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The Psychologist Who Empathized with Rats: James Tiptree, Jr. as Alice B. Sheldon, PhD

We all know by now that James Tiptree, Jr., the sf writer who could fire off a masculine metaphor with the best of the boys, was in reality Alice Bradley Sheldon. When Tiptree's real name was revealed after a decade of disguise, the sf world was fascinated to hear of her far-ranging childhood travels with her explorer parents, her early career as a professional artist, her World War II and Cold War service in military intelligence and the CIA. It also became known that Sheldon had earned a PhD in Psychology in midlife. But as the Tiptree legend grew, the PhD was seldom treated as more than a filler between her CIA work and her sf writing debut. So little attention has been given to her psychology career that the *Norton Book of Science Fiction*, the most Tiptree-centric of canonical sf anthologies, erroneously identifies her degree as in clinical psychology (Le Guin and Attebery 860).¹

To Alice Sheldon, however, her identity as an experimental psychologist was neither accidental nor incidental. She expressed a passion for psychological research that was far more intense than anything she said about her art or her CIA assignments. In various interviews and essays she repeated much the same words: "[B]ecoming a genuine research psychologist—PhD, 1967—brought me the greatest genuine thrill of my life" ("Woman Writing" 56). Soon after she began to publish sf, she wrote an apologetic letter to a fellow psychologist, explaining how she had "totally dropped out" of professional research: "What the hell has been going on nearly two years here? Probably, just a shallow, over-stuffed, childish mind, a lazy slob-soul, bright enough to understand real excellence, too self-indulgent to take the hard and only route, and rushing through a miraculously-offered bypath to esteem" (Letter to Rudolf Arnheim, November 1969, emphasis in original; Jeff Smith Collection).² Though Sheldon had given up her research and teaching by 1969, eight years before Tiptree's cover was blown, she continued to think of herself as a member of the profession, as she indicated in a letter of 1984: "No, Tiptree is not the Secret Master of the CIA, she's just an old lady rat psychologist living in the woods" (Letter to "Dearest B—," February 4, 1984; Jeff Smith Collection). Furthermore, Sheldon described her original aim in moving from rat research to writing fiction as "showing sf readers that there are sciences other than physics, that bio-ethology or behavioral psychology, for instance, could be exploited to enrich the sf field" (*Meet Me* 345). As that statement suggests, we may be able to understand more about the sf of James Tiptree, Jr. by looking more closely at the psychological career of Dr. Alice B. Sheldon.

Undergraduate Studies. What sort of psychological training did she receive? Ordinarily, the answer to such a question would not include reference to a

scientific researcher's first course in psychology. Yet the Psychology 1A class that 20-year-old Alice Davey took at UC Berkeley in Fall 1935 (she had already married her first husband) was more than an ordinary introductory course. It was taught by Edward Chace Tolman, one of the world's leading experimental psychologists. (Two years later he was elected president of the American Psychological Association. The psychology building on the Berkeley campus today is named Tolman Hall.) Tolman was a behaviorist who worked primarily with rats. But he gave rats and similar creatures a good deal more credit for perceptiveness and purposiveness than did either of his main theoretical competitors, B.F. Skinner and Clark Hull. Though Tolman continued to elaborate his ideas over the next quarter-century, his basic position on the cognitive complexity of rats was already well established by 1935.

Alice Davey's notes for her class in Psychology ("Psychology 1A" folder; Jeff Smith Collection) were fairly standard sophomore work, ornamented by artistic doodles. But something of Professor Tolman's approach stayed with her. In a paper she wrote as a returning 41-year-old undergraduate student, she contrasted the then-dominant stimulus-response behaviorists, including Hull and Skinner, with the intervening-variable behaviorists, led by Tolman; and her paper came down firmly in Tolman's camp ("Report of Experiment I," February 25, 1957; Jeff Smith Collection). Her doctoral dissertation also bore traces of Tolman's perspective, as we shall see.

Alice Davey soon dropped out of UC Berkeley without finishing her degree. Let's jump forward 20 years, to a time when Alice Sheldon found her clandestine CIA work ethically troubling and abruptly resigned "to pursue more personally congenial goals" (*Meet Me* 344). Those goals lay largely within the domain of psychology, especially in psychological aesthetics, an area that tapped her experiences both as an artist and as a photo-intelligence officer for the Army Air Force and the CIA. In her words, she was now "fired with the urge to understand everything that could be known about visual perception and value, and to devise some experimental benchmarks in the murk" (*Meet Me* 344).

Sheldon knew she needed a PhD to pursue such goals, but she first had to finish her undergraduate degree. She was geographically constrained by her second husband's high-level position at CIA headquarters in Northern Virginia, so she became a psychology major at American University in Washington, DC. After graduating with a bachelor's degree in 1959 at age 43, she moved on to the PhD program in experimental psychology at George Washington University.

