## LITERARY BEHAVIOR ANALYSIS

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The analysis of Irving Wallace's records by Pear, and his comments are a fascinating contribution to the scientific literature, as well as being relevant to the maintenance of literary output itself. He notes that "there is more to producing a novel than merely putting words on paper" and that disciplined control of such writing need not interfere with the "creativity" nor "inspiration" that enter into the "more . . . than" which is involved in writing. The purpose of this brief note is to relate these comments to two literary works regarded as among the most creative and inspired works of the English language, and to a work that is a masterpiece of analysis. The two literary works are The Rime of the Ancient Mariner by Samuel Taylor Coleridge and his poem fragment, Kubla Khan. The masterpiece of analysis is The Road to Xanadu by John Livingston Lowes. Before Lowes could undertake the analysis that is his theme, he had to ascertain how "Coleridge actually read books" (p. 32). This interest in reading is related, of course, to Pear's interest in writing, as is Lowe's more general question of the sources of the very poetic images that Samuel Taylor Coleridge put together.

Like Wallace (and, indeed, other writers), Coleridge kept a notebook. In its ninety-odd leaves, he recorded works he had read or should look up, along with quotations, paraphrases, and abstracts of significant passages. Did Coleridge read these references and cross-references? Lowes states that he "not only read books with minute attention, but he also habitually passed from any given book he read to the books to which that book referred" (p. 37). To support this point, Lowes painstakingly did the same. He used as cues the references and unreferenced citations in

the notebook, and references he found in the works Coleridge cited.

The evidence that Lowes was correct? The discovery of a notebook passage in the referenced or inferred work, or the discovery in these works of a figure in the poetry itself.

In Xanadu did Kubla Khan
A stately pleasure-dome decree:
Where Alph, the sacred river, ran
Through caverns measureless to man
Down to a sunless sea.
So twice five miles of fertile ground
With walls...

Coleridge fell asleep reading from Purchas His Pilgrimage: "In Xamdu did Cublai Can build a stately Palace" (p. 358); Xamdu is elsewhere referred to as Xaindu. Eight pages before this passage in Purchas is one wherein the Old Man of the Mountain has built "houses of pleasure" (p. 361). And in yet another work, the Nile, a river sacred to the early Egyptians, is related to the river "Alpheus [which] . . . often hides itself in the earth" (p. 398); the Nile itself elsewhere runs "through chasms inaccessible to man" (p. 390), and related depths elsewhere are immeasurable. The "stately Palace" in Purchas "encompass[ed] sixteene miles of plaine ground with a wall, wherein are fertile Meadowes" (p. 358). And so on! Quoted emphases are Lowes.

Lowes' detective work in the Rime of the Ancient Mariner is even more impressive. Coleridge had never been to sea when he worte the segment that follows, yet its descriptions are vividly visual (and olfactory).

Beyond the shadow of the ship, I watched the water-snakes. They moved in tracks of shining white Blue, glossy green, and velvet black, They coiled and swam; and every track Was a flash of golden fire.

In a Voyage into Spitzbergen and Greenland, the writer repeatedly describes observations of color in the water "where the Shadow of the Sail falleth" (p. 70). And another source reports "Water-Snakes of divers Colours" (p. 50). Joseph Priestley, whom Coleridge admired, in a chapter on "Light from Putrescent Substances" in a 820-page book on optics, mentioned fish which "in swimming, left . . . [a] luminous . . . track behind them." And a Voyage into the South Sea, referred to in Purchas, describes "seuerall sortes of gellies and formes of Serpents, Adders, and Snakes, Greene, Yellow, Blacke" (p. 49); another traveler reports fish with "blue and green specks" with gill marking "encircled with silver and velvet black" (p. 47). Elsewhere, the "sea-serpent is wont to emerge, arched into all sorts of coils" (p. 50). In a footnote, Priestley referred to a published letter by Father Bourzes, a missionary Jesuit. Bourzes reported lights in the wake of a ship "like Flashes of Lightning" (p. 45). And, reports Lowes, Coleridge "had verified Priestley's reference, had read Father Bourzes's letter . . . and had actually made a note of a detail"—as had Lowes.

Despite all the attention given Coleridge's use of opium, the works are not attributable, states Lowes, to "an abnormal product of an abnormal nature under abnormal conditions" (p. 414). "The qualities demanded for the conception and execution of a design like that which underlies 'The Ancient Mariner', and the qualities of an abnormal product of abnormal brain-states induced by opium, are diametrically opposed" (p. 424). Nor are the poems accounted for by free association from Coleridge's readings. Indeed, "'The Ancient Mariner' is the deliberate, consecutive working out of a controlling imaginative design" (p. 425), Lowes asserts. The controlling design is apparently as deliberate as the research design of systematic search of the literature by a scientific investigator. Lowes' book at times reads as thrillingly as a detective novel as he piles clue upon clue to answer such behavioral questions as: Did Coleridge skim the books, did he skip the middle and read only introductions and conclusions, or did he read them as thoroughly as investigators reading experiments in their area? (Apparently, the last.) Or, if the reader prefers, Lowes' book is as thrilling as a series of experimental analyses that tie up all ends, and leave none loose.

Many writers, of course, have kept notebooks and have worked methodically. Sinclair Lewis, for example, created a small scale model of Main Street for constant reference. Announcement of the publication of the Notes of a writer is an almost regular occurrence in literary journals. It would be interesting to go through these, as Pear has done, for the insights they might contribute to behavior analysis. Possibly, Pear's article inaugurates what might be called literary behavior analysis, with due credit, of course, to Verbal Behavior (Skinner, 1938). This new field might lead not only to insights about verbal behavior deriving from analysis of behavior of those who are expert enough to earn their sole income from it, but might suggest procedures to apply to those with difficulties in the field, e.g., students who can't write dissertations, scientists who can't write articles, etc. Why reinvent the wheel? It would be interesting to keep such notebooks on ourselves.

In suggesting the field of literary behavior analysis, I am not suggesting the radical behaviorist equivalent of psychohistory or other "symbolic interpretation [such as the] political, metaphysical, or Freudian" (Gardner, 1960, p. 8). Some such interpretations, as Gardner notes in his analysis of sources of Alice in Wonderland, "are hilarious. . . . The jar of orange marmalade, for example, is a symbol of Protestantism (William of Orange; get it?)" (p. 8) to one critic. These, and others, are parodied in the delightful The Pooh Perplex, by Frederick C. Crews (1963). The parody is presented in the form of a freshman casebook of 12 different interpretations of the four Pooh books. One hopes that

there will not be added someday a thirteenth on "The Reinforcement History of Winnie-the-Pooh".

Analyses such as those of Pear, Lowes, and Gardner differ from the parodies in Crews' book in that the former are concerned with the how's of the verbal behavior of the authors of the works, whereas the latter read meaning into the behaviors of the fictional characters created. Reification of concepts is not confined, of course, to literary analyses. We are indebted to Pear for an impressive impetus toward the analysis of a class of behaviors whose prevalence is not matched by the attention given it by contingency analysts.

## REFERENCES

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