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The Mind of Benjamin Whorf

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It was truly remarkable that he was able to achieve distinction in two entirely separate kinds of work. During periods of his life, his scholarly output was enough to equal that of many a full-time research professor; yet he must have been at the same time spending some eight hours every working day in his business pursuits. His friends often speculated on why he chose to remain in his occupation. Although several offers of academic or scholarly research positions were made to him during the latter years of his life, he consistently refused them, saying that his business situation afforded him a more comfortable living and a freer opportunity to develop his intellectual interests in his own way. John B. Carroll

No one is really sure how Whorf came up with his outlandish claims, but his limited, badly analyzed sample of Hopi speech and his long-time leanings toward mysticism must have contributed. Steven Pinker, *The Language Instinct*

The significance of Benjamin L. Whorf is still a matter of controversy. His major contribution to linguistics--a science in which he was, as in all his other intellectual pursuits, an amateur--was, of course, his exploration of and advocacy for the position known as "linguistic relativity," an endeavor which earned him collaborator co-credit for the Sapir-Whorf Hypothesis with his mentor, the Yale anthropologist Edward Sapir. Though the idea early on "captured the imagination of a generation of anthropologists, psychologists, and linguists" because, in the words of John J. Gumperz and Steven C. Levinson, "It had deep implications for the way anthropologists conduct their business, suggesting that translational difficulties might lie at the heart of their discipline" (Gumperz 614), linguistic relativity fell into general disrepute in the 1960s, refuted, it would seem, by the new discoveries of cognitive science. But the Sapir-Whorf Hypothesis was not dead. From the 1960s to the 1980s, a variety of scholars--Joshua A. Fishman, Benjamin Lee, John A. Lucy, George Steiner--argued, in a variety of ways, for the cogency and continuing relevance of Whorf's ideas.

And in 1991 a Wenner-Gren Foundation international conference on "Rethinking Linguistic Relativity" convened a variety of scholars from various disciplines to reappraise the significance and accuracy of the Sapir-Whorf hypothesis in light of the contemporary intellectual climate, and, according to Gumperz and

Levinson's published summary, the symposium established a possible "intermediate position" for acceptance of linguistic relativity. Not surprisingly, a 1992 article in *Scientific American* proclaimed "New Whorf in Whorf: An Old Language Theory Regains Its Authority."

And yet, in the "linguistic wars" of this century (as Randy Allen Harris has called them), the theory remains extremely controversial. Recently, Whorf's scholarship has come under attack. In *The Language Instinct*, Steven Pinker scoffs sarcastically at Whorfian notions and dismisses them as non-sequiters unworthy of any future serious consideration. And anthropologist Laura Martin and linguist Geoffrey Pullum have disdainfully dismissed the well known Whorfian example of multiple Eskimo words for snow as little more than an urban legend.

I am not here today to attack or defend Whorf or linguistic relativity. My purpose is at once both more simple and more complex. I want to explore Whorf's mind and methods. I am more interested in the creative process of a linguist than I am in linguistics, per se. Benjamin Lee Whorf was an amateur linguist, it is true, but he was as well an amateur evolutionary biologist, botanist, theologian, and physicist, and his advocacy of linguistic relativity cannot be understood separately from his other avocations. Nor can we neglect the importance of his day job, which, as John Carroll has observed, offered Whorf "a freer opportunity to develop his intellectual interests in his own way." Even if one day his ideas are entirely discredited, the achievement of Benjamin Whorf will remain an intriguing case in the history of the creative process.

From 1918 to 1941, the main office of the Hartford Insurance Company on Asylum Avenue in Hartford, Connecticut, "a solemn affair of granite, with a portico resting on five of the grimmest possible columns," housed two most unusual employees. Upstairs in a big corner office, a Harvard graduate bond-surety lawyer, who became (in 1934) a vice-president of the company, and, on the side, wrote poetry. Downstairs, in the fire insurance division, a fire prevention specialist, an engineering graduate of the Massachusetts Institute of Technology, who on the side practiced linguistics.



