THE UNCRITICAL INFERENCE TEST -- APPLICATIONS

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For the past eight or nine years participants in the Institute’s Seminar-Workshops and in other Institute training activities have been 'subjected' to the Uncritical Inference Test. Since so many BULLETIN readers have been 'exposed' (perhaps not always painlessly) to the instrument, the editor has suggested that they might be interested in a compilation of the applications which have been made of the test.

I created the test in conjunction with my PhD dissertation in 1953. Since that time the test has gone through numerous refinements. More recently, I have developed other forms of the test and one battery of three new scales was published in a recent article.*

I must confess that ten years ago I had no idea of the scope of ways in which the test would be utilized.

Among the research studies completed or in process that have involved the test are one at Columbia University having to do with the relation of uncritical inference behavior with the variables of age and general semantics training; another at Ohio State University concerned with the ability of subjects to make inferences; at least two at Wayne State -- one comparing test scores with certain personality variables, the other concerned with a teacher education project; one at the University of Chicago dealing with management development; another having to do with medical research at Johns Hopkins; one at New York University related to the determination of general semantics instructional effectiveness at the college level; still others dealing with the effect of general semantics principles in relation to the teaching of general science, the teaching of news reporting, a comparative study with the Watson-Glaser Critical Thinking Appraisal in teaching senior English in high school; etc.

One study which will be of particular interest to speech and communication researchers was conducted at the University of Kansas. The experimenter’s conclusion: "The scores on the "uncritical inference tests" have correlated higher with the productivity of individuals in discussions than any other single variable I have been able to isolate (including factual knowledge, personal values, ability in formal reasoning, and personality profiles)."

By far the greatest use of the test has been as a teaching or training aid. It has found its way into innumerable universities, colleges, and high schools. The gamut of departments using the test includes law, speech, logic, English, psychology, philosophy, administration, labor relations, engineering, journalism, etc. The military service has made considerable use of it in this respect. The Army, Air Force, and Navy have all used it largely in management training. Since numerous university management development centers and private consulting firms and individuals use the test it seems a fair assumption that at least some representatives of virtually all major firms and federal agencies have taken the test.

Among organizations which have used the tests in their own internal training activities are General Electric, Boeing, Western Electric, Reynolds Metals, Kroger, McDonnell Aircraft, Trans-Canada Airlines, numerous police departments and state mental institutions (for therapy and training), a penitentiary, the Treasury Department, the Internal Revenue Service, the Department of Defense, nursing, dietician and hospital administrative groups, general semantics chapters and interest groups and, rather interestingly, the Park Rangers at Glacier National Park.

Undoubtedly these groups have varying objectives and aspirations in their use of the test but I should think the most ambitious goal was expressed by the president of a nation-wide small-loan corporation. He was convinced that the test would help his personnel spot bad loan risks!

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NOTE: Elwood Murray, Director of the School of Speech, Denver University, when he read the manuscript of this article on Modern Heuristic wrote: 'The Carter and Richey study makes a major contribution at this time for the Speech-English fields and the larger Humanities-Social Science areas. . . The section on "Modern Heuristic Procedures for Designing Research" will be of great value to anyone teaching research methods and is the only such comparison of methods now available as far as I know. The study supports Korzybski's general semantics and general semantics supports Polya. I would like to see this mutual support emphasized.'

As editor of the Bulletin, I would like to emphasize that the potential significance of what Carter and Richey have to say reaches far beyond the limits suggested by their title. If this were not so, their study would more appropriately be published as a separate monograph. In my opinion, it carries a wider and more general significance and so belongs in the Bulletin.

I commend it to readers who are neither professionally concerned with, nor personally interested in, Research or Teaching per se, and even to those who may consider themselves familiar with Polya's How to Solve It and his more technical work, Mathematics and Plausible Reasoning. I do this on the basis of my experience, the value of the new insights for my own problem-solving behavior which I derived from careful study of this manuscript and Carter's previous paper, 'Creativity and the Logic of Discovery' in the Bulletin (Numbers 26 & 27). --M. Kendig

MODERN HEURISTIC IN HISTORICAL PERSPECTIVE
WITH IMPLICATIONS FOR RESEARCH PEDAGOGY

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I INTRODUCTION

We emphasize research in conjunction with teaching, especially the teaching of research itself. The implications of teaching research extend into all kinds of problem-solving procedures. Thus research pedagogy covers not only the student's Introduction to Graduate Study but also his introduction to any other kind of scholarly endeavor, including the bearings of Modern Heuristic upon rhetorical invention and arrangement, especially its bearings upon problem solving through discussion, argumentation and debate. For discussion may be compared and contrasted with the process of solving mathematical problems-to-find. And debate may be compared and contrasted with the process of solving mathematical problems-to-prove. Furthermore, certain aspects of Modern Heuristic may penetrate deeply into the logical and psychological foundations of discussion, argumentation and persuasion theories; for instance, Polya's PATTERNS OF PLAUSIBLE INFERENCE (1954) may replace Aristotle's enthymeme or rhetorical syllogism in at least the formal interpretations and evaluations of discourse.

II WHAT THE TERM MODERN HEURISTIC MEANS TO US

Modern Heuristic, like other fields of study, is an evolutionary product of a cultural process. In its development, the function of the human nervous system has been to serve as the 'catalyst' of the cultural process. Leslie A. White (1956, p. 2364), who calls himself a culturologist, explained mathematical invention and discovery as 'two aspects of an event that takes place simultaneously in the cultural tradition and in one or more nervous systems.'

The 'catalyst' of Modern Heuristic is the nervous system of Professor George Polya, professor emeritus of mathematics, Stanford University, a man who neither looks nor acts his age. He was 72 at the time of our interviews; he was busy teaching teachers of mathematics, and writing. He has taught mathematics in

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