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Obituary

Roger Brown

When Roger Brown took his life on December 11, 1997 at the age of 72, psychology lost one of its greatest scientists and one of its most fascinating individuals.

Roger Brown holds a special place in the memories of the readers and editors of *Cognition*. He founded the modern sciences of many of the topics regularly included in the journal, including language acquisition, the mental lexicon, the relation of language to thought, and the use of language in a social context. He served on the Editorial Board since the journal's inception, contributed three major papers, and frequently offered wise counsel on difficult editorial decisions.

To those who knew him, he commanded respect and affection for other reasons, too. Roger was the Cary Grant of psychology. He was physically striking – 6′ 3″ big-boned, tanned, impeccably groomed and dressed, with small twinkling eyes, a boyish shock of hair, a loping gait, and a soft, gravely voice. His manner was gentlemanly and charming, and he always returned a pleasantry with a witticism. 'Suave', 'urbane' and 'elegant', were the words everyone used, and the common reaction from women was: 'what a waste.' For Roger was what used to be called 'a private person' and what he himself called 'a homosexual'. 'I am certainly not gay', he wrote; 'gay' is the name of a rarefied state of consciousness attainable only by those born after 1960 or so, and I was born in 1925.'

Roger was affecting in another way. He loved language and he loved psychology, but not just as an academic researcher. Roger's love of language was manifested in his writing. His position at Harvard was 'John Lindsley Professor of Psychology in Memory of William James,' and Roger does call to mind William James, for he was perhaps the best writer in psychology since James himself. And Roger was a 'psychologist' in the everyday sense of the word, with great perceptiveness of human thoughts and feelings. He applied this gift not only to his subjects but also to his friends and most of all, to himself. There is no better way of getting a feel for Roger Brown, the person, than to read Roger Brown, the psychologist, writing about Roger Brown himself.

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A passage from the introduction to Roger's 1973 magnum opus, *A First Language: The Early Stages*, is a nice example of his ability to blend personal and scientific insight:

> [Language acquisition] is an accomplishment so astounding that one naturally looks everywhere for some insight into its operation. For the present work I did something...quixotic. I enrolled one summer in a Berlitz 'total immersion' course in Japanese, a language of which I knew nothing at all.
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> The Berlitz total immersion experience has a few things in common with the experience of the preschool child learning a first language. In the first place you work at it most of your waking hours from 8:30 A.M. until about 5:00 P.M. In the second place it is entirely in the one-to-one conversational mode; no words are ever written down. This means, among other things, that you must recognize words by sound only and find word boundaries and stems (the segmentation problem) without the aid of the spacing that print provides. In the third place, of course, the Berlitz method makes no use of the native language but is entirely carried on in the new language. My skilled and charming teacher began with the words: 'How do you do? That is the last English we will use.' And it was, for this teacher. However, later on I had a less experienced teacher who, wanting to demonstrate creditable progress for the Berlitz supervisor roaming the halls, would sometimes ask me questions in loud Japanese and then prompt my answers with whispered English translations.
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> On the day I finished my course (two weeks was all I allotted) I was met outside the Berlitz door by a Japanese friend. He, thinking to give me an easy start, asked in Japanese: 'Where is your car?' I was completely floored and could make nothing of the sentence except that it called for a reply. I realized then that my peak accomplishments had been narrowly adapted to a drill procedure in which almost all of a sentence was so well practiced as not to need to be processed deeply at all, leaving all my attention free to focus on some single new element and get that right. A sentence, however simple, drawn from the total construction potential of a language is a very different thing from the same sentence well prepared for by a pyramid of practice. (pp. 5–6)

Roger was a social psychologist by training and by interest, and he was especially proud of his 1985 textbook *Social Psychology: The Second Edition*. In an autobiographical essay, Roger noted sadly that the book was not widely adopted and thus not widely read, to which I can only remark, quoting Oscar Wilde, 'The play was a success; the audience was a failure'. Here is Roger writing in an un-textbook-like way about the social psychology of group identity and fanhood:

> I have never been a groupie; I am the solitary fan type, like John Hinckley only less extreme.
>
> For most of my life I have enjoyed classical music, especially opera, but by

the age of fifty or so I had heard most of the works that really spoke to me so often that they had become overfamiliar and a bit boring. Then I saw and heard for the first time the beautiful Italian soprano Renata Scotto, beautiful of voice but also of appearance, especially her face. I had heard and seen many great singers but had never encountered any whose facial expressions and movements seemed to me really to reflect the music and enhance its effect, and I was thrilled. Happily for me,...the music director of the Metropolitan Opera was also much impressed and for some years the telecasts 'Live from the Met' included at least one a year with Renata Scotto in the soprano lead. The televised closeups were even better than the stage performances; they refreshed my interest in the whole repertoire of Italian opera, and I was grateful and half in love.