There is no clear evidence they knew each other, no evidence--other than a misdirected correspondence concerning language that was mistakenly addressed by name to the poet but which did eventually reach the linguist on the first floor--that they ever became aware, prior to the fire-prevention linguist's death from cancer in 1941, of each other's avocations. The bond-surety poet was thirty nine years old when the fire prevention-linguist, eighteen years his junior, joined the company. He would outlive him by fourteen years.

While the bond-surety poet was still a young man, a Parisian stockbroker fled business and family to pursue his own creative vocation in the South Seas. A contemporary of both the poet and the linguist, an American business man, suffered a nervous breakdown and ran away from a successful career to become a writer. Such desperate acts were, of course, quintessentially modernist. For how could a creative individual possibly nurture art and mind in the midst of bourgeois values?

Wallace Stevens and Benjamin Whorf were not, however, Paul Gauguin or Sherwood Anderson. They stayed at work, moonlighting genius, finding ways to contribute to the intellectual life of this century while dutifully doing their job. Like their contemporary Charles Ives, a Connecticut insurance executive-avant garde composer, they not only discovered the means to pursue the risks of avocational creation in an industry dedicated to the management of risk but became, each, in his own way, the ultimate risk takers: proponents of the relativity of perception, champions of the "real" as imaginary.

Born on April 24, 1897 in Winthrop, Massachusetts, Benjamin Lee Whorf was the oldest of three sons of Harry, a commercial artist who experimented with playwriting and stage design, and Sarah Lee Whorf. Whorf graduated from Winthrop High School in 1914 and went on to MIT, receiving a B.S. in chemical engineering in 1918.

After graduation, Whorf joined the Hartford Fire Insurance Company as a trainee in fire prevention engineering. Upstairs in the same building, Wallace Stevens, perhaps the greatest American poet of the century, presided over the surety bonds division and became vice-president of the company. There is no evidence they knew each other. Whorf remained with the Hartford for the rest of his short life, developing a national reputation as an expert in industrial fire prevention and authoring several articles on the subject, including one, "Blazing Icicles," that offered a linguistic interpretation of fire prevention.

A childhood love for ciphers and puzzles, and wide sparetime reading and directed self-study in a number of fields, led to the development of a profound avocational interest in linguistics, pursued in off hours and on business trips. Under the influence of the French mystic Fabre d'Olivet, himself an amateur linguist whose great project was to find resurrect the hidden, esoteric meaning of biblical texts, and his own strong religious background (he was a Methodist), his study (including actual field work) of American Indian languages like Aztec, Mayan, and Hopi led to his development of a theory of "linguistic relativity"--an approach to comparative linguistics which he shared with Yale anthropologist Edward Sapir.

In the late 1920s he began a prolific correspondence with noted scholars in anthropology, archaeology, and linguistics, demonstrating a distinct talent for self-promotion as he sought to convince readers that he had in fact discovered a new frontier of human inquiry. In 1931, he even enrolled as a graduate student at Yale in order to study under Sapir, thus beginning one of the most interesting cases of intellectual collaboration in this century. And he began to publish his ideas on linguistics not only in major scholarly journals (Language, American Anthropologist) but in more popular forums like M.I.T.'s Technology Review. His three essays in the latter journal--"Science and Linguistics" (1940), "Linguistics as an Exact Science" (1940), and "Languages and Logic" (1941)--helped to disseminate his ideas widely. During 1940 and 1941, his essays and reviews on a wide variety of topics appeared regularly in the pages of the journal Main Current in Modern Thought. He died of cancer on July 26, 1941.

Under the editorship of John B. Carroll, many of Whorf's most important essays were collected in Language,

Thought, and Reality, published in 1956 by the M.I.T. Press. He left behind a number of manuscripts on an astonishing range of subjects--gravitation, "being," trees, color theory, evolution, a translation of Genesis, large stemmed plants, electromagnetism, the trinity, dreams, a Hopi dictionary--which remain unpublished, though they are available in Whorf's collected papers housed at Yale.

