

CHAPTER I

INTRODUCTION AND ANALYTIC STRATEGY

Introduction

American citizens originally practiced their democracy intensively in town meetings, school house meetings, and sometimes out in the streets. Today, citizenship as voting once every four years has become the norm for many people. Many others do not do as much. Is voting only one part of what should be the experience of citizenship? Are there barriers to or voids in our processes of governance that de-motivates citizen involvement? Is it time to examine if and why Americans are so cut off from their own government?

Context for the Problem

I believe it is time to examine these questions. Therefore, the purpose of this dissertation is to contribute to the public administration literature on the citizen's role in public governance. This contribution will introduce Dewey's philosophy of citizenship in our developing American democracy as a pragmatic means to filling the gap in public administration literature on citizen involvement in governance. I believe American citizens have developed a preference for solving our problems through technical devices rather than through civic collaboration. For example, our response to riot-torn urban areas, like Los Angeles, was to eliminate the cause of the blight left by the riot through the quick remedy of economic development. As a result, we fail to recognize that many

such areas, like the District of Columbia, are facing a bankruptcy of inner civic soul as well as financial insolvency. Watts continues to be blighted and its citizens fractious. Miami is becoming more contentious and disaffected from building a well-functioning *civil society*. Our historical impulse has been to look to public servants and political leadership for solving problems.

Statement of the Problem

We, as a people, find ourselves afflicted by cynicism and apathy toward our government. Even though extremism and radicalism have been with us all along, events like the bombing in Oklahoma City mark a new era of disaffection; people are feeling more than ever that their government is alien to them. In his commencement address to the Class of 1997 at California State University-- Dominguez Hills, Dr. David Satcher declared that with the "erosion of communities" over the years, the "people face broken communities," and a government that they cannot trust.¹ He recalled the Belmont Report, which calls for the renewal of ethics and values in our government such as, Respect for the individual, Beneficence, and Justice.² These are code words of a civil society. He cited the cynical quotation, "I'm from the government, and I'm here to help you," in order to demonstrate his point that the government is given to comical innuendoes of fumbling and incompetence. Dr. Satcher reiterates the important question: "Can people trust us?"³ Are citizens just not interested in their government or are they just disaffected--and why?

This is the problem around which this dissertation is centered. The specific theme of the research is that at the time of the founding of the field of public administration there was a moment containing the possibility for a fundamental redirection of the style and substance of governance in America toward citizen-based democratic governance. A pragmatic form of government could have been adopted that involves full citizenship participation. Instead, we took the option of governance as expert policy making, and this choice has

created our present condition. I will demonstrate from a historical perspective how this occurred and why this pattern has persisted over time.

Background and Focus of The Problem

I will argue that the changes recommended on behalf of the public interest by the generation of social scientists that founded the field of public administration were really more in service to the newly emerging expert class of the day than they were to the benefit of the principles of democracy and even American society. The emphasis on the principles of scientific management,⁴ the sole aim of which was a narrowly-defined efficiency, established a need for experts who were university-trained and who preferably had a scientific background. The developing ethos of governance by trained experts led to universities providing such experts, and the movement toward governance grounded in citizen involvement lost momentum. William Willoughby, the first Director of the Institute for Governmental Research, had “little faith in an enlightened citizenry” and thought that a majority government was a “little better than mob rule.”⁵ In my opinion, such statements reveal that the tension between expertise and citizenship resulted whereby citizenship was given lip service only. Citizen participation suggests direct involvement by the citizens. However, in fact, citizen participation has been reduced to passive involvement through public hearings and receipt of information in the Federal Register. In some cases, not even that. For example, in 1994, the Nuclear Regulatory Commission (NRC) proposed setting standards that incorporated a level of protection for soil and ground water that was equivalent to the Environmental Protection Agency’s (EPA) draft proposal. Then, in December of 1996, the NRC unilaterally shifted their position from their original proposal and adopted a less protective position by increasing the dose and dropping the standard for ground water protection. The decisions were made even after public hearings were held, and discussions and reviews by the public and agencies with mutual interest, i.e. ground water,

drinking water, clean air, et cetera, had produced agreement upon the original level of protection.⁶ The NRC is an independent body of political appointees. It does not report to any federal agency and is not required by law to conduct public hearings, nor does it need Office of Management and Budget (OMB) approval for its regulations.⁷

