

DOCUMENT RESUME

ED 126 574

EA 008 516

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 TITLE Easier Said Than Done: The Function of Images in Establishing a New Bureaucracy.
 PUB DATE Apr 76
 NOTE 25p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, California, April 19-23, 1976)

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.
 DESCRIPTORS Administrative Agencies; *Agency Role; *Case Studies; Educational Research; *Federal Programs; *Institutional Environment; *Organizational Change; Research and Development Centers
 IDENTIFIERS *National Institute of Education; NIE

ABSTRACT

This paper examines the effect of a federal agency's image on its creation, initial operation, and continuing activity. Focusing their attention on the National Institute of Education (NIE), the authors examine the origins of NIE's initial image, the utility of that image in securing congressional approval for its creation, and the relationship of the image to NIE's subsequent political and organizational difficulties. The quality of a new agency's environment largely determines the stability of its initial image, the authors argue. Agencies established in benevolent environments will retain their initial image longer than agencies established in harsh environments. However, revising an agency's initial image in response to the agency's "failure" will not necessarily lead to future "success." If the harsh environment is independent of the agency's actions, changing the agency's image will not produce a more benign environment. (Author/JG)

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EASIER SAID THAN DONE:
THE FUNCTION OF IMAGES IN ESTABLISHING A NEW BUREAUCRACY¹⁾

by

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April 1976

ED126574

EA 008 516

Proposals for change in human affairs derive their motive power from both a distaste for a current situation and an appealing image of future achievements. The images of the future are substantially less well specified than are complaints about the past and present. They exhibit little appreciation for history; their attraction lies in simplicity and heroism of purpose. Some of the most ambitious images of change envision entirely new organizations--free of the defects of the past and working effectively toward the goals of the future. The proponents of a new organization may come to rely on their image of it--a simplified, heroic picture--to guide them through the complexities of creation.

In the federal context an image of a new agency can serve several purposes. The first is justification for change. New agencies must be authorized by Congress, but Congress has neither the time nor the inclination to understand detailed plans for specific changes in the executive branch. The image can be invoked to persuade Congress of the need for the proposed new organization without overburdening it with the details of implementation. The image also promotes and sustains optimism among personnel who may come to be associated with the new agency. Like a flag carried into battle, the image is a reminder of virtue in a mass of confusion. Finally, if the agency is authorized, the image can lead to a guide for action. Reality is so complicated that individuals and organizations must create a simplified picture of the world before choosing a course of action.²⁾ The image--a simplified cognitive model--assists in shaping the subjective definition of any situation by indicating appropriate problems, explanations and aspirations.³⁾ In the early life of a new agency, when the workload is overwhelming, the image can help individuals decide what problems are important, what solutions are acceptable, which people should be listened to and which ones ignored.

This paper describes how one such image or cognitive model influenced the creation and initial operation of a new federal bureaucracy--the National Institute of Education. We examine the origins of the image, its utility in securing the creation of the new agency, and its subsequent political and organizational difficulties. We conclude with a warning about the unintended consequences of such images when they impose expectations for comprehensive planning and rational choice in government.

Source of the Image: Dissatisfaction

Throughout 1969 President Nixon had been struggling with education lobby groups over their demands for increased funding for federal aid to education. The struggle had been accompanied by Presidential vetoes of several appropriations bills for education, vetoes bitterly contested by national education groups. The White House staff was in the market for ideas that would create a distinctive Nixon program in education and would ameliorate the ill will of the education lobbies--without committing the administration to vast new expenditures. To this end, the White House created a Working Group on new initiatives in elementary and secondary education.⁴⁾

Daniel P. Moynihan, Counselor to the President, shaped the Working Group's view of the essential issues to be confronted in establishing new education policy.⁵⁾ Aside from respecting fiscal constraints and recognizing the need for a new "Nixonian" policy, there were three major tenets in Moynihan's position. The first was that the educational programs of the "Great Society" were not working well. Second, research seemed to cast doubt on the effectiveness of even the best compensatory programs.