Creative individuals, Columbia University psychologist Howard Gruber has discovered, possess a "network of enterprises," that is, "they become the sort of people who can easily handle seemingly different but intimately related activities. They become highly skilled jugglers" (1981b, 71). ("In the course of a single day or week," Gruber notes, "the activities of the person may appear, from the outside, as a bewildering miscellany. But the person is not disoriented or dazzled. He or she can readily map each activity onto one or another enterprise" [1989b, 13].) For "in order to make grand goals attainable, the creator must invent and pursue subgoals." Individuals must find ways of managing their tasks through a network of enterprises (1988b, 265). Inherently "dynamic," a network of enterprises, Gruber suggests, should be thought of as a "sketch of the entire set of intrinsic motives regulating the person's work" (1983b, 9), promoting "diverse simultaneous or parallel activities" (1980a, 311). Such a network is interactive and interdependent (1983b, 9) and typically "includes a scheme for replenishing itself with new tasks if ever the original stock nears completion" (1983a, 17). In an obituary, Whorf's colleague Herbert Hackett noted that "only the very busy have time for greatness." And Benjamin Whorf was very busy, busier almost, than it now appears possible to imagine.

Gruber has noted that underpinning the creative achievements of an individual like Thomas Edison, whose "network of enterprises" seems almost infinitely complex, there may well lie a singular, possibly esoteric, world view, a generative heuristic that yields different fresh ideas when applied to distinct fields of inquiry. Though not an inventor, Benjamin Whorf's "light bulb" seldom stopped going off in his short creative life. This "tall but frail" man, who "moved and talked deftly and gracefully," spoke with a thick eastern Massachusetts accent, and accomplished a great deal "without seeming to have great energy" (Carroll 820), this man who inherited from his mother a "deep sense of wonder at the mystery of the universe" (Trager 537) and from his father-as-model commitment to a interdisciplinary set of intellectual interests, this man who loved to talk about his sea captain ancestors, waxing eloquent about the exploration of unknown lands (Trager 537), this man who wrote (in a 1927 letter to William Lyon Phelps) of "a certain leading tendency of mine, which is namely to work toward a reconciliation of the modern intellectual world to God," led a life committed to discovery, dedicated to breaking the cryptogrammatic codes that gloss our ordinary, culture-bound experience of the world.

The linguistic relativity Benjamin Whorf championed sought to find "in all those other tongues which by eons of independent evolution have arrived at different, but equally logical, provisional analyses" the necessary "correctives" to the narrow limitations single language determinism places on the world. As much as his fellow relativist Einstein, Whorf was at heart a cosmologist, seeking to convince his narrow-minded contemporaries that they must no longer

see a few recent dialects of the Indo-European family, and the rationalizing techniques elaborated from their patterns, as the apex of the evolution of the human mind, nor their present wide spread as due to any survival from fitness or to anything but a few events of history--events that could be called fortunate only from the parochial point of view of the favored parties. They, and our own thought processes with them, can no longer be envisioned as spanning the gamut of reason and knowledge but only as one constellation in a galactic

expanse. A fair realization of the incredible degree of diversity of linguistic systems that ranges over the globe leaves one with the inescapable feeling that the human spirit is inconceivably old; that the few thousand years of history covered by our written records are no more than the thickness of a pencil mark on the scale that measures our past experience on this planet; that the vents of these recent millenniums spell nothing in any evolutionary wise, that the race has taken no sudden spurt, achieved no commanding synthesis during recent millenniums, but has only played with a few of the linguistic formulations and views of nature bequeathed from an inexpressibly long past. (LTR 218-219)

Steven Pinker has accused Whorf of being a closet mystic whose "long-time leanings," coupled with bad scholarship, produced his "outlandish claims." Pinker is certainly correct that Whorf was strongly inclined toward some very unscientific notions. Though the articles on linguistics published in his lifetime show him trying to be painstakingly scientific, an examination of his other writings, not just the manuscripts in the Whorf papers like "The Flux-Outlet Theory: A Concrete Representation of Gravitation," "Why I Have Discarded Evolution," "Unanswered Questions from Ancient Times," "On Being," "Concerning Science and Religion," but all the articles and reviews he wrote for the decidedly non-mainstream "new age" journal *Main Currents in Modern Thought*, reveal him to be a decidedly religious thinker, passionately interested in the esoteric, in the perennial philosophy (as Huxley called), especially as revealed in the developments of modern science.

