

# U. S. May Swallow Hook

► THE UNITED STATES may be in danger of "swallowing a baited hook" in Viet Nam, an Illinois psychologist told the Senate Foreign Relations Committee.

The bait is the temptation to use the military power this country obviously has while rationalizing it with a psychologically unsound "strategy of escalation," said Dr. Charles E. Osgood, director of the Institute of Communications Research at the University of Illinois. The hook is the escalator. It is far easier to keep going up, said Dr. Osgood, than to stop and back down.

Testifying at the invitation of Senator Fulbright's Committee, Dr. Osgood and a colleague, Dr. Jerome D. Frank, professor of psychiatry at Johns Hopkins University School of Medicine, Baltimore, Md., described what might be happening psychologically between the United States and Red China, especially with reference to Viet Nam.

A powerful nation may choose to in-

voke one of two images, Dr. Osgood told the Committee. One is the "implacable enemy" image; the other is the "wise father" image. In the first, a nation attempts to keep its enemy uncertain and anxious. As in the strategy of "calculated escalation" the object is to increase tension, with the hope of exhausting the enemy's tolerance for risk before one's own tolerance is reached.

On the other hand, the "wise father" image is firm but potentially cooperative, said Dr. Osgood. Here a nation makes its words and deeds compatible. It sets down certain rules stating what it will and will not accept. The idea is to convince enemies that it will attack only if those rules are broken.

Dr. Osgood said he does not believe it is psychologically feasible to project both images at the same time, or, in other words, to both escalate a conflict and de-escalate it.

"At each rung on the escalation lad-

der," he pointed out, "the initiator offers both the threat of further escalation, if further provoked, and the promise of cessation, if appeased. Do both of these 'messages' get through with equal clarity? Psychologically, the answer must be 'no.' In any conflict situation, it is easier to believe an opponent's aggressive statements (such as 'we will bury you') than his conciliatory ones.

"Threats are consistent with what one expects from an enemy; promises are inconsistent. In communication under conflict conditions, therefore, there is a constant bias of credibility which favors further escalation and hinders de-escalation."

Actually, de-escalation—the step by step decrease of tension—probably will only work with a rational enemy, the experts noted. It seems to have worked with Russia, but Red China is an unknown enemy.

Small conciliatory steps in Viet Nam and on other fronts such as the cultural could reveal just how rational China is. Both Drs. Osgood and Frank said they doubted that the psychological approach they were describing would have worked with Hitler because he was not rational.

But perhaps, they said, China is basically afraid of U.S. power, rather than implacably and irrationally hostile.

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# Patient Programmed

► A MAJOR STEP in the marriage between computers and human behavior has been taken by a California mathematician and authority on computer language.

Dr. Richard Bellman of the University of Southern California in Los Angeles has simulated for the first time some psychological elements of an interview between therapist and patient.

In human terms, the computerized interview was exceedingly simple. In computer terms, it was highly complex and sophisticated.

The computer acts as the patient, Dr. Bellman told SCIENCE SERVICE. For each question asked by the therapist, the machine has two possible answers. Which one it selects is determined by the rules of probability, but only three psychological attitudes are possible—"convergent" (cooperative), "divergent" (tending toward hostility), and ambiguous (not clear).

The simulation was based on emotions, said Dr. Bellman, because it was believed that a therapist can do little more than sense attitudes during his first interview with the patient.

Depending on the computer's answer, the therapist is presented with two more choices. He selects one and the process continues with machine influencing therapist and therapist influencing machine. Even by the fifth interchange, the total number of possible questions and responses had branched into an immense tree, said Dr. Bellman.

He noted that even for such a simple psychiatric interview, complex problems of retrieval and storage had to first be solved.

Ironically, Dr. Bellman's success in creating the computer program testifies to the very real limitations computers have in the behavioral sciences.

In using computers to study human behavior Dr. Bellman said, scientists are no closer now than they were 30 years ago, but "in the last 10 years, we have begun to realize how difficult it is."

"People are dazzled by computers and the success of mathematics," he said. "They do not realize computers have been applied in carefully chosen areas, so the batting average appears to be extraordinary."

Scientists have made thousands of attempts to build ships and even shoes with computers, and it could not be done. "If mathematics could not be used for such engineering problems," said Dr. Bellman, "how could it be used to test theories of human behavior?"

In making his comments, Dr. Bellman was responding to the hope that psychiatrists and other behavioral scientists have placed in computers. Some recently expressed beliefs are that computers will provide the mathematics of social systems, enhance the predictability of human behavior, and affirm or deny the validity of psychological theories.

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# No Brain Transplant Seen To Offset Senile Future

► THE SPECTER of senile people overrunning the earth as a result of lives prolonged by receiving somebody else's heart or liver or arteries was presented as a "terrifying prospect" by Sir George White Pickering, Oxford University professor of medicine.

Medicine battling toward an indefinite life-span through transplants, meets its Waterloo at the brain—an inaccessible pinnacle, Dr. Pickering believes.

"Its connections are so complicated, and regeneration of severed nerves so imperfect and so slow, that it seems unlikely that transplantation will ever be technically possible," the English physician said at a symposium at Columbia University College of Physicians and Surgeons in New York conducted jointly by the College and Merck Sharp & Dohme Research Laboratories.

The brain as an adult organ owes much of its usefulness to the material stored away in its delicate, and as yet unrevealed, mechanism, said Dr. Pickering, pointing out that even Aldous Huxley in "Brave New World" did not attempt to foretell the bizarre consequences of transplanting the brain.

The catastrophe of indefinite life has led Dr. Pickering to ask whether it is not time to halt the program of research and development that will make such a thing possible.

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