Art education, a field that it would be reasonable to suspect had a built-in intolerance of research and its schematicizing, reductive nature, is surprisingly hospitable to it. If the source of the research is the art educator himself, the research is often inspired by a need to reinforce attitudes already held within the field, and, chances are, the audience of the research will be predisposed to its point of view. If the source of the research is the psychologist who comes burdened with the need to perform research in creativity, however, the visit is flattering—for the relationship between art and psychology has always been a polite one. The psychologist seldom challenges the belief systems of artists or art educators, and art educators are glad enough for the psychologist’s legitimate attention.

Neither source seems to have a monopoly on producing meaningless research, but no matter how meaningless research gets, it can have a lively existence by being sufficiently distorted or illegitimately generalized, and bounced around in bulletins and texts. It is this infective, illicit life of research that I think we need to begin to worry about.

Research has a fiat simply by being research. There are, supposedly, those who believe that it is the only path to knowledge. But it is a terrible mistake to believe that the only time scientific method is employed is when it is employed formally, i.e., in recorded research; or that the only time knowledge is tested is when it is tested formally. Almost by definition there can be no bad research. It is believed that research is a kind of perfect system that will recognize its own errors. If the method of some particular research is deficient, or if its concepts are barren, the research, it is supposed, will prove itself false and the project will be scrapped. This is far from the case. The answer to all deficiencies is a call for more research. The literature of research in every field is full of corpses, most of them the result of stillbirth—but these corpses haunt us.

Before I present the analysis that is the main focus of this article, I would like to give an example of the propaganda of research. In the highly-respected text, Creative and Mental Growth, there is an intriguing, illustrated reference to a piece of research which is supposed to have demonstrated the negative effect exposure to workbooks has on children: A child draws a bird, is then exposed to a workbook that contains some symbols of birds so highly abstracted as to be cuneiform, and, finally, is asked to draw another bird. His new bird is an impoverished image. This is the propaganda that the reader of the Lowenfeld/Britain text is left with: “After coloring the workbook birds, the child has lost his creative sensitivity and self-reliance.” How perfectly awful! Will the child recover?—and I don’t mean that facetiously. Perhaps if the workbook experience had not been reinforced by the child’s being tested immediately, the results would not have been so frightening. Maybe five years after the exposure the child will not only have in his mind, as resources, all those abstract features of his original drawing, but those abstract symbols as well. Perhaps a more elaborate image in another workbook would have been more enriching: after all, it is quite likely that the original bird was a regurgitation of birds he had seen in his books. Might not the nefarious effects of workbooks be mitigated, even reversed, by intelligent teaching? Would the effects have been the same with older children? Whether or not these questions were dealt with by the author of the original research is irrelevant here.

I would now like to consider some research of Beittel and Burkhard, one of the most respected research teams in the field of art education. I did not choose this work because of its vulnerability, but because of its respectability. It was supported by government funds and represented at its time a culmination of many years’ efforts on the part of the researchers. There is hardly an art educator, I would guess, who
at one time or another has not read of the categories of art strategy, divergent and spontaneous, that were isolated in this research, and many will have already read the version of the research that I will examine: the one that appears in *Readings in Art Education*, by Eisner and Ecker, itself a landmark among publications in the field.

About 1964, Beittel and Burkhart isolated a type of strategy in the making of pen and ink drawings that was not accounted for in Burkhart's earlier categories, spontaneous and deliberate. Their new category presented some problems as it was both deliberate and creative, characteristics that seemed conventionally contradictory. Spontaneity had been in the past intrinsically linked with creativity. They established three types of strategy to replace the older two: Academic, which replaced Deliberate; Spontaneous, which remained the same; and Divergent, which was a splinter from the original Deliberate. The new category, Divergent, came into being as an attempt to reconcile a deliberate act with creativity. The category Academic, then, bears the full burden of describing all activity considered non-creative. The delineating characteristics of the strategy described as Divergent are: thinking is emphasized over action (the reversal of Spontaneous strategy), and the subject proceeds through deliberation toward discovery, a trait which separates him from the Academic subject, who discovers—and, one is led to believe, accomplishes—nothing.