Needless to say, this stance is not entirely absent from *Language, Thought, and Reality*, in which Whorf reveals himself ready to believe that the Hopi concept of subjectivity

comprises all that we call future, but not merely this; it includes equally and indistinguishably all that we call mental--everything that appears or exists in the mind, or as the Hopi would prefer to say, in the heart, not only the heart of man, but the heart of animals, plants, and things, and behind and within all the forms and appearances of nature in the heart of nature, and by an implication and extension which has been felt by more than one anthropologist, yet would hardly ever be spoken of by a Hopi himself, so charged is the idea with religious and magical awesomeness, in the very heart of the Cosmos itself. (59-60)

and convinced that "thought contracts everything and pervades the universe . . . [and that] . . . like any other force, leaves everywhere traces of effect." "When we think of a certain actual rosebush," he writes in "The Relation of Habitual Thought and Behavior to Language," he writes

we do not suppose that our thought goes to that actual bush, and engages with it, like a searchlight turned upon it. What then do we suppose our consciousness is dealing with when we are thinking of that rosebush? Probably we think it is dealing with a "mental image" which is not the rosebush but a mental surrogate of it. But why should it be natural to think that our thought deals with a surrogate and not with the real rosebush? Quite possibly because we are dimly aware that we carry about with us a whole imaginary space, full of mental surrogates. To us, mental surrogates are old familiar fare. Along with the images of imaginary space, which we perhaps secretly know to be only imaginary, we tuck the thought-of actually existing rosebush, which may be quite another story, perhaps just because we have that very convenient "place" for it. The Hopi thought-world has no imaginary space. The corollary to this is that it may not locate thought dealing with real space anywhere but in real space, nor insulate real space from the effects of thought. A Hopi would naturally suppose that his

thought (or he himself) traffics with the actual rosebush--or more likely, corn plant--that he is thinking about. The thought then should leave some trace of itself with the plant in the field. If it is a good thought, one about health and growth, it is good for the plant; if a bad thought, the reverse. (LTR 149-50)

This is certainly not orthodox scientific thought. The acceptance of "action at a distance" amounts to nothing less than scientific blasphemy. But for the most part the Whorf of Language, Thought, and Reality remains assiduously, resolutely committed to at least the pretense of scientific thinking.

It is not too much to say, however, that the speaker in these essays is, in fact, a kind of persona, for in the unpublished writings Whorf often speaks in a quite different voice. He sounds, and wants to sound, much more like a polymathic, bricolaging master of esoteric knowledge. He aspires there to be, if not quite a magus, at least a cosmological philosopher committed to the development of a comprehensive theory of matter and mind that would explain all phenomena. A glance at the projected table of contents for his magnum opus, "Concerning Science and Religion," a book that would explain the mysteries of the cosmos--from the inner life of man, to the nature of space and time, to God--demonstrates well his aspirations. (You can find this on your handout.) Or look with me for a moment at Whorf's translation of the beginning of the book of Genesis (it's on the handout). "Myth," Levi-Strauss once suggested, should be understood as "an act of faith in a science yet unborn." Whorf's reconceptualization of Genesis almost seems devoted to proof of the French structural anthropologist's contention. Lines and phrases like "phenomenalized was intelligence throughout all space" and "there was spatial, temporal sinking into mysterious generative reservoirs" may not be poetry, but they do demonstrate Whorf's proclivity for both phenomenology and process philosophy. (I might note in passing that there is some evidence in the Whorf papers, his translation of Genesis being only the most prominent, that he might well have aspired to become a kind of Erasmus Darwin, versifying the new scientific knowledge of his time.)