Third, the conventional remedy of more money for education had to be rejected. Moynihan wanted the education establishment to concern itself with improving educational outputs and not solely with securing more money.

As Moynihan's deputy, Chester Finn, recalled:

Mankind had arrived at one of those moments in history when no one, least of all government, quite knows what to do; one of those moments when it begins to appear that everything you thought was true isn't true, but you have no truth to substitute it. Social science had, in a sense, outdistanced public policy....

As the Working Group reasoned, if what presently goes on in the nation's schools, insofar as we are able to measure it, has little effect on student learning, then we had better find out what does have an effect and how to alter it (Finn, 1974, pp. 234; 240).

More and better research in education seemed to be the answer.

To that point education R&D had glowed but dimly in the federal firmament. Buried within the byzantine structure of the United States Office of Education (OE), the nation's education R&D program had become the target of Congressional and executive branch complaints for its seeming inability to produce significant results.⁶⁾ Characteristic of the Congressional view is that of a member of the House Education and Labor Committee who, during 1969 hearings, described OE's promises of research results as "a lot of jive."

I am reminded of a young kid I saw recently that showed some displeasure and I asked what was wrong; he said, "it is too much jive, man, but very little juice." I am wondering if this is a lot of jive we are getting and not practical results...I hope the record will indicate in 1973, some of us will still be in Congress, and we will not have the same testimony that "next year, or the year after," it is going to be completed and "expect results," because I have been hearing it for 15 years (House General Subcommittee on Education, 1969, pp. 188; 191).

OE's education R&D activities were subject to review by at least five executive offices outside OE's own review hierarchy. Within HEW, the Assistant Secretary for Planning and Evaluation (ASPE), the HEW Comptroller, and the Office of the HEW Secretary, all oversaw OE's research program. In the Executive Office of the President, the research budget had to win approval from the Office of Management and Budget (OMB). In addition, all education research activities were monitored by the Office of Science and Technology (OST) and the President's Science Advisory Committee. By the early days of the Nixon administration, external monitoring of the OE research program by dissatisfied overseers had become so obtrusive that representatives of ASPE, OMB, and OST were known around OE research offices as the "Unholy Trinity."

The Unholy Trinity's dissatisfaction could be traced to several causes. First, many of the external reviewers had been trained in the physical sciences or economics. They took a dim view of "educationists" in the OE Bureau of Research and were displeased that OE did not draw upon the broader academic community as did the National Science Foundation and the National Institutes of Health. Second, in search of responsive policy mechanisms, the Washington policy analysis community had recently turned to the strategy of "social experimentation," a strategy requiring concentration of resources in a few well-defined and carefully-planned endeavors. When OE was asked to apply the analytic techniques appropriate to social experimentation to its R&D programs, it was perceived to be incapable of generating persuasive justifications for its work. Third, the Unholy Trinity was distressed that OE's research program seemed to be driven more by political expediency than by rational analysis. In their view, OE demonstrated intellectual bankruptcy by constantly shifting research "priorities" in response to Congressional criticism and by distributing

research funds according to geographical (i.e., political) criteria rather than according to standards of excellence.

The Unholy Trinity was well represented on Nixon's committee for new initiatives in education. Although agreeing with Moynihan's analysis of the need for more and better research in education, it had become convinced that OE would never be able to improve its research activities. Thus, in the fall of 1969, the Working Group decided that a new federal research agency for education was needed. As a result, in his 1970 message on education reform, drafted by members of the Working Group, President Nixon proposed the creation of a National Institute of Education:

We must stop pretending that we understand the mystery of the learning process, or that we are significantly applying science and technology to the techniques of teaching--when we spend less than one-half of one percent of our educational budget on research, compared with 5% of our health budget and 10% of defense.