I remained a psychologist and all the time bemusedly observed my ridiculous state. The test of being a fan is very simple. Your own self-esteem must rise and fall with the successes and failures of your object of admiration. In addition, though you may be a solitary fan with no nearby like-minded group, a fan cannot rest content with his private opinion but must try to convince others that his evaluation is objectively correct. That means he must make propaganda to build a social consensus that will establish the reality he believes in. And I did that – firing off letters (shameless abuse of Harvard letterhead) to educate critics who thought Renata Scotto's voice too light for some role or her acting too mannered or her high notes increasingly shrill. I even wrote [the director of the Met] a couple of times to assure him that he was right to feature Miss Scotto in new productions, telecasts, and opening nights because she just knew more about how Italian opera should go than any living singer. I wrote because there were many signs of impending trouble...

[In recent years] the critics outnumber the admirers by far, and [the director] has taken a lot of criticism for championing her. [Every year] I have flown to New York for opening night just to make sure there will be at least one supporter in the house. My self-esteem has suffered many painful bruises because of the identification with another person. There has been more pain than pleasure in the reviews of recent years. But once attached I have found myself not free to detach. Fans everywhere, whether of sports teams, singers, actors, or others, will know what I mean and will agree that it really is the self that rises and falls with a social identification. (pp. 555–556.)

One especially memorable passage comes from a remarkable review of Nabokov's *Lolita*. In the late 1950s Roger's colleague at Harvard, E.G. Boring, began *Contemporary Psychology*, a journal of reviews of textbooks and monographs. Roger puckishly asked if he could contribute a review of a new novel, and Boring said he could as long as the review had some psychological content. Roger wrote a brilliant analysis of Nabokov's use of language in presenting the stream of consciousness of Humbert Humbert, and then noted that the clever wordplay and erudite allusions added nothing to an understanding of Humbert's motives; they only helped the reader to experience Humbert's state of mind more vividly. Roger thus saw the

novel as a challenge to 'the axioms of the Age of Psychology,' the psychotherapeutic world view that had penetrated into modern intellectual life:

> 'Lolita' is, I think, a genuinely startling novel. It has been assumed that this is because of the theme – a passion for little girls and a suggestion of incest. Certainly this is not an everyday theme, but twentieth-century readers have accepted topics fully as shocking and treatments far more lurid. Perhaps it is not so much the theme that startles and puzzles as the thoroughgoing violations of the conventions of the modern psychological novel. Humbert's troubles are not caused by an unwillingness to be aware of disagreeable truths. His self-perception is accurate and complete. But his state of psychic grace does not have the consequences we have been taught to take for granted. Fully aware though Humbert is, he does not understand why he should be what he is; nor can he accept what he is; and he cannot change. No flood of therapeutic insight will help Humbert. In fact, there is no help for him except the gratification of making art from his plight. (p. 174).

Roger Brown was born in Detroit into a family that was lower-middle class until the Depression, when they became poor. He later wrote, 'For several years in Detroit my father and four brothers, plus the elder two sons of the elder brother, all lived together. My mother was then the sole woman, and that made the competition to become her favorite a tough fight, but I won.' He fondly remembered her reading three library books a week, often by propping a book on the sink as she washed the dishes. Roger considered and eventually rejected the possibility that an Oedipal complex had caused his sexual orientation, but he wrote that even if it had, 'she was worth it.'

Roger joined the Navy toward the end of the Second World War. He saw the Battle of Okinawa and was on the first ship to enter Nagasaki harbor after the explosion of the atomic bomb. But most of the time at sea he was pleasantly idle, and read the complete Greek dramas and John B. Watson's Behaviorism. He decided to become a psychologist, and with the help of the G.I. Bill earned his bachelor's, master's, and doctoral degrees from the University of Michigan. He wrote a forgettable thesis on the social psychology of the authoritarian personality (a popular postwar topic), but as a postdoctoral fellow at Michigan he heard a lecture on the phoneme by Charles Fries and was hooked on language. While in Ann Arbor in the late 1940s he met Albert Gilman, a fellow student and then a Shakespeare scholar, and the two lived together in a close but tempestuous relationship for forty years, until Gilman's death in 1989.