Graduate Studies. During her years at American University, Alice Sheldon continued to think about psychological aesthetics and, more broadly, the psychology of perception. She set down her ideas in two elaborately illustrated notebooks, which she sent for evaluation to a friendly perceptual psychologist (Rudolf Arnheim), who passed them on to an equally distinguished colleague (Hans Wallach). But the latter failed to provide timely feedback or encouragement. When Sheldon got up courage to write an apologetic request for the notebooks' return three years later, she described them as a "wretched," "eccentric project," written in "opaque, long-winded ... pompous and wooly"

prose, which at best included an idea “still worth study” and some drawings with “an original glimmer” (Letters to Hans Wallach, November 4 and November 10, 1960; Jeff Smith Collection). By the time she began the proposal for her doctoral dissertation, she had apparently decided that the psychology of human visual aesthetics was too complex to yield a testable research hypothesis. She turned instead to another area with whose research literature she was familiar, and to creatures she had first learned about in Edward Tolman’s *Psychology 1A*. She decided to study the reactions of laboratory rats to novel and familiar visual stimuli.

In summarizing previous views on the topic, Sheldon departed from the colorless APA-style language of her dissertation for virtually the only time: “Were a Martian to read our psychology texts, he might well picture the earth as covered by animals journeying in search of novelty, and human beings as eagerly embracing every innovation in social structure, religion, and scientific theory” (“Preference” 3). Nonetheless, she continued, in the real world people and other animals seek out novelty “only occasionally,” preferring the familiar: “Parents know that small children often retreat from strangers and show distress in strange places. Adult humans who appear different, behave in a novel manner, or propose new views have learned to expect aversive reactions from their fellow men” (4).

Sheldon needed an experimental design that would convincingly sort out the key factors that make novelty or familiarity more appealing. No previous researcher had developed such a design, and she soon discovered why. Even laboratory rats are complicated little beasts, and they seemed to find many other aspects of their simple laboratory environment more intriguing than the stimuli on which Sheldon wanted them to focus. One of her dissertation illustrations shows a few of the things her rats preferred to do instead of choosing between the specific stimuli she presented as familiar or novel (Figure 1; “Preference” 104; titles of Figures 1-4 are Sheldon’s). She tried a dozen different experimental designs before she found one that was simple, elegant, and replicable. As she later said, “I estimate I hauled a quarter of a ton of rats up and down H Street, winters and summers”—because she needed a new batch of rats for each of those thirteen experiments (Gearhart and Ross 447).

Another of Sheldon’s drawings for the dissertation (Figure 2; “Preference” 24) shows the physical structure she built to present each rat with a familiar and a novel visual stimulus, and to give the rat the option of moving toward one or the other. Figure 3 (“Preference” 25) shows what Sheldon called the “rat’s eye view” of the experimental stimuli. The two stimuli displayed there (representative of a variety of items used in her experiments) were a locket shaped like a turtle and a salt-shaker caricature of a professor. Each rat had previously spent time with one of these items in its cage. That item was then placed in a small window as the familiar object, while the adjacent window presented an item that the rat had not seen before. The rat was left on the runway until it made a choice and entered one of the two windows. Each rat