We must stop congratulating ourselves for spending nearly as much money on education as does the entire rest of the world--\$65 billion a year on all levels--when we are not getting as much as we should out of the dollars we spend....

Therefore, I propose that the Congress create a National Institute of Education as a focus for educational research and experimentation in the United States. When fully developed, the Institute would be an important element in the nation's educational system, overseeing the annual expenditure of as much as a quarter of a billion dollars....(p.2).

Articulating the Image: The Planning and Legislative Process

The President's message set into motion two processes that would culminate two years later in the creation of NIE--a planning process conducted within the Executive Branch and a legislative process within the Congress. Through both, an image of the new agency was fashioned--an image which pleased the

Unholy Trinity and convinced key members of Congress from both parties to authorize NIE.

At the prompting of the Working Group, OE engaged Roger Levien of the Rand Corporation to prepare a preliminary plan for the Institute. This plan prescribed several important characteristics for the new agency (Levien, 1970):

- High status within the federal government in order to attract first rate personnel
- An internal research office to help formulate policy
- Freedom from Civil Service personnel constraints and from year-end budgeting deadlines
- Prestigious advisory councils to shelter the agency from political influence

These prescriptions were explicitly derived from the major perceived shortcomings of OE's research program: second rate personnel, lack of analytic capability, and political truckling.

Congressional hearings on the NIE proposal were held early in 1971. The Select Subcommittee on Education, chaired by Rep. John Brademas (D-Indiana), heard eight days of testimony praising the Rand analysis and supporting its proposals. Agreement by many of the witnesses on several key points polished the image.⁷⁾ Emphasized and reemphasized was the fundamental assumption that more knowledge was required in order to improve American education. As one witness before the Subcommittee observed,

The principle behind [the NIE legislation] is almost ridiculously simple. It is that if a man will focus his skills, reason, and humaneness upon his problems, he can markedly improve his condition (p. 50).⁸⁾

Given the "more-knowledge" assumption, it was evident that "better" researchers must be attracted to the problems of education. Moynihan

described the people who should be associated with NIE to the Subcommittee.

The men we want are not career civil servants. Some may choose to spend their life with the Institute. A more typical pattern would be to spend 10 years or so. These are professional men. I think Congress would be wise to follow the President's proposal to let these people be picked on their merits, which is basically by assessment of their colleagues. With respect to some people we are talking about, there aren't three or four men in the country who are capable of judging (p. 24).

In order to attract and retain outstanding researchers it would be essential to protect NIE from political interference. One witness cautioned,

I think that for the NIE to make a contribution, it must be clearly recognized that this will be a controversial and risky enterprise and that the NIE must be set up in a way that will assure independence of judgment on the part of its officials (p. 75).

To support these outstanding researchers, substantial funding increases were urged. HEW Secretary Eliot Richardson assured the Brademas subcommittee that, in addition to transferring \$118 million in currently funded R&D projects from OE, the Administration would request \$30-60 million in new money for NIE's first year. Moreover, he predicted NIE's budget would grow to between \$320-420 million by fiscal 1977 (p. 115). Other witnesses pressed for even more generous appropriations early in NIE's life: \$250 million in its first year (p. 51); \$400-500 million in new money, over and above funds transferred from OE, in its first three years (p. 145). Moynihan and Levien predicted NIE expenditures of \$1.1 billion by fiscal year 1980 (p. 19; p. 205).

And for what would this money be spent? Many witnesses plumped for their own favorite projects, adding their requests to a list begun with Nixon's 1970 Message on Education Reform and expanded during Levien's work.⁹⁾

Indeed there appeared to be no boundary to the future responsibilities of NIE. According to Levien, "Education in all settings, both within schools and outside of them, and all Americans, before, during, and after traditional school ages, would be within NIE's scope of interest" (p. 196).