From the outset one can legitimately question to what degree the magical connotations of these words, both pejorative and argumentative, affected the interpretation of the research performed. There can be no question that the research as reported affects our concept of the word *academic* and its associated traits. It is little protection against this process to capitalize the word.

The study involved 47 junior art education majors from Pennsylvania State University, who did pen and ink drawings from a still-life. Stages in the development of the drawings were photographed, and on the basis of their various strategies the subjects were divided into the three groups indicated above. Those who were thoughtful, hesitant, and tended to approach the composition as a whole were labeled, Academic. Those whose approach was dynamic, unhesitating, and seemed to make use of "accidents" were labeled, Spontaneous. Finally, those who worked deliberately (This word has, for this research, lost its pejorative connotation, being now disassociated from non-creativity) were part to part, and for whom the finished product was undetermined from the start, but arrived at through development of parts, i.e., through discovery, were called Divergent. There was, as far as can be determined from the report, no effort to establish to what degree the strategies were a result of art training or previous experience in the handling of the medium. An unannounced assumption of the research, then, is that the strategy, being deep-rooted and a manifestation of a life style, is affected little by such influences as art training. Yet, the authors conclude their report by recommending not only alterations in strategy, but the phasing out of one of them. There is a possibility, of course, that the authors believe the art strategies to be not only reflective of the life style of a subject, but interdependent upon it, so that if one can succeed in altering one, he will perform alter the other. Such an affecting relationship between life style and art strategy has not been demonstrated by any research. One could just as reasonably assume that the degree to which the strategies are a learned process, and the degree to which they are inherent, would vary among the subjects—if not the 47 subjects studied, than a more motley group—and would affect the conclusions of the research profoundly.

The authors were able to relate performance during the research to life styles of the subjects in a surprisingly convincing way. The subjects tended to prefer words that seemed descriptive of their own strategy. They tended to value concepts that seemed to parallel their own art work. Even their early home life was, according to the authors, predictably patterned as a source of their art strategy.

The academic students, however, have effectively reinforcing authoritarian homes where clear distinctions between right and wrong are made on the basis of propriety, according to traditional and socially acceptable modes of behavior (p. 300).

The authors make it very clear that they think, in terms of a creativity function, that such a home, with such values, is a depriving environment. No consideration is given to the idea that such an environment is the very type that has produced some of our society's most creative people. It is somehow a measure of the carelessness of the research that before talking about life styles no attempt was made to show that the stra-
strategies isolated in the art project cut across the boundaries of one discipline. The authors only suggest that the strategies might remain constant in other fields as well. Yet, they are willing to talk of life styles.

Many questions arise if we examine the tables that show group affiliation with traits and attitudes. Why, for instance, does the Divergent group score higher in the self-restraint orientation word selection patterns than the Academic group? Isn’t this a contradiction of the pattern? Why is achievement motivation lowest in the Divergent group, and why is this group more theory-oriented than the others? We can assume that the authors seemed annoyed by the latter finding, since they attempt to rationalize it. It is the only time that they admit to outright speculation.

The Academic performer is given short shrift in the report all the way through. Here is a description of the Academic student’s working methods:

The Academic student is clearly distinguished in his initial stages from the Spontaneous and Divergent students. The Academic student tries early to commit himself to the total product, crowding out room for variation and arrangement or organic development of his concepts from a vague beginning, since he starts with precision... he wants a precise statement which leaves little room for organic interaction with the medium. . . . Once having determined the technique to be employed, such as the stippling seen in Academic illustrations he mechanically applies it to the whole. Thus neither vitality nor discovery are possible (p. 294). (Italics are mine)

When the Academic student is committing himself to the whole product, he may be doing a good job of showing that he has learned the lesson behind the majority of art courses taught in our society. By associating this approach with the Academic student, the authors have discredited it, along with the idea of precision. One wonders, by the way, how a subject can be both precise and vague. Since the work of the Academic student does not have the ingredients of variation and organic interaction (whatever they might mean) the work is deemed unworthy. Notice how stippling in the hand of the Academic student is demoted to a mechanical act, and how his conception of the whole crowds out room for variation.

