

Further Further Notes and Sources . . .

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"Look down at the bottom of the text of the day, where footnotes will explain all." So advises the narrator of Gravity's Rainbow (V204, B238), who later mocks our inclination towards endless pedantic emendation of those same "footnotes." Never mind the mockery; numerous references in the novel show that Pynchon himself is a close reader of scholarly annotations. For other emendators, here then are some corrections/additions to David Seed's "Further Notes and Sources for Gravity's Rainbow" (PNotes, 16 [Spring 1985], 25-36), a quite useful addition to the textual study of the novel. Page references are to the Viking (1973) and Bantam (1974) editions.

(V32, B36) "'Zipf's Principle of Least Effort [. . .] sort of bow shape'"--Like Douglas Fowler (A Reader's Guide to Gravity's Rainbow), David Seed too hastily sees this as pointing anachronistically to George Kingsley Zipf's 1949 book, Human Behavior and the Principle of Least Effort. Instead, the source for this complex, arresting reference is Zipf's 1935 study, The Psycho-Biology of Language (Boston: Houghton Mifflin). Zipf was a Professor of Philology and Linguistics at Harvard during the time of Slothrop's fictional attendance, and in the 1935 book he set out to examine language-change as "a natural and biological phenomenon to be investigated in the spirit of the exact sciences." Studying everyday speech, he concluded that patterns of "abbreviation"--ways of economizing discourse that would later be put under the rubric of his "principle of least effort"--are the single most important key to unlocking the dynamics of linguistic evolution. Much of Zipf's work relies on various statistical and probabilistic tests applied to recorded samples of ordinary discourse, and the book is thus chock-a-block with "word-frequency graphs" plotting on double-logarithmic charts the frequency of occurrence of a word or abbreviational pattern: abscissas indicate the number of words/sample, ordinates the number of occurrences/sample. These,

in short, are the "axes" Milton Gloaming describes to a perplexed Jessica Swanlake.

The arresting thing is that Zipf found natural speech always yielding a straight line in the graphs, a line which could be described by a simple mathematical formula precisely analogous to that "for gravity" (Zipf 224). However, in pathological and artistic usage this law no longer holds. As Gloaming explains it to Jessica, the graphs of schizophrenic speech yield, instead of the straight line, a "sort of bow shape." This appropriation of Zipf's data thus tallies with other images in Gravity's Rainbow in which the arch, the parabola, and the bow are all signs of disturbance and pathology, often (incidentally) on the creative side.

(V90, B104), "'his MMPI. His F Scale?'"--As Seed notes, the Minnesota Multiphasic Personality Inventory "was designed" at the University of Minnesota. But this was actually in 1940; in 1943 it was released for general use by the United States Army, which had originally contracted for the test. More important, Pynchon's mention of an "F Scale" is very likely not to The Authoritarian Personality by Adorno et al. (1950). While an engaging possibility, such a reference is first of all anachronistic (as Seed notes) and second of all outside the context of Pointsman's remarks about Slothrop's MMPI results: "'Falsifications, distorted thought processes. . . . The scores show it clearly: he's psychopathically deviant, obsessive, a latent paranoiac.'"

More exactly, the "F Scale" is one of four "validity scales" intended to assist with evaluation of MMPI results, and it serves to index such "undesirable behavior" as "deliberate malingering" or "simple carelessness" by the test-taking subject. In addition, the F Scale may correlate with other indications of psychosis that crop up in the test. Or it may indicate that the subject was trying to outwit the test, perhaps for reasons of paranoid psychosis. Pynchon's probable source for this and other references to psychological testing is Anne Anastazi's standard (undergraduate) textbook in the field, Psychological Testing 3rd ed. (New York: Macmillan, 1968), here 498-505.

(V749, B874) "an Aggadic tradition [. . .] that Isaac [. . .] saw the antechambers of the Throne"--Seed vaguely cites "rabbinical scriptures" on the tradition of Isaac's near-sacrifice, but Pynchon's actual source is Gershom Scholem's Major Trends in Jewish Mysticism (1941; rpt. New York: Schocken Books, 1954), especially 53, 61-63. As Scholem explains it, in the major writings of Judaica two classes of text stand out: Halakah, those writings occupied with sacred law; and Aggadah, which means "narrative" and designates a hotch-pot of writings consisting of folk tales, dramatic dialogues, parables, allegories, maxims, satires, puns, anagrams, and so on. (In this sense, Gravity's Rainbow is just such a text.) The Aggadic writings are pre-Kabbalistic, dating from the first century B.C. until about the tenth century A.D. Among them is a fourth century MS, "The Apocalypse of Abraham," which Scholem connects with the Merkabah mysticism of the time, for it is concerned with a seven-fold ascent through the antechambers to Jahweh's throne. However, Pynchon has worked a significant inversion of the tradition. In "The Apocalypse of Abraham" it is the patriarch and not his son who ascends to the throne. On his way, Abraham hears a hymn "like the voice of the waters in the rushing of the streams" (Scholem 61; but recall Pynchon's numerous references, vis-a-vis Rilke, to similar "rushing waters"). Abraham is hearing the singing of angelic hosts guarding the divine throne, and he hears them from the sixth antechamber. In Pynchon's version, however, it is Isaac under the blade who has this visionary experience.

Readers should also compare the events in Episode 4, Part 2 of Gravity's Rainbow, Brigadier Pudding's coprophagia with Katje Borgesius--his Domina Nocturna. Beginning with Pynchon's allusion to "blessed Metatron" (V231, B269), there is a satirical inversion of the Kabbalistic ascent to the Merkabah, or divine throne, each of the "antechambers" Pudding moves through significantly distorting, or upending, elements of the Kabbalistic narrative (see Scholem 40-79).