

CHAPTER 4

TOWARDS A SCIENCE OF EDUCATIONAL ADMINISTRATION

... placed in the history of ideas, the belief that administration is (or can be) a science appears as a phenomenon of the mid-twentieth century (Greenfield, 1986a:61).

There is something about science that is overpowering and irresistible. The term itself covers a multitude of meanings. Science, at once, explains reality, suggests possibilities for growth and progress and legitimates scholarship and learning. In common parlance, the term is used specifically as in administrative science, behavioral science, political science, computer science; and collectively as in the natural sciences, the physical sciences and the social sciences. An exact meaning is hard to come by. Doubtless, the meaning varies according to usage, users and context. Some scholars make no attempt at definition. The assumption is made that the reader will know the meaning or will colour the term with his/her own understanding and since the terms 'science' and 'sciences' are often used glibly and without too much thought, usage itself makes for confusion rather than clarity. The idealised, commonsense image affirms that science:

- * is based on hard facts or trustworthy experience (observations and experiments);
- * is readily distinguishable from other intellectual enterprises (religion, art) by virtue of its

- proven knowledge, rigorous methods, and foundation in facts;
- * has its own special, permanent method(s) for proving knowledge true;
 - * is progressive in the sense of being an expanding body of true knowledge;
 - * is rational rather than irrational (scientific knowledge can be justified with good reasons);
 - * is objective rather than subjective (knowledge is built on and corresponds to facts or physical reality; in their work, scientists are detached, unemotional, and unbiased);
 - * is an intellectual endeavour, remote from and unsullied by social-economic-political interests and influences;
 - * produces general (universal) theories or laws of nature; knowledge admitting no exceptions (Jacobs, 1991:2)

Indeed, the user or the community advocating the use, tend to determine the specific meaning of the terms in any given context. In defining meaning and promoting understanding, Kuhn (1970) declared that the belief systems of scholarly communities play a critical role. Now, belief systems are often socially determined and as social changes begin to be felt, belief systems too, usually undergo changes. Contrasting concepts of science from mid 19th century to the present are linked to the intellectual and social contexts of their time. Meanings, too, change. In the contexts of education and educational administration, the impact of varying understandings of science has been indelible. Significant scholars in every decade of this century have turned to the science of administration or administrative science as the source of rationality and legitimation of scholarship. Different understandings of the meaning, its connection with research

and inquiry and its precise linguistic usage are fundamental to much of Greenfield's critique and the subsequent debate that has continued on after Greenfield's death in 1992.

This chapter considers the changing understandings of science that prevailed throughout the five stages outlined in chapter 3, which detailed the changing nature of administration during the twentieth century. The meaning of science in the context of educational administration forms the background against which Greenfield's work is situated.

THE MEANING OF SCIENCE

Philosophical Science

Etymologically and simply, science means knowledge - what we know and how we know it. It signifies, at once, a body of knowledge and a methodology. The search for a knowledge base - the 'what' - and a research methodology - the 'how'- for educational administration has occupied scholars and practitioners from the very beginning of academic thinking in the field. As early as 1875, Harris and Payne talked about "a science of education" to explain the "art" of school administration. Payne explains the distinction between theory (science) and art, thus:

The baker's knowledge of his own art is practical; he can perform all of its processes, but explain none of them. On the other hand, the chemist's knowledge of the baker's art is speculative; he can explain all of its processes, but perform none

of them (Culbertson, 1988:4)

Clearly, from this analogy, scientific knowledge enables explanation; empirical practice is the art. Educators are like bakers - they have empirical information, information gained from practice, but little scientific knowledge or theory. A science of education and organisation would displace "the stronghold of empiricism" with theory (Payne, in Culbertson, 1988:5). This kind of thinking represented an early attempt to balance the basis of knowledge and illustrated one of the focal areas of contention that future thinkers would speculate upon, that is, the relationship between empirical and theoretical knowledge. With backgrounds in speculative philosophy, Harris and Payne defined science as "maxims or ethical axioms" and "data arranged systematically and causally or logically connected", whose purpose was to provide educators with "laws of the mind and body" (Culbertson, 1988:4). Later thinking would discard the emphasis on ethical. Harris argued for a "phenomenological approach to inquiry" (Culbertson, 1988:3) and supported Payne in his belief that a science of education and management would include many fields, including phenomenology. As administrative thinking became more focussed, Payne's belief became the reality. The elements of a science of administration would come from the social and behavioral sciences. Indeed, the influence of Harris and Payne's philosophical science was constrained particularly by the trend towards academic

social science with its emphasis on the empirical rather than the speculative (already evident in the 1880s and becoming more definite by the early 1900s), as the professional field of educational administration took shape with its grounding in the positivistic science of Comte and Spencer.

