Toward an Applied Administrative Science

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This study analyzes the 1981 volumes of *Administrative Science Quarterly (ASQ)* and *Harvard Business Review (HBR)* to determine the extent to which an applied administrative science has developed. It is shown that *ASQ* emphasizes a relatively objective approach to the study of organizational orders. Most *HBR* studies use examples to illustrate rationalizations about reality. A minority of studies in both journals adopt a relatively subjective approach to social science in analyzing organizational change. Examples in *ASQ* of this last type of research are shown to be the most likely to consider implications for practice; such studies are most likely to provide a basis for developing an applied administrative science.•

In an article in the 1956 volume of this journal, James D. Thompson advocated the building of an applied administrative science. He argued that although effective administration is an art in the sense that it depends on subjective insights and abilities, scientific methods can help train people for administrative roles. He proposed building an administrative science that would stand in relation to the social sciences as engineering stands in relation to the physical sciences and medicine stands in relation to the biological sciences. He predicted that administrative science research would serve administrators as medical research serves physicians and physical science research provides new insights for engineers. This article examines two major social science journals in order to assess the extent to which an applied administrative science may have developed.

Contemplating the literature on administration in 1956, Thompson observed that research and theory seemed to be divorced from one another. The emphasis seemed to be on either describing current practice or prescribing optimal ways to administer. Descriptive studies tended to yield results that could be applied in one particular situation. Prescriptive studies tended to yield results that were abstract, and although this made them generalizable, problems of operationalization had usually not been solved. Few studies successfully related empirical observation to explanatory theories (Bass, 1974).

Thompson assumed that administrative behavior was characterized by identifiable regularities and that an administrative science should focus on identifying these regularities. He recommended that theoretical concepts be kept abstract but operationally defined. In making repeated analogies to the physical and biological sciences, he implied that administrative behaviors are objective phenomena and that the research methods used by natural scientists to make empirical generalizations are appropriate for administrative research. He suggested that studies should consider unanticipated as well as desired consequences and that they should note alternative means for accomplishing desired outcomes. Because subjective values and evaluation criteria determine administrative decisions in critical ways, Thompson believed an administrative science should also provide generalizable, empirically tested standards for making judgments.

Twenty-five years after Thompson's essay, many administrative scientists continue to utilize natural science methods, while other administrative scientists now consider the underlying order characterizing organizational relations to be subjectively

0001-8392/83/2801-0129/$00 75

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The author acknowledges the help provided by John Bailey, Janice Beyer, Rudi Bresser, Art Brief, Catharine Buttinger, Jane Dutton, John Dutton, Sidney Nachman, Zur Shapira, Paul Shrivastava, William Starbuck, Stephen Stumpf, and the anonymous *ASQ* reviewers

imposed rather than objectively real (e.g., Weick, 1979). Still others are less interested in underlying order and more interested in forces that bring about administrative change (Watzlawick, Weakland, and Fisch, 1974; Alderfer, 1976; Taylor and Vertinsky, 1981). Depending on whether researchers are interested in explaining order or change, and on whether they believe these processes are objectively or subjectively defined, alternative research questions and methodologies are appropriate.

Thompson noted that particular variables showing high correlations with success in one organizational context often have low correlations with success in other contexts. He suggested that researchers should consider carefully whether facts or relationships describe organizations, their contexts, or both. He also suggested that the extent to which generalization is possible depends on how the organizational unit of analysis, together with the contextual conditions surrounding it, have been defined. Cronbach (1975) argued that when organizational boundaries are regarded as fluid or changing, working generalizations must be modified in response to local conditions.

Finally, Thompson was ultimately concerned with application; how can administrative research be useful? Weiss and Bucuvalas (1980) suggested that in evaluating research usefulness, decision makers apply a truth test and a utility test. A truth test asks whether the research is internally consistent, whether it adheres to accepted standards for empirical research, and whether its results are compatible with users' experiences and expectations. Research has utility if it makes feasible recommendations for action or if it challenges the status quo by proposing alternative perspectives (Davis, 1971).

VARIABLES

The above discussion suggests four pairs of variables that may be employed to distinguish different types of administrative research: (1) objective or subjective perspectives; (2) explanations of order or change; (3) fixed or varying boundaries to the organizational unit of analysis; and (4) utility tests based on either specific recommendations or alternative perspectives. Each pair of variables may be considered a separate facet with two elements (Shapira and Zevulun, 1979). Using these four facets, alternative ways of viewing administrative research may be summarized: Administrative science may rely on *objective* or *subjective* data and perspectives, and may seek to explain organizational *order* or *change* in a context where organizational boundaries are considered *fixed* or *changing;* such research knowledge may have useful applications as it includes *specific practical recommendations* or proposes *alternative perspectives.*

Objective vs. Subjective Perspectives

Burrell and Morgan (1979) argued that administrative scientists necessarily make assumptions about the objective or subjective nature of the knowledge they seek to develop. At one extreme, researchers may regard the social world as being similar to the natural world. Social reality is viewed as external to the individual, as tangible and measurable, and as imposing itself on individuals and organizations in deterministic or mechanical ways. Given these assumptions, an objective approach to social

science is possible. Research seeks to demonstrate regularities, laws, and orders in administrative phenomena. Methodologies borrowed from the natural and biological sciences are used to measure and show generalizable relationships among variables.