Legislation creating NIE was signed by President Nixon on June 23, 1972. Echoing the heroic expectations for the new agency voiced during the planning and legislative processes, the legislation declared that NIE would "seek to improve education" through:

- A. Helping solve or alleviate the problems and achieve the objectives of American education.
- B. Advancing the practice of education as an art, science, and profession.
- C. Strengthening the scientific and technological foundations on which education rests.
- D. Building a vigorous and effective education research and development system.

Thus, by the time of its authorization NIE had been endowed with an ambitious, yet ambiguous image of what it would become. The image was of an agency harnessing the power of scientific knowledge in order to improve American education. Most of the details were fuzzy but three features were clear. First, the agency must be staffed by "good people," people who heretofore had not been associated with education R&D. Second, the agency must develop a coherent and comprehensive plan for research derived from scientific analysis of the major problems facing American education. And third, NIE must be isolated from political forces and must avoid seduction by or surrender to existing special interest groups in education. The realization of these three requirements would lead, it was assumed, to an agency different in style and substance from its predecessors. It would elevate education R&D to a status comparable to that of R&D in medicine

and the physical sciences. And it would lead to visible improvements in American education.

Several members of or sympathizers with the Unholy Trinity were soon appointed to top positions within the new agency. It was time to realize the image.

Attempting to Realize the Image

The initial strategy followed by NIE's managers was faithful to the requirements of the image. It was important to hire first-rate people; therefore, staff were set to work combing Who's Who and describing desirable personnel qualifications for key positions. It was necessary that these people be organized in a rational, coherent manner; therefore, staff and outside contractors were asked to analyze alternative organization structures. It was essential to implement an analytic, comprehensive research strategy; therefore independent evaluation of R&D programs transferred from OE were commissioned and NIE senior staff launched an effort to discover or create an appropriate intellectual framework for NIE's work.

Early NIE internal documents convey top management's fidelity to the image. Ambitious criteria were invoked to insure that major Institute activities, such as choosing an organization structure or an R&D framework, would be comprehensive and systematic. For example, one early paper insisted that NIE's organization structure be based on "rational and coherent thought," and not on "the likes and dislikes--comforts and discomforts of management..." (Ward, November 1972). A paper written six weeks later presented eleven criteria against which all organization plans should be evaluated:

Each [organization] plan can be evaluated on the basis of its ability to:

Attract and maintain the satisfaction of highly qualified staff at each level within the Institute

Provide opportunities for professional growth and development

Communicate clearly the Institute's mission to its diverse constituencies

Establish a strong Institute image within the R&D system

Allow top management flexibility in changing programmatic priorities, organizational structure, and manpower allocation

Establish accountability for project results

Organize multi-disciplinary research skills

Bring state-of-the-art disciplinary knowledge to bear on the problem of education

Link intramural and extramural research activities

Employ staff and fiscal resources effectively and efficiently

Translate research findings into useful results on educational "products" (Perkins, January 4, 1973, p. 3).

A series of discussions on an intellectual framework for NIE's R&D activities yielded a "first approximation of program emphases within different frameworks"--five frameworks with 34 characteristics for analyzing 147 different program ideas (Task Force on Planning and Management, December 9, 1972).

It was evident from its actions as well as its rhetoric that NIE's management intended to create an agency staffed with good people and based on systematic and comprehensive analysis--to realize the image.

NIE approached its first formal hearings before the Congressional Appropriations Committees with optimism. It was requesting a 50 percent increase in its initial appropriation of \$110 million (which had been largely dictated by the size of programs transferred from OE). In his testimony before the House Appropriations Subcommittee, NIE's first

Director, Thomas K. Glennan, alluded to features of the image as a basis for substantially increased funding for NIE:

The challenge we must meet, therefore, is to avoid the temptation to spread ourselves too thin in an attempt to try to please everyone... [We must also] avoid the temptation to beat the clock, to succumb to demands to produce immediate, flashy results.... I believe that an emphasis on comprehensive thinking through of problems and vigorous attention to research design will provide us with the foundation for a truly productive system (House Appropriations Subcommittee Hearings, March 9, 1973, pp. 141; 178).

