

THE PHILOSOPHICAL IMPLICATIONS OF SCIENCE FICTION FOR THE TEACHING OF ANTHROPOLOGY

By Dr. Charles F. Urbanowicz

INTRODUCTION

To be perfectly honest, the title of this brief presentation is a variation on a title of a collection of essays by the distinguished physicist Werner Heisenberg (of "uncertainty principle" fame): **PHILOSOPHIC PROBLEMS OF NUCLEAR SCIENCE** (1952). The collection is historical in nature and it provides much food for thought, not only in the realm of atomic physics but also in the general philosophy of science. In an address originally presented in 1934 Heisenberg stated:

Science has two tasks: to pass on an understanding of nature, thus enabling man to make nature serve his own purposes, and to indicate to man his appropriate position in nature through a real insight into its interrelations. (1952:19).

One can argue that in the behavioral and social sciences we have a commitment to understand and pass on our understanding of culture (or human nature), thus en-

abling us to make culture serve our own purposes; we also have a commitment to understand not only our position within a culture, but also the interrelationships that take place inter-culturally as well as intra-culturally. As teaching social scientists, if we can stress these interrelationships with fiction or with facts, then "that's the way it goes!"

I am in thorough and whole-hearted agreement with the general introduction for this interdisciplinary symposium, for the use of science fiction materials in the classroom *is* a healthy "move away from gathering and presenting a loose compilation of 'facts,' destined to be continually outdated and revised . . . mentally filed away (or totally discarded)" at the end of a course of instruction. In my own teaching situations I am deeply indebted to the distinguished Historian A.J. Toynbee's comment in his twelfth volume of **A STUDY OF HISTORY: RECONSIDERATIONS**. He writes (and we often forget this):

Facts are not really like boulders that have been detached and shaped and deposited exclusively by the play of forces of non-human nature. They are like flaked and chipped flints, hewn stones, bricks or briquettes. Human action has had a hand in making them what they are, in truth, exactly what is meant by the Latin word *facta* from which the English word is derived. They are 'things that have been made' . . . (1964:250).

All too often we forget this simple "fact" and the social sciences can be notorious for "hardening of the categories" (or "facts")!

Education, the distinguished academician Jerome Bruner tells us in numerous works should stress the *processes* and *not* solely the products of the educational process. "Knowing is a process, not a product" (TOWARD A THEORY OF INSTRUCTION [1966:721]). If the overall purpose of "education" is to move *away* from rote memorization of "facts" to generalizations which can connect several "facts" simultaneously, then good science fiction is ideal in the classroom situation.

II. The dullness of fact is the mother of fiction! (Isaac Asimov [FACT AND FANCY, 1962:11])

The basic trouble with using science fiction in the classroom is that there is simply so much to choose from. S.J. Lundwall has written an excellent volume entitled SCIENCE FICTION: WHAT IT'S ALL ABOUT and he stated:

Ninety percent of all science fiction is crud, the sf writer Theodore Sturgeon once said; but, on the other hand, ninety percent of everything is crud! (1971:25).

One has to be guided into the realm of what I define as "good science fiction" first (perhaps) by luck, then by authors/titles, and wide-spread reading! "Good science fiction," in my opinion, seldom dwells upon "bug-eyed monsters" or BEMs, is seldom concerned solely with futuristic technologies or societies, is seldom concerned solely with "star wars" or pan-galactic unions! Good science fiction, quite frankly, should read like good anthropology! Just as good anthropology often reads like "science fiction" to the non-professional, good science fiction will deal with numerous concepts that the teaching social scientists will try to get across in the classroom, such as "Man as part of nature, human origins and evolution, human diversity and potential, the commitment to social life, the ecological imperative, the technological imperative, the origins of civilization, the world outside (science and religion), and living together in the universe" (taken from the "table of contents" of ANTHROPOLOGY THROUGH SCIENCE FICTION (1974) by C. Mason *et. al.*, an interesting but *not* outstanding volume).