At the other extreme, researchers may believe social reality is internally determined by individuals for themselves. In this sense, it is completely different from the natural world. Since people enact reality based on their own unique experiences, insights, understandings, and opinions, a subjective approach to science is necessary. At one level, the aim is to identify regularities in how people perceive, interpret, and modify data to establish meaning and perspectives in organizational settings. At a more extreme level, subjective understanding may be considered so unique that no generalizable knowledge is possible. To the extent this is so, Thompson would argue that administration is an art and not a science.

Traditional approaches to scientific understanding require that meaning be related to experience by established, tested, and consistently applied methods. For example, as summarized by Kaplan (1964: 36–46), logical positivists require that meaning be verified as being technically, physically, and logically possible; operationists require specific operational definitions to specify the scientific meaning of a concept; and pragmatists, the most subjective in orientation, focus on the difference it would make if something were true. Together, these approaches to understanding are encompassed in the functional positivist paradigm (Burrell and Morgan, 1979), which assumes that social reality is characterized by an underlying rational order discernable through the application of scientific methods. Burrell and Morgan argued that most social science research is within the functional positivist paradigm. As this is generally so for articles published in *ASQ* and *HBR* the present focus is on work within this paradigm.

Explanations of Order vs. Change

Burrell and Morgan (1979) suggested that the order-conflict debate provides a second dimension along which to distinguish social science research. Their conceptualization is modified here to apply to the assumptions and aims of administrative research. Such research may seek to explain existing organizational order or it may seek to explain organizational changes and the conflicts implicit in such changes.

Administrative research directed at explaining organizational order assumes that there are stable relations between critical variables. The resulting structural orders are assumed to be directed toward specific accomplishments or general organizational maintenance. A consensus within the organization about this integrating structure and what it seeks to accomplish is also assumed. This unitary view of rationally functioning, goal-oriented, mechanical organizations implies smooth and harmonious internal relations, few conflicts of interest, and power struggles of a temporary nature. It ignores structural dysfunctions and external developments requiring internal adjustments.

In contrast, administrative research directed towards explaining organizational changes assumes existing structures relating critical variables may be unstable. The functional coordination

directed towards goal accomplishment may break down or the goals it seeks to achieve may change so that structural changes become necessary. There are conflicts of interest over organizational goals and the most appropriate structural means for accomplishing those goals. The result of these assumptions is a pluralistic view in which organizations are perceived to be continually adapting and changing to both internal and external developments. Interest groups combine in loose coalitions to push or pull organizations in directions coalition members believe are most desirable.

Fixed or Changing Organizational Boundaries

In order to carry out research, it is necessary to define the subject of study. Starbuck (1976) noted that much administrative science research assumes organizations are distinguishable from their environments, that a gap between the two can be specified, and that particular people and phenomena can be identified as being inside or outside, and as relevant or irrelevant. However, Starbuck (1976) also discussed how it distorts reality to assume organizational units can be sharply distinguished from their environments. Rather, organization boundaries are varying continua and environments are largely chosen or invented by organizations themselves.

Appropriately and clearly defined units of analysis are necessary in order to determine whether apparent regularities characterizing particular organizations may be generalizable and how they are generalizable. Unless organizational units are distinguished clearly from contexts, it is impossible to know if regularities or properties are characteristics of the unit, the context, the aggregation techniques used, or all of these. Even with clear delineation, generalization may still not be possible unless the definitions used for the units of analysis are also appropriate in other contexts.

Starbuck (1976) thought a more fruitful approach to the boundary question might be to focus research on ongoing administrative processes allowing mutual interpenetrations between organizations and their environments. Such a perspective allows for possible changes in organizational boundaries to be examined, and research might then consider how this organization-environment relationship is established and might be advantageously redesigned. For example, in examining how administrators perceive and define their unit boundaries, one could examine the extent to which they attribute success to their own skills and unit efforts, and failure to environmental developments (Luginbuhl, Crowe, and Kahan, 1975; Wortman and Brehm, 1975). Alternatively, administrators may perform so as to be perceived by their superiors as responsible. Accordingly, they may accept superiors' criteria for success (Milgram, 1974) and define their unit boundaries as including all those activities needed to assure superiors of their progress. Another perspective leading to alternative boundary definition is proposed by Kanter (1977)) who suggested that structural factors, such as opportunities for advancement and resources controlled, may persuade administrators to define their organizational units differently. In addition, depending on whether organizational adaptability is perceived to be more or less important, and also depending on their personal styles, administrators may redefine boundaries by establishing looser or

tighter couplings between administrative processes, procedures, or functional units (Alexander, 1964).

Regularities may exist in the processes whereby organization-environment relations are defined, and these regularities may have scientific generalizability. Valid generalizations might interest administrators, whose daily experiences often involve reactive attempts to take appropriate actions in the face of continual change (Mintzberg, 1973). Insights into how organizational roles, organizational units, organizations, and environments are defined might suggest changes and improvements that could be accomplished through redefining the relevant unit of analysis.