Harris and Payne differed on particulars but both believed that a science of education was achievable. They agreed that inquiry should encompass both ideals and facts; use both induction and deduction; employ social science and philosophy; value ideas more than data; use concepts in existing disciplines; probe relationships between other social agencies and schools and develop generalisations that educators and managers could apply in practice. Yet, while they recognised that school management was unique, they did not clearly distinguish it from teaching (Culbertson, 1988:6).

So, before the turn of the century, prominent educational thinkers had elaborated clear views about the scope of education and management, its major components, relationships to other disciplines and general modes of inquiry.

Positive Science: 1905-1930

In the evolution of thinking, speculative philosophy was soon to give way to positivism. Influences from 19th century European thinkers, especially Auguste

Comte in France and Herbert Spencer in Britain, were beginning to be felt in USA. Like Francis Bacon in 17th century Britain, Comte and Spencer were struggling with the nature of knowledge and agreed that all genuine human knowledge is contained within the boundaries of science, namely, the systematic study of phenomena and the explication of laws embodied therein. They concluded that science is concerned with facts only and not with values, and so discounted the "ethical axioms" of Harris and Payne. They argued that whatever questions cannot be answered by scientific methods must be left permanently unanswered. Scientific methods are the methods of the natural sciences and include observation, experiment and comparison. They produce factual knowledge because theory is founded in the nature of things and the laws that govern them, not in the imaginary powers of the human mind. Comte, in fact, laid the foundation for the subordination of theory to method (Ryan. 1988:11). He delineated three evolutionary stages, the theological, metaphysical and positive in the development of human thought and considered that theological and metaphysical thinking, in which imagination is dominant, produced only "useless digressions". Inquiry in the positive stage limited itself to phenomena about which facts or sense data could be gathered in order to classify phenomena and to discover laws (Culbertson, 1981:30). In the positive stage, imagination was totally subordinated to observation. Positive thinking produced

laws. Science not religion or metaphysics provided the key to truth and the means to understand and control the universe. (Giddens in Ryan, 1988:11).

Comte's thinking was directed towards the development of a philosophy of the sciences. He also claimed to have pioneered a positive sociology. He believed that natural and social science disciplines possessed unity and interrelatedness and that natural science methods could be effectively applied to the study of social and human phenomena. Greenfield adamantly and strenuously denied this belief in some of his most significant writings (1975c;1979c;1986;1991b;1991c).

As the 19th century came to a close, Comte's concepts of science became increasingly influential in the USA. Scholars believed ever more strongly that definite knowledge could only be obtained through positive science. The thinking of Harris and Payne and their concern for a philosophical science was, by then, being replaced by other views. The social and economic climate of the early 20th century appealed to the rationality of science and to the rationality of scientifically trained experts who were operating in the bureaucratised institutions of the new social order (Tyack & Hansot, 1982:119). Science was much more for them than a mode of inquiry; it was a world view prevalent in both society and scholarship. To professionalise their careers, consolidate

their power and influence public education, the new administrative progressives placed their chief reliance on scientific expertise (p120). Cubberley and Strayer were men of their time. Cubberley was a scientist, trained in physics and a lover of geology. His natural scientist background was easily grafted on to his educational thinking.

Science, for these two practitioner/scholars and their contemporaries, was applied social science, "the systematic collection of facts for the purpose of policy formation" (p120). They sought to develop a centralised, expert, executive, and above all, efficient administration (Allison, 1989:6) similar to the popular principles of Taylorism that were transforming the bureaucratised corporate economy. The prevailing emphasis was on fact gathering, inductive reasoning and forming empirical generalisations as a means for the diagnosis of difficulties, for developing suggestions for improvement, and guides to action. Science pursued questions for which data existed and which could be quantified and measured for example, teaching methods, results, the connection of results to standards, accounting procedures, state support for public schools and school building management. It was positive rather than speculative.