Given the way that the issue of expertise versus citizenship has been construed, the problem is unresolvable. Expertise will continue to be the basis, though a controversial one, for policy making, and the role of citizens will remain impoverished. What is lacking here is a model for citizenship that shows how citizens can play a role in democratic governance that goes beyond *participation as the expression of preferences, special interests, and protection of staffs*. In order to do this, the process of policy making itself must be reconceptualized in a way that highlights the necessity for citizens to possess a capacity for creative dialogue. What the literature of the field that has developed so far lacks is this idea of citizenship and the contribution it can make to democratic governance.

The heart of my argument is crystallized in the philosophy and theories of American Democracy, citizenship, and education promulgated by John Dewey. I will argue that Dewey's thought can form a forum from which we can find a new path for revitalizing America as it enters the Twenty-First Century. While Dewey's thought is seen as influential, he is also regarded as controversial, and this fact has diminished our being able to see the relevance of his work. Further, it is unfortunate that this damaging reputation was, in part, unjustly acquired, as many, like Lippmann and Niebuhr, whose thoughts were tremendously influential, expounded ideas similar to Dewey's while purportedly attacking him.⁸

Dewey can provide a key to creating a "civic culture."⁹ Though commentators have continued to blame Dewey for his attacks on "degenerative individualism,"¹⁰ which the critics allege teaches American students "that individualism and independence are selfish and mean spirited,"¹¹ his critique is being validated by the facts of contemporary life. Dewey is also blamed for the problems of American public schools. It is in the "American schools of education

where individuals have been taught that being self-sufficient is wrong.”¹² This paper will help to correct such misunderstandings, show that Dewey has been misread, and suggest that his ideas, correctly understood, fit our present situation exceedingly well.

If the United States of America is to continue to be the beacon of hope for the future of democracy, it must find solutions to its social problems, and this means, I believe, involving more citizens in the governance processes. Many commentators are saying that the liberalism that gave rise to the American democratic state is dead. This argument says that America lacks the social foundation upon which to build a community and a nation, and that, consequently, is the reason that we have had to place so much emphasis on the expertise of the technocratic elite. Specifically, our #1 social problem--racial and ethnic prejudice--causes us to rely on technocrats or government as a source in solving our social problems.

I will argue that John Dewey’s philosophy of pragmatism and his theory of emerging American democracy can form the core of a pragmatic model of citizen involvement in government. My thesis is that his philosophy of pragmatism failed to prevail because a distorted understanding of Dewey’s thought developed around it. I will present what Dewey’s pragmatism really means as a theory of governance and how it can create a workable foundation for the civil society we need and an alternative to government by experts only.

While a number of models of citizenship have been developed for the purpose of revitalizing its role in governance, none of these appreciates sufficiently the dimensions of the problem as Dewey understood it. This is what John Dewey’s pragmatic model of citizenship provides when it is understood--especially its emphasis on the education of citizens not as anti-experts or anti-political but as citizens. The gap that this dissertation will fill is to provide, through a corrected interpretation of Dewey, a model of a dialogically-creative citizenship. I will interpret Dewey so as to highlight how this model exists in his theory, show why it was misunderstood and subsequently ignored, and then

indicate through contemporary case illustrations how it is, and can be further, a workable alternative for reforming governance in America.