In 1952 Brown took a position at Harvard University, teaching social psychology and the psychology of language. It was a heady time in Cambridge, with revolution in the air. Behaviorism had dominated psychology, and its close relative structuralism had dominated linguistics. 'Mind' and related concepts such as ideas, memories, knowledge, rules, plans, and meaning were considered unmeasurable and hence as unscientific as poltergeists, and were banned from the American academy. But new and intoxicating ideas were challenging the behaviorist world view. George

Miller and Donald Broadbent were bringing the theory of communication and information into psychology, and Alan Newell, Herbert Simon, Marvin Minsky, and John McCarthy were inventing Artificial Intelligence and applying concepts of computation to the mind. Noam Chomsky, a Junior Fellow at Harvard who was soon to be brought to MIT by Morris Halle, was stirring up interest with his radical theory of transformational generative grammar. According to Miller (1979), what we now call 'cognitive science' was invented on September 11, 1956, at a conference in Cambridge at which Miller, Chomsky, and Newell and Simon, among others, spoke.

Brown also interacted with Gordon Allport and with Jerome Bruner, whom he later described as having the rare ability to convey the feeling that 'problems of great antiquity were on the verge of solution that very afternoon by the group there assembled'. Bruner was helping to introduce Piaget and Vygotsky to American psychology, and began what he defiantly called 'The Cognition Project'. In actuality it was a set of pedestrian experiments on how college students observe series of cards with geometric figures and guess the category they were drawn from, such as 'large red square'. But Bruner and his collaborators dared to theorize about their subjects' 'hypotheses', blatantly violating the behaviorist taboo. Bruner invited Brown to contribute an appendix on language to the famous book that came out of the project, A Study in Thinking. Brown also interacted with, but declined to join, Bruner and Miller's new Center for Cognitive Studies at Harvard.

Brown was caught up in the excitement, and his appendix foreshadowed three seminal papers he wrote in the late 1950s. One was a collaboration with his friend Eric Lenneberg, the neurologist who first argued that language was a biological instinct of the human species. (George Miller, pers. commun., recalls that Chomsky's own nativism about language came largely from the influence of Lenneberg.) Brown and Lenneberg had been struck by the newly publicized ideas of Benjamin Lee Whorf, who had claimed that differences among languages (most notably, differences between Native American languages and European ones) cause differences in the way their speakers perceive, remember, and reason. Brown and Lenneberg, however, noticed that Whorf's argumentation was circular: Apaches speak differently, so they must think differently. How do we know that they think differently? Just listen to the way they speak! To break the circle, one needed an independent behavioral measure of how people see or remember, which could then be correlated with some feature of the language they spoke. Brown and Lenneberg looked at one of the most salient differences among languages, their words for colors. They experimentally correlated the ease and unanimity with which speakers named Munsell color chips with the subjects' accuracy in a test of recognition memory.

Thus began the experimental study of the relation of language to thought, a line of research that continues to this day. The designs and data in the original studies were complicated, and although Brown interpreted them at the time as lending support to the Whorfian hypothesis, two decades later he reversed his assessment. Cross-linguistic studies by Brent Berlin and Paul Kay on color vocabularies, and an experiment by Eleanor Rosch in which New Guineans were taught new color words,

convinced Brown that the visual system of the brain innately makes certain focal colors salient. These perceptual differences, he concluded with Rosch, cause both the differences among languages and the differences in memorability. The issue is still being debated and studied, often with methods similar to those that Brown had pioneered.

Another seminal paper was 'How shall a thing be called?,' in which Brown brought the philosopher's problem of 'reference' to the attention of psychologists. It is easy to think that the meaning of a word is the thing in the world that it names. Children, in this view, simply learn names by hearing them paired with the things they label. But philosophers at least since Frege had pointed out that every thing has multiple names (for example, the planet Venus is called both the *Morning Star* and the *Evening Star*). Brown pointed out that this complicates the child's task of learning how to use words. A given object may be called *a dime*, *a 1957 dime*, *money*, *a ten-cent piece*, *a coin*, *an object*, and so on. Some names were synonyms, but others picked out categories of varying degrees of inclusiveness, and the child has no way of knowing which category is being picked out when a parent uses a word. Brown noted further that some labels seem better than others, depending on the distinction that a labeler wants to call attention to. For example, *dime* is too subordinate a term for a child, for whom money is simply something not to eat rather than currency to be spent. On the other hand, a label such as *object* is too broad. So one expects parents to use middle-level names such as *money* to refer to dimes when talking to their children, and for the children to learn those labels first. Decades later Brown's student Eleanor Rosch fleshed out this notion, which she called the 'basic level' for concepts. How children determine the intended categorization of a concept is the central issue in the psychology of word-learning today (see, e.g. Markman, 1989), and it was Brown who first made it so at a time at which words were considered Skinnerian 'discriminative stimuli.'