The House subcommittee recommended \$142 million for NIE. Although this represented a cut in their \$162 million request, the Institute's leadership was not displeased. However, an unanticipated axe was about to fall. Thirteen months to the day after the signing of the NIE legislation, Glennan testified before a Senate Appropriations Subcommittee, chaired by Sen. Warren Magnuson (D-Washington), in support of the identical request made to the House. Subsequently, the Magnuson Subcommittee recommended a shocking cutback for NIE to \$50 million. The full Senate Appropriations Committee increased the allocation to \$75 million and that was the figure granted by the Congress for NIE's second year of operation.

The NIE management and most supporters of the new agency were stunned. NIE submitted a supplemental budget request to restore \$25 million of the "lost" funds, which died ignominiously in the Appropriations Committees in both houses. Subsequent attempts to increase funding for NIE fared no better. Before the agency was two and a half years old, it had undergone three sets of budget cuts; its fiscal year 1975 appropriation was \$70 million and there were no prospects for substantial increases in the near future. Its first director and the first chairman of its policy council had resigned. The agency was in disarray and the initial image of what the agency was supposed to become had faded away.

Revising the Image

Before the first budget cut, most NIE staff members probably could have constructed a list of both pros and cons about NIE operations. Indeed, the first cut was viewed by many NIE personnel as a ghastly Congressional mistake. Stories of real or imagined faux pas on the part of Institute staff, Congressional staff, and Appropriations Committee members were offered as evidence of misunderstanding. But as NIE's Congressional misfortunes continued, the appeal of the "accidental" explanations decreased, and the need for causal explanations grew. With the continuation of Congressional budget cuts, members of the Institute came to generate a different image of what the agency should become. Just as the initial image had grown from the perceived shortcomings of OE's performance, this image grew from perceived shortcomings of NIE's performance. Actions which had been undertaken consistent with NIE's initial image came to be viewed as symptomatic of NIE's problems.

The insistence on hiring "good people" had slowed down the hiring process. The insistence on drafting comprehensive procedures, such as an agency-wide "Planning process"--had slowed down the development of routine procedures for expediting recurrent administrative activity. The search for a "coherent" organization structure had led to four reorganizations in two years. The desire for an intellectually satisfying framework for its R&D activities had led to ignoring or treating with disdain some of the programs and personnel transferred from OE. The expectation of substantial financial support had led to asking for large budget increments with what now seemed to be insufficient justification for them.

As perceived by the NIE staff, three major categories of problems seemed to be causing the agency's troubles: mismanagement, indecisiveness,

and political naïveté.¹⁰⁾ Internal explanations for these problems centered on the alleged shortcomings of NIE's top management. The leaders of NIE lacked political and management experience. NIE's Deputy Director and Associate Director for Planning and Management had both come from OMB, a staff office serving the President. There they had each managed no more than a handful of people. The first Director had come from OEO, a political agency to be sure. But there he had managed a staff office less than one-fourth the size of NIE. Further, there were few obvious examples of broad managerial or political experience elsewhere in the Institute.

A different explanation emphasized the lack of commitment, rather than inexperience, of top management. It was pointed out that there was no evidence of an over-riding management concern with a target group, such as the poor or ethnic minorities; no special concern for a particular level of education such as the secondary schools; no burning attraction to a particular reform such as "open classrooms" or decentralization; no deep affiliation with a group of practitioners such as teachers. This theory argued that a particular moral commitment or group affiliation would have provided a basis for decisions as to the nature of projects that NIE should undertake and thus lay the basis for a decisive management.