This concept of science was inextricably linked to a research base, - researchers considered themselves as

scientists - but research was conceived of as a kind of social engineering, a strategy for identifying practical problems and finding practical solutions empirically tested (Tyack & Hansot, 1982:153). The implication was that research and practice were closely linked, yet much of the research of this period stressed managerial concerns over classroom instruction. The impact of such research was considerable because the techniques of research that were taught were directed toward the immediate decisions that school leaders needed to make and the apparent objectivity of numbers and facts gave the expertise of science to vulnerable school administrators when challenged by those outside the system. At this stage, research and researchers in education inhabited the periphery of the education profession contributing little to the improvement of educational practice.

Strayer, with his commitment to the movement to introduce modern business methods into education, had a penchant for scientific surveys. In theory the survey, the exemplar of practical administrative science in this age, (Allison, 1989:8) informed the public about existing conditions, educated it about proper standards and inspired citizens to improve the schools (Tyack & Hansot, 1982:161). Early surveys concentrated on testing pupil achievement but the techniques soon developed to include the measurement of all kinds of organisational and administrative variables. Tyack & Hansot (1982:161)

likened the spread of scientific, comparative surveys to a crusade. Strayer's surveys assumed that a research study was conducted to solve an operating problem and that, after the completion of the study, the solution would be applied to the problem. This was a rhetorical truth only.

By the late 1920s bureaus of educational research were set up in school systems "to gather the intelligence needed by educational leaders to remain in constant touch with what happens on every front and to appraise actions taken in the field" (Culbertson, 1988:10). Then, to facilitate the exchange of research findings, the National Association of Directors of Research (now the American Educational Research Association AERA) was founded. In 1920 the *Journal of Educational Research* was launched to emphasise "applications and practice rather than theory" (1920:1). Education was, of course, only one of the fields in which applied scientific research was multiplying. This was the era of Frederick Taylor and scientific management and education was being Taylorised. The classroom proved especially resistant to adopting the industrial analogy in reality. The burgeoning management side of education was a little more pliable. Also burgeoning were professional preparation courses for school administrators.

Strayer was deeply involved in the conception and development of these courses and arguably, herein made his greatest contribution to the field. The courses he devised

were heavily weighted toward the technical, financial and mechanical problems of education, areas that were easily fitted to the objective, fact-gathering emphasis of the current understanding of science. Cubberley described this period as an important and formative one in the history of educational administration. The fact that the courses were largely the result of the practical experience of some successful practitioner was a definite advantage because successful experience legitimated the teaching.

But changes were also underway. Cubberley dated the change from the successful-practitioner type of generalised courses toward a more scientifically organised type of instruction and toward a specialisation in instruction at around 1904. Education, like other sciences, was developing its own practical specialisation - specialised training in education being a natural outgrowth of the increasing specialisation of American life. Cubberley considered the application of statistical procedure to the study of educational problems as "perhaps the most important of the new developments of that period" (Callahan, 1962:188). This was also the time when Thorndike was teaching statistics to his psychology classes at Teachers College (1902-1903) and his work influenced the growing application of scientific methods to education. It is worthy of note that Cubberley and his colleagues saw themselves as scientific problem solvers and not as philosophers. The notion of science as fact gathering was

becoming firmly entrenched and the conceptual relationship between science and research was being forged.

Practical Science: 1925-1940

Public administration, industrial management and education, long isolated and discrete fields, were now sharing understandings of common concepts, experiences and language. While the Americans were resisting Taylor's scientific management, particularly the labour unions, Mary Parker Follett was busy formulating a broad social philosophy of administration that attempted to integrate views from industrial and scientific management, psychology, political science and public administration. One of its characteristics was a tendency to treat administration as an art, a science and an ethical practice, with an implied criticism of those approaches to administration which tended to overstress any one of these aspects to the neglect of the other two (Belisle & Sargent in Halpin, 1957:102). Some of this influence is discernible in the thinking of John Dewey, as he struggled to conceptualise a valid connection between philosophy and science. Dewey accepted the positivist view that science is centred in experience rather than in metaphysical speculation but believed that the scientific method functioned even in value determination (Bowyer in Culbertson, 1988:11). He stressed the relativity of knowledge and so opted for a looseness of definition in science. For him scientific knowledge was not

fundamentally different from everyday knowledge. Scientific methods simply exhibited free intelligence operating in the best manner available at a given time (Willower, 1994:7). He warned educators that it was very easy for science to be regarded as a guarantee that goes with the sale of goods rather than as a light to the eyes and a lamp to the feet. An independent science of education could not exist because it was dependent on the various sciences for its materials. Educators needed to have an understanding of these other sciences. Without this, research would be segregated and rendered futile. Dewey was very aware that educators tended to have insufficient grounding in non-educational disciplines that education drew upon and hence, in some issues, had only limited vision.