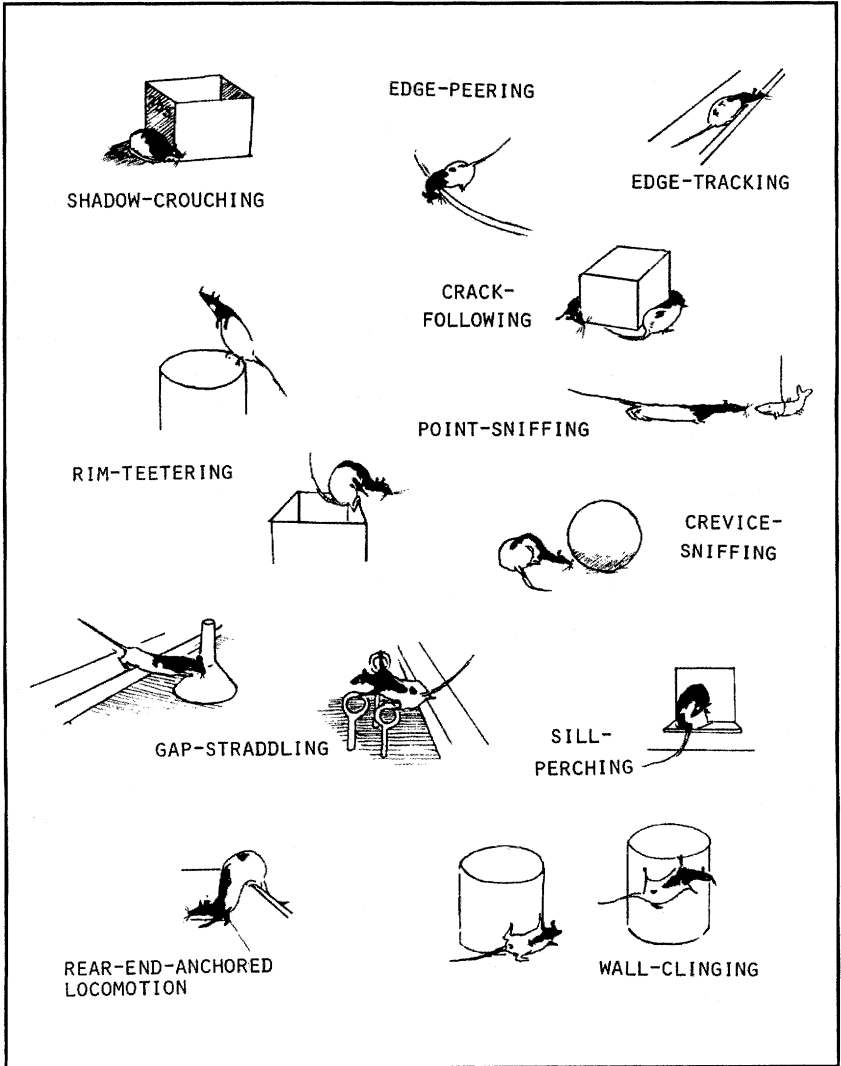


Figure 1. Some examples of thigmotactic responses encountered in the experiments which interfered with the measurement of novelty responses.