Analytic Strategy

The strategy of my research process will follow the interpretive methodology originally proposed by Pitirim Sorokin. Sorokin proposed that a grand theoretical process is best pursued through what he called the “logico-meaningful” method.¹³ Sorokin explained that a sociologic-phenomenological style of making an argument aims at creating understanding rather than explanation. The difference between these is that explanation is made by breaking a situation into a set of variables, dependent and independent, and configuring them into a causal pattern, whereas understanding is created by setting out a coherent account of a situation or phenomenon, one with enough integrity and truth and illustrated enough by appropriate evidence to yield a sense of valid meaning. This is why I found it necessary to present, what may be very distinct and separate topics, three historical pictures on public administration, expert elites, citizenship and community woven together by Dewey’s theory of democracy.

In providing this all-encompassing historical backdrop, it is hoped that Dewey can become the forging link in understanding citizenship in the developing American Democracy. The content of the argument will be historical data showing how the “true” Dewey has been lost to us, how the development of public administration fostered the rise of a government of technocratic experts, and how the historical development of the concepts of citizenship and community took a limited form in the American context. I will conclude with the presentation of practical designs that illustrate the alternative that I see Dewey’s pragmatism as affording. Having specified the vehicle, let us begin this journey of understanding in the logico-meaningful method of Sorokin.

The Sorokin Backdrop for a Correct Understanding of Dewey.

Reconnecting to Dewey cannot properly occur without a review of Charles Sanders Peirce, his effect on John Dewey, and the relation between the work of the two men. It must be specified at the outset, however, that because Peirce was exiled¹⁴ from the conventional academic world, he was not generally understood, and his influence on Dewey has not been widely recognized. If we review the history of their connection, we can better understand and see Dewey characterized as a social philosopher rather than as a controversial political ideologue. In the logico-meaningful method, Dewey's flirtation with political and social activism led him to be understood as being in a separate pragmatic orbit of his own, espousing a point of view that was interested in and grounded more in political and policy preferences than philosophical perspective.

Hence, using Sorokin's analytic strategy in providing an understanding of Dewey will begin by setting a backdrop of Charles Sanders Peirce's "Theory of Scientific Method" in order to help us understand Dewey's philosophy of pragmatism. (It is interesting to note that the neo-idealistic tradition in sociology within which Sorokin worked is based on symbolic logic--which of course was built upon Peirce's logic of relations.) Charles Sanders Peirce's "Theory of Scientific Method" will serve as the map for this journey of my dissertation, the analytic template. Dewey's ideas were nurtured through the theoretical roots set down by Peirce in his "pragmaticism"; thus, my analysis will be found at the core of Peirce's thought.

Charles Sanders Peirce's Scientific Method.

Peirce's key theoretical concepts are found in his distinctive definition of what he purported to be the Scientific Method. His first premise that the science community not only needed to communicate to each other as scientists but share with the greater community. In other words, science needed to be shared

with the Universe. Peirce held very strongly to the belief that in order for science to be understood and to be realized, science needed to be shared in the community of ideas of the universe.¹⁵ This strong belief in the greater community placed Peirce in a realm separate from the belief system of the science community. The science community practiced science as in an esoteric coterie. Whereas, Peirce wanted to open the doors of science to all people in the dialogue of searching for truth. This bonding with the greater community as the basis for scientific practice became the foundation to the philosophy of Dewey. Later I will suggest how the separation of the scientific community from the greater community has contributed to the undermining of the possibility of a civil society.

Peirce's second key concept on his theory of the scientific method is that thinking, language, and culture are keys to opening up the ways to action. Even though Dewey's thought is set in Peirce's thinking, they differed in the way they reached conclusions. John Dewey rejected logical positivism, while Peirce relied heavily on the related discipline of logical symbolism. Peirce is noted for his mathematical genius and deliberated his ideas through mathematical logic. Dewey, on the other hand, leaned heavily on the scientific method generally as grounding for his metaphysical thoughts.¹⁶ Peirce's greatest contribution to pragmatic thought, which had great meaning for Dewey, was his "semeiotics."¹⁷ (Peirce preferred this form of spelling "semeiotics.") Peirce felt it was not natural to divorce this kind of thinking--semeiotics--from the mainstream of the world. "By explaining how thought is action, Peirce's semeiotics make it possible to understand why thinking, language, and culture are real historical forces."¹⁸ The key to a correct understanding of Dewey is to understand Peirce's semeiotics. Dewey believed very strongly in language, meaning and language, and language development.