Good and well-written science fiction obviously has its origins in "facts" and events which have taken place on this planet. There is an excellent statement by the science fiction author Robert Silverberg, in his edited volume entitled EARTHMEN AND STRANGERS:

. . . the science fiction writer, in the final analysis, is never really writing of other worlds and other times. Behind the futuristic trappings of his [or

her!] stories lies a more earthbound core. For the science fiction writer, no matter how vaulting his imagination may be, is still a man of twentieth century earth. He has never visited another planet nor laid eyes on an alien being. What he writes about, then, comes from within—what he himself has seen and thought. He translates his own experiences and speculations into the soaring wonders of science fiction, but we can [and *must* or *should*] look beyond the rockets and the strange creatures to find the real world of today. Science fiction, at its best, illuminates our own time by turning a mirror towards the future. (1966:8).

There is a unique complementarity in good science fiction, for while it is true that it is based on the "real world of today" *or*, more accurately, on the ideas prevailing in the real world when written, good science fiction also has that certain quality about it which can take you (perhaps ever-so-slightly) just one step beyond the current world of "today." This is the reason that someone like Alvin Toffler can write in FUTURE SHOCK (1971) about "education in the future tense" and that:

We do not have a literature *of* the future for use in these courses, but we do have literature *about* the future . . . Science fiction is held in low regard as a branch of literature, and perhaps it deserves this critical contempt [as Theodore Sturgeon would point out]. But if we view it as a kind of sociology of the future, rather than as literature, science fiction has immense value as a mind-stretching force for the creation of THE HABIT OF ANTICIPATION [Stress added]. Our children should be studying Arthur C. Clarke, William Tenn, Robert Heinlein, Ray Bradbury and Robert Sheckley, not because these writers can tell them about rocket ships and time machines but, more important, because they can lead young minds through an imaginative exploration of the jungle of political, social, psychological, and ethical issues that will confront these children [or, perhaps, more accurately MIGHT confront these individuals] as adults. Science fiction should be required reading for Future I (1971:425).

Good science fiction has the potential to move you into areas which do not quite yet exist . . . but very well might be coming in "the future." Good science fiction works were dealing with the ideas of the "shock of the future" long before Toffler started to write of future shock! The science fiction author Frederik Pohl has pointed out that Herman Kahn, well known for his somewhat reputable "futuristic" offerings makes use of science fiction:

[Herman Kahn] hires research assistants to make notes of all the ideas in the collected works of [the science fiction author] A.E. Van Vogt, to see which of them he can embody in the next batch of scenarios prepared by the Hudson Institute (1973:125).

Pohl also pointed out in the same essay a "sense of duty" which the good science fiction author has:

[to] try to see into a condition of life not our own, in time to help the world prepare for that future shock, that change in values, that new environment, that all of us will find ourselves living in as the progress of technology catches up with the potential of science

(1973:125).

The personal perspective that good science fiction writers present on "potential future times" is often criticized simply because critics fail to keep in mind that when science fiction writers present a scenario about "a future" they are not writing about "thee future." Critics have also accused science fiction works of being "escape-oriented" but good science fiction, I would argue, is not escape-oriented but forces the reader (or viewer!) to look to more personal issues.

III. "Bad" versus "Good" Science Fiction: Personal Comments.

There comes a time in the life of every man when he must forget his principles and do what he thinks is right. (Anonymous.)

I preface this section with the above, because I am going to present some personal views as what I view as "bad" (or perhaps "poor" would be a better term) science fiction as opposed to "good" science fiction. When I personally categorize good/poor science fiction I am often thinking about its potential value in the college classroom and, I will admit, I think the latest starring attraction, the film STAR WARS, is poor science fiction!

In my opinion, good sciencè fiction works are presented so that they raise theoretical questions in the reader or viewer; good science fiction leaves more potential questions unanswered than answered. When beginning the 1976 book STAR WARS: FROM THE ADVENTURES OF LUKE SKYWALKER, one thinks that the potential for "good" science fiction is there:

So it was with the Republic at its height. Like the greatest of trees, able to withstand any external attack, the Republic rotted from within though the danger was not visible from outside.

Aided and abetted by restless, power-hungry individuals within the government, and the massive organs of commerce, the ambitious Senator Palpatine caused himself to be elected President of the Republic. He promised to reunite the disaffected among the people and to restore the remembered glory of the Republic.

Once secure in office he declared himself Emperor, shutting himself away from the populace. Soon he was controlled by the very assistants and boot-lickers he had appointed to high office, and the cries of the people for justice did not reach his ears . . . Many used the imperial forces and the name of the increasingly isolated Emperor to further their own personal ambitions (G. Lucas 1976:1).