The third paper, 'Linguistic determinism and the part of speech,' called attention to another logical ambiguity in the way words label things: a given word can refer to an object, if it is a count noun, to a substance, if it is a mass noun, or to an activity, if it is a verb. Brown wondered whether children settled on the correct meaning by attending to the word's syntax. He showed children an ambiguous picture, such as a pair of hands kneading some confetti-like substance in a bowl. The experimenter asked either, 'do you know what it means to sib?', 'do you know what a sib is?', or 'have you seen any sib?' The children were then asked to pick another picture of 'sibbing,' 'a sib,' or 'sib' from an array depicting several actions, substances, and containers. The identified 'sibbing' as a depiction of kneading, 'a sib' as a picture of the bowl, and 'sib' as a picture with confetti. The idea and technique were revived decades later by several psychologists, and the idea is now sometimes identified as 'syntactic cues to word meaning' or 'syntactic bootstrapping' (Gleitman, 1990; Pinker, 1994a). Brown published this study at a time when 'syntax' was unheard of as an independent variable in psychological research.

In 1957 Brown wrote *Words and Things: An Introduction to Language*, the first book on the psychology of language coming out of the cognitive revolution. 'The ten chapters that follow,' he wrote, 'are concerned with such very old problems as the

nature of meaning, the language of animals, the relations between language and thought, the character of primitive language, the possibility of phonetic symbolism [why everyone feels that *ching* ought to mean light and *chung* ought to mean heavy, another popular topic first studied experimentally by Brown], and the techniques of persuasion through language. In short, a set of real chestnuts, most of them either given up for dead, or demonstrated to be pseudo questions, or officially proscribed by scholarly societies'. This funny and instructive book is still in print after 40 years (and was part of the inspiration for my own book *The Language Instinct*.

As Brown later wrote, 'In 1957 Harvard let Brown go as it lets most of its assistant professors go, and as he assumed it would do, though privately hoping not.' He was hired as a professor at MIT where he taught social and personality psychology in the school of management. The Psychology Department (later Brain and Cognitive Sciences) did not yet exist, nor did the Department of Linguistics and Philosophy. But postwar MIT had housed or trained the founders of modern experimental social psychology, including Kurt Lewin, Leon Festinger, Morton Deutsch, Harold Kelley, John Thibaut, and Stanley Schachter. That group had mostly left by the time Brown arrived, and during his 'five miserable years' there, Roger once told me, he would enter a lecture hall, patiently erase several blackboards crammed with equations, draw three circles labeled 'id,' 'ego,' and 'superego,' and write at the bottom of the board, 'Please Save.') He did, however, see a lot of Chomsky and Halle, and learned the then-brand-new theory of transformational generative grammar.

Returning to Harvard in 1962, Brown initiated his most famous project: a longitudinal study of the language development of three children to whom he gave the pseudonyms Adam, Eve, and Sarah, the first male and first two female names in the Bible. Characteristically, Brown eschewed the typical research subject at his university – the Harvard male – and selected an African-American son of a minister, and two girls, one of them a daughter of unschooled parents. (In a private joke, the film-maker Eugene Searchinger gave the grown-up Adam, then a management consultant, an anonymous cameo in an early version of the 1994 television documentary *The Human Language*. Adam is asked, 'How do children learn language?' and replies, 'By imitating their mothers, I guess.')