RESEARCH DESIGN

The current literature on administration is split into those journals that cater primarily to academic audiences and those that are read primarily by practicing administrators. *Administrative Science Quarterly (ASQ)* is at the forefront of academic research in the social sciences. *Harvard Business Review (HBR),* with a much wider circulation, is accorded high prestige by many practicing administrators. As Clark (1972: 9) stereotyped the contrasting extremes, academic understanding is oriented toward clarifying and resolving theoretical questions arising in disciplines, while practical understanding is directed toward solving specifically recognized problems.

Classification and Analysis

To develop some empirical understanding of these contrasting perspectives, the variables listed in Table 1 were used to classify 1981 volumes of *ASQ* and *HBR*. To obtain relatively equal sample sizes all studies published in *ASQ* were included

Table 1

Categories for Coding Articles from *ASQ* and *HBR*

Objective Perspective	Subjective Perspective
1. Object of study is regarded as a "thing." Data is real and tangible, involving numerical measures	2 Object of study is to create meaning. Data includes illustrative examples, experiential insights, subjective understandings, and opinions leading to meaning creation
3. Aim is to identify and demonstrate regularities, laws and relations using numerical data or methodologies borrowed from the natural or biological sciences.	4 Aim is to identify the processes by which people or organizations perceive, interpret, and modify data to establish meanings or alternative perspectives or to take action.
To Explain Order	**To Explain Change**
5. Assumes a relatively static view of reality so that it is possible to explain this existing order.	6. Assumes an emerging organizational reality over time. Seeks to explain this ongoing process and its potential for change.
7. Adopts or discusses a unitary view that assumes commonality of interests and that rational goal accomplishment is desirable.	8 Adopts or discusses a pluralistic view which assumes conflict of interests or perspectives
Given Fixed Organizational Boundaries	**Given Changing Organizational Boundaries**
9. Assumes that organizations and environments are distinguished by notional boundaries.	10. Assumes an ongoing mutual interaction between people and organizations, or organizations and environments.
11. Identifies or discusses the problems of defining an organization/environment boundary.	12. Examines or considers how organization/environment boundary relations might be restructured or redefined.
For Practical Uses	**For Alternative Uses**
13. Identifies specific manipulable variables or makes specific recommendations relevant for practice.	14 Findings are counterintuitive, surprising, raise questions about assumptions, or identify competing perspectives on reality.

($N = 31$), whereas a systematic sampling of *HBR* included every other article ($N = 34$).

The variables contained in each facet were not considered exclusive catagories: depending on their content and approach, articles were classified as being representative of one of the variables in a facet, both variables, or no variable within the facet. The classification, done by the author, was deliberately biased in that if it was at all possible to interpret an article as encompassing a particular category, then that category was coded as being represented in the article. Readers interested in the classification of particular articles may refer to Appendix A.

Chi-square tests were used to analyze differences between *ASQ* and *HBR* based on the categories set out in Table 1. However, these contrasts did not identify the relationships among variables that characterized the overall approaches to administrative science adopted in the two journals. Insight into these relationships was obtained by subjecting the matrix of intercorrelations representing the article classifications for each journal to a smallest space analysis (SSA). SSA (Guttman, 1968; Lingoes, 1973) is a nonmetric multidimensional scaling procedure that represents variables as points in a euclidean space. The closer points are together, the higher is the correlation between the corresponding variables. In general, distances between points correspond to the order of the correlations between the variables. By considering all pairs of correlations, the technique provides a picture of the interrelationships between all the variables appearing in the correlation matrix.

By examining the empirically derived clusters of variables in the SSA diagram, it was possible to subjectively assess whether articles published in the two journals reflected particular patterns of emphasis. A coefficient of alienation measures the rank-order correlation between the geometric distances characterizing the SSA representation and the Spearman correlations among the variables. In relation to the original correlation matrix, the goodness of fit of an SSA solution is better as the coefficient of alienation is smaller. For example, a coefficient of alienation of .20 indicates a good fit, for this implies a correlation of .96 between the correlation matrix and the SSA representation.

RESULTS

Objective vs. Subjective Perspectives

ASQ was expected to follow Thompson's recommendation, emphasizing objective approaches to scientific understanding. However, since *ASQ* attempts to represent all approaches to administrative science, subjective approaches were also predicted. *HBR,* with its practical orientation, was expected to assume that readers would apply a truth test and would check to see whether issues discussed in articles are consistent with their experiences (Weiss and Bucuvalas, 1980). Thus, *HBR* was expected to be less concerned with academic debates about the subjective or objective nature of scientific knowledge and more interested in presenting knowledgeable discussions about problems familiar to administrators.

Table 2 presents the data on objective vs. subjective perspectives. *ASQ* articles tended to use objective methods. *HBR* was apparently little concerned with the objective-subjective de-

Table 2

Differences in the Percentages of *ASQ* and *HBR* Articles in which Emphasis is on Objective or Subjective Perspective

Category*	Objective	Subjective	Percentage *ASQ*	Percentage *HBR*	X^2	Significance
1.	Numerical data		67 7%	14.7%	16.92	$p < .001$
2.		Illustrative examples	16.1%	100.0%	44 20	$p < .001$
3.	Seeks regularities		74.2%	5.9%	28 75	$p < .001$
4.		Interpretive processes	41.9%	8.9%	6 09	$p < .05$

*Category numbers correspond to those given in Table 1

bate. Most often, articles began by providing illustrative examples to establish the topic under discussion. After this, little attempt was made either to identify regularities or generalizeable laws or identify the processes by which subjective knowledge is created. This suggests that, for *HBR,* administration is considered an art rather than a science. In contrast, the mix of articles published in *ASQ* represents both sides of the objective-subjective debate over the nature of knowledge in a functional positivist social science.