After this, however, the book quickly moves into a "typical" good-versus-evil, black-versus-white, insiders-versus-outsiders stereotypical discussion! This is what everyone seems to agree about anyway: The simplicity of the book/film itself in the way that the story is presented and some form of righteousness triumphs (for a moment).

The film, one must quickly admit, is a tour-de-force of special effects which gives one the feel for "being" there and traveling about, but the overall story is *not* science fiction as I like to think of it: it is more speculative technology, with small mannequins running, swash-buckling, and making general violence throughout!

Good science fiction, as stated earlier, has a certain

uniqueness to it: although based in the present, it takes you (perhaps ever-so-slightly) just beyond today into the world of tomorrow! The film STAR WARS does not do that! The future, or whatever we are viewing, is exactly like the present; the future is nothing but a lineal progression of Lucas' present ideas (and readings!) and while the film is technologically fantastic, you can still say "so what?"

Good science fiction is not escapist and gets one beyond the shallowness of most thought, and one can at least hope that the success of STAR WARS will at least get individuals to read Frank Herbert's 1965 DUNE (and/or even perhaps the somewhat convoluted 1969 DUNE MESSIAH and the more intricate 1976 CHILDREN OF DUNE). Good science fiction in the classroom is not an end in-and-of-itself, but must be used (should be used) to go beyond something to somewhere else: one starts off perhaps using good science fiction but then one moves into the realm of "more legitimate" social science or general "scientific" concepts. (With this "going beyond" criteria in mind, perhaps eventually STAR WARS will be considered "good" if it encourages individuals to read more quality science fiction . . . but . . . we shall see.)

Good science fiction authors, because of their freedom with their data and story can provide us with truly integrated and holistic views of whatever they set out to write about; and good science fiction authors can raise a variety of questions on a somewhat "neutral" territory which provides us with ideas for further thought, discussion, and readings. Good science fiction, as well as other "non-traditional materials" (as B. Lee Cooper has pointed out elsewhere) can "provide launching pads for the speculative analysis of issues in the future" (1976-77: 107). Good science fiction works are not escape-oriented and raise intriguing social science questions:

Do individuals make a difference or would the affairs of the universe move along appointed rounds if we, as individuals, were not present? Interesting and speculative "answers" can be found in a variety of works beginning, let us say, with Aldiss' STARSHIP (1958) or STARSWARM (1964). Read the indefatigable Asimov's FOUNDATION trilogy (1951, 1952, 1953) dealing with the Galactic Empires and the "psycho-historians" and the ability of the psycho-historians to plot out the eventual development of the empire *sans* individual actions *sans* individual beliefs. The empire marches along on a technological-psychological "foundation" which is unstoppable!

At the other end of the necessary continuum E.R. Russell's WASP (1958) presents us with a holistic views of the Sirian Empire, combined with the story of what a single individual, the "wasp," can do to wreak havoc in an entire empire and alter the course of history. Consider another of Russell's works entitled THE SPACE WILLIES (1958) which points out that "an earthman's tongue is his deadliest weapon" and again demonstrates the power that a single individual can have on the course of history. For those who prefer a balanced presentation, with an individual who is somewhat predictable (along the lines of the psychohistorian), there is always James

Bolivar di Griz, of [Harry] Harrison fame since 1961. No individual stands totally alone and all [individuals], on the basis of some past performances, are somewhat predictable; and the adventures of "Slippery Jim" or THE STAINLESS STEEL RAT make interesting reading! (C.F. Urbanowicz 1976:8).

IV. "To claim absolute knowledge is to become monstrous. Knowledge is an unending adventure at the edge of uncertainty." (Frank Herbert [CHILDREN OF DUNE] 1976:268.)

"But what, then, are the sources of our knowledge? The answer, I think, is this: there are all kinds of sources of our knowledge: but *none has authority* . . . The advance of knowledge consists, mainly, in the modification of earlier knowledge." ([Sir] Karl Popper, CONJECTURES AND REFUTATIONS: THE GROWTH OF SCIENTIFIC KNOWLEDGE, 1962: page 24 and page 28.)

Good and well-written science fiction contains information or ideas presented in a fictional sense which have as their referents "real" ideas and wider philosophical speculations. The DUNE series by Herbert can get one to raise questions not only about the nature of knowledge by a gifted author (and then one can move into ideas by Sir Karl Popper and others), but ideas about the nature of religion in general and ecology as a specific.