Dewey described science in terms of method. Like Comte, he stressed the methods of comparison and experiment but asserted strongly that science could not supply rules. Educational science could only develop within practical contexts. The practitioner and the researcher needed to be in close communication all the time. "Armchair thinking" was only one factor in the development. For Dewey, scientific activities and educational practices were two sides of the one reality. True to his democratic beliefs, Dewey held that no discipline, no method of inquiry, no scholar and no practitioner should be left out of efforts to build knowledge in education. Dewey's science

of education was in no way elitist, reserved for scholars, researchers, practitioners nor confined to particular disciplines. The looseness of his concept of science was a distinguishing mark.

Dewey's influence was felt by a second wave of professors who were teaching, researching and writing in the 1920s-1940s. Leading Professors, Paul Mort, Jesse Sears and Arthur Moehlman followed Deweyan thinking on many issues. They supported the connection between research and practice since they were both researchers and practitioners in their professional lives and they too, held loose definitions of science. As well they worked to advance the science of school management through specialised studies. Mort's studies focussed on school finance. Sears disseminated the generic concept of administration, (administration qua administration) - and Moehlmann, with help from the social sciences, concentrated on education as an integral part of the total culture (Culbertson, 1988:12-14). These three joined values with facts in their inquiry, as Dewey had recommended and as Cubberley and Strayer had done. By 1939 too, the influence of the Hawthorne experiments was being felt in education circles.

Logical Positivism: 1940s -1950s

Around this time as well, another powerful intellectual movement was starting to take shape, once again in Europe. In 1923, when Mort, Sears and Moehlmann

were publishing their first works, Moritz Schlick, Professor of Philosophy of the Inductive Sciences and a group of scholars (mainly scientifically trained philosophers and philosophically interested mathematicians and scientists) began a seminar at the University of Vienna. At first an informal club, later an organised group with its own manifesto, journal (*Erkenntnis*) and series of publications and congresses, they came to be called 'The Vienna Circle'. At times the Circle included such thinkers as Carnap, Feigl, Godel, Hahn and Neurath. Their purpose was to make philosophy scientific that is, to imbue philosophy with the same degree of logical rigor, coherent argument and precise clarity found in maths and science. Indirectly they intended to generalise the methods of science not only to philosophy but also to the natural and social sciences (see Scriven, 1969:197 ff).

The Vienna scholars combined Comtean positivism and the symbolic logic of Bertrand Russell and Alfred North Whitehead to arrive at their views. According to Culbertson (1988:14) they were especially attracted by Comte's emphasis on positive thinking and the view that theological and metaphysical types of thinking make for useless digressions in science; by Comte's thesis that physics was already in a positive stage of science and finally, that social scientists, who were still mired in prescientific thinking, could best advance their disciplines by employing natural science modes of inquiry.

Symbolic logic, they believed, could give philosophy the same degree of logical rigor, cogent argument and precise clarity found in mathematical and scientific statements (Culbertson, 1981:32). Hypothetico-deductive systems rather than theory provided the link between the new logic and positive thinking to shape effective inquiry. Hypothetico-deductive systems contain sets of postulates which, to begin with, are undefined or uninterpreted and are stated in logico-mathematical terms from which hypotheses could be derived and tested in the real world (Culbertson, 1988:14). They concluded that meaningful generalisations cannot be developed about ethical matters and so laid the basis for a value-free science and the "is-ought" distinction which assumed prominence in the theory movement. They believed, too, that statements about reality can only be validated through experience and devoted a great deal of attention to the rules of language (Culbertson, 1981:33) particularly as elaborated in the early works of Wittgenstein.

This theory later came to be called logical positivism and its adherents, logical positivists. Herbert Feigl is thought to be the first to use the name (Culbertson, 1981:29). From an epistemological standpoint, logical positivists assumed that knowledge about natural phenomena is the same as knowledge about human phenomena. They also believed that researchers could be neutral towards the subject studied, including human subjects.

Valid procedures and findings were ensured, they believed, since researchers could make public their designs and operations and these could then be replicated by other researchers. Positivistic inquiry aimed to develop laws and predictions. The scientific method, effectively applied was the source of authority.