Order vs. Change

Table 3 shows differences and similarities in the approach to order and change adopted by *ASQ* and *HBR.* Both journals

Table 3

Differences in the Percentage of *ASQ* and *HBR* Articles in which Emphasis is on Explaining Order or Change

Category*	Order	Change	Percentage *ASQ*	Percentage *HBR*	X^2	Significance
5.	Explains order		67.7%	91.2%	2.80	n s.
6.		Explains change	38 7%	11.8%	3.85	$p < 05$
7.	Unitary view		19.4%	47 1%	4 09	$p < .05$
8.		Pluralistic view	29 0%	26.5%	0.0	n.s

*Category numbers correspond to those given in Table 1

emphasized explanations of order. *ASQ* was more balanced, frequently publishing articles directed towards explaining change. *HBR* explained existing order and placed relative emphasis on a unitary view of goal accomplishment. Both journals gave approximately equal attention to pluralistic perspectives and their implications for administrative change.

Fixed or Changing Boundaries

Table 4 shows that in *ASQ* approximately half the studies assumed organizations can be specifically defined or that organizational characteristics can be unequivocally isolated. In *HBR,* more than one-third of all studies made similar assumptions. Table 4 also shows that more than half the studies in *ASQ* and one-third of the studies in *HBR* assumed an ongoing interaction between organizations and their environments.

Criteria for defining boundaries between organizational units and their environments were rarely discussed in either publica-

Table 4

Differences in the Percentage of *ASQ* and *HBR* Articles that Assume or Discuss Boundaries of the Organizational Unit of Analysis

Category*	Fixed Boundaries	Changing Boundaries	Percentage *ASQ*	Percentage *HBR*	X^2	Significance
9.	Assumes Boundary		48.3%	38.2%	0.34	n.s.
10.		Assumes Interaction	54 8%	35.3%	1.83	n.s.
11.	Defines Boundary		19.4%	0%	1.87	n s.
12.		Changes Boundary	19.4%	8.9%	375	n.s

*Category numbers correspond to those given in Table 1.

tion. Whether the criteria used were appropriate was discussed even less frequently. Table 4 shows that how unit boundaries are defined was discussed in only six *ASQ* articles and not discussed at all in the sample of *HBR* articles. From a scientific viewpoint, omitting organizational definitions precludes generalizations; thus, administrators seeking generalizable standards for making judgments may often be intuitively correct in showing little interest in the social science literature on administration. Finally, Table 4 suggests that studies in both *ASQ* and *HBR* seldom considered either regularities in the way administrators define relevant units of analysis or useful ways to change these definitions.

Utilization

Table 5 shows the relative emphasis on utilization in *ASQ* and *HBR*. Articles published in *HBR* were more inclined to make specific recommendations concerning the one best way to solve practical problems. *HBR* also published articles that offered counterintuitive insights and alternative perspectives on reality (e.g., articles discussing Japanese perspectives on mangement).

Approximately one-quarter of the articles published in *ASQ* included no statement concerning possible ways in which findings might be utilized. *ASQ* offered fewer specific recommendations but was more likely to identify variables that could be manipulated to accomplish particular goals. More articles in *ASQ* made potential contributions to practice by presenting counterintuitive insights, by raising questions about assumptions, or by identifying alternative perspectives on reality.

Smallest Space Analysis

Based on the correlations between the variables presented in Appendix B, two-dimensional smallest space analyses were

Table 5

Differences in the Percentage of *ASQ* and *HBR* Articles with a Discussion of Practical Implications

Category*		Percentage *ASQ*	Percentage *HBR*	X^2	Significance
13.	Specific recommendations	32.2%	82.4%	16.16	$p < .001$
14.	Alternative perspectives	61 2%	38 2%	2.69	n s

*Category numbers correspond to those given in Table 1

calculated for *ASQ* and *HBR*. The SSA transforms correlations into a spatial configuration that preserves their rank order. Since SSA is a nonmetric technique, there is no meaning to variable loadings on the axes. Instead, interest focuses on the visually represented pattern of interrelationships between variables. Variables that tend to be found together in articles published in the particular journal are shown as proximate points on the SSA map. Groupings of proximate points may be identified as regions and their content then used to characterize the research in that journal. The smallest space solution for *ASQ* is presented in Figure 1; that for *HBR* is presented in Figure 2.

For *ASQ,* the coefficient of alienation for the two-dimensional space solution was .17. The diagram in Figure 1 suggests that the space can be meaningfully separated into two regions. For *HBR,* the coefficient of alienation for the two-dimensional space solution was .20. Two variables (2 and 11) were omitted from Figure 2 because no variation was associated with them in *HBR*. The arbitrary division shown in Figure 2 identifies two possibly meaningful regions.