Perhaps the classic, all-around, well-balanced, best-written science fiction work of contemporary times is the 1949 work by George R. Stewart entitled EARTH ABIDES (from Ecclesiastes, I, 4: "Men go and come, but earth abides.>"). Superlatives fail me on this book, and on my own campus it is used by English department faculty, Geographers, Anthropologists, and general Social Scientists. I believe that it has always been in print and it is more than readily available for classroom use.

Briefly stated, the book follows the life of one man, Isherwood Williams, better known as "Ish," after a virus has destroyed most of the human population of this planet. As R. Ofshe has stated it (in including a small section of EARTH ABIDES in his 1977 book of readings entitled THE SOCIOLOGY OF THE POSSIBLE): "if a society were to produce too few talented people to support its technology—what would be the effect?" (1977: 244). EARTH ABIDES itself is but a variation on a theme of a California Anthropological classic entitled ISHI IN TWO WORLDS: A BIOGRAPHY OF THE LAST WILD INDIAN IN NORTH AMERICA (1962) by Theodora Kroeber.

The Anthropologist Leon Stover, who edited with Harry Harrison the "classic" and earliest anthropological compilation in 1968 as APEMAN, SPACEMAN: AN ANTHROPOLOGICAL SCIENCE FICTION, has summarized the EARTH ABIDES story so well that I shall simply quote him at length:

The novel [EARTH ABIDES] reverses the story of Ishi, which Kroeber (1962) has recorded as the 'biography of the last wild Indian in North America.' Ishi, the last member of the Yahi Indians, stepped out of an isolated Stone Age existence into a world of trolley cars and electric lights in early 20th-century California. Ishi's name in the Yahi language means 'man.' The hero of Stewart's novel is surnamed Ish-

erwood, 'Ish' for short, which is Hebrew for 'man.' Ish survives a pandemic disease to see civilization collapse and his children and grandchildren return to the life of Stone Age hunters. Ish is the last of the civilized Americans, Ishi the last of the aboriginal Americans. The one fiction, the other biography, both have the same moral: man is man, be he civilized or tribal. Stewart shows us that a tribal hunting culture is just as valid and real to its members as civilization is to us (L.E. Stover, 1973:472).

This, then, is one of the key reasons that I believe that anthropologists can successfully use "good" science fiction in the classroom: good science fiction gets to the heart of anthropological interests, namely the concept of "culture."

V. Culture and Conclusions.

Perhaps the most important contribution of 20th Century Anthropology has been the detailed and documented account of the tremendous 'range of variation' in the cultures of this planet. This has been a distinct move away from various 19th Century monolithic interpretations of "CULTURE" against which all other 'cultures' were appropriately, or more inappropriately, ranked. (C.F. Urbanowicz 1976:6.)

I personally believe that Anthropology is a key interpretive discipline in the social sciences because of this concept of culture. The aspiring Anthropological student can perhaps find as many definitions of the terms as there are individual Anthropologists, yet we all seem to have a "rough agreement" on what it is when we discuss "culture" in the literature. (For the range of variation on the concept, one need only consult a 1952 classic compendium by two leading Anthropologists, A.L. Kroeber and C. Kluckhohn to see what has been meant by the term in CULTURE: A CRITICAL REVIEW OF CONCEPTS.)

The concept of culture shows us that there is no one single sacrosanct privileged frame of reference, no one single "culture" which can serve as the model of analysis for other cultures. There is no one single "culture" against which all other cultures can be rank ordered and subjected to scrutiny. This is but the idea of "cultural relativity" which has been practiced to a certain degree by various Anthropologists over the years. Perhaps we can somewhat cryptically state that "cultures are not equal, but all cultures are equally the same!"

All cultures on this planet are related, and who in the Social Sciences can say that one is truly superior to another in . . .? A similar point comes across in a 1954 excellent short story by the Anthropologist Chad Oliver, which is entitled "Of Course." Briefly, an Extra-Terrestrial Intelligence vehicle appears over the United Nations building in New York City and every Government on Earth receives an identical message and:

The ship wasn't fussy about defining 'government,' either. It contacted every sort of political division. In certain instances where the recipients were illiterate, or non-literate, the message was delivered vocally. (In APEMAN, SPACEMAN: ANTHROPOLOGICAL SCIENCE FICTION (1968:319); also in SOCIOLOGY THROUGH SCIENCE FICTION (1974) edited by J. W. Milstead *et. al.*)

The message read, in part:

Please do not be alarmed. We have come in peace on a mission of good will. Our task here is to determine to our satisfaction which one among you has the most advanced culture on your planet.