Brown and his students visited the children in their homes at weekly or bi-weekly intervals for several years to tape-record and transcribe their spontaneous speech. They tried to make sense of the children's grammatical development in weekly seminars and a string of publications (many reprinted in Brown, 1970), culminating in *A First Language: The Early Stages*. In prior centuries several scholars, including Charles Darwin, had described their own children's speech development. The Harvard study was groundbreaking in several ways, however. Thanks to a recent technological innovation – the affordable high-fidelity tape recorder – speech could be analyzed from systematic, exhaustively transcribed samples, rather than from anecdotal diaries. Also, the Harvard project was the first to analyze children's language with the tools of generative grammar, and it was the first to be done with an eye to the problem that Chomsky had famously emphasized: after a few years of casual exposure to their parents' speech, children can create and understand an unlimited number of new sentences in the parents' language. Chomsky himself had mixed

feelings about the project (such as, 'the biggest waste of time in the history of science', as he once described it to me), because it seemed like a fishing expedition rather than a program of experiments designed to test hypotheses. At the time, however, science was almost completely ignorant about the facts of language development, and a basic description of how the process unfolds was precisely what was needed.

For Brown and his graduate students, the weekly analyses were exhilarating. One student, Dan Slobin, later wrote that 'the closest intellectual and aesthetic experience I can compare it to is the amazement I felt in an introductory zoology lab when I cut open my first mouse and saw all its organs lying neatly in place' (Slobin, 1988). The group performed literally hundreds of analyses of the children's speech at various ages, with Brown taking it on himself to summarize the three children's abilities at five evenly spaced intervals in the form of explicit grammars. In 1973 he gave a Distinguished Scientific Award Address at the annual meeting of the American Psychological Association entitled 'The Development of the First Language in the Human Species.' He began:

> The fact that one dare set down the above title, with considerable exaggeration but not perhaps with more than is pardonable, reflects the most interesting development in the study of child speech in the past few years. All over the world the first sentences of small children are being as painstakingly taped, transcribed, and analyzed as if they were the last sayings of great sages. Which is a surprising fate for the likes of 'That doggie,' 'No more milk,' and 'Hit ball.'

The project made many discoveries that we now take for granted and whose significance is still being debated. Here are a few of them:

- Children's language development proceeds at different rates when measured in terms of their age, but is much more uniform when the milestones are related to a measure of overall language development: mean length of utterance in morphemes, now a standard measure of language development in the early years of English-speaking children.
- Children's first word combinations are most systematically summarized as expressing a small set of semantic relations (often corresponding roughly to the 'thematic relations' or 'theta-roles' in linguistic theory), such as 'agent-action,' 'action-object,' 'entity-location,' and 'possessor–possessed.'
- The vast majority of children's early word combinations obey the word orders of the language they are acquiring.
- Children's two- and three-word utterances look like samples drawn from longer potential sentences expressing a more complicated proposition. Although no 2-year-old produces a sentence as complicated as *Mother gave John lunch in the kitchen* (agent-action–recipient–object-location), they do produce strings containing each pair of semantic roles in that pro-

position such as *Mommy fix* (agent-action), *give doggie* (action-recipient), and *put light* (action-location). This suggests that children have a complex proposition in mind but can get only a subset out of their mouths, presumably because of a processing bottleneck.

- As children develop, their two-word combinations expand by three means. They produce entire clauses rather than substrings: *Mommy gave doggie paper* instead of *Mommy doggie* and *Gave doggie*. Obligatory functional (closed-class) morphemes, which tend to be omitted in languages such as English in which they are unstressed, are increasingly supplied, culminating in greater than 90% performance for most morphemes by the age of five. And arguments initially expressed as one word are recursively expanded into multi-word constituents: *Sit chair* unfolds into *Sit Daddy chair*.
- Children do not seem to get evidence from their parents about which sentences are ungrammatical in their language. Specifically, parents do not express approval and disapproval at different rates in response to their children's grammatical and ungrammatical sentences; nor do they understand their children's grammatical sentences better than their ungrammatical sentences. Parents disapprove of utterances that are false, not of utterances that are ungrammatical. Brown and his student Camille Hanlon originally did these analyses to disprove Skinner's contention that grammatical sentences are operants that increase in frequency when positively reinforced. Later, however, Kenneth Wexler pointed out that the data spoke directly to a key issue in the logical problem of language acquisition: whether children can count on 'negative evidence' to refute any overly general hypothesis they hold. If not, the children must rely on some endogenous mechanism to prevent or scale back overgeneration. The issue is still central to research in language acquisition (Pinker, 1979; Marcus, 1993).
- In several domains of grammar, the order of acquisition can be predicted by cumulative grammatical complexity, measured in the number of features and sometimes, depending on the grammatical theory, in the number of rules. One domain is the mastery of grammatical morphemes in English. For example, the *-s* inflection on verbs, which encodes person, number, and tense, is acquired later than the *-s* inflection on nouns, which encodes only number, or the *-ed* inflection on verbs, which encodes only tense. Another domain is tag questions, such as *She can sing, can't she*?, a surprisingly complicated construction requiring inversion, negation, ellipsis, and sometimes *do*-insertion. The more steps required in deriving a particular kind of tag question, the later the child masters it. The correlation between acquisition order and grammatical complexity has been a recurring issue in assessing the 'psychological reality' of theories of grammar from generative linguistics. Later analyses did or did not find such correlations, often depending on the flavor of grammatical theory that was employed to order the constructions in complexity (Pinker, 1982).
- In some domains of grammar, two plausible causes of grammatical development seem to have no measurable effect. Frequency of grammatical mor-