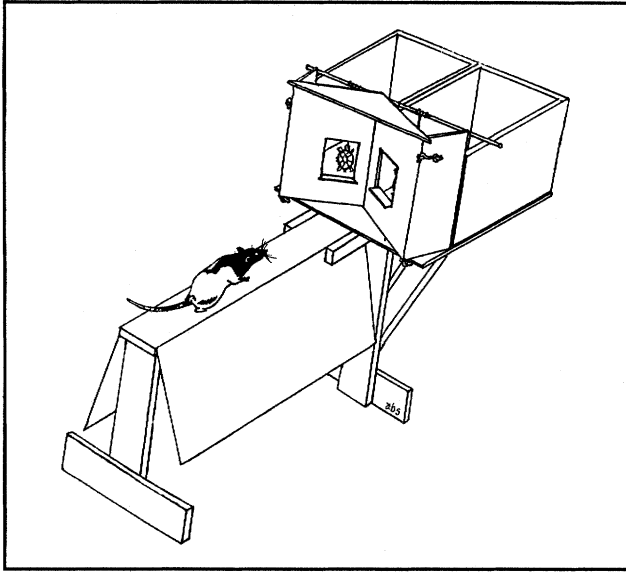


Figure 2. The raised Y-runway used in Experiments 1 and 2

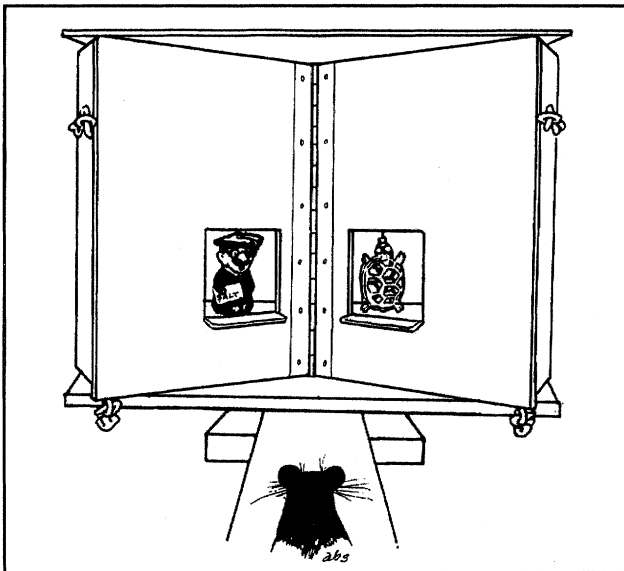


Figure 3. Rat's eye view of the stimuli in Experiments 1 and 2

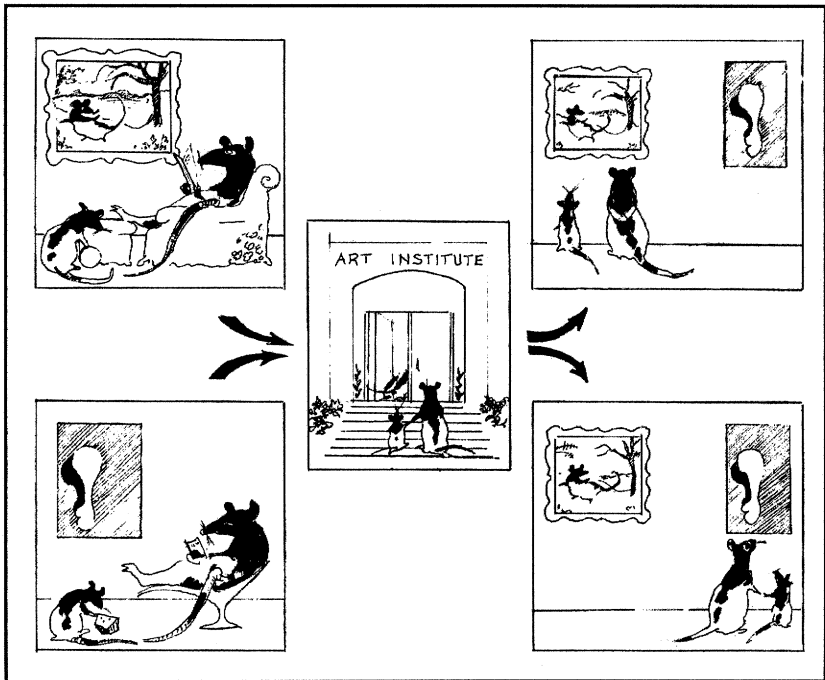


Figure 4. Choice of familiar stimulus

was placed in this situation once a day for two weeks. The familiar object remained constant for any given rat, while a new item was introduced each day as the other choice.

When the rat was placed on the runway on the experiment's first day, the entire situation was highly novel. As the days passed, the general situation grew more and more familiar to the rat with each repetition; only the day's new item differed. Sheldon predicted that the novelty or familiarity of a specific stimulus object would interact with the degree of familiarity of the overall situation. When the general situation was unfamiliar, the rat would more likely approach a familiar specific stimulus. As the general situation grew familiar, the rat would more likely choose a novel stimulus. The results were so clear and simple that Sheldon illustrated them in an easily solved cartoon puzzle, not included in her dissertation (Figure 4, *Meet Me* 362). Given each rat family's familiarity with a certain style of art at home, which sort of painting would they choose to look at if they visited a museum? Sheldon provides no answer key, leaving the human viewer free to empathize with the rats.

The rats in Sheldon's drawings may not look like standard albino lab rats, and indeed they were not. Sheldon chose to use a variant breed called hooded rats, so called because they have black markings on their upper bodies. Part of their genetic package is good eyesight, much superior to the poor pink eyes of white rats (Lawler 27). As Sheldon's experiments required that the rats get a

good look at familiar and novel stimuli before choosing one or the other, they needed good eyes.

Sheldon's research did not win a Best Dissertation of the Year award, though it was so nominated by one of her advisers (Gearhart and Ross 447). Nor is it now regarded as a classic in the field. But according to the *Science Citation Index*, which keeps track of such data, the journal article version published in 1969 ("Familiar Versus") has been cited in the scientific literature more than 20 times, most recently twice in 2003—quite a respectable showing for a young scientist's first research publication.

But Alice Sheldon was not a young scientist in 1969. She had been an eager one, putting much time and energy into her dissertation research, negotiating the many other hazards of graduate school, and developing her college teaching skills. She taught several courses at George Washington University and American University before and just after she completed the PhD requirements—mainly, a statistics course for psychology majors and an introductory psychology course for education students. These were the courses that senior faculty did not want to teach. Sheldon didn't want to teach them, either; she said that the education students "could barely count their toes" (Platt 265). She never became a full-time faculty member at either institution. As she later observed, that would have required "the constitution of a healthy twenty-five-year-old Marine" (Gearhart and Ross 447). She would have had to teach a full load of courses, develop grant proposals, care for her rat colonies, and produce further publishable research. By now she was in her mid-fifties, not her mid-twenties. She had recently discovered or developed serious health problems, including a severe ulcer, heart difficulties, and internal damage from an early abortion. She also continued to experience episodes of deep depression, reactive in some degree to her current circumstances but attributable as well to genetic factors and to unresolved issues from her early upbringing.

For over a decade, Alice Sheldon was a committed and active experimental psychologist as a student, researcher, and teacher. She was fascinated with important theoretical issues. She engaged in lively correspondence with major psychologists and was delighted with the ultimate success of her own research. Even though that research focused entirely on rat behavior, she remained intrigued with those questions about human aesthetic perception that had brought her into the field. She made a valuable but unpublicized contribution to the psychology of the arts by closely copy-editing a now-classic book, Rudolf Arnheim's *Visual Thinking* (1969). Even before Sheldon had resumed her undergraduate education, Arnheim became one of her earliest and most encouraging correspondents in academia.³ The preface of his book includes a remarkable acknowledgment of her help: "To a fellow psychologist, Dr. Alice B. Sheldon of George Washington University, I owe more thanks than anybody should owe to a friend and colleague. Dr. Sheldon has scrutinized every one of my many and often long sentences; she has checked on some of the facts, improved structure and logic, and sustained the author's morale by her faith in the ultimate reasonableness of what transpired from his efforts. Wherever the reader stumbles, she is likely not to have had her way" (vii).

In 1969, the year both Arnheim's book and Sheldon's one major journal article appeared, she reluctantly closed out her career in psychology. Though she maintained her membership in the American Psychological Association for some time afterward, she never applied for another grant, never did another experiment, and never taught another class.