The correlations associated with the two regions identified by the smallest space analysis for *ASQ* differ in size (cf., Shapira and Dunbar, 1980). In the smaller Region 1 with relatively large correlations, *ASQ* articles emphasizing objective perspectives

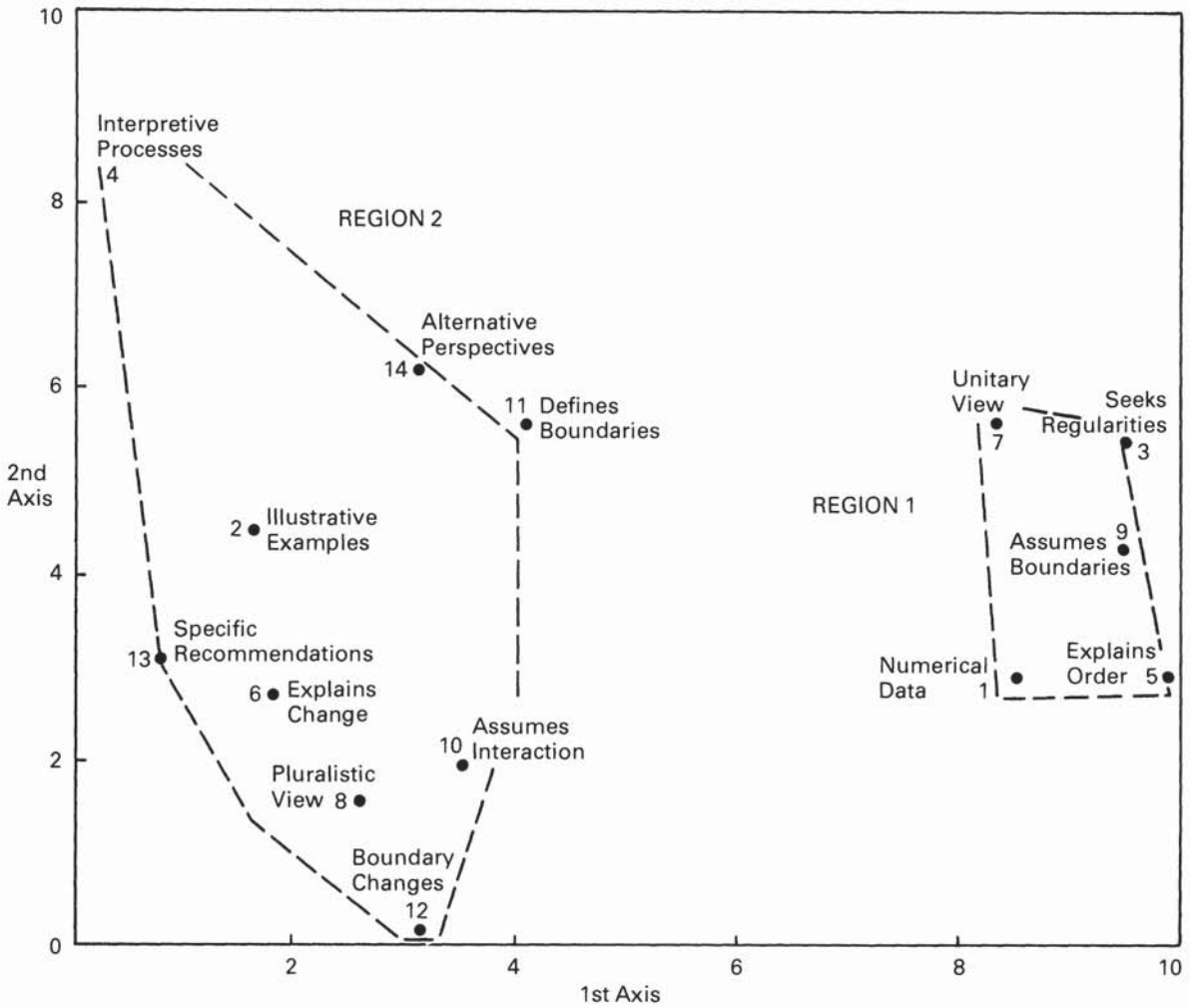

Figure 1. Smallest space diagram of the *ASQ* classifications (see Appendix B for correlation matrix).