> phemes in parental speech does *not* predict the order of acquisition of the morphemes, showing that grammatical development need not be driven by the statistical regularities of parental speech. And the need to communicate does not seem to drive grammatical development, either. Tag questions are no more expressive, but are far more grammatically complex, than *eh*? or *right*?, but children end up acquiring them anyway.

In his APA address, Brown summed up his view of language development in a sentence: 'All of this, of course, gives a very 'biological' impression, almost as if semantic cells of a finite set of types were dividing and combining and then redividing and recombining in ways common to the species.'

A First Language: The Early Stages was a quirky masterpiece. It is rich and insightful, and sprinkled with delightful digressions and witty asides. Although lazy researchers often cite it as a reference work summarizing the facts of language development, its substance is quite circumscribed: painstaking analyses of the semantic relations in Stage I speech (the child's first two-word combinations) and the order of acquisition of fourteen grammatical morphemes in English during Stage II. Both analyses were backed up by exhaustive reviews of the contemporary literature on the acquisition of English and other languages, on theories of early child language, and on the relevant generative grammatical analyses of the late 1960s. Surprisingly, Brown reported hardly any quantitative data on the two developmental sequences, leaving the reader only with milestones and a few summaries. Also entirely absent were the grammars that Brown had constructed, which he described as 'fifteen weighty manuscripts that not more than half a dozen people in the world have the knowledge, the patience, and the interest to read; nay, not so many as half-a-dozen.' (I must have rounded out the sixsome; for years I used the manuscripts for their invaluable data summaries in my own work on language acquisition.)

A First Language marked the end of Brown's research on language development. I suspect that he came to see that a 'grammar,' if conceived as a mental representation in the head of the child, cannot simply be distilled out of the speech data; every jot or tittle was a psychological hypothesis that required a slew of experiments to verify. Also, after Stage II the grammatical complexity of children's speech explodes, and no simple sequence, invariant across children, can easily be specified. Worst of all, the grammatical theories that were supposed to provide benchmarks for language development were being debated acrimoniously and revamped capriciously, and Brown got tired of trying to keep up. He spent 'an unhappy sabbatical' working on the sequel, *A First Language: The Later Stages*, before admitting defeat. Brown later wrote, 'I have worked in different areas because I like beginnings, times when the curve of knowledge is rising steeply, when chunks of intellectual gold still lie on the surface to be discovered by whoever looks first. When the incremental curve levels off and new discoveries become hard to make, I tend to look elsewhere.'

The Harvard child language project lives on, however, in another form. From the outset Brown was unusually generous in duplicating and sharing the transcripts, originally as thick packets of purple-inked mimeographs. In the 1980s, Brian MacWhinney and Catherine Snow scanned the transcripts and placed them among the

first electronically archived samples of developing speech in their new Child Language Data Exchange System (CHILDES; MacWhinney and Snow, 1985; MacWhinney and Snow, 1990). The transcripts were subsequently recoded in CHAT format, and are still frequently analyzed by researchers in language development.