Peirce became more explicit in his writings in exploring and demonstrating how an individual's thinking on a particular issue is forever changing towards the common good--"summum bonum."¹⁹ This thinking is expressed in a language

that is only understood by those who are experiencing the dialogue over and over again. The continuous thought process transforms eventually from thought into action. These actions are felt and achieved by one's culture and/or community. The culture of the group, then, will determine the action that will be practiced. Most importantly, Peirce felt that this was an ever-changing, on-going process which he called "synechism."

Dewey believed in Peirce's "semeiotics" for this main reason. Symbolism entraps the thinking mind towards a never-ending conclusion. If the culture is changed, the symbolic nature of thinking will also change. Dewey based his theory of education on the importance of language, cultural meaning, a sense of community building through education and communication. In order to achieve a goal, each participating individual needs to be on a level-playing field. This means that persons involved in a dialogue have the same understanding of the language used. The underlying dictum of Peirce is that thinking has no meaning if the knowledge base of language is of a different representation of meaning.²⁰ An example of this is when two or more people are having a dialogue and it appears that they are talking past each other. Conversation is taking place but understanding of the meaning of the discussion is blocked whereby each person is having a one-way conversation. Semeiotics is symbolism which is representation which becomes understanding in language hence an authentic dialogue.

The third key concept blends scientific inquiry as the basic rule of the scientific method. Peirce claimed that scientific inquiry is a continuing conversation that converges on the truth. This becomes more clear as one is introduced to the fifth concept of the mind of the community. Even though Peirce claimed that he was not a pragmatist but a "pragmaticist," his scientific method laid the groundwork, the foundation, and the foot path for pragmatism that Dewey elaborated.

Peirce provided the structural framework upon which Dewey filled out with a pragmatic philosophy. Peirce tells us how to build a theory; Dewey gives us

the construction blocks with which those concepts are implemented in practical terms. Peirce explains in his essay, "The Fixation of Belief," that even though other methods have their value, the *scientific method* far outshines them because its foundation is logic.²¹ The scientific method according to Peirce must include experience as a part of scientific inquiry.²²

Abduction, Deduction, and Induction are the three types of reasoning that are basic to Peirce's scientific method. Abduction gives an explanation of the hypothesis based on the facts that have been observed. Abduction is the inference drawn from the observation. The perceptual judgment and the inference are both interpretive. In order to know, one must have experience which serves as the context for the next experience. But in order to have the experience, one must have a belief about the experience. Peirce summarizes it succinctly when he states that "Experience is our only teacher."²³ Dewey's thinking on experiential learning and how that learning takes effect in the community of the classroom and not in isolation goes back directly to this aspect of Peirce's statement on experience.

Peirce argued that research is a "conversation with nature."²⁴ Observation begins the act of scientific inquiry and is supported by experience. Peirce states that observation is "an act of voluntary attentive experience. . . ."²⁵ Observation precedes the hypothesis to be researched. Peirce calls the incidence of surprise that begins inquiry as "brutal inroads of ideas from without."²⁶ Experience sometimes serves as a resistance to new experience. However, "experience" is conducive to "changes and contrasts involving resistance."²⁷

The fourth key concept of Peirce's scientific method is that experimental verifiability equals pragmatism. This is the working part or walking through the experience part of the scientific method that translates itself to mean the practicing of pragmatism. Sifting through the hypotheses and proving their viability or non viability, one is experiencing experimental verifiability. "Pragmaticism is the logic of abduction."²⁸ It is the "method of sorting out conceptual confusions by relating meaning to consequences."²⁹ Peirce explains

that the abduction process eventually develops a practical effect. This is experimental verifiability. According to Peirce: "This is approximately the doctrine of pragmatism."³⁰ In order to understand the scientific method, one must proceed through the verification process.³¹