Logical positivistic ideas were first introduced formally to scholars from other nations at the Seventh International Congress of Philosophy in 1930 at Oxford. The word spread through journals like *Erkenntnis*, and the publications of various monographs. Conferences continued to be held throughout the 1930s in significant European capital cities, the final one being held in Harvard in 1939. As events leading to the Second World War unfolded, the Vienna Circle broke. Notable members of the Circle, namely Feigl, Neurath, Carnap, Joergensen and Bergman moved to the USA and continued to refine and diffuse their ideas. The climate for logical positivism was very supportive, partly because of the positive feeling for science and partly because there was no great tradition of metaphysics which leaders of the Vienna Circle inevitably confronted in their own country and in neighboring Germany.

Herbert Simon (1945) was the most important channel through which logical positivistic concepts were transmitted into the field of educational administration (Culbertson, 1981,1983). According to Greenfield, Simon

set out to build a theory of administration on scientific knowledge and offered a method of value-free inquiry into decision making and administrative rationality ... whose great advantage was:

that it brought the force of science to buttress any claims that might be made about the nature of administration or about the best means for improving organisations and life within them. With the publication of Simon's seminal work in 1945, the methods of positivistic science were established as the only ones by which scholars might gain reliable knowledge of administrative realities....new and reliable knowledge can stand only on a foundation of empirical science (1986a:58).

Science now meant "positivistic inquiry" (Greenfield, 1986a:59) and, according to Greenfield, a commitment to science in organisational affairs was not simply a commitment to rationality; it was rather a commitment to a restricted framework of rationality (p63). This kind of "neutered science", Greenfield railed against. For Greenfield, there was no administrative science, no science of organisation, no objective truth arrived at through the scientific method. Science is silent in the face of values (1980:44). He believed that the failure of organisational studies could be explained as a misplaced faith in science (1981:5). The case against a science of administration was vehemently asserted in most of Greenfield's post-1973 papers (1975c;1978;1980b;1981b;1985a;1985b;1986a).

Theoretical Science: 1950-1974

The spirit of positivism spread to educational

administration in the 1950s in a form which Andrew Halpin (1957:15) called the "New Movement". The post-war world was a world of newness. New horizons, new values, new methods of analysing and responding to social issues were impinging upon the academic community and new ways of coming to know and use this knowledge were beginning to transform the scholarly world. This newness was stimulated, in no small way, by rapid changes occurring in the social sciences. A new paradigm of knowledge was being created, wherein scholars rejected the knowledge of the past as inadequate, what Griffiths (1957:389) called "the age of educational alchemy" and set out to redeem the older studies through science (Halpin, 1958: Campbell & Lipham, 1960). Something more than the currently fashionable practical science of educational administration was needed (Griffiths, in Campbell et al. 1957:356). Halpin (1958:13-15) had already expressed some misgivings about appeals to change bolstered by the argument that the new was more scientific. Getzels, who had published the first paper to provide a theoretical framework for the study of educational administration, explained the rationale behind the New Movement:

Systemic research requires the mediation of theory - theory that will give meaning and order to observations already made and that will specify areas where observations still need to be made. It is here that we would place the root of the difficulty in administration: there is a dearth of theory-making (Getzels, 1952:235 in Culbertson, 1988:15).

Allison believed that Getzels was completely correct in both his diagnosis and general prescription:

for the understandings of the purposes and the processes of educational administration, inherited from the practical science era, needed an extensive conceptual reappraisal and overhaul (Allison, 1989:10)

Hopes were high (Halpin, 1969:3). Many American scholars were feeling a fresh intellectual excitement.

The New Movement was made possible through Kellogg Foundation finance. The Cooperative Program in Educational Administration (CPEA), directed at improving preparatory programs for educational administrators (which till then, were largely 'how-to-do-it' affairs where instruction was given by anecdote, often by men "in their anecdotage" (Halpin, 1970:159), launched in 1950-51, was funded by the Kellogg Foundation to the sum of \$US6,000,000. CPEA professors played leading roles in transmitting simplified versions of logical positivism to the field and, in the process, activated the Movement. The goal was to build an administrative science, although, as Halpin stated (1957:xi) its initial projects paid little heed to the role of theory in research, which was highly empirical but showed little concern for administrative theory. It was agreed that greater use of the social sciences in training and inquiry was imperative and so professors of educational administration and their students came into contact with social scientists and their ideas. Halpin,

