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AN INVESTIGATION INTO THE SOCIOLOGICAL, IDEOLOGICAL
AND INSTITUTIONAL CONSTRAINTS AFFECTING
THE TEACHING OF THINKING IN PUBLIC SCHOOLS

A Dissertation Presented

By

JUDITH A. SICILIANO

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

May 1984

School of Education

• Judith A. Siciliano
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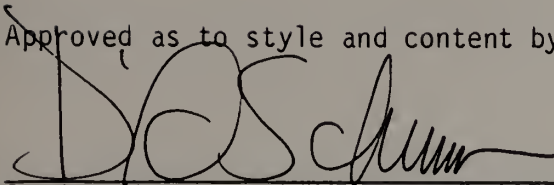
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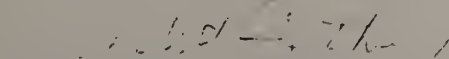
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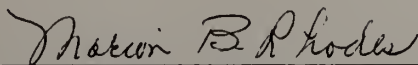
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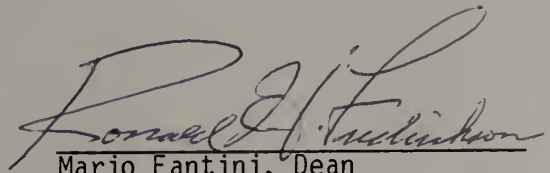
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DEDICATION

In gratitude, and with love, I dedicate
this dissertation to my parents.

ACKNOWLEDGMENTS

A few times in one's life you find a teacher who also becomes a friend. David Schuman was both throughout the dissertation process. Working with David was a special gift. He taught me about teaching and thinking. David was a constant example of what this dissertation is about: he helps people practice thinking.

Professors Albert Anthony and Marion Rhodes were generous and gracious committee members. Al was a source of encouragement and intellectual stimulation. Marion pushed gently for me to think further about the problems facing teachers who want to help students practice thinking. Her enthusiasm and our wonderful breakfast chats were truly inspirational.

In part this dissertation was completed because of the presence of four fellow graduate students. Lucy, Richard, Lee and Peter taught me what it means to share a common world. We practiced thinking together. They gave me hope for the future in general and for the future of education in particular.

Finally there are the special friends who encourage and listen patiently. Thank you Annette and Rita. And, of course, a special thank you to Michelle, who lived with a dissertation writer for the past three years. It could not have been easy. Karen Thatcher typed this work and often took the time to make helpful comments and remind me that I would finish one day. Thank you!

Uncle Tino taught me to read. In important ways he introduced me to the activity of thinking. Barbara Meyer helped me to remember him with love and joy. Thank you, Barbara. Somehow I know Uncle Tino is proud of this work.

ABSTRACT

AN INVESTIGATION INTO THE SOCIOLOGICAL, IDEOLOGICAL
AND INSTITUTIONAL CONSTRAINTS AFFECTING
THE TEACHING OF THINKING IN PUBLIC SCHOOLS

May 1984

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Hannah Arendt, noted political scientist and scholar, examined the nature of thinking as part of her investigation into the life of the mind. Arendt postulated that human beings possess the ability to think in non-cognitive ways. By this she meant individuals are capable of a kind of thinking which has political and moral overtones. Arendt believed that inherent within the thinking activity itself is the potential to discover the meaning of events. Furthermore, once an individual has formulated that meaning it is then possible to make a moral consideration regarding the event or issue involved. Thinking, as Arendt discussed it, is a broader interpretation of the activity itself when compared to more educationally oriented conceptions of thinking. This dissertation investigated the nature and extent of the comparative differences between non-cognitive thinking and thinking in its cognitive sense. The investigation included an examination of the sociological, ideological and institutional impediments to the

teaching of non-cognitive thinking. The impediments to teaching non-cognitive teaching were located by examining the literature describing the social role of the teacher, the liberal context of American education, the bureaucratic arrangements of public schools, and the contemporary emphasis on teaching thinking as a cognitive activity.

The analysis indicated that Hannah Arendt's understanding of thinking is confronted with serious sociological, ideological and pedagogical constraints when applied to public schools settings. Nevertheless, since her interpretation of thinking illuminates the breadth and richness of the activity, the argument is made that it merits serious attention. An examination of her work was undertaken to discover its appropriateness for teachers and public schools. Having uncovered the major characteristics of non-cognitive thinking recommendations are offered for applying Hannah Arendt's work on thinking in elementary and secondary classrooms.

