

## Semantics, General Semantics, and Ecology in Frank Herbert's *Dune*

Frank Herbert's *Dune*, a thematically rich and varied work of science fiction, is the first novel in a trilogy about the desert planet Arrakis, or Dune, and the rise to power of Paul Atreides, its messianic leader. Herbert initially conceived of writing one long novel about "the messianic convulsions that periodically overtake us. Demagogues, fanatics, con-game artists, the innocent and the not-so-innocent bystanders—all were to have a part ..." ("Dune Genesis" 72). Ultimately, Herbert produced six novels about Dune comprising what has become known as *The Dune Chronicles*. The intricate ecology of the planet, encompassing the Fremen natives' desire to turn Dune into a "green and fertile world" and the need of the Empire for the indigenous spice melange to facilitate space travel, forms the backdrop for Paul's struggle to overcome his enemies, control the planet, and fulfill his personal destiny. Throughout the novel Paul must meet and overcome challenges that serve to confirm him in the minds of the Fremen as being their messiah. Paul does not seek this position but is instead caught up in the events that lead to his deposing of the Emperor and control of the throne.

Herbert's decision to examine the messianic superhero against a backdrop of ecological concerns was no accident. Drawing on his experience in journalism he said:

I had already written several pieces about ecological matters, but my superhero concept filled me with a concern that ecology might be the next banner for demagogues and would-be heroes, for the power seekers and others ready to find an "adrenalin high" in the launching of a new crusade....I could begin to see the shape of a global problem, no part of it separated from any other—social ecology, political ecology, economic ecology....I find fresh nuances in religions, psychoanalytic theories, linguistics, economics, philosophy, theories of history, geology, anthropology, plant research, soil chemistry, and the metalanguages of pheromones. A new field of study arises out of this like a spirit rising from a witch's cauldron: *the psychology of planetary societies*. ("Dune Genesis" 74)

It is, therefore, evident that a central theme of the novel is not only ecology, but ecology examined in many different contexts. In addition to exploring environmental ecology, the study of the relationship and interaction between organisms and their environment, *Dune* explores social, political, economic, and language

ecologies as well (Touponce 13-14). Herbert compared these variations on a central theme to a musical fugue, saying:

Sometimes there are free voices that do fanciful dances around the interplay. There can be secondary themes and contrasts in harmony, rhythm, and melody. From the moment when a single voice introduces the primary theme, however, the whole is woven into a single fabric.

What were my instruments in this ecological fugue? Images, conflicts, things that turn upon themselves and become something quite different, myth figures and strange creatures from the depths of our common heritage... (“Dune Genesis” 74)

These various ecologies evolve out of their respective relationships and interactions with the planetary environment of Arrakis. Specifically, Herbert believed language mirrors the ecosystem from which life evolves (Touponce 2). He said:

...we commonly believe *meaning* is found—in printed words (such as these), in the noises of a speaker, in the reader’s or listener’s awareness, or in some imaginary thought-land between these. We tend to forget that we human animals evolved in an ecosystem that has demanded constant improvisation from us. In a mirror sense, we reflect this history of mutual influences in all our systems and processes. (“Listening” 98, 100)

Another major theme of the novel is that of power, and the nature of the superhero or leader that emerges to discover that he must wage war to gain and maintain that power. Herbert strongly believed war to be the logical consequence of any struggle to gain and maintain power whether political or economic. He also believed history supports the emergence of a superhero in such situations saying: “people tend to give over every decision-making capacity to any leader who can wrap himself in the myth fabric of the society. Hitler did it. Churchill did it. Franklin Roosevelt did it. Stalin did it. Mussolini did it” (“Dune Genesis” 72). The novel then explores the wielding of political, economic, and military power, and, by incorporating the philosophy of general semantics, their common thread: the power of language.

During the period he was writing *Dune*, Herbert studied general semantics in San Francisco, and for a time worked as a ghost writer for the late S. I. Hayakawa, a renowned linguist and major proponent of general

semantics (O'Reilly 59-60). General semantics has been defined as “the scientific study of the use and abuse of language, the study of the effects of communication on behavior, and ...the application of the scientific method to problem solving” (Campbell 45). Alfred Korzybski (1879-1950), who developed the philosophy of general semantics in the 1930s (O'Reilly 59), theorized “that language reflects only imperfectly and incompletely the actualities of the external world, that there is a wide gulf between the word and the thing it stands for, and that the word is intimately related to human behavior” (Campbell 45).