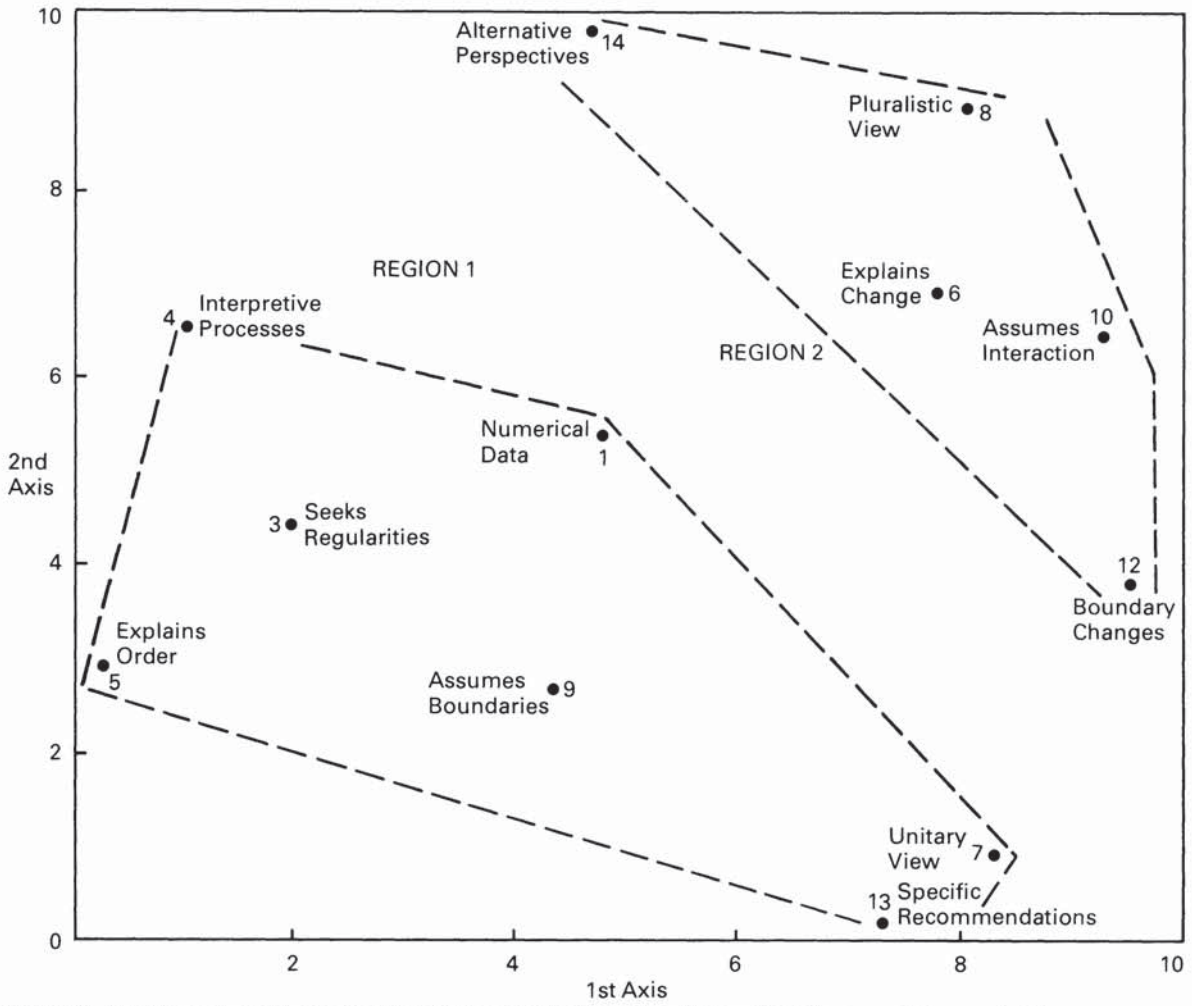

Figure 2. Smallest space diagram of the *HBR* classifications (see Appendix B for correlation matrix).

on knowledge also emphasized explanations of order and assumed fixed boundaries between organizations and their environments. In the larger Region 2 with relatively weak correlations, variables were more widely scattered and suggest an emphasis on subjective approaches to organizational change along with discussions of possible practical implications.

The regions identified in the smallest space analysis for *HBR* reflect greater diversity. Region 1 reflects a unitary view directed toward goal accomplishment and a tendency to explain order and to make specific recommendations for practice. Region 2 reflects a pluralistic view of organizations and a tendency to identify alternative perspectives for understanding reality.

Using the groupings of variables obtained in the smallest space analyses, each article was classified as being associated with the region in the SSA for the journal in which it was published. Articles in *ASQ* were classified as being associated with Region 1 if the number of deviations (omissions or additions) from the expected SSA category groupings was two or less. As shown in Appendix A, eight articles were classified as being representative of this region. Because more variables and more dispersion characterized the second region, the number of deviations used was five or less. Eight articles in *ASQ* were associated with the second region. Arbitrarily using six omissions as the cutoff, six

of the remaining studies displayed characteristics of both regions. These included strong examples of integrated approaches to social science that had practical implications.

In a similar way, articles in *HBR* were classified as being representative of the respective SSA regions depending on whether the number of deviations (omissions or additions) was five or less for Region 1 or four or less for Region 2. As shown in Appendix A, 15 articles were classified as being representative of Region 1, and 4 articles were classified as being representative of Region 2. Using seven omissions as a cutoff, three articles were considered to illustrate a combined perspective.

The SSA solutions showing relationships among variables suggest that the articles published in *ASQ* were distinguishable along both the objective/subjective and order/change dimensions (Burrell and Morgan, 1979), but these dimensions were related in a parallel rather than in an orthogonal fashion. Although some articles in *HBR* emphasized pluralistic views and provided alternative perspectives on reality, articles seeking to explain existing orders and making specific recommendations were dominant.

DISCUSSION

To what extent do the articles in these journals represent social science that is valid to the scientist and useful to the practitioner?: to what extent has an applied administrative science developed?