Science Fiction Writings. The first stories by James Tiptree, Jr. had by then been published. New Tiptree stories appeared often over the next decade—as well as, less often, during the decade following Tiptree's exposure as Alice B. Sheldon, old lady rat psychologist. I won't go into that publication history except to answer one question: What traces of Sheldon's psychology career can we find in Tiptree's fiction? I'll conclude with several related questions and perhaps more answers.

Sheldon's research background is most evident in "The Psychologist Who Wouldn't Do Awful Things to Rats," a story published in 1976, a year before Tiptree's identity was disclosed. Though the story first appeared in *New Dimensions*, Robert Silverberg's series of original sf anthologies, it is not science fiction, except insofar as it is fiction about a scientist. It can be read as fantasy, for in a pivotal scene, a monstrous creature resembling *The Nutcracker's* Mouse King comes to life. But it can also be read as realistic fiction, with the Rat King scene attributable to the human protagonist's heavy consumption of ale and absinthe.

The protagonist is Tilly Lipsitz, a gentle experimental psychologist who works with rats, worries about obtaining research grants, and fears that he'll soon be fired for lack of research productivity—all these characteristics, of course, applied to Alice Sheldon as well.⁴ Sheldon told Mark Siegel that the story described her situation at GWU "pretty much as it was" (Siegel 40). Further similarities to what we know of her situation are striking: Tilly Lipsitz occupies the same sort of basement laboratory, does research on "tolerance of perceptual novelty" ("Psychologist Who" 231), thrills as Sheldon did at being able to put "a real question to Life" and having Life answer yes or no (236), and laments that "Junior department members get the monster classes" (238). The rats he works with are "the hooded strain," with "sleek black shoulders" (230). Tilly's department head and grant supervisor, who demands that he produce more and better research or be dismissed, is named Professor R.D. Welch. Alice Sheldon's department head and dissertation supervisor was Professor Richard D. Walk. (When I interviewed Walk in 1998 about Alice Sheldon, I asked if he'd read any Tiptree stories. "No," he said, "I'm afraid I'd find myself as the villain.")

Sheldon even inserted into the story a page of drawings from her doctoral dissertation, only slightly redrawn and relabeled ("Psychologist Who" 235; "Preference" 104, reproduced above as Figure 1). Tilly Lipsitz says the drawings are his, but they are labeled in the published story as "Drawings by Raccoona Sheldon," another of Alice Sheldon's pseudonyms. (If anyone familiar with her dissertation had seen this story when it first appeared, Tiptree's true identity would have been obvious a year before it was publicly

revealed.) Lipsitz's observations and emotions regarding his colleagues and his research animals express those of Alice Sheldon, though they are perhaps exaggerated for dramatic effect. Throughout the story, Tilly's fellow psychologists do a variety of awful things to their rats and other animals: starve them, slice them, blind them, drive electrodes into their skulls, "sacrifice" them, chop off their heads. In sharp contrast, Tilly empathizes with the animals, imagining how he would feel in their circumstances. He attributes human feelings to them and goes far out of his way to relieve their misery.

The differences between Lipsitz's circumstances and Alice Sheldon's lie mainly in the story's concluding pages. Lipsitz, stressed out and continuing to relieve his anxiety with absinthe, experiences a vision or hallucination: a "tangled mass" of neglected and dying rats coalesce into a single great and charismatic organism, the Rat King, who leads the other pain-wracked creatures of the university's animal labs to a fairyland of freedom. Whether Alice Sheldon ever had a glimmer of such absinthian visions, we do not know. What we do know is that she began to write science fiction under similar stresses. Tilly Lipsitz's soul goes off with the Rat King's entourage, so when his body recovers from its absinthe-induced blackout, he becomes just another cynical careerist professor, plotting to use his research skills to do awful things to racehorses. When Alice Sheldon recovered from the stresses of her final months as a psychologist, she continued on into her next career as a writer—often cynical about the human race, especially the masculine part of it, but retaining the values and virtues that Tilly Lipsitz lost along with his soul.

The first pages of "The Psychologist Who Wouldn't Do Awful Things to Rats" come closer than anything else in Sheldon's fictional *oeuvre* to depicting her distinctive qualities as an experimental psychologist. But other stories published under the Tiptree and Raccoona Sheldon pseudonyms also display certain marks of her research career, though not as explicitly or insistently. Several stories focus on a character who does something like experimental psychology (though it's not called that) and who greatly enjoys doing it. In the story "And I Have Come Upon This Place by Lost Ways," an interstellar expedition's novice "anthrosyke" (a sort of exopsychologist) insists on exploring a mysterious planetary phenomenon at first hand rather than relying on electronic instrumentation. In so doing he undergoes a literal peak experience, but abruptly dies without solving the mystery. In "Her Smoke Rose Up Forever," a medical researcher exults in an important discovery that he expects will earn him a Nobel Prize. From this height of joy, he plunges into despair when he learns that a researcher in India has published the same discovery first. In the novel *Up the Walls of the World* (1978), a parapsychologist uses standard ESP research procedures in hopes of detecting faint telepathic signals from his submarine-based human subjects. He is delighted to get long runs of correct responses, but his experiment collapses beneath an onslaught of messages from telepathic aliens. (Undaunted, the parapsychologist adapts the aliens' powers to make millions in Las Vegas casinos—rather like Tilly Lipsitz becoming a horse-race entrepreneur.) None of these eager researchers, including Tilly, is permitted to enjoy serious scientific success in the way that Alice Sheldon did

with her dissertation research. But they all resemble her, in terms of beginning their research with great enthusiasm but finding themselves unable to sustain a career in science.