The project made another contribution to the psychology of language: the many graduate students working with Brown who went on to become notable scientists in their own right. Working directly on the project were Dan Slobin, Ursula Bellugi, Courtney Cazden, Richard Cromer, Melissa Bowerman, and Camille Hanlon. Before them, Jean Berko Gleason, working under Brown's supervision, conducted one of the most famous studies in language development, the *wug*-test. Pre-school children were given a brand-new word such as *wug*, and instantly generated new forms such as *wugs*, *wugged*, and *wugging*, despite their never having heard such forms in their parents' speech and their never having been previously reinforced for uttering them. (Decades later, the experiment took on a new theoretical significance when James McClelland, David Rumelhart, and other connectionists debated Alan Prince, Gary Marcus, and myself over whether children's performance is best modeled with a mental rule such as 'add *-ed*' or with a connectionist pattern associator.) Other students supervised by Brown include Eleanor Rosch, Eric Wanner, Howard Gardner, Michael Maratsos, Jill de Villiers, Ellen Winner, David Rubin, Helen Tager Flusberg, Kenji Hakuta, Lerita Coleman, James Kulik, myself, Laura Petitto, Gregg Solomon, Renee Oatway, and Fatemeh Khosroshahi. In 1985 many of them took part in a sixtieth birthday celebration organized by the developmental psychologist Frank Kessel and contributed to a 1988 Festschrift edited by Kessel.

Roger's relationships with his students were marked with great mutual affection and respect (and, as he took pains to point out in his memoirs, were steadfastly non-physical). The students were usually not apprentices (or, as the graduate students themselves put it, 'research slaves'), but independent investigators from the start. We got from him not daily guidance, but the powerful motive to be worthy of him, plus lengthy comments, childishly scrawled in pencil on lined paper, that many of us keep to this day. In them Roger gave gentle encouragement (even when undeserved), theoretical and stylistic suggestions, and the benefit of his vast knowledge of psychology. My thesis was on mental imagery, not one of Roger's interests, but he steered me to a 1950 debate in the pages of *Psychological Review* between E.G. Boring and J.J. Gibson that spoke directly to the issues I was struggling with. Apropos of a sentence that began 'I wish to again suggest,' he wrote, 'Never split an infinitive. 'Again to suggest' sounds classier, doesn't it? Always does. Only absolute I know.'

During the last two decades of his career, Brown hunted, mostly unsuccessfully, for a new goldfield. He wrote a draft of a never-published book called *A New Paradigm of Reference* that revised his earlier ideas on naming and linguistic relativity in the light of the work of Rosch. He wrote one-off papers on conversational coherence in children's language, moods conveyed by music, the difference between novels and films, iconicity in sign language acquisition, and Penelope Brown and Stephen Levinson's theory of politeness. (Brown had foreshadowed their theory decades earlier in a paper with Gilman on the distinction between *tu*

and *vous* or *thou* and *you*, which is controlled by the relations of power and solidarity between the speaker and listener.) Brown thought he discovered a new effect in verb semantics – that some verbs, such as *admire*, ascribe causality to their objects whereas others, such as *charm*, ascribe causality to their subjects – only to learn that he had been scooped by Alfonso Caramazza and Catherine Garvey years before. He wrote two highly unconventional, sophisticated, and thought-provoking textbooks – *Psychology*, with Richard Herrnstein, and *Social Psychology: The Second Edition* – which live in publishing infamy as a lesson of what happens to textbooks that are unconventional, sophisticated, and thought-provoking: they don't sell.

Brown did make one new major contribution in his later years. With James Kulik, he documented the 'flashbulb memory' effect, in which people remember vivid incidental details of the moment at which they heard shocking news, such as the assassination of John F. Kennedy. (I remember a moment when I was an assistant professor at Harvard working in an office adjacent to Roger's when Roger, wearing a matching tan pullover and slacks, appeared at my door and told me that Ronald Reagan had been shot.) Although not everyone accepts Brown's hypothesis that the memories are mostly accurate and that the underlying mechanism is a specialized adaptation for remembering emotionally charged information, the effect has been much studied and debated, and has entered most introductory textbooks.

The discovery calls to mind another everyday memory phenomenon that Brown first documented in the lab: the tip-of-the-tongue phenomenon, in which people who cannot recall a desired word often come up with semantic and phonological near-misses. Brown and David McNeill suggested that the phenomenon spoke to the organization and retrieval of information in memory. It was a bold claim, coming at a time when 'organization in memory' was first being studied after decades of boring experiments in the stimulus–response tradition on the retention of nonsense syllables. The obvious model would be a database management system, but Brown, a lifelong technophobe who never learned to type, was not familiar enough with computers to invoke computational metaphors. Instead, he charmingly invoked the century-old technology of 'keysort cards,' which he was then using to cross-classify the sentences of Adam, Eve, and Sarah. These were boxes of annotated cards with holes and notches punched along the perimeter. When the user wanted to retrieve all the records meeting some criterion, he would insert a rod into one of the holes and lift all and only the cards with holes.