MacKenzie and House (1978), like Thompson (1956), proposed criteria to evaluate social science research. Specifically, they noted that studies may reflect more or less emphasis and control on antecedent conditions, on the degree to which measurement requirements are imposed, and on the extent to which tentative theories are structured and variables are defined. They argued that after a believable theory has been developed, research should be directed towards identifying counterexamples that challenge the theory's fundamental predictions. Such identifications require the scientist to reexamine and reformulate theories which, in their improved form, should encompass the counterexamples (Dubin, 1976). MacKenzie and House (1978) suggested that as attempts are made to apply theories, many counterexamples become available to challenge the existing theory, to allow it to be improved, and to provide new ideas for new applications. In this way, a cycle of continuing improvement related to both theory and practice may be established. This perspective is useful in evaluating the validity and usefulness of the studies appearing in *ASQ* and *HBR* in 1981.

Most *ASQ* articles emphasized an objective view of social science. Those focusing on order in organizations usually assumed (variable 9) rather than defined (variable 11) the organization's boundary with its environment. As a result, antecedent conditions were not controlled and possibilities for confounding effects were numerous. Strict measurement requirements were usually imposed, and tentative theories were precisely explained. On the other hand, there was little search for alternative perspectives or counterexamples and, often, little effort to relate findings to practice.

A significant minority of *ASQ* articles emphasized a subjective approach to social science and studied organizing processes and change rather than organizations and their properties. In these studies, both theoretical positions and antecedent relationships between the organization and its environment were likely to be specified. However, such articles often did not include empirical data, and so, few measurement requirements were imposed. Potential links to practice were established either by identifying critical, manipulable variables or by identifying alternative perspectives on reality.

The examples of successful social science research identified by MacKenzie and House (1978) were all studies of social organizing rather than studies of organizations and their properties. They argued that this type of study may enable more and faster scientific progress. The SSA solution in Figure 1 suggests that these studies are also the ones most likely to provide the practical insights necessary to an applied administrative science. More developed methodologies may enable measurement requirements to be imposed, and this issue was frequently discussed, particularly in those *ASQ* studies reflecting a combined perspective (see Appendix A).

HBR is oriented toward practitioners. In most articles, the particular meanings proposed by authors were accepted as data, organizational units were assumed to be distinguishable, and based on the author's explanations of the order characterizing particular situations, specific general recommendations were made. The scientific basis for these general recommendations was not apparent, and the rationalized descriptions of order that characterized many *HBR* articles indicated a belief in administration as an art rather than a science. Practitioners may believe this position to be true in the sense that it is in accord with their perceptions of their own experiences (Weiss and Bucuvalas, 1980); *HBR* articles did not usually challenge this belief. A minority of *HBR* articles did provide alternative perspectives on reality.

The analysis of articles published in *ASQ* and *HBR* clarifies some distinctions between the scientific and practitioner-oriented literature on administration. The majority of studies in *HBR* related to practice but used arbitrarily selected examples to illustrate rationalized realities. The majority of studies in *ASQ* emphasized objective approaches for studying static organizational orders, but findings often were neither generalizable nor applicable, because of unidentified confounding effects.

Some studies in *ASQ* and a much smaller number in *HBR* provided insights into how social reality emerges and is interpreted. Based on the *ASQ* analysis, it seems that those studies adopting a subjective approach to explain change were the ones most likely to have both a scientific basis and implications for practice. This is contrary to what Thompson (1956) either advocated or expected, but it appears that this type of study is the best model for an applied administrative science in both *ASQ* and *HBR*.

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APPENDIX A: Classification of Articles from *ASQ* and *HBR*.

ADMINISTRATIVE SCIENCE QUARTERLY

Authors in 1981 Issues	Classification Variables from Table 1														Region
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
March															
Angle & Perry	Y		Y		Y		Y		Y						1
Stern	Y		Y		Y	Y	Y	Y	Y					Y	Combination
Marsh & Mannari	Y		Y		Y				Y	Y					1
Yin				Y	Y								Y		
Oldham & Hackman	Y		Y		Y				Y						1
Schmittlein & Morrison			Y	Y											
March & March			Y	Y											
Lincoln, Hanada, & Olson	Y		Y	Y	Y				Y					Y	
Ungson, Braunstein, & Hall				Y	Y								Y		
June															
Feldman & March		Y		Y	Y	Y		Y		Y			Y	Y	2
Tuma & Grimes	Y		Y		Y					Y				Y	
Daft & Macintosh	Y		Y	Y	Y	Y			Y				Y	Y	Combination
Leatt & Schneck	Y		Y		Y				Y						1
Organ & Greene	Y		Y		Y				Y					Y	1
Hambrick	Y		Y		Y				Y	Y		Y			
September															
Brass	Y		Y		Y		Y		Y	Y				Y	1
Schoonhoven	Y		Y		Y		Y		Y	Y	Y		Y	Y	Combination
Boje & Whetten	Y		Y		Y	Y		Y	Y	Y		Y	Y		Combination
Toffler	Y	Y	Y			Y		Y		Y			Y	Y	Combination
Roy	Y					Y		Y		Y		Y		Y	2
Glaskiewicz & Shatin	Y		Y		Y	Y		Y		Y		Y	Y		Combination
Eccles	Y		Y		Y		Y		Y		Y			Y	1
Willmott				Y										Y	
Mizruchi & Bunting	Y	Y			Y			Y		Y	Y			Y	2
December															
Staw, Sandelands, & Dutton		Y	Y	Y		Y			Y	Y	Y			Y	2
Cameron & Whetten	Y		Y	Y		Y		Y		Y	Y			Y	2
Clegg				Y		Y		Y		Y		Y		Y	2
March		Y				Y				Y	Y	Y	Y	Y	2
Leblebici & Salancik	Y		Y		Y		Y		Y	Y					1
O'Reilly & Caldwell			Y	Y		Y				Y			Y	Y	2
Ross & Ferris	Y		Y	Y	Y									Y	