From the prevailing analysis of problems, the Institute generated a new image of what a successful NIE would look like. Once again the details were fuzzy, but three features stood out. The first was that the Institute would be staffed by more experienced managers. Members of the Institute from the Director down through the ranks of the professional staff voiced a need for veteran civil-service managers. Two years after his appointment, the Director commented:

A lot of our difficulties are because we haven't had that experience. [Our people] don't know how to set up the system, manipulate it for their own ends. Experience really pays off in terms of their ability to live with uncertainty... to deal with adversity, to take the long view.

Representative of the substance, if not the tone, of comments by members of the professional staff was this observation:

Scholars on limited contract were brought in for leadership roles, and little advice was sought or listened to from the "BUREAUCRATS"--a disparaging term. A bureaucracy is necessary. It is certainly inevitable. But knowledgeable civil servants (my term, not theirs) were not only not utilized, they were automatically and systematically cut off from these "scholar-directorships."

The second feature was that the Institute would announce a clear and compelling mission. The implication was that any mission would be better than none. One staff member commented, "It is better to take the initiative and go with what you think is right rather than to take a reactive, responsive position." And another suggested that it was necessary to, "set clear and easily understood objectives at the outset--create a sense of purpose."

The third feature was that the Institute would vigorously cultivate political support. The necessity for good Congressional and constituent relationships was almost universally acknowledged as the most important factor in improving NIE's fortunes. Indicative of this perception are these typical comments: "Good Congressional relations should be NIE's top priority." "Any agency--especially a new one like NIE--must put effort into gaining confidence by [those on Capitol] Hill."

The new image of the agency, emerging after two years of Congressional misfortune, was one that emphasized management by experienced civil servants; pursuit of an arbitrarily imposed, well-understood plan of action; and

development of effective constituent and Congressional relations. In view of the earlier history of education R&D within the Office of Education and the initial image of NIE derived from OE's shortcomings, the new image of NIE was ironic indeed. OE had been faulted for allowing unimaginative bureaucrats to control research; therefore NIE's initial image was that of an agency staffed with the "top people in the country." The new image featured "experienced civil servants." OE had been criticized for seizing upon objectives on an opportunistic basis; therefore NIE's initial image was that of an agency with a comprehensive, coherent research agenda. The new image featured a clear mission, imposed arbitrarily—if necessary. OE had been criticized as too political; therefore NIE's initial image was of an agency isolated from political pulling and hauling. The new image featured vigorous political activity.

The initial image of the agency had been turned inside out. Dissatisfaction had led the Institute's leadership and staff to reject the image of the future that had justified NIE's creation and to generate a new image of the future.

The Image and "Reality"

The initial image of NIE, fashioned from an analysis of OE's shortcomings and an optimism about the potential for reform, had both positive and negative consequences for the agency. Certainly, it was of some utility in securing the agency's authorization from Congress, generating enthusiasm in the House Select Subcommittee on Education. No doubt had NIE been created in the mid-sixties and enjoyed the same rate of budget expansion as other agencies during that period, the initial image of what

the agency could become would not have been revised so quickly. In this sense, its early revision can be viewed as no more than a consequence of history--of the fact that NIE was created at a time when federal support of domestic programs was decreasing and Congressional disillusionment with R&D was increasing.

The initial image was more than merely an anachronism however. It also was associated with behaviors and attitudes which had negative consequences in their own right. Its standards of excellence, in the absence of clear goals and well-understood means for reaching them, led to a paralysis of decision making.¹¹⁾ Furthermore, its heroic scope may have led its believers to overestimate the significance of the new agency and thereby underestimate the fragility of its existence. NIE claimed to have been created with "strong bipartisan support" (a line from NIE's fiscal year 1974 budget justification). But when members of the House had been given the opportunity to vote on NIE's authorization separately from the omnibus education bill to which it had been attached, a majority of the House Appropriations Committee had voted against its creation. Only after NIE's budget cuts would that fact come to be significant within the agency. From the Institute's Congressional misfortunes, NIE "learned" that the principles associated with the initial image were inadequate. Those associated with NIE assumed that some set of principles or strategies existed whose implementation would lead to success. Thus the image was revised to incorporate a different set of principles.