Much of Sheldon's sf can be seen as expressing, sometimes centrally and sometimes more peripherally, her attitudes about the treatment of small or relatively weak animals (including certain humans). The immediate sources for such attitudes are not hard to identify. Not only did she spend several years caring for laboratory rats while seeing other psychologists badly mistreat their research animals; she also saw herself as relatively weak and mistreated in the professional world. At times she identified herself as one of those small animals: "If you squeeze a mouse, it squeaks. Just so, when life squeezes me, I squeak. That is, I write" ("Woman Writing" 43). Her other pseudonym, Raccoona Sheldon, expresses a similar identification. So does the most famous image in her most famous story, "The Women Men Don't See": "What women do is survive. We live by ones and twos in the chinks of your world-machine.... Think of us as opossums, Don. Did you know there are opossums living all over?" (140).⁵ In another well-known story, "The Screwfly Solution," women are said to be "like hypnotized rabbits. We're a toothless race," subject to death and dismemberment by rage-filled men (29). And in "Beaver Tears" (31), a mismatched lot of humans, ineptly abducted by aliens for a breeding program, is compared with a mixed bag of beavers captured for later release in a foolish ecological project.

In the story "We Who Stole the Dream" (374) and in the novel *Brightness Falls from the Air* (1985), it isn't women but members of a fragile alien race who are exploited, their bodies sucked dry of a vital essence that is supremely intoxicating to humans. In "Press Until the Bleeding Stops," described by Sheldon as "a sort of ecological fantasy" (*Meet Me* 85), Earth's put-upon animals try to stop the advance of humanity's bulldozers: "And the birds dived screaming and the baby quail and mice rushed into the treads to jam them and the butterflies and bees rained into the cabs, all calling on their mother the Earth" (82). In one of Tiptree's earliest stories, "The Last Flight of Dr. Ain," a biological researcher expresses his love and sympathy for the suffering earth, perceived as a wounded woman, by spreading a virus that will wipe out the insufferable human race without killing all those innocent and persecuted animals.

One of Tiptree's award-winning stories, "Love Is the Plan the Plan Is Death," may not fall into this group quite so obviously. Moggadeet, the story's first-person viewpoint alien, is not physically small or weak; he is instead a "hugely black and hopeful" creature, able to rend his rivals to pieces with powerful claws and jaws. Ultimately he proves to be a love-smitten innocent, who is eaten alive by his once-tiny mate (413). That sad fate is, however, not the only reason to group the story with the "empathy with rats" narratives discussed earlier. Alice Sheldon clearly worked hard to imagine how the world would look and feel to a creature such as Moggadeet, just as she had carefully imagined the rat's-eye view seen by her experimental subjects.

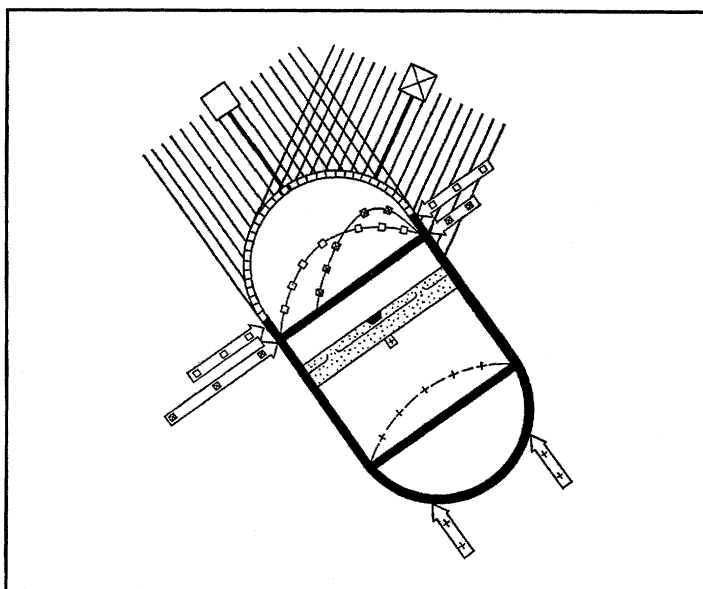


Figure 5. “Schematic Sowbug” making medium discrimination
(Reprinted by permission of the American Psychological Association)