Whorf's posture is, of course, not unprecedented. Did not Sir Isaac Newton devote as much time to the pursuit of astrology as he did to the laws of motion and the nature of gravity? Or think of Whorf's older contemporary C. G. Jung (1875-1961), who, anxious not to abandon the scientific stance of his patriarch, Sigmund Freud, struggled throughout his career to couch his thoroughly esoteric and mystical ideas in the language of science.

It is interesting to contemplate, given the antipathy many linguists appear to feel for Whorf's publicly disseminated, exoteric linguistic science, what his reputation might be if the esoteric Whorf were better known. After all, the unpublished Whorf (the list that follows is only partial), shows him

- accepting occult knowledge in a variety of forms, including ESP;
- longing for a new conception of mankind as a planetary being and proposing some Teilardian conceptions of the evolutionary convergence of human consciousness;
- rejecting entirely the Darwinian conception of evolution, providing a systematic refutation of its central tenets, from the survival of the fittest to descent with modification, and lamenting its influence on all aspects of modern thought;
- thinking of mythology as a form of history that records the now forgotten thought and science of vanished ancient civilizations.

As Thomas Kuhn demonstrated in *The Structure of Scientific Revolutions*, paradigmatic revolutions are ordinarily not led by normal scientists. Indeed, the "revolutionary" scientists who lead us to reconsider our worldviews sometimes come from outside the discipline, permitted, by their very status as outsiders, to reconsider received knowledge in radical new ways. The amateur biologist Charles Darwin, at war with his academic contemporaries, is only the most prominent example.

Benjamin Lee Whorf wanted to be a revolutionary scientist, and though he did not succeed, it was not for lack of trying; indeed, his ambition knew no bounds. It is interesting to contemplate how we would now view his contribution to the thought of this century if he had another thirty years to complete his life's work. Perhaps we would consider him a quack. Or perhaps he would have come to seem a major figure in the development of twentieth century thought, the equivalent, say, of an Alfred North Whitehead, whose major works, it is important to remember, from *Science and the Modern World* (1925) to *Process and Reality* (1929) were all written after he was already sixty years old.

"In his explorations of the world," Howard Gruber has written, "the [creative] individual finds out what needs doing. In his attempts to do some of it, he finds out what he can do and what he cannot. He also comes to see what he need not do. From the intersection of these possibilities there emerges a new imperative, his sense of what he must do. How 'it needs' and 'I can' give birth to 'I must' remains enigmatic" (*Darwin on Man* 257). After all, "To live a creative life," Gruber's method has revealed, "is one of intentions of a creative person" (*Wallace* 29). A creative life is always at the core the result of "a different organization of the system, an organization that was constructed by the person himself in the course of his life, in the course of his work, as needed in order to meet the tasks that he encountered and that he set himself" (FES 177).

Benjamin Lee Whorf lived a creative life. The life's work he set himself included linguistics but it was never meant to be limited to it. Any future debate about the validity of Whorf's conception of linguistic relativity should take this into account.

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Appendix A

Concerning Science and Religion The Table of Contents for a Proposed Major Book

(to be found in the Whorf Papers)

Mysteries of the Obvious

1. The Mystery of Universals
2. Concerning Identities

3. The Simplicities of Evolution
 - Mysteries of Science
 4. The Mystery of Evolution
 5. The Mystery of Space and Time
 6. The Mystery of Matter
 7. The Mystery of Chemistry
 8. The Mystery of Life
 9. The Mystery of the Inner Man
 - False Doctrines
 - Mysteries of Religion
 10. The Mysteries of Reason
 11. The Mystery of Symbols
 12. The Mystery of Good and Evil
 13. The Mystery of God
 - Mysteries of the Christian Revelation
 14. The Mystery of Creation
 15. The Mystery of Man
 16. The Mystery of Redemption
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