Note: Y = yes; blank = no

HARVARD BUSINESS REVIEW

Authors in 1981 Issues	Classification Variables from Table 1														Region
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
January–February															
Scott	Y	Y				Y		Y	Y	Y			Y		Combination
Drucker		Y			Y			Y	Y	Y				Y	2
Mintzberg		Y			Y		Y			Y		Y	Y		
Revsine		Y			Y									Y	
Miller		Y					Y			Y		Y	Y		
Levy		Y			Y		Y	Y	Y					Y	
March–April															
Veiga	Y	Y	Y	Y	Y				Y					Y	1
Collins & Blodgett	Y	Y		Y	Y								Y		1
Barnes		Y			Y								Y	Y	
Mertes		Y			Y		Y						Y		1
Levinson		Y		Y	Y								Y		1
Lambrix & Singhvi		Y			Y		Y		Y				Y		1
May–June															
Andrews		Y			Y		Y		Y				Y		1
Levinson		Y			Y								Y		
Levitt		Y			Y								Y		
McQuaid		Y			Y	Y	Y			Y				Y	2
Schrank		Y			Y									Y	
deForest		Y			Y								Y	Y	
July–August															
Dearden		Y	Y		Y		Y		Y				Y		1
Hayes		Y			Y								Y	Y	
Quelch & Takeuchi		Y			Y								Y	Y	
Fulmer		Y			Y			Y		Y			Y	Y	2
Buss		Y			Y		Y						Y		1
Gale & Branch	Y	Y	Y		Y		Y		Y				Y		1
September–October															
Abernethy, Clark, & Kantrow	Y	Y			Y	Y	Y			Y		Y	Y	Y	Combination
Foulkes		Y			Y		Y		Y				Y		1
Skinner		Y			Y		Y	Y	Y				Y		1
Ping		Y			Y		Y			Y			Y		1
McFarlan		Y			Y		Y		Y				Y		1
November–December															
Nash		Y					Y	Y		Y			Y	Y	2
Mansfield		Y			Y		Y		Y	Y			Y		1
Henrici		Y	Y		Y								Y		1
Parker		Y			Y	Y		Y	Y	Y			Y		Combination
Figgie		Y			Y			Y	Y	Y			Y		

Note: Y = yes; blank = no

APPENDIX B: Correlation Matrices for Smallest Space Analysis of *ASQ* and *HBR*

Administrative Science Quarterly ($N = 31$)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Numerical data													
2. Illustrative examples	– 26												
3. Seeks regularities	54	–.34											
4. Interpretive processes	–.67	–.02	–.25										
5. Explains order	.56	–.26	.22	–.39									
6. Explains change	–.16	.37	–.14	.13	–.44								
7. Unitary view	.34	–.21	.29	–.42	.34	–.22							
8. Pluralistic view	.14	.30	–.27	–.11	–.17	.66	–.13						
9. Assumes boundaries	53	–.25	.57	–.43	53	–.24	.51	– 33					
10. Assumes interaction	.07	.40	–.09	–.28	–.21	.46	– 05	.44	–.16				
11. Defines boundaries	–.01	.45	–.08	–.09	–.19	.11	.17	.05	.02	.28			
12. Boundary changes	–.01	.01	–.27	–.25	–.19	.45	–.24	.41	–.15	.44	– 03		
13. Specific recommendations	–.26	.26	–.22	.11	03	.44	–.16	.17	–.25	.21	.01	.19	
14. Alternative perspectives	.02	35	– 17	14	–.27	36	.05	.22	–.16	21	.39	–.11	–.02

Harvard Business Review ($N = 34$)

Variables	1	3	4	5	6	7	8	9	10	12	13
1. Numerical data											
3. Seeks regularities	.46										
4. Interpretive processes	.46	.27									
5. Explains order	–.16	.10	.10								
6. Explains change	.36	–.11	–.11	– 21							
7. Unitary view	–.06	–.09	–.29	– 12	–.16						
8. Pluralistic view	–.06	– 19	–.19	–.28	.40	– 16					
9. Assumes boundary	.16	.16	– 05	.05	07	29	.31				
10. Assumes interaction	.04	–.23	–.23	– 42	49	04	53	.01			
12. Boundary changes	.16	–.10	– 10	–.27	.21	33	– 19	–.26	.42		
13. Specific recommendations	– 03	–.13	–.13	– 14	–.07	28	–.25	–.08	.02	.14	
14. Alternative perspectives	.02	–.03	– 03	.03	.09	–.38	.21	–.29	.05	–.03	–.59