Through the induction process, justification of results or proof of the truth of the experiments occur. The process provides for the adoption, modification, and rejection of the hypothesis. Justification always leads towards the convergence on the truth. Peirce states it this way, that there is a "constant tendency of the inductive process to correct itself."³² The induction process allows for the feature of regularity of the universe to become real in the research studies. "Reality is only the object of the final opinion to which sufficient investigation would lead."³³

In explaining his theory on the regularity of the universe, he uses the term "Contrite Fallibilism" to explain the beginning and the end of inquiry. This term is used because in practice, inquiry is ongoing and continues to change as it converges upon the truth. In searching for the truth, one has to let go of some beliefs in order to proceed onto a new truth. As one truth is dismissed or changed into a new meaning with another truth, the reality of stating one's incorrect view of the universe becomes a contrite fallibilism. The mind fights with the reality that at one moment in time the truth is evident and in another moment in time, the truth has changed. Truth may seem to be infallible but proves to be fallible with the ongoing scientific inquiry. It is almost as if a Gestalt shift occurs in developing a new meaning that allows one to have a different perspective. Ideas and beliefs change and are not part of one's universe forever.

In his *Introduction to Logic*, (1909), Peirce's conviction is that all authentic communication requires interaction between speaker and listener as "shifters".³⁴ This can be interpreted to describe dialogue. In communicating between two persons, the discussion changes when the listener becomes the speaker and vice versa. Shifting in focus in the dialogue occurs between the two persons. Of

course, the same is done when the dialogue is between a speaker and a group. "The pragmatic method of scientific inquiry is such a method, and has as its aim the expression of the cosmos in an explanatory fashion."³⁵ However, according to Peirce, reality can only be understood in the "mind of the community", not by the individual mind. Again, the verifiability of the experience through the communication of one's experience with others creates reality. Reality is the evolution, the growth, and the continuing pursuit of the truth through experience. The universe "is continually growing in reality, in `existence,' which in the present context means in persistence and in regularity."³⁶

Once regularity occurs, it appears that a repeated experience becomes a habit. Peirce confirmed this when he stated that: "All things have the tendency to form habits."³⁷ Peirce explains how habits are formed. "Flashes" of insight occur and when the second flash and the third flash occur, the principle of habit closely connects the intermittent flashes into a growing tendency. This concept is also tied to Peircean "tychism"³⁸ which is the observation of increasing uniformity or the habit-taking form and the fact of diversity or variety of the world. In Peirce's essay, "How to Make Our Ideas Clear," (1878) he states that, "The essence of belief is the establishment of a habit, and different beliefs are distinguished by the different modes of action to which they give rise."³⁹ This Peircean concept of habits developing out of continuing experiences grounds the dogmatic thinking of Dewey, who promotes the practicing of democracy by citizens in order for democracy to be grounded into habit-forming practices of citizens. In essence, these experiences in the practicing of democracy become the normative praxis of democratic principles.

As a key aspect of the continuing search for truth, Peirce evolved his doctrine of continuity as "Synechism." Continuity becomes an essential element in his philosophy. "The doctrine of continuity is that all things...swim in continua". "If all things are continuous, the universe must be undergoing a continuous growth from non-existence to existence."⁴⁰ The Peircean concept of continuity is relevant to the thinking of Mary Parker Follett's principle of "coordination as a

continuous process,"⁴¹ and John Dewey's "Principles of Interaction and Continuity."⁴² Specifically, synechism is the developing phase of an idea, a conviction, or a truth; therefore, it is the advanced form of tychism. Dewey explains it in terms of a process that is cyclical. This cycle of learning gives the opportunity to go back in bringing forward those left behind in the process so that all swim in the continuum of the developmental process of growth in a democratic state.