Herbert's use of general semantics in *Dune* becomes doubly important for it “emphasize[s] the importance of language and other cultural givens in providing a fundamental, *unconscious* structure for human thought and behavior; and it insist[s] that it [is] possible to *train* human beings into new semantic habits and an orientation toward first-order experience” (O'Reilly 60).

An excellent example of how Herbert brings the principles of general semantics to life in *Dune* is found in the Bene Gesserit, “an ancient school of physical and mental training for females” (Touponce 18). For centuries, the Bene Gesserit have conducted a human breeding program with the objective of eventually producing a person with superior mental powers whom they refer to as the “Kwisatz Haderach” or “one who can be many places at once” (Herbert 508). All signs indicate that Paul Atreides might be that person. To create Bene Gesserit training Herbert combined concepts of general semantics with yoga, Zen, biofeedback, and nonverbal communication to produce these powerful beings of superior intelligence and ability (O'Reilly 60). Indeed, the whole of the Bene Gesserit technology of consciousness is based on general semantic principles, and Herbert illustrates this concept of consciousness along with the power of language and gesture very early in the novel when Jessica, Paul's Bene Gesserit mother, brings him to be tested by the Reverend Mother Gaius Helen Mohiam:

Jessica stopped three paces from the chair, dropped a small curtsy, a gentle flick of left hand along the line of her skirt. Paul gave the short bow his dancing master had taught—the one used “when in doubt of another's station.”

The nuances of Paul's greeting were not lost on the Reverend Mother. She said: “He's a cautious one, Jessica.” (Herbert 6)

Meaning in this passage stems almost exclusively from gesture and not from language. Both Jessica and Paul show their respect for the Reverend Mother, but only minimally and without wasted effort. This economy of gesture and language provides for effective communication with a minimum of effort, and is the foundation of ecological semantics. Paul's actions serve as proof for what the Reverend Mother already knows about Jessica's training of the boy.

While gestures effectively used are excellent communicative tools, language, both written and spoken, has greater power, as demonstrated by Paul's reaction to the way the Reverend Mother treats Jessica:

Paul faced the old woman, holding anger in check. "Does one dismiss the Lady Jessica as though she were a serving wench?"

A smile flicked the corners of the wrinkled old mouth. "The Lady Jessica *was* my serving wench, lad, for fourteen years at school." She nodded. "And a good one, too. Now, *you* come here!"

The command whipped out at him. Paul found himself obeying before he could think about it.

*Using the Voice on me*, he thought. He stopped at her gesture, standing beside her knees. (Herbert 7)

Paul is powerless and under the control of the Reverend Mother in this situation. She controls him with the "Voice" and, shortly thereafter, with the threat of the *gom jabbar*. Here, the capitalized term "Voice" refers to an aspect of Bene Gesserit training where, through shadings of tone in voice utterances, a user can control others (Herbert 532).

Herbert also draws on general semantics to explain Paul's reaction to the combination of the Reverend Mother's words and the nerve induction pain caused by the *gom jabbar*, the poison tipped needle used by the Bene Gesserit to administer the "death-alternative test of human awareness" (Herbert 519):

Paul looked down at the hand that had known pain, then up to the Reverend Mother. The sound of her voice had contained a difference then from any other voice in his experience. The words were outlined in brilliance. There was an edge to them. He felt that any question he might ask her would bring an answer that could lift him out of his flesh-world into something greater. (Herbert 11)

This passage reveals Paul's understanding of the power of language. Assigning physical qualities to the words personifies their power. The words are "outlined in brilliance," have "an edge," and are capable of lifting Paul "out of his flesh-world."