"Whitehead’s and Bertrand Russell’s cooperation on Principia Mathematica is an example of scholarly cooperation between a Spontaneous and a Divergent mind," (p. 300). Here the obvious exclusion of an example of the Academic mind reinforces the idea that it is productive of nothing. Again: “The Spontaneous approach is more Beethoven-like; the Divergent more Bach-like," (p. 291).

If we are not, at this point, willing to accept that something that can be described as the Academic mind, or the Spontaneous mind, does indeed exist, we might ask: Isn’t it possible that the interaction of the traits of one strategy with those of another could be an affecting phenomenon? What proof is there that the traits the three groups have in common are non-determining factors in a creative process?

Look at the following with a jaundiced eye:

One’s strategy is an outgrowth of life-oriented purpose, and if that purpose is not innovative, the strategy becomes academic. The purpose is identifiable by the source to which the student looks for satisfaction. The Academic student looks to others for recognition for achievement through skill; the source of satisfaction is thus external. Both the Spontaneous and Divergent students achieve internal satisfaction from the reaffirmation of their creative resourcefulness through their strategies of work (p. 298).

There has been nothing to prove that the Academic student had no inner satisfaction in his process, and nothing to prove that the Spontaneous and Divergent students were not looking for satisfaction in the approval of others, or that their style of working had not been developed partly in response to the approval or disapproval of others, those around them at the time of the research notwithstanding. The strategies isolated here are conditioned responses of the highest complexity, and if some correlation was shown to exist between them and a life style, we cannot overlook the possibility that both the life style and the strategy of painting might be to a high degree assumed, and have little to do with psychological or artistic realities. It is quite possible that this research as well as most research done in the field of creativity deals with the mannerisms of creativity. It is ironical that the word spontaneous, which means, literally, automatic; accomplished without conscious thought, should have become a word so closely associated with creativity. Spontaneity may often be a mannerism of creativity, but we have come to call it the substance.

A habit usually considered a handicap to most vital accomplishment is whitewashed so that it can comfortably fit with all the other desirable traits of a creative group.

The Divergent person focuses on the content in detail,
What makes the authors sure that this is the reason that the Divergent person has chosen to overlook the system? They are, thus, constantly overstepping the limitations of their findings and giving them an unsupportable explanation.

After looking closely at the tables that show Academic students rate low in all the associative tests—several of them designed by the authors—one begins to wonder if we are not dealing with an I.Q. differential. Since this possibility is not explored by the authors, we can do no more than raise the question. The authors are careful to point out that the “possession of a strategy, however, is no assurance of quality, though it insures individuality,” (p. 307). Regardless of this non sequitur, I wonder how much of the significant differences in personality and attitudes that show up in the comparison of the three groups are determined by high-low quality factors. It seems to me highly possible, e.g., that a significant number of Academic students might be socially shy, but all of these may be Academic students of low ability. In terms of social temperament the Academic student of high ability might, then, fit more comfortably into the patterns established by the Divergent or Spontaneous groups. It might be so on many of the tests. If it were found to be so, the theses of the research would simply collapse.

If there is still doubt at this point of the propaganda inherent in this report, we can dispel it by examining a final quotation.

Self-reflective educational procedures need to be instituted which allow for the gradual correction and replacement of Academic behavioral patterns along nonthreat treatment lines of problem solving and discovery. Eventually, we feel, the evaluative objective of such a program must be the selection and development by the student, under guidance, of the more productive strategy (p. 306). It seems almost too late to point out that at no time were the subjects associated with any product or any production standards other than those imposed on the experiment. Until this point there has been no discussion of which group was more productive. I suspect that the Academic group might produce many more pies that the Spontaneous group and that they might have a more constant high quality. Turning out pies is, however, non-creative, and by some absurd reduction, non-productive.

If we are to phase out the Academic strategy in our society as the authors suggest, we phase out with it behavior that is described in the report as proper, polite, serene, civilized, courteous, complimentary, traditional, conventional; and we discredit a regard for clarification, appropriateness, reliability, certainty, caution, restraint, and principle. These words are all taken from the tests included in the research and describe the hang-ups of the Academic mind. The implication is that there is no place in our society for such values. Moreover, the authors want to start their phasing out of these values with behavioral patterns and work gradually towards strategy, a project that might not stop short of psychoanalysis.

