapelle Neanderthal, which was the original one underlying Lieberman's ideas, was also within the modern human child range. Gibson and Jessee's conclusion, therefore, maintains that language evolution is based on the coordinated evolution of a variety of neural functions arising from the increased size of the modern human brain.

Davidson's chapter on continuity and discontinuity in language origins starts from the continuity perspective because, he argues, most other research begins from the discontinuity end. This is because the arbitrary nature of languages, by their symbolic nature, encourages this approach. He begins by discussing the concept of naming as a discontinuous aspect of an essentially continuous communicative skill. The analogy he uses is the episodic nature of historical events embedded in the continuum of history. In looking for language origins he comments that even this process produces discontinuity because we see an origin as a new and different thing than previously existed. He does, however, argue that there is a distinct discontinuity between non-human primates and modern humans which means that primate evidence is not a direct source of information about human behaviour. The big question is "how these differences emerged" (231). Davidson looks to four types of data to answer this question. A frequently used approach is to argue by analogy from non-human primates to early humans. The author argues that this is a very weak source of data. The second approach is a discussion of ecological functional similarities as a conceptual model to reinforce the referential models by establishing a theoretical basis for possible similarities between primates and early hominids. This approach is judged to have some promise, but the environmental flexibility of humans makes it difficult to clearly delineate evolutionary processes of change in early hominids. The next approach is an effort to reconstruct the last primate/human common ancestor by using a cladistic style of assessment. The problem of convergence makes it difficult to proceed with confidence, and the processes by which the differences between the lines developed are difficult to identify. However, archaeological material shows us some of the intermediate stages in the development from common ancestor to modern human, and allows us to check our model. In spite of the difficulties Davidson sees in the first three approaches, he does accept that his fourth methodology might be useful. This involves using primate data to set a primate baseline for human activity. Apes make tools, use complex communication, and live in complex social groups. They eat meat, hunt, and spend a long time raising their young. But this does not tell us how or when early humans refined these abilities. In particular, for language we do not know when or where human capacities advanced beyond apes, but since production would be useless without reception, the two must have developed concurrently, and thus probably in social groups. The ultimate cause of language was

probably the development of particular solutions to general primate problems. However, it couldn't have happened without relaxations of the selection pressures against larger brains. Brains are expensive to maintain and need to be kept at a constant temperature. As Australopithecines developed, their tool-making skills may have provided more meat and the potential for brain growth. Another jump in brain size occurred with the development of *Homo erectus* and increasing tool production skills. Eventually the brain growth pattern of infants included a substantial post-birth growth phase, which greatly increased the potential for learning. Noble and Davidson (1996) argued that it was not actually a change in the form of communication which pushed it into language, but the discovery of the symbolic potential of referential utterances. This allowed a changeover from memorizing every instance of communication to developing a hierarchical structure of code utterances, thus allowing for a reduced "instruction set" for the use of these newly developed symbols.

The discontinuity between our ancestors and ourselves comes from the fact that all our ancestors are extinct so we can no longer see the developmental continuity that occurred; we have no idea how long the stages took or when they were. Archaeological evidence of conservative tool-making strategies and slow population growth suggests that language development took a long time. The appearance of symbols is recorded in the archaeological record but we will never know if we have found the first occurrence. Davidson's conclusion is that we can argue for continuity or discontinuity from the same evidence depending on how we interpret finds from the past.

Moving from the course of evolution to human ontogeny, McCune argues that attention to language acquisition processes in primates and humans may help to inform us about language development at the species level. If autonomic vocalizations occur in response to metabolic needs across species, they describe internal states and can prompt the recognition of sound-meaning correspondence. Communication requires both sender and receiver. If the receiver understands the message, Searle (1992) argues that s/he experiences an internal state of meaning closely related to that of the sender (270). He calls this an Intentional or I-state. These I-states characterize conscious experiences of the organism paying attention to its surroundings. It implies a sense of self, a focus, and an affective tone.