Sheldon’s original inspiration for assuming Moggadeet’s insectoid perspective may have come from her admired psychology professor Edward Tolman. Tolman was known in part for his psychological model of an actively information-processing organism, a model that came to be known as the Schematic Sowbug, because he drew it as a distinctive oval shape resembling a schematized bug or wood-louse (Figure 5; *Collected Papers* 202).⁶ Sheldon was surely familiar with the Schematic Sowbug; the Y-runway and choice procedure in her dissertation appear to have been adapted from a rat experiment described early in Tolman’s key paper on the Sowbug model (*Collected Papers* 190-94). Though the six-legged, several-armed, multiple-eyed Moggadeet sounds more arachnoid than sowbuggish, both he and the Schematic Sowbug have thick black carapaces and “unstable equilibrium”; they are both “ready to erupt” (*Collected Papers* 199). And both creatures were imagined from the inside out by an empathic psychologist.⁷

Pre-Professional History. Alice Sheldon’s years as a student and practitioner of experimental psychology left distinctive marks on her subsequent fiction. I doubt that she would have disagreed with such a suggestion. Most directly and emphatically in the story “The Psychologist Who Wouldn’t Do Awful Things to Rats”—from its title to its final lines—she used her fiction to denounce certain standard practices and assumptions of experimental psychology that otherwise she challenged rather more diplomatically.

Sarah Lefanu, in a generally insightful chapter on Tiptree, proposes a much broader pattern of influence: “It seems to me that her work in experimental psychology serves as the basis of her concern to explore, in fictional form, the notions of nature and nurture, of free will and determinism, that recur in her stories. Her psychological work also underpins her obsession, described above, with sex and death” (118). But Lefanu does not attempt to trace such connections in detail. Similarly, Adam Frisch proposes that “it is the study of psychology that forms for [Tiptree] the link between science and fiction” (49). The “psychology” he has in mind, however, largely concerns rigid sex roles and psychological flexibility. It would be difficult to find any immediate origins of Sheldon’s concerns with these broad issues of human psychological functioning in her laboratory rat research.

Sheldon arrived at her midlife career in psychology with many questions and preferred answers that had already been shaped by her earlier life history. Even when more direct connections can be drawn between her psychological work and her fiction, as in the stories that have been cited here, we need to ask such further questions as: What in her earlier life might have led her to adopt such views in psychology, as rarely as those views were shared among her colleagues? What in her earlier history led her to become a psychologist who strongly empathized with her laboratory rats and subsequently a writer whose sf often depicted small or weak creatures who are distressingly abused by the big and powerful? And what in that personal history led her to seek the joy of scientific discovery but then to abort her career in psychology and repeatedly to write sf about scientists and others who reach the heights of joy but rapidly descend into personal disaster?

Several scholars and critics (notably Larbalestier 183-88) have already pointed to aspects of Sheldon’s childhood that made her especially sensitive and empathic toward the small, the weak, the abused and threatened. Indeed, Sheldon pointed out such connections herself (see, for instance, Platt 260). Her parents delighted in putting shy little Alice on public display during their world travels—this beautiful, doll-like child with blond ringlets, often surrounded by dark-skinned warriors and other curious adults. Little Alice enjoyed the attention up to a certain point, but her extraverted mother insisted on going well beyond that point. So little Alice hid in the bushes, and later found different and sometimes more damaging ways of escaping from herself and others. During much of her early life, she had no problem locating novelty, but much difficulty locating the familiar. No wonder she later worked as a researcher to elevate the familiar in the lives of rats. No wonder she empathized with creatures who preferred to hide in dark corners. No wonder that she hid as long as she could behind a pseudonym. As Julie Phillips has observed, the Tiptree persona “was a refuge for a woman whose girlhood had been uncomfortably exposed” (20).

Sheldon said about her parents, “I was their only chick. The love they squandered on me was in real fact meant for ten, but what we now know was an Rh-factor problem killed the other nine—for which I, of course, felt guilty” (Gearhart and Ross 446). This statement of survivor guilt sounds as though she

identified and empathized with those nine dead little siblings, giving her another foundation for empathizing with the small and weak of many species.

Furthermore, Alice Sheldon remained quite aware of the second-class status of girls and women in the many worlds of her childhood and adulthood. Even though her mother was a rather liberated woman for her time, and though Sheldon moved insistently into usually masculine roles in the Army Air Force and among experimental psychologists, she continued to see herself treated as less than equal to, and as other than, the men around her. As she wrote toward the end of her life, "To grow up as a 'girl' is to be nearly fatally spoiled, deformed, confused and terrified; to be responded to by falsities, to be reacted to as nothing or as a thing—and nearly to become that thing" (*Meet Me* 385). One of the simplest reasons for becoming James Tiptree, Jr. was Sheldon's perception that the women already publishing sf under their own names were never quite equal to male authors in the mostly male eyes of editors and readers. Though several Tiptree stories remain among the most powerful feminist statements yet written as sf, they gained added impact at the time of publication by the apparent fact of their authorship by a man. As Sheldon later wrote, "Part of the appeal of Tiptree was that he ranged himself on the side of good *by choice*" (*Meet Me* 383; italics in original). Her uneasy recognition of this paradoxical effect of her male disguise was a principal reason for her withdrawal of "The Women Men Don't See" from contention for a Nebula Award ("Woman Writing" 53).