(1967:158) divided the life span of the New Movement into three periods: 1947 - 1954; 1954 -1964; 1964-1969. At the same time he declared that all chronological classifications were arbitrary and that social and historical change never occurred along a clear cut line of either development or decay. The single most important date, "a benchmark of the new era" (Getzels in Cunningham et al.1977:8) was August, 1954. At the annual meeting of NCPEA (National Conference of Professors of Educational Administration) in Denver, the first, real confrontation between behavioral scientists and professors of educational administration occurred (Halpin, 1967:161). Halpin recalled the shock of the scholar-practitioners when Coladarci (of Stanford), Getzels (of Chicago) and he (Ohio State) pointed out that what the CPEA Centres and the members of the NCPEA were doing, in the name of research, was distinctly atheoretical in character and sloppy in quality. In particular, they criticised the use of naive, shotgun empiricism and urged colleagues to make greater use of explicit theory as a basis from which testable hypotheses could be generalised (Halpin, in Cunningham et al.1977:265). Griffiths, writing later, declared he was "thoroughly disgusted with what passed for research and serious thought in educational administration (1982: 3-4). He had been the chairman of the sub-group with which these three spent most time at the Denver conference, quickly saw the significance of what they were saying, absorbed it and

soon afterwards, acted upon it. Griffiths, like many others, looked to logical positivism as "the proper antidote for self-serving testimonials, the pseudo-theories...and the plain nonsense that constituted the field of educational administration" (pp3-4).

The core ideas of the New Movement or Theory Movement, as it came to be popularly known, (Culbertson (1980:325) called the Movement "our greatest romance in the last three quarters of a century"; Charters (in Cunningham et al.1977:363) refused to call it the Theory Movement on grounds that this title was too small, since theory was only part of the package), encapsulated a particular understanding of science. In summary, these ideas were:

1. statements about what administrators and organisations ought to do cannot be encompassed in science or theory;
2. scientific theories treat phenomena as they are;
3. effective research has its origins in theory and is guided by theory;
4. hypothetico-deductive systems are the best exemplars of theory. Nakedly empirical research must be rejected;
5. the use of the social sciences is essential in theory development and training;
6. administration is best viewed as a generic concept applicable to all types of organisation (Culbertson, 1983:15).

Culbertson asserted that five of the six core ideas were directly related to Vienna Circle concepts. Only the sixth, administration qua administration, did not have direct links to Vienna Circle thinking. However, Sears (1950) had already given clear expression to this idea.

Administrative science and administrative theory (see Halpin, 1977:266 for reflections on this title) came to be closely linked and then interchangeable. Both terms focussed on a kind of science or theory that eschewed inductive modes of thought, non-experimental methods, value inquiry and qualitatively based generalisations. Halpin (in Campbell et al. 1957:156) noted that he was referring to theory as defined in science, a hypothetico-deductive type of theory to be distinguished from value-theory as the latter was conceived in philosophy. The central assumption was sharply defined and agreed upon - that human and natural phenomena are the same and the same epistemology can be effective in advancing inquiry in the two domains (Culbertson, 1981:41).

At the same meeting in Denver, August, 1954, the NCPEA, with Kellogg finance, sponsored the publication of *Administrative Behavior in Education*. With Campbell and Gregg as editors and published in 1957, the book contained chapters by Griffiths (1957:354-390) and Halpin (1957:155-200). Halpin (1970:161) noted that a chapter written by a behavioral scientist was included for the first time in a book on educational administration. Griffiths's article, (1957:354) noted the great emphasis [then] being placed upon the need for a general theory of human behavior. The theory of administrative behavior for educators would be a subsystem of the proposed general theory of human behavior. Griffiths asserted that:

a good theory exists when there has been established a set of principles upon which action may be predicted. These principles give form to observations and constitute a logical and consistent whole built about a single theme or a small number of themes (Griffiths, 1957:360).

Griffiths believed that no current theory of administrative behavior satisfied the definition. Such a theory would make it possible to relate what now appeared to be discrete acts to one another so as to make a unified concept. Griffiths compared such theory to Kepler's Laws which imposed order upon the universe. The implications of the analogy for educational administration were profound.

Within a set of principles yet to be formulated, it will be possible to recognise interrelationships among apparently discrete acts, it will be possible to predict the behavior of individuals within the organisational framework, and it will be possible to make decisions that will result in a more efficient and effective enterprise. Research will have more meaning because it will be directed toward the solution of problems, have clear definitions, and will contribute to the whole concept of administration. It will be more easily understood because it will use concepts that have the same meaning to all in the profession (Griffiths, 1957:388).