Infant humans experience I-states very early in life and utilize vocal grunts to comment on internal and external states. By the age of one month, they first exhibit linguistic referential ability, by using grunts when they notice objects. By nine to sixteen months, there are three uses of grunts with the third being used as accompaniment to communicative gestures and looks at the mother. This leads to the beginning of vocal interaction. Since the physiological effort of grunting and the visual attention suggest a consistent I-state, directed to environmental stimuli, the environmental focus and the grunt may then be joined in a symbol-

referent relationship. The meaning may vary with the child's attention focus, but this may facilitate learning if it gets differential responses.

Parent/infant exchanges develop as parents learn to recognize their infant's signals and respond to them as if they had meaning, thus giving them meaning. Mutual attunement occurs in mother/infant pairs all through the primate order. Mother/infant attachment is developed through interaction, and human children develop language to help maintain that attachment (279). A set of interacting conditions is needed to produce referential language in humans. These include caring adults who will engage in representational play, a communicative focus, like the grunt, and developing phonetic skill that allows vocal schemes to emerge. Representational play can evolve through finger pointing at objects, often accompanied by a visual check on the social partner to see if they are attending to the designated object. This development of joint attention and object differentiation is evidence of differentiation between self, social partner, and object that is considered the basis of reference. This author claims that primates use object play and some pointing, but I do not think she gives apes enough credit for object attention interaction. At any rate, human children rapidly move from babbling to vocalizations organized by motor schemes that become more patterned and rhythmic. The author then deals with the question of whether a child's first words are already referential and states that situationally limited words (e.g., particular events and objects) may develop first. These include social words such as "bye bye" and game markers like "peek-a-boo". This is a practised, memorized use of words rather than the use of a word as a symbol, which characterizes referential language. The development of speech requires an interlocking set of species-typical experiences in a culturally maintained linguistic system. The child develops a concept of self in relation to others and the external world. The communication grunt mentioned above may be the child's initial personal symbol. Making similar noises allows matching of the I-state, so vervet monkeys making a "grunt to a dominant" are answered by the same sound, although it can't be true in both cases. Seyfarth and Cheney (1986), who studied vervet grunts, feel that the reply may indicate "message received" rather than the initial meaning. Since young monkeys must learn the correct contexts for effective use of vocalizations, they must be learning about sound-meaning correspondence.

Since there are eight types of grunts in the vervet repertoire, plus many other sounds, a considerable level of learning is involved. The same is true of chimpanzee vocalizations, some of which have individual aspects. They are used in a wide variety of situations. Gestures frequently accompany them, often with overlapping meaning. These gesture/vocalization packages may be developed into a ritual with considerable social relevance (such as greeting rituals). Chimpanzee food grunts usually combine presence and activity. Thus, when trying to teach language trained chimpanzees a label

for a food item, researchers detach the concept of eating from the item's label. This is necessary so as to persuade animals to label items that are not present or not available to be eaten. Eventually, the experimental chimpanzees learned to distinguish the referential nature of the symbol from the expectation of eating it. Labelling absent tools and people revealed the same issue, with a sudden resolution and a jump to 100% correct answers after a few days of training. This learning experience may be one major underlying factor why captive chimps seem much more capable of problem solving than wild animals.

Burling is a linguist who utilizes Peirce's three way division of signs among icons, indices and symbols. The indices and icons are not symbols, but tied to their referent in a non-arbitrary way. An index is associated with a reference, like a paw print with a cat or smoke with fire, that is, by its causality. Icons are subdivided into three aspects: images, metaphors, and diagrams. Images have a physical resemblance to their referents such as the ASL signs for cat or tree. Metaphors are more abstract, but they relate to the idea in a physical way, such as holding up hands, palms inward, to indicate the size of a fish. Human languages are based on arbitrary word-object associations but also contain much iconicity and indexicality.