Even Herbert's emphasis on the power of language found in the ordinary spoken word, (i.e. lower case "voice") is evident throughout the novel. At times it is subtle; at others it is overtly stated. An examination of the episode in which Paul makes himself known to the Fremen reveals Herbert's emphasis on language in action. In the epigraph preceding the chapter, a quotation from the "Private Reflections on Muad'Dib," the Princess Irulan, chronicler of Paul's life and times, overtly acknowledges the power of language: "*Does the prophet see the future or does he see a weakness, a fault or cleavage that he may shatter with words or decisions as a diamond-cutter shatters his gem with a blow of a knife?*" (Herbert 277). The episode that follows represents a pivotal point in the novel for it vividly recounts the Fremen's capture of Jessica and Paul after their ordeal of escape into the desert. More importantly, however, this experience marks Paul's entry into the Fremen culture to whose leadership he eventually will ascend.

The entire episode is charged with tension. Night has fallen and Jessica and Paul are defenseless except for Jessica's superior sensory awareness and ability to analyze the danger by utilizing semantic judgments. A close reading reveals the word "voice" is used thirty-three times in the chapter. Most often it is used as a referent to or personification of the speaker. Rather than directly identifying the speaker by name or gender, this technique more effectively adds power and an air of mystery to the text, as the following excerpt from early in the episode will show:

"It would be regrettable should we have to destroy you out of hand," the *voice* [emphasis mine] above them said.

*That's the one who spoke to us first, Jessica thought. There are at least two of them—one to our right and one on our left.* (Herbert 277)

By using "the voice above them said" instead of "the man above them said," or some other similar wording, Herbert strengthens the impact of the scene. What unfolds from this technique is Jessica's urgent need to rely

on her superior abilities to analyze the semantics of the situation and subdue their captors. The following passages illustrate the emphasis Herbert places on voice and semantics:

“What have we here—jinn or human?” he asked.

And Jessica heard the true-banter in his *voice*, [sic] she allowed herself a faint hope. This was the *voice* of command, the *voice* that had first shocked them with its intrusion from the night.

. . . .

“Do you also speak?” the man asked.

Jessica put all the royal arrogance at her command into her manner and *voice* [emphasis mine]. Reply was urgent, but she had not heard enough of this man to be certain she had a register on his culture and weaknesses. (Herbert 278)

. . . .

*I have his voice and pattern registered now, Jessica thought. I could control him with a word, but he’s a strong man...worth much more to us unblunted and with full freedom of action. We shall see.* (Herbert 280)

Jessica has heard enough from the speaker to know she “could control him with a word,…” She knows she has the upper hand in the confrontation, but her captors remain unaware of her power.

Using the powers of her Bene Gesserit training, Jessica subdues her captors by convincing their leader, Stilgar, to accept them rather than harm them. Herbert then, through Jessica, reveals the power found in individual words:

Their destination was Sietch Tabr—Stilgar’s sietch.

She turned the word over in her mind: sietch. It was a Chakobsa word, unchanged from the old hunting language out of countless centuries. Sietch: a meeting place in time of danger. The profound implications of the word and the language were just beginning to register with her after the tension of their encounter. (Herbert 287)

Jessica's thoughts reveal the connotative power of words. Here within the context of the immediate situation the sound of the word interacts with Jessica's knowledge of its origin and history to reveal to her the essence of Fremen existence, an existence enveloped in danger and requiring vigilance and communal refuge.

From this pivotal point forward, Paul faces many challenges and tests over a period of time which serve to solidify his position as leader of the Fremen in their quest for control of Arrakis. Paul matures and develops into manhood. In the novel's climatic scene, Paul and the Fremen are victorious in their battle with the Emperor's forces and have come to the governor's mansion to depose the Emperor. Paul is now able to use his linguistic power to control even the Reverend Mother.

"Silence!" Paul roared. The word seemed to take substance as it twisted through the air between them under Paul's control.

The old woman reeled back into the arms of those behind her, face blank with shock at the power with which he had seized her psyche. "Jessica," she whispered. "Jessica."

"I remember your gom jabbar," Paul said. "You remember mine. I can kill you with a word."

The Fremen around the hall glanced knowingly at each other. Did the legend not say: "*And his word shall carry death eternal to those who stand against righteousness.*" (Herbert 478)

Again, language receives its power through personification. The word "silence" took "substance," and "twisted through the air." The word takes the deadly qualities of an arrow unleashed at its victim. Linguistic power, then, has come full circle. Paul needs no needle tipped with poison to exercise control; he needs only a word.