Peirce sees God as the Creator who directs the universe through a process of growth and expresses his thinking in this way: It is in "His Infinite Goodness which He Himself is"⁴³ that God shares the beauty and magnificence of the universe or the cosmos. Peirce explains science this way: "Nature is something great, and beautiful, and sacred, and eternal, and real--the object of its worship and aspiration" (5.589).⁴⁴ Peirce's concept of the "infinite" includes the continuous inquiry concept.⁴⁵ Dewey grounds his book, A Common Faith, on this Peircean thought.

The purpose of going through all of this inquiry is in developing a sense of community. Peirce's fifth key concept is the developing of the mind of the community. The most important key to understanding Dewey's idea of reaching solutions to one's problems through dialogue is to be found in Peirce's conceptualization of community. "Peirce's belief that every individual encounter, in the form of inner dialogue, of inter-subjective communication, . . . can only be resolved rationally at some higher stage in an encounter with one's community of actual other people."⁴⁶ Peirce is not concerned with "free individuals" but free individuals in community. Freedom is when thinking only of one's property matures to include involvement in the community on behalf of the public interest.⁴⁷

The culmination of Peirce's work and thus his sixth key concept of the scientific method was his explanation of the three levels of meaning. The first level of meaning is "communicating our knowledge to others" while others try to

communicate their knowledge to us.⁴⁸ We would call this a dialogue. This first level of meaning may occur as in a brainstorming session of a group of persons brought together for a greater purpose. The second level of meaning is the "responsibility, intention, and commitment of the person who conveys the message."⁴⁹ After a brainstorming session occurs, the process usually resolves in goal-setting and then in developing objectives that help in attaining those goals. How far one takes the knowledge and what kind of action is taken will set the stage for the third level. The third level of meaning, the highest form, relates to the consequences of the message. One possibility, a revolution, is in the extreme realm as an outcome of the second level of action upon society.⁵⁰ Of course, the revolution can be in thought, as in scientific thought, or in a revolt to societal norms. Another result may be the construction of a community center or a park or on a human level result in ways to better communicate concerns in a community.

Dewey's life is an outstanding example of someone who has translated Peirce's three levels of meaning to his life experiences. His prolific writings communicate his ideas to thoughtful readers, but he also personally communicated with a wider audience. He had great exposure, both in the written word and orally, but also by participating in many organizations in leadership roles as well as taking an active role in controversial issues. Dewey's strategies for involvement through creative dialogue in the community sets the stage for responsibility and commitment. "Study without action is futile but action without study is fatal,"⁵¹ became a Deweyan truism.

"In order to understand pragmatism, therefore, well enough to subject it to intelligent criticism, it is incumbent upon us to inquire what an ultimate aim, capable of being pursued in an indefinitely prolonged course of action, can be."⁵² Pitirim Sorokin's analytic strategy in his logico-meaningful methodology helps us in developing an understanding of what is missing in the public administration literature pertaining to citizen involvement in governance. I believe that John

Dewey's theory of citizenship in the developing American democracy is such a prolonged course of action.

The Format of the Dissertation

Chapter I of this essay in the Introduction begins, with an invocation of the current “civic crisis” in America--a crisis expressing itself as government in gridlock--and the assertion that it is necessary to revisit the way we practice governance. This invocation and assertion is expanded in the “Context for the Problem,”

“Statement of the Problem,” and “Background and Focus of the Problem.” The introduction explains the purpose of the dissertation--which again, is to introduce Dewey’s philosophy of citizenship in our developing American democracy as a pragmatic means to filling the gap in public administration literature on citizen involvement in governance. As I have indicated, my analytic strategy will follow Pitirim Sorokin and the neo-idealistic tradition in sociology, which proposes the logico-meaningful method as the structure and rule of truth for analysis of the sort to be carried out here. In this way, my thesis will be presented that will allow the reader to better understand my stream of thinking in connecting public administration literature with Dewey’s philosophy on citizenship. Sorokin’s methodology is based on symbolic logic which is built on Charles Sanders Peirce’s logic of relations. That is why the backdrop for the analytic strategy is on Peirce’s works, as a step toward drawing the connection to Dewey. Setting Dewey’s philosophy of pragmatism in this context will better help us understand his true message.