Beginning in the late 1980s, Roger's life took some major turns. The first was an autobiographical essay he wrote for *A History of Psychology in Autobiography: Volume VIII*. Most of the essays in these volumes are prose CVs that begin with such inviting lines as 'Psychology caught me early,' and 'Why did I become a psychologist, rather than an accountant or engineer?' Volume VIII had one that began: 'When Roger Brown comes out of the closet, the time for courage is past.' The essay showed a new side of Roger Brown, and not just his sexual orientation, which everyone already knew. Although the autobiography was as witty and generous as everything else he wrote, it has some passages that were sour and others that seemed calculated to shock, a taste of what was to come.

In 1989 Roger's partner of forty years, Al Gilman, died of cancer. When I saw him shortly afterwards, he said, 'They tell me the pain will pass, so I guess it will.' But it never did. It was not exactly grief that haunted Roger in his last decade, but a yearning for an emotional and sexual closeness that had never been satisfied in his partnership and that had to be satisfied now. To be specific, Roger hired a succession of male prostitutes in their twenties and fell head-over-heels in love with three of them. And Roger felt compelled to recount these bizarre relationships, episode by pathetic episode – the broken dates, the lonely evenings waiting for the phone to ring, the humiliating role of the sugar daddy – together with graphic details of the sexual lives of gay men.

At first he intended the story to be a novel entitled *Emeritus*. He remarked to me that he had overcome the biggest challenge for the neophyte novelist, composing credible dialogue. When you're infatuated, he pointed out, you remember the sentences of the object of your desire verbatim, because any nuance of wording may hold the key to your inamorato's state of mind. His friends begged him not to publish it – one said, 'I feel as if you have just poured gasoline over yourself, and are holding a match.' In 1997, however, he did publish it, not as a novel but as a memoir of his life with and after Gilman called *Against My Better Judgment*. That he published it in an obscure series in gay and lesbian studies, rather than a major publishing house, is one sign of the deep ambivalence Roger must have felt toward the manuscript.

As Roger had earlier said of *Lolita*, *Against My Better Judgment* is a genuinely startling book. Roger, a social psychologist, knew more than anyone that one of the strongest human motives is impression management, the desire to look good. And no one would have had an easier time making himself look good than Roger. He had it all: he was tall, handsome, brilliant, charming, witty, accomplished, and beloved. But he chose not to leave us with that impression.

Against my Better Judgment does not have even a trace of a desire to look good. Nor does it have the bathos and victimhood of today's tell-all confessionals. Instead, Roger presents a pitilessly objective picture of a man who could be vain, needy, histrionic, jealous, addicted, and downright foolish. His story, he wrote, is one more refutation of our folk theory of 'evaluative consistency' – the conviction that a person is a unified self whose traits are consistently admirable or loathsome.

There was obviously a lot of Humbert Humbert in Roger, not just in his passions (though there was some Humbert there as well), but in the consciousness he had described in his review of *Lolita* 35 years earlier. Fully aware though Roger was, he did not understand why he should be what he was; nor could he accept what he was; and he could not change. There was no help for him except the gratification of making art from his plight.

Roger's final years were also marked by declining health. He was stricken with prostate cancer, epilepsy, arthritis, cellulitis, spinal stenosis (which made it hard for him to walk or stand up straight), and heart disease. Of his bypass operation, he said, 'It's not good when they have to crack open the lobster to get at the meat.' In spite of his emotional and physical tortures, Roger remained pleasant and stimulating company in his last years, and continued to supervise students and teach a popular course

on psychology and fiction until his retirement from Harvard in 1994. He planned his suicide to avoid a life of further pain and physical decline.

It would be comforting to remember Roger only in his Cary Grant persona, and to write off his last decade as a pathology of grief and aging. But that would not be true to Roger the real person. Cary Grant himself once said, 'Everyone wants to be Cary Grant. Even *I* want to be Cary Grant.' Nor would it be true to Roger the great psychologist and writer, who had so often enlivened his observations about human beings with observations of himself. For Roger chose to leave us with one last set of observations of the human species. He reminded us of the fragility of happiness, the inscrutability of our passions, and the elusiveness of the self.

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Steven Pinker
Department of Brain and Cognitive Sciences,
Massechusets Institute of Technology,
Cambridge, MA, USA

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