The revised image has also probably had both positive and negative consequences for the agency.¹²⁾ It may have eased the frustrations of members of the Institute who had believed their talents were unappreciated. And it may also have reduced the uncertainties about the future of specific programs within the agency. But like its predecessor, the revised image

may also underestimate the insignificance of education R&D in the eyes of Congress. Although one of the major features of the revised image is that NIE will develop good Congressional relations, two characteristics of the education R&D enterprise may prevent it from doing so.

First, education R&D is supported by a small constituency, one that is further diminished by the warring of internal factions (for example, the researchers vs. the developers, or the discipline-based researchers vs. the school-of-education-based researchers).¹³⁾ Furthermore, while organized teachers, administrators, and school board members lobby for increased appropriations that flow directly to the schools through various federal programs, they are either indifferent or hostile to spending money on research because the funds rarely support the work of school practitioners.

The second characteristic of education R&D which may impede the realizing of NIE's revised image is that the achievements of R&D do not seem impressive to the Congress. Education R&D rarely contributes clear and effective solutions to the currently identified problems of American schools. It does not benefit from the persuasive testimony of distinguished scientists whose past feats include education breakthroughs analogous to eradicating polio or landing a man on the moon. In the federal budget, funding for education R&D has increased only as an adjunct to much larger appropriations for operating programs such as ESEA Title I and aid to impacted areas; it lacks the stable political base and record of substantial achievements upon which its independent growth could be nurtured.

When one reviews the history of attempts to reform education R&D-- first within OE, then by creating NIE, then within NIE--and matches those efforts with their associated Congressional commentary, an image different from those evident within NIE emerges. Like the cartoon character with the cloud hanging over its head, education R&D seems insignificant and

ineffacious, surviving in a hostile environment. This is not an image to set the heart beating faster, but it does not imply education R&D is unimportant. It does however imply that images of future substantial success, no matter what their features, are likely to remain largely unattainable.

If there is any tragedy in the NIE story it is that its first leaders tried to realize the initial image and measured their success against it. Because their actions were associated with budget decreases rather than budget increases, they were judged to have failed. And a new vision of what NIE might become emerged. The irony is that the revised image may be no more likely to be realized than the initial one.

Conclusion

Simplified, heroic pictures are useful in the planning of new agencies and other human endeavors. They can generate enthusiasm and lead to authorization. However, the success of these agencies, measured against the heroic pictures, cannot be guaranteed.

The quality of a new agency's environment determines, in large part, the stability of its initial image. Agencies established in benevolent environments will retain an initial image of what the agency should become longer than will ones established in harsh environments. Revising the initial image in response to "failure" however will not necessarily lead to "success." If the environment's harshness is independent of the agency's actions, changing the image of what the agency should become will not produce a more benign environment.¹⁴⁾

First managers should be especially wary of the image of their agency generated during the planning and authorizing process. It is their responsibility to see beyond it. Images of the future inevitably suppress details of the past, yet those details can be useful in guiding initial action. Images of the future also obscure or underestimate opposition to it; ignorance of opposition can lead to nasty surprises. Managers should also be wary of radical changes in the image of their agency in response to failure. Such changes may be as often a symptom of a harsh environment as a precursor to future success.

If managers understand the limitations of images, they may benefit from their persuasive power. If not, they may be deluded by them. In any event, so long as people try to make sense out of situations so complex that it is physically impossible to comprehend them, simplified models of "reality" will influence attitudes and behaviors in organizations.

FOOTNOTES

1) Paper prepared for the annual meeting of the American Educational Research Association, April 1976, San Francisco. This paper is based upon material in Organizing an Anarchy: Belief, Bureaucracy and Politics in a New Federal Agency by Lee Sproull, Stephen Weiner, and David Wolf (Stanford University School of Education, 1975).