Paul, however, cannot complete his rise to power without destroying the Harkkonens, if not absolutely, at least symbolically. In a final attempt to maintain control, Baron Vladimir Harkkonen's nephew and heir, Feyd-Rautha, calls Paul out in "kanly," or vendetta, to fight. The deadly consequences of language use and the power of silence are illustrated during the subsequent combat between Paul and Feyd-Rautha:

They circled each other, bare feet grating on the floor, watching with eyes intent for the slightest opening.

"How beautifully you dance," Feyd-Rautha said.

*He's a talker, Paul thought. There's another weakness. He grows uneasy in the face of silence.*

“Have you been shriven?” Feyd-Rautha said.

Still, Paul circled in silence.

. . .

“Why don’t you speak?” Feyd-Rautha demanded.

Paul resumed his probing circle, allowing himself a cold smile at the tone of unease in Feyd-Rautha’s voice, evidence that the pressure of silence was building. (Herbert 483-484)

These two passages reveal the ecological semantics of silence. Paul exercises control not by using language, but by avoiding it. Here Herbert shows that meaning is found not only in the use of language, but in its absence. The word is truly not the thing, and the map is not the territory.

Heretofore we have seen ample evidence in *Dune* of the *power* of language in action. *Dune* is also a novel of language in thought. It is a novel of dialogue, and the narrative voice essentially supplements the internalized and externalized speech of the characters. Herbert weaves the narrative voice with externalized and internalized speech to effectively add a kind of linguistic mortar to the action of the characters. Hence, the metaphor of the musical fugue comes into full bloom. Ecological semantics involves the relationship and interaction of the users or communicators of language in context in the same way environmental ecology involves the relationship and interaction of organisms and their environment. The episode describing the death of the architect of the planet Arrakis’ ecological transformation, Liet-Kynes, contains excellent examples of both narration and the use of internalized and externalized speech in a semantic fugue. Like small changes in the environment, the way in which language is used or not used can be beneficial or detrimental depending on the situation, and general semantics, as stated earlier, concerns itself with the uses and abuses of language. Although this scene appears at approximately the mid-point of the novel, it penetrates to the novel’s thematic heart, and serves to foreshadow events to come. Liet-Kynes speaks and he hears the voice of his father. Appropriately the utterances of both voices appear in quotation marks. The following passages appear:

“I am Liet-Kynes,” he said, addressing himself to the empty horizon and his voice was a hoarse caricature of the strength it had known. “I am his Imperial Majesty’s Planetologist,” he whispered, “planetary ecologist for Arrakis. I am steward of this land.” (Herbert 271)

. . .

“To the working planetologist, his most important tool is human beings,” his father said. “You must cultivate ecological literacy among the people. That’s why I’ve created this entirely new form of ecological notation.”

*He’s repeating things he said to me when I was a child,* Kynes thought.

He began to feel cool, but that corner of logic in his mind told him: *The sun is overhead. You have no stillsuit and you’re hot; the sun is burning the moisture out of your body.*

His fingers clawed feebly at the sand.

*They couldn’t even leave me a stillsuit!*

“The presence of moisture in the air helps prevent too-rapid evaporation from living bodies,” his father said.

*Why does he keep repeating the obvious?* Kynes wondered. (Herbert 273)

. . .

“No more terrible disaster could befall your people than for them to fall into the hands of a Hero,” his father said.

*Reading my mind!* Kynes thought. *Well...let him.* (Herbert 276)

. . .

Then, as his planet killed him, it occurred to Kynes that his father and all the other scientists were wrong, that the most persistent principles of the universe were accident and error. (Herbert 277)

As Liet-Kynes dies listening to this polyphony of voices of which his own, externalized and internalized, is a part, he foresees the ecological disaster to come resulting from his and the Fremmen dream of “greening” Arrakis. This passage sharply focuses Herbert’s theme of ecological change falling prey to the desires of would-be-heroes and power seekers. Small changes, whether ecological or semantic, frequently produce unwanted results.

The power of choice, environmental or semantic, and the power of accident and error all affect the consequences of life. Herbert understood the value and power found in both environmental ecology and

semantic ecology. He understood how language is used and abused. *Dune* serves to show the reader the effect language can have on a variety of situations. Life and death, *Dune* reveals, often hang precipitously on a word.

## Works Cited

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