One final aspect of Sheldon's early personal history may have influenced both the course of her career in psychology and the content of her sf. I've already written about her as displaying a psychological pattern first described by the personality theorist Silvan Tomkins, a pattern he called the nuclear script (Tomkins 1987; Elms 131-38). According to Tomkins, a nuclear script is a recurrent emotional and behavioral pattern in which an individual is strongly drawn to a situation that promises great joy, high emotional rewards. The individual invests much hope and effort in the situation; when it falls apart, he or she struggles to recreate its joys but fails, leaving things even worse than before. After several repetitions of such a sequence, the individual builds up an expectation (Edward Tolman might have called it a cognitive map) that joy is always followed by disaster, or at best by powerful disappointment. Such expectations may then become self-fulfilling prophecies. Though Alice Sheldon surely learned other psychological scripts as well, she went through several major repetitions of a nuclear script pattern, starting in childhood.

The pattern is even more evident in her fiction than in her life. Gardner Dozois recognized it before Tiptree's identity was known: "His characters strive constantly for personal transcendence, and yet they are almost always destroyed by it once they have achieved it" (24). The pattern is especially prominent in such stories as "Her Smoke Rose Up Forever" and, of course, "The Psychologist Who Wouldn't Do Awful Things to Rats." In one story, "On the Last Afternoon," a man defines the human species to an alien in a brief sentence that epitomizes a nuclear script: "Man is an animal whose dreams come true

and kill him" (196). Almost without exception, every time a serious scientist appears in a Tiptree story, he will sooner or later enact a nuclear script.

That's not to imply that Alice Sheldon's life was a total loss. But she did grow to expect such losses as sequels to her happiest times and felt confirmed in her expectations when disaster indeed struck. Looking back on her life and work more than fifteen years after her death, we can see, perhaps more clearly than she did, that in many respects she was not a failure but an admirable figure. I cannot assess the quality of her serious paintings, and I don't know how much her work for intelligence agencies contributed to national security. But her one full-fledged and original psychological experiment was ingenious, theoretically significant, and a testament to her scientific persistence. Although her sf was often pessimistic and sometimes overly doctrinaire, a dozen or more of those stories have attained the deserved status of classics in the field. Last and by no means least, Alice Sheldon gave the rest of us reason to recognize the value of observing behavior closely, empathically, in living detail, and in all of its complexity, whether in laboratory rats or in science fiction writers.

NOTES

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1. Another sympathetic writer, Joanna Russ, described Sheldon as a "retired biologist" (44), though as Justine Larbalestier notes, "in fact, Sheldon was never a biologist" (182).

2. Julie Phillips guided me to this letter, which she found in the Jeff Smith Collection. Smith, a devoted fan and friend of James Tiptree, Jr., became the literary trustee of Alice Sheldon's estate upon her death. He generously showed me a number of relevant documents from his collection of her personal papers and has given me permission to quote from them.

3. Julie Phillips, personal communication, September 11, 2003.

4. The nickname "Tilly" (short for the unusual first name Tilman, itself a near-match with the last name of psychologist Edward Tolman) may be seen as a combination of Tiptree's nickname, "Tip," and Alice's nickname, "Alli."

5. Sarah Lefanu borrowed Tiptree's vivid phrase for the title of her book in its original British edition: *In the Chinks of the World Machine* (1988). The American edition merely used the British subtitle, *Feminism and Science Fiction*.

6. Nine other vivid Sowbug illustrations appear in *Collected Papers* 196-205, along with explanations of the Sowbug's components and psychological processes.

7. In other ways as well, Tolman was an inspiring model for the empathic practice of experimental psychology. As another distinguished research psychologist, Jerome Kagan, put it: "One must be able to empathize with the organism under study in order to generate good guesses as to the forces activated when that organism is placed in an experimental context. It is said that Edward Tolman could do this for rats" (145). Tolman's first book (published three years before Alice Davey took his Psychology 1A

course) was dedicated “To M.N.A.”—who, as he explained in his preface, was *Mus norvegicus albinus*, the scientific name for his white rats (*Purposive Behavior* xii).

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ABSTRACT

Fans and scholars have been intrigued not only by Alice Bradley Sheldon’s sustained disguise as the male writer James Tiptree, Jr., but by her earlier activities in the secret world of Army Air Force Intelligence and the CIA. Less attention has been given to her major pursuit between her careers in intelligence and sf: graduate work, teaching, and research in experimental psychology. Though her work in psychology represented the fulfillment of long-term goals, she was forced to give it up because of health problems and psychological pressures. Her subsequent fiction often displayed the influence of her psychological training and interests. Earlier life experiences may have shaped both her career in psychology and her career as a writer.