2) March and Simon (1958), basing their work on psychological studies of human problem solving, were the first to point out the importance of the simplifying definition of the situation for organization problem solving (Chapters 6-7).

3) The only published source, to our knowledge, which explicitly examines the importance of the image of a new organization is Simon's (1953) study of the Economic Cooperation Administration in which he suggests that "in its formative stages the organization consisted largely of a series of pictures in the minds of different people" (p. 227). His major point is somewhat different from ours, however, in that he argues that it is the process of resolving contending pictures held by different members of the organization which determines its final style and structure. Simon was writing about an organization established in a benevolent environment; thus he did not need to consider the effects of the environment on the organization pictures.

Sarason's (1972) work on the creation of new settings, although not from within the research tradition of organization problem-solving, offers insights into the psychological determinants and consequences of what we identify as the image of the new organization.

4) Chaired by Edward Morgan, on the staff of John Ehrlichman, this committee was composed of many people who had been critical of previous efforts to support education R&D; Lee DeBridge, the President's Science Advisor and Director of the Office of Science and Technology (OST); Daniel Moynihan, Head of the Domestic Council; Chester Finn, Moynihan's deputy; Richard Nathan, Associate Director of the Office of Management and Budget (OMB); Thomas Glennan, Director of Research and Evaluation in the Office of Economic Opportunity; Lewis Butler, Assistant Secretary for Planning and Evaluation in HEW; James Allen, Commissioner of Education; and, as staff, John Mays, Assistant to the Director of OST for education; and Bernard Martin, education budget officer in OMB.

5) See Finn (1974) for this story in more detail.

6) Although education R&D is sponsored by several federal agencies including the National Science Foundation and the Department of Defense, the principal support for education R&D came from the U.S. Office of Education (OE). By 1969, OE's annual R&D budget was \$100 million. Several histories and evaluations of the OE R&D program have been written. See, for example, Boyan and Mason (1968), Boyan (1969). Between 1967 and 1969 the increasing frustration over education R&D can be measured by the commissioning of ten separate studies of federal efforts in this field. Gideonse (1970) provides a summary of them.

7) There were dissenters from the common view. During the Brademas hearings several witnesses offered a modest defense of OE's R&D programs and cautioned against over-optimistic expectations for NIE. The dissenters were all current or past participants in OE's R&D activities.

8) All references to Subcommittee hearings, unless otherwise noted, are drawn from U.S. House of Representatives, 1971, Committee on Education and Labor, Select Subcommittee on Education.

9) The list would continue to grow under the supervision of the NIE Planning Unit, a small group supported by USOE Commissioner Marland, which took over planning responsibilities from Levien in 1971.

10) Two data sources provided information on changes in the desired image of NIE held by its staff members. A questionnaire was administered in June, 1974, to every member of the NIE professional staff eliciting opinions on a wide range of topics including "the major lessons to be learned thus far from the NIE experience" (N = 288; response rate = 87%). Structured and open-ended interviews were conducted throughout 1974 with all but one of NIE's senior staff (Assistant Director and above) and with a random sample of the remainder of the professional staff.

11) We are not suggesting that the image, initial or revised, guided every action by every member of NIE's professional staff; its impact was greatest on questions of agency-wide strategy and structure. Individual Assistant Directors developed their own operating styles more or less independent of the agency image. Nevertheless when individual programs had to be coordinated across the agency, for example in planning and justifying the budget, they felt the impact of the image.

12) Our period of research ended in September, 1974. Thus we have no formal data on the effects of or any changes in the revised image. We can note, however, that NIE received a \$70 million appropriation for fiscal year 1976.

13) Research budgets for vocational education and education for the handicapped have grown because each is supported by vocal and united constituencies.

14) Some researchers have begun to investigate the organization consequences of situations in which the environment's response is only loosely-coupled, at best, to the organization's actions. See March and Olsen (1976).

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