Following this introduction is a literature review in Chapter II, which will focus on those writings in the field of public administration that have examined the citizen’s role in governance. This review will show specifically how the contribution of the dissertation is to add a missing element to the citizenship literature. Chapter III reviews the history of the founding of the field of public

administration, with a brief look at how the Federalist and Anti-Federalist points of view came to bear on this episode. The main thrust of the chapter is an investigation and analysis of how the development of the expert class upon the founding of public administration foreclosed the possibility of the movement towards government by citizens. It will also delve into the influence of science and scientific thought in fostering the development of this expert class.

Having set this background perspective, the essay in Chapter III moves to the historical evolution of citizenship and community and the subsequent stumbling blocks that prevented a seemingly natural growth of democracy through the centuries. Chapter IV is an historical development of citizenship and community as concepts immersed in the development of democracy for over two thousand years. Chapter IV provides the necessary backdrop for the next chapter that presents the philosophy of John Dewey. Chapter V is a presentation of John Dewey's life, his thoughts, and his philosophy. Pragmatists Peirce, James, and Mead are introduced to fill out the context within which Dewey's perspective was constructed. They, of course, are considered the core pragmatists as well as the change agents in developing pragmatic thought. Since Dewey's ideas are realized through citizenship and community, the previous chapter's focus on the importance of knowing how citizenship and community evolved historically comes to light in Chapter V. Chapter VI describes a variety of practical designs that serve as examples of the sort of citizen involvement consistent with Dewey's vision. These designs are all instances of actual current and working programs of citizen involvement in government, and, as such, serve as evidence of the practical feasibility of Dewey's idea of government through pragmatic community. Chapter VI will conclude with a summary reflection on the link between approaches to knowledge and approaches to government.

Endnotes

1. Dr. David Satcher, Director, Centers for Disease Control and Prevention, Administrator, Agency for Toxic Substances and Disease Registry, "Keynote Address," California State University--Dominguez Hills Thirty-First Annual Commencement, May 24, 1997. Notes taken at commencement exercises.
2. Ibid., notes taken at commencement exercises.
3. Ibid.
4. Frederick W. Taylor. "Scientific Management," Classics of Public Administration, Second Edition, Revised and Expanded. Jay M. Shafritz and Albert C. Hyde, Editors. Chicago, Illinois: The Dorsey Press, 1987, pp. 29-32. Taylor defined the principles of scientific management in 1912. His applications to the concept of expertise and relating the rules and laws to the concept of a science grew popular for managers. Even though he was very conscious of the fact that he did not have a college degree, he laid the groundwork for the need for experts, trained personnel, to develop a science that would "replace the old rule-of-thumb knowledge of workmen" (p. 30).
5. James Allen Smith. The Idea Brokers: Think Tanks and the Rise of the New Policy Elite. New York: The Free Press, A Division of Macmillan, Inc., 1991, p. 55.
6. Cindy Skrzycki. "The Regulators: EPA vs. NRC--Going Nuclear Over the Ground Rules on Contamination," The Washington Post. Washington, D.C., Sunday, May, 1997, pp. G1 and 2.
7. Nicholas Lailas, Supervisor, Environmental Scientist, Office of Radiation and Indoor Air, Environmental Protection Agency, 1992-1998.
8. Robert B. Westbrook, "The Challenge of Reinhold Niebuhr," in John Dewey and American Democracy. Ithaca, New York: Cornell University Press, 1991, pp. 521-532.
9. Allan Bloom. The Closing of the American Mind: How Higher Education Has Failed Democracy and Impoverished the Souls of Today's Students. New York: Simon and Schuster, 1987, pp. 29-30.
10. Richard MacIntosh, Ed. D. "The Destruction of Individualism," The Wall Street Journal, Wednesday, April 23, 1997, p. A19.