Theory was clearly seen as the handmaiden of science. As science imposed order on the universe, so theory would impose order within educational administration. Theory building was considered essential to the development of a discipline. Halpin could write that:

we are still just making feeble efforts towards the development of theory, and we have not reached a stage where we can talk with precision about a theory of administration (1957:xii).

and in contrast to Griffiths, Halpin continued, "I earnestly hope that we shall never claim to have found the theory". Two of the most significant voices for the Theory Movement were at variance over the nature of theory, at least in the early days of the Movement. Griffiths would later think again about the theory.

Halpin (1970:163 ff) named five studies, all done in the period 1954-1964 that were claimed to be substantive achievements, that is major research contributions of the Theory Movement. These were Halpin's own study into the Leadership Behavior of School Superintendents; Getzels and Guba's social process theory; Hemphill, Griffiths and Fredericksen's study into administrative performance and personality; Carlson's work on Executive Succession and Organisational Change and Halpin and Croft's work on the Organisational Climate of Schools. These studies reflected the concept of science embraced by the Theory Movement. They were measurement based; they drew heavily on insight borrowed from the social sciences; they were testable, deductive studies from which further testable hypotheses could be derived and they were studies that combined theory and practice. Getzels (in Cunningham et al. 1977:10) commented that "none of the texts written before 1950 referred to theory. None of the texts after 1960 did not refer to it". Getzels' use of the double negative is, no doubt, for emphasis. Halpin, looking back on these research achievements some years later, wrote that he was

"not impressed":

Certainly in 1954 I had hoped for greater progress than I later found in 1964. Yet the hope for the "New Movement" and the excitement about it did reach a peak between 1954 and 1964. The heady fragrance of great promise was in the air (1970:167).

Halpin made 1964 the end of the second period of development. In that year Griffiths edited the National Society for the Study of Education (NSSE) Yearbook, entitled, *Behavioral Science and Educational Administration*. In reflecting the state of the art in educational administration, Halpin (1970:167) believed it reflected a Theory Movement that had begun to run down. And the period since 1964 was "anticlimactic". The early promise to create a science of administration, to bring order out of chaos and to establish a disciplined, sound knowledge-based area of study was unfulfilled. By 1967 Halpin had great misgivings. Getzels (1977:11) too declared that the emphasis on the sociological and psychological study of administration within the school as a social system was in a state of decline. By the turn of the decade the field was lacking its original vitality.

Halpin had some ideas why. Firstly, he believed that the idea of administrative theory was oversold:

because many of us had expected too much, too quickly and too easily, we foredoomed ourselves to discouragement (Halpin, 1970:167).

The idea of theory became a victim of extravagant

expectations (Halpin, in Cunningham et al. 1977:272).

Secondly, there were many appeals for change to something new made in the belief that the new was more scientific

Halpin cautioned that some seeking newness needed to:

examine [our] motives rather carefully - are we seeking a better understanding of theory, or are we trying to promote the idea of theory (Halpin, 1957:13-15).

The motives, Halpin pointed out, were starkly different and distinguished between scholars who spoke "from their own direct experience of research" and the "popularisers" who seized upon the idea of administrative theory and made it into a slogan. Halpin conceded that "a few of these men wrote more than they knew. Yet they were safe, because their readers knew even less" (1970:168-169). This would seem to be a serious indictment of a particular kind of administrative science that was being promoted at that particular time. Halpin definitely placed those scholars associated with the five significant studies he named in the class of sound scholars - "they simply do research and report what they find" (1970:169). He advised his colleagues to avoid what he called "the Madison Avenue" approach and to learn how to promise less and deliver more (p170).

Thirdly, he believed that there was a dearth of in-depth talent among scholars. The implication was that scholars did not train enough doctoral students with research strength and an interest in administration.

Halpin commented upon the "strange sub-culture" of educational administration as a profession. Too few men who were attracted, had sufficient respect for craftsmanship (p171). In one of the sternest statements made in this regard, a seemingly jaded Halpin declared, "Phonies beget phonies" (1969:8). Fourthly, Halpin believed that the talent that did exist was unevenly distributed. Many of the vocal spokesmen of the New Movement in 1957 were, physically, under the same roof, namely at the Midwest Administration Centre, University of Chicago (see Halpin, 1977:267). Halpin believed that scholars needed to be where they could converse and share with other scholars, but:

having established a critical mass at one university, how do we keep it critical there, and at the same time, gradually establish similar critical masses at other institutions? ... and when you spread the talent too thinly, you may get activity, but I am not convinced you get productivity (1970:172).