I do not doubt that the strategies isolated by the authors actually do in some way reflect the subjects’ background and life style, but I doubt whether a strategy—any given one—indicates the same thing in all situations, and can be reliably predictive of a population more diverse than that represented by the 47 subjects of the research—all art education majors from one university, the reader will recall.

Evidence is needed that these isolated approaches would have their parallel in other disciplines. A suggestion that they might is not sufficient. If the strategies don’t cut across discipline boundaries, then much of what is said by the authors is unsupported, and wrong. And as long as we are talking about altering strategies, what would really be achieved by getting an Academic student to live and perform like a Divergent? Less, I would suspect, than getting a Spontaneous person to modify his strategy along Academic lines.

If one of the prime reasons Beittel and Burkhart want to phase out the Academic response is because the Academic student seeks approval from others, we are saying, essentially, that this is not a desirable trait. Are we not then attempting to discredit and eliminate one of the basic human motivations, and thereby risking the creation of a vacuum which might be filled by anxiety? Evidence might be constructed to demonstrate that one can take on the characteristics of self-reliance in order to gain peer or authority approval. We cannot just assume that apparent self-reliance and need for approval are mutually exclusive. I have attempted here to call attention to the weak-
ness of some prominent research in the field of art education and to point out what I think is the insidious nature of the propaganda that it generates, or at least reinforces. If I am more prone than most people to look for the negative aspects of research rather than the promise inherent in it, it is because I simply do not recognize the promise. Ideas that might change gracefully with time are often fixed for too long a time by research. Every time I read the phrase effects of in a title of some research, I am forced to ask: What kind of effects? Immediate? Long range? Permanent? Temporal? Measurable? Immeasurable? Generative? Inert? —and I am always forced to conclude that it is beyond the scope of the research to qualify the effects it isolates. I would prefer to pretend that such a blessed state of creativity did not exist than to have it reduced to systems of behavior that may never produce or create anything. I am wary of fostering the mannerisms of creativity in every classroom in the nation. And for those who naively think that “creativity” is safe as long as it is not successfully defined, I would like to point out that it was a test that finally defined intelligence for us and for a very long time.

The research literature of creativity, much of it centered around creativity tests, is growing, and the artist and art educator are in good position to look at it critically. The psychologist, aware of a tradition that art ability has something important to do with creativity, but intrigued with the fact that even measurable art abilities do not align themselves cooperatively with other measurable talents, comes to call often.

References
1. For an example of the confusion between “knowledge-making” and research, see Elliot W. Eiser and David W. Ecker, Readings in Art Education. Waltham, Massachusetts: Blaisdell Publishing Co., 1966, p. 14.
2. Workbooks and colorbooks are used as synonyms in Creative and Mental Growth, Fifth Edition, Lowenfeld and Brittain, and this alone should raise many questions in the reader’s mind.
6. The strategy Academic does not appear in Project 1874, but sporadic references to a “formal” approach do appear.
8. The struggle to separate intelligence (as it is tested) from creativity, now has its parallel in the struggle to separate aesthetic values from creativity. See ibid., p. 56.
9. One of the myths in the field of creativity research seems to be that if one devises a test that will assay something that research scientists, writers, artists, and gourmet cooks have in common, he will have somehow succeeded in capturing creativity—or at least pinning down a feather or two. And yet, artists and art educators have believed for a long time that it is just what they don’t have in common with others that makes them creative.

August Becker is Assistant Professor of Art Education, College of Education, University of Hawaii. Receiving his B.F.A. and M.F.A. from the Art Institute of Chicago, and his Ed.D. from Columbia University, his varied teaching experiences include assignments in the public schools of Hatlem, New York, and the suburbs of Miami, Florida, and Philadelphia, the famous High School of Music and Art in New York City, and Pratt Institute in Brooklyn. Earlier this year, the Alaska Methodist University and the Alaska State Arts Council honored Dr. Becker with a large retrospective exhibition.