After three weeks of research, by obviously superior beings from space and three weeks of "Of course, it has to be us . . ." as stated by the Swiss, the Russians, the Americans, the Masai, the . . . And then, the ETI ship makes the decision:

We bring you greetings and farewell. Our work among you has now been completed. We have found the most advanced culture among you to be the Central Eskimo of Baffin Land.

Needless to say, consternation abounded! And I shall quote from Chad Oliver himself who commented on his own story twenty years later in 1974:

The President of the United States calls in his Secretary of State, whose name is Henry. They decide that they must consult with a social scientist, distasteful as that might be. They smuggle a sociologist in through the back door of the White House. The sociologist, being an honest man, refers them to an anthropologist. The anthropologist duly arrives, but he turns out to be a physical anthropologist. Nevertheless, he does the best he can, pointing out that anthropologists are not *totally* specialized. His task is to explain why the Eskimos represent the most advanced culture on Earth. This is a fairly formidable assignment, even for an anthropologist. He makes a number of suggestions, but he is also an honest man. He confesses that he really doesn't know. He points out that there is only one way to find out; we must study *all* of the cultures on this planet to discover what is truly unique about the Eskimos. The President realizes that this is going to cost money, and is not pleased.

The story ends by shifting to the viewpoint of the people on the starship. It develops that they picked the Eskimo more or less at random. "An awfully nice chap," one observes, "but he *is* a bit on the primitive side." His companion concludes: "A slight stimulus never hurt anyone, my friend. By the time they get through worrying about that Eskimo, they ought to have a real science down there." ("Two horizons of Man: Parallels and interconnections between anthropology and science fiction" presented 21 November 1974 at the Symposium entitled "Alternative Anthropological Futures: Anthropological Theory and Science Fiction" at the 73rd Annual Meeting of the American Anthropological Association, Mexico City, November 19-24, 1974.)

This is good science fiction! It provides one with basic information and a story, and then it gives a slight "twist" to it and takes you beyond where you originally were!

There are, indeed, philosophical implications in using science fiction for the teaching of anthropology—for the teaching of any behavioral and social science. If, as our educational goal we have the idea of creating an enlightened citizenry, a citizenry which is capable of making rational and intelligent decisions based on as much of the current information as is available; a citizenry which will

be able to deal with situations of the future and not merely situations of the present; a citizenry which can make intelligent choices for future generations, then we have a commitment to ourselves and the entire academic profession to use whatever materials we possibly have at our disposal to work with people.

If we can convey our message(s) with "hard facts" (which might and might not change over time) or with "soft speculative science fiction" then, as stated before, so be it! There should be no stigma attached to using good science fiction in the classroom.

Jerome Bruner has written, quite eloquently, in a chapter (entitled "Aids to teaching") in *THE PROCESS OF EDUCATION* that:

In sum then, the teacher's task as communicator, model, and identification figure can be supported by a wise use of a variety of devices that expand experience, clarify it, and give it personal significance. There need be no conflict between the teacher and the aids to teaching. There will be no conflict if the development of aids takes into account the aims and the requirements of teaching (1960:91).

I shall end this brief paper with another quote from Bruner which he made earlier in the volume:

To communicate knowledge and to provide a model of competence, the teacher must be free to teach and to learn. We have not been sufficiently mindful of the ways in which such freedom can be achieved.

* * *

For a postscript, let us not forget the words of B. Aldiss and pointed out by Harry Harrison in *THE OUTDATED MAN* (1973:8):

Science fiction is now broad enough in scope to contain both highbrow and lowbrow; something for the seekers after cerebral stimulation as well as those who only want emotional titillation. It was Brian Aldiss who recently noticed on a blackboard the chalked message; **GET SCIENCE FICTION OUT OF THE CLASSROOM AND BACK IN THE GUTTER WHERE IT BELONGS.** The feelings can be understood.

THE UNIVERSITY JOURNAL

Number 9

Fall 1977