Burling claims that the distinctively human aspects of communication are language itself and what he refers to as "gesture calls." These include face and body gestures and the non-verbal sounds we make to indicate emotion. These gesture calls form an analogue system with continuous graded levels of expression. Some gestures are actually learned, such as the "V" for victory and these form a subset of what Kendon has called quotable gestures (1992). These edge out of the analogue category into the more digital arrangements of spoken language with its discrete phonemes and morphemes. Gesticulation and intonation are aspects of analogue language but complement the digital vocal production. Since Burling includes both of these in the analogue category, I've excluded them from a narrow definition of language components. All of these indices, icons, and forms mentioned, are types of motivated signs in Peirce's organization deployed by Burling. Motivated signs were of much greater importance in early language than in modern forms. Actions became conventionalized and eventually developed into arbitrary symbols. If conventionalization goes far enough, motivation can be undermined and signs can become contrastive, and therefore digital. Sign language has a more iconic base than spoken language, but is still complex and arbitrary enough to require learning rather than being iconically obvious. As young primates/humans develop, they can turn very easily instrumental gestures into conventionalized gestures. Even baby orangutans raised with people hold their arms up to ask to be picked up. Conventionalization speeds up communication and makes the job of the producer easier. Apes in the wild use some motivated signs, and these can become conventionalized between parents and

offspring. They are not universal in a species, but have to be learned by each interacting dyad.

At this point in the chapter Burling moves from discussing data to speculating about how this patterning of indices, icons, and gesticulations could have transformed into language through the process of conventionalization. The capacity to develop, remember, store and retrieve such communicative elements would have been enormously advantageous to those animals/early hominids successfully using them. Infants could learn these patterns from their mothers and increasing arbitrariness would have helped to keep the elements distinct. Burling comments that although innovated signs were probably an important underpinning for language, they were not, by themselves, sufficient to cause language. Brain development, increased cognitive mapping, and social bonding are all probable components of the developing system of human language.

Wilcox, in the final chapter of the book, proposes that language developed out of cognitive abilities, social processes and visible gestures present in primate ancestors. The key elements of language must have been present in early hominid abilities and behaviours. These abilities underlay novel inventive discoveries that increased linguistic ability in a fashion parallel to the punctuated equilibrium model of evolution. He argues that even distant primate ancestors possessed cognitive abilities sufficient to form structured conceptualizations, and to classify experiences based on similar features.

The essence of Wilcox's argument is that cognitive abilities, ritualization and visible gesture acted in concert to mediate the emergence of language. Language development rests on two aspects of visible gestures: the expressive bodily action and the coordinative structuring which takes a series of non-symbolic movements and arranges their production, resulting in a movement with meaning (like a "thumbs up"). For Wilcox, the raw material of visual gestures acted upon ritualization and cognitive abilities. Visible gestures mediate between individual and social arenas, as well as between action and perception. Originally, these actions may have had instrumental functions, as well as serving communicative purposes. In order for the refinement of visual gesture to linguistic attribute, the gesture must be refined to a single salient unmistakable movement or expression. This single feature is then interpreted as a communication cue and the other features of the gesture are disregarded. During this process, in many cases, ritualized gestures are emancipated from their original functions. As this occurs, the acts become free to take on alternative meanings and can be modified to become signals with the connotation of the original act being transformed to a denotative meaning. This, it is argued, is the initial stage of language because the action looks back to the gesture it was and the meaning it developed, and forward to the world of grammar. One might ask how we moved from visible to audible gesture systems, but Wilcox argues that the visible gestures often had auditory components, and

during the course of initialization, auditory aspects could become the salient features.

He bolsters the argument by saying that increased vocal signalling may have become more useful if hands were busy using tools and performing a variety of tasks. Other selective factors could have contributed as well, such as the need for hunting signals, or communicating in the dark. The differences between the digital language system and the more continuous gestural one could have arisen as emergent properties arising from the process of ritualization. In animals, ritualized activities occur at "typical intensities," because clarity of form is vital. Thus, no matter the level of stimulus, the display movement is invariable. This explains how previously continuous gestures could become digital.

The process could also underlie the development of arbitrariness. The ritualized response carries little information about the sender's actual emotional state. Over time these gestures can become stylized to the point that their origin is hardly discernible. As stylization proceeds, a signal that matches the community standards will be perceived much more rapidly than one that does not. Standardization of signals thus develops which could serve as the foundation for grammar. The symbols would be most useful if they were discrete and contrastive, in addition to being combinable in productive ways. The long string of modifications that led to this stage each arose from the previous abilities that the animals/hominids possessed, emerging through the process of ritualization. Wilcox feels that this argument moves beyond Burling's approach because it suggests a mechanism through which gestures could be converted to discrete digital expressions. The key elements were in place before the development of language began and a series of developments, none of them uniquely human, allowed linguistic communication to develop.