11. Loc. Cit., p. A19.
12. Loc. Cit., p. A19.
13. Gideon Sjoberg and Roger Nett. A Methodology for Social Research: With a New Introductory Essay. Prospect Heights, ILL: Waveland Press, Inc., "Reflective Methodology: The Foundations of Social Inquiry," 1997, p. 64.
14. "Peirce was dismissed from Johns Hopkins in 1884 in circumstances that have never been fully disclosed, and he was never able to regain another academic post." Israel Scheffler, Four Pragmatists: A Critical Introduction to Peirce, James, Mead, and Dewey. Routledge and Kegan Paul, London and New York, 1974, p. 13.
15. Nathan House and Christian Kloesel, Editors. The Essential Peirce: Selected Philosophical Writings, Volume 1 (1867-1893), Bloomington, Indiana: Indiana University Press, 1992, p. XL.
16. Charles Sanders Peirce. Reasoning and the Logic of Things: The Cambridge Conferences Lectures of 1898. Edited by Kenneth Laine Ketner, Cambridge, Massachusetts: Harvard University Press, 1992, p. 55.
17. James Hoopes, Editor. Peirce on Signs. Chapel Hill: The University of North Carolina Press, 1991, pp. 5, 7, and 12. Semeiotics is the difference between an "idea" and a "sign." Peirce held that a sign had no meaning until it became interpreted by a subsequent thought which became the interpretant. When an individual becomes aware of the thought, his understanding is translated into an action to observe the "sign." The process underlying the sign interpretation is the result of a "process of intelligence."
18. Ibid., p. 12.
19. Jeffrey Barnouw. "'Aesthetic' for Schiller and Peirce: A Neglected Origin of Pragmatism," Journal of the History of Ideas. Vol. 49, 1988, p. 608.
20. Ibid., p. 31.
21. Hoopes, p. 150.
22. Francis Reilly. Charles Peirce's Theory of Scientific Method. New York: Fordham University Press, 1970, p. 37.
23. Ibid., p. 36.
24. Reilly, pp. 25-27.
25. Ibid., p. 28.

26. Ibid., p. 29.
27. Ibid., p. 29.
28. Ibid., p. 54. Peirce preferred to call it pragmatism.
29. Houser, Nathan and Christian Kloesel, Editors. The Essential Peirce: Selected Philosophical Writings, Volume 1 (1867-1893), Bloomington, Indiana: Indiana University Press, 1992, p. xxii.
30. Reilly, p. 55.
31. The verification process includes the deductive and the inductive phase. Deduction is the prediction of what possible experiments will result from the hypothesis. Induction is "the experimental testing of a theory". See Reilly, pp. 59-63.
32. Ibid., pp. 72-76.
33. Ibid., p. 77.
34. Ibid., p. 24.
35. Ibid., p. 134.
36. Ibid., p. 95.
37. Ibid., p. 99.
38. Ibid., p. 102.
39. Hoopes, p. 166.
40. Reilly, p. 110.
41. Mary Parker Follett. "Ch. VIII, The Process of Control," The Science of Administration. 1932, pp. 161-169.
42. John Dewey. Experience and Education. "Social Control," The Kappa Delta Pi Lecture Series. Toronto, Ontario: Collier-Macmillan Canada Ltd. Tenth Printing, 1969, pp. 51-60.
43. Reilly, pp. 135-143.
44. Ibid., p. 134.
45. Peirce proposed that we develop an idea through stereographic viewing. "What we believe to be true is an idea which represents a discovery of a relationship, and is a

third view." See Reilly, p. 53.

46. Kevelson, p. 126.

47. Kevelson, p. 11.

48. Roberta Kevelson. Charles S. Peirce's Method of Methods.
Amsterdam/Philadelphia: John Benjamin s Publishing Company, 1987, p. 69.

49. Ibid., pp. 69-77.

50. Ibid., p. 69.

51. Elaine A. Lailas. "100 Years of Achievement: Part IV: 1962-1981," Graduate Woman. Washington, D.C.: American Association of University Women, Volume 75, Number 3, May/June, 1981, p. 28.

52. Ibid., p. 135.