Fifthly, there was a lack of consensus about the meaning of the Movement (Halpin, in Cunningham et al. 1977:272-273). Behavioral scientists and most professors of administration saw it as meaning different things. Behavioral scientists emphasised the use of theory, that is theoretical models, in the strictly scientific sense of the term, as the basis for empirical research on administration. Such models need not pertain directly and certainly not exclusively, to the field of educational administration but to behavior in any number of settings.

There was no sense, ever, among behavioral scientists of developing the theory of administration. For professors of administration, administration was viewed in concepts that were essentially prescriptive in character rather than explanatory in the scientifically analytical sense and there was little connection between the behavior of actors engaged in this process and the dynamics of the process itself. Behavioral scientists were content to study behavior, as it is, within an administrative context. Many professors were accustomed to consider what ought to be and it was all too easy to see the dilemma between "is" and "ought" solved by the "Holy Grail of THE theory of administration" (Halpin, 1970:273). Differences in scholarship and experience and academic heritage led to differences in interpretations. Finally, social events and stages contributed to social changes which the current theoretical models could not consider. Halpin mentioned "the shock waves of the violent 60s" (p273) in contrast to the "calm temper" of the 1950s. Until then, behavioral scientists had tended to concentrate on internal variables, variables within the organisation. Little consideration had been given to forces impinging from without. These forces, namely Vietnam, Selma and the politicisation of public education to mention but a few, exposed "the innocence of the theoretical models" (p273) that behavioral scientists had designed. They were unable to handle the plethora of external variables within a society in rapid

flux. Halpin was careful to assert that this inability of theoretical models to take into account new social forces and attitudes did not invalidate the method, because scientific method possessed a built-in provision for self-correction (p274). Variables could always be revised and models corrected. The method remained intact but theoretical models of one era mostly needed to be modified to give credence to the changing trends and social attitudes of another. Halpin distinguished between what he called "agents of change" and "agents of the rhetoric of change" (1969:5). Too much preoccupation with change, he believed, diverted efforts away from basic research and led to excessive randomness, clutter and so much verbal noise (p6) in place of sound scholarship and meaningful research.

The promise of the Theory Movement to produce an administrative science was not fulfilled. Nevertheless, Halpin believed that this promise was not a hollow one. Simply, too much was expected too quickly (1970:178). Getzels agreed that by 1970 the "original vitality" had been lost. Nevertheless, there had been some "fruitful" work and there were "residual effects" (in Cunningham et al. 1977: 12-15). The Theory Movement did achieve substantial changes in conception, research and preparation in educational administration and the social psychological paradigm was incorporated into the lore, vocabulary and common sense of the field. Indeed:

by 1970 there were few texts that did not deal with behavioral science theory, the school as a social system, and educational administration as a field of study as well as a vocation (Getzels, in Cunningham et al. 1977:12).

Campbell (in Cunningham et al. 1977:41) wondered whether the Movement had lost its relevance and answered 'no', believing that the field needed to make more use, not less, of the concepts of social science, but that concepts, frameworks and research findings needed to be thoughtfully adapted to the field of educational administration and not simply and mindlessly transferred from one discipline to another. Hills commented on a movement to "professionalise" educational administration, which, at the professorial level, had taken the form of developing an intellectual base for activities and noted how very little of the New Movement was taking (1965:34). Halpin's 1977 view, in hindsight, was of a movement that was:

a popular ikon for a decade, but today treated like a broken ikon to be stored in a cobwebbed attic along with a few scraps of late Victorian furniture (Halpin, in Cunningham et al. 1977:263).

The expectations of its leaders were never, even remotely, realised.

So, into the early 1970s, the science of administration, as a discipline, did not emerge in education to the point of developing or sustaining a critical mass of researchers within the domain of educational administration. The science of administration

still remained lodged within the general social sciences (Halpin in Cunningham et al. 1977:284). Farquhar too, (in Cunningham et al. 1977:337-338) echoed this belief. The "Promised Land" was not reached. No unique and coherent science or discipline of educational administration had been developed. By the late 1960s, the Theory Movement, "aggressively facilitated by UCEA" (Farquhar in Cunningham et al.1977:335) founded on the belief that educational administration was an applied social science that could employ the same concepts and methods of inquiry as the social sciences to build up a body of knowledge. This led to disappointment, a reassessment of progress and a search for new directions. Greenfield's thinking, teaching and writing constituted one of these new directions. This study moves on to consider the life and impact of Thomas Greenfield's work on the study and practice of educational administration.