This book provides ten schemata from the continuity perspective about how language could have developed. The new data about primate vocal learning, referentiality, and the impact of social relations on communicative complexity, are all important contributions. Those who discussed the ontogeny of human language took the argument to very early levels of development, showing how simple vocal indicators, such as grunts, can be shaped into language. These authors also related the similarities of vocal indicators to the situation in monkeys. Savage-Rumbaugh reinforced our awareness that theoretical positions constrain the types of questions we ask, and how this can influence our perceptions of what language is. Comparative data on brain size and its impact on function helped to clarify one approach concerning the necessary underlying foundations for speech.


The lack of a concluding chapter synthesizing these positions is something of a loss, but altogether this

book stimulates many ideas from one approach to language origins. It is well written, thoroughly referenced, and makes a substantial contribution to the ongoing discussion of this issue.

Anne Zeller has been studying macaques since 1973 and is Chair of the Anthropology Department at the University of Waterloo, where she has taught for the last twenty-two years. Her research covers a wide range of primate behaviour, including communication, infant socialization, handicapped primates and object use among monkeys. She is currently working on a project on ape painting.

References

- Armstrong, D.F., Stokoe, W.C. and Wilcox, S.E. (1995) *Gesture and the Nature of Language*, Cambridge: Cambridge U. Press.
- Giles, H. and Smith, P. (1979) "Accommodation theory: optimal levels of convergence." In *Language and Social Psychology*, ed. H. Giles and R. St. Clair, Oxford: Basil Blackwell, pp. 45-65.
- Kendon, A. (1992) "Some recent work from Italy on Quotable gestures (emblems)," *J. Ling. Anthropol.*, 2:92-108.
- Noble, W. and Davidson, I. (1996) *Human Evolution, Language, and Mind: A Psychological and Archeological Inquiry*, Cambridge: Cambridge U. Press.
- Premack, D. (1988) "Does a chimpanzee have a theory of mind?" *Behav. Brain Sci.*, 4:515-26.
- Savage-Rumbaugh, E.S. (1986) *Ape Language: From Conditioned Response to Symbol*, New York: Columbia U. Press.
- Savage-Rumbaugh, S., Shanker, S.G., and Taylor, T.J. (1998) *Apes, Language, and the Human Mind*, New York: Oxford U. Press.
- Searle, J. (1992) *The Rediscovery of the Mind*, Cambridge, MA: MIT Press.
- Seyfarth, R. and Cheney, D. (1986) "Vocal development in vervet monkeys," *Anim. Behav.*, 34:1640-58.
- Seyfarth, R.L. and Cheney, D.L. (1997) "Some general features of vocal development in nonhuman primates," in *Social Influences on Vocal Development*, ed. C.T. Snowdon and M. Hausberger, Cambridge: Cambridge U. Press, pp. 249-73.
- Tomasello, M. and Call, J. (1997) *Primate Cognition*. New York: Oxford U. Press.
- Whiten, A. and Byrne, R.W. (1988) "Tactical deception in primates," *Behav. Brain Sci.*, 11:233-74.



SRB
THE SEMIOTIC
REVIEW
OF BOOKS

SEMIOSIS SINCE 1990

The Semiotic Review of Books is a multi-disciplinary journal publishing review articles and original research. It endeavours to monitor those domains in the Humanities, the Social and the Natural Sciences which bear upon symbolic and communicative behaviour, culture and innovation, cognitive systems and processes, and the study of information, meaning and signification in all forms.

The SRB is published three times each year.

General Editor: Gary Genosko
Address: Department of Sociology,
Lakehead University
955 Oliver Road, Thunder Bay, Ontario,
Canada P7B 5E1
Tel: 807-343-8391
Fax: 807-346-7831
Email: gary.genosko@lakeheadu.ca
web: www.chass.utoronto.ca/epc/srb

	Individuals	Institutions
One Year Subscription		
Canada	\$30	\$40
USA	\$30 USD	\$40 USD
Others	\$35 USD	\$45 USD
Two Year Subscription		
Canada	\$55	\$75
USA	\$55 USD	\$75 USD
Others	\$65 USD	\$85 USD

Cheques payable to Lakehead University.