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I N T R O D U C T I O N

Junior high schools are challenging places for teachers. They certainly were in the early seventies. Teachers are often physically and emotionally exhausted. Faculty rooms take on the atmosphere of trenches after long battles. We compare wounds and casualties. Stained coffee mugs, ashtrays and cigarette smoke surround the tired warriors. The mugs and smoke take some getting used to. The conversation is another story.

Tired teachers talk about students. Diets seem to be the next favorite topic. Students are discussed because they are late or absent, lazy or failing. Occasionally, students are discussed for athletic or intellectual achievements. Most often, however, it is the lack of achievement which is noted.

During what seemed to me to be a depressingly long harrangue about our miserable students, I decided to wonder out loud about the nature of our conversations. I asked, of no one in particular, why we seldom chatted about helping students do better work. As a social studies teacher, I puzzled over the fact that almost no students ever raised questions about the material we were covering. I asked if it bothered anyone that students didn't seem to be thinking and teachers were not doing much to improve that lamentable situation. As I recall, I did go on for a while before I realized how quiet the room had become.

A fellow teacher waited patiently for a pause. He looked at me with a mixture of pity and anger. Like a good teacher, he did a quick pre-test. Did I know the purpose of a faculty room, he wondered. He didn't wait for my answer. Faculty rooms were designed as places teachers could go to let out steam. We don't have "heavy discussions" here, he informed me. He mumbled something about my youth and idealism--and left.

I stayed trying not to be embarrassed. The door opened after a few minutes and in walked my fellow teacher carrying a freshly made poster. He hung his creation next to the coffee machine. It proclaimed in red letters on white poster board: No Thinking Allowed Here. He looked around for approval. A few teachers mumbled and nodded in agreement. He made his second and decidedly more triumphant exit. I left. The sign remained.

It was an unfortunate incident. The sign was not even attractive and I decided against using the faculty room in the future. I made another decision. I ran an experiment. If the teacher was right and the reason we seldom discussed how to help students think or do better work had to do with the inappropriateness of doing that in the faculty room, then I would monitor our conversations in faculty meetings. Surely, this is where we do heavy discussions.

Faculty meetings were held either in the school cafeteria or auditorium. New place should mean different conversations. The place was different and the principal was now present but the conversation was pretty much the same. We talked about what to do about absentee-

ism, tardiness, giving detention and a host of administrative trivia.

I next tested the content of curriculum meetings. Clearly, here is where we will talk about why students don't ask questions. Wrong. Here is where you talk about how teachers can ask better questions, cover more facts, and write good behavioral objectives. I gave up. The experiment yielded unpleasant results.

That no thinking sign bothered me. The experiment bothered me. I didn't even like my own teaching very much. It didn't seem like much thinking was going on in my classes. We covered the material. Students learned facts. Some could write reasonable essays describing historical events. No one asked questions. I wondered what kind of thinking I was asking my students to do. I wondered if the "no thinking" sign belonged in our classrooms as well as in the faculty room.

At the end of that school year, I decided to go back to graduate school. I assumed I simply did not know enough about teaching to help students do more than memorize facts and answer questions. Obviously, I didn't know how to get them to ask questions. I couldn't even tell if they were thinking. Graduate school seemed to hold the answer to my problem.

Doing graduate work in education during the latter half of the seventies proved to be rather interesting. At some point in most courses we did the critique of the innovations begun during the sixties and early seventies. The consensus seemed to be hardly anything had worked. From language laboratories to new math to head start, little seemed to affect the students' ability to learn or improve

their intellectual skills. Had I come to graduate school merely to confirm what my teaching experience had taught me?

In important ways graduate school did more than confirm my experience. I learned how complicated educational issues could be. I began to suspect that the "no thinking" problem could not be blamed on teachers, or faculty rooms, or curriculum meetings. Something else was going on--something bigger.

It is not always easy to get at the larger issues in education. Every now and then, those of us who pursue work in education are fortunate enough to have a teacher who introduces us to the work of people outside the field. Through reading and discussion we learn to connect the work of these thinkers to our work as teachers. It is an exciting process. The complexities are often staggering.

I had the good fortune to be introduced to the writings of Hannah Arendt, political scientist and original thinker. I was worried about students, Arendt worried about the world. I shared a part of her concern. Hannah Arendt worried about the life of the mind. Specifically, she wondered what had become of our natural ability to think. I liked her immediately. She would have hated that red on white no thinking sign. She would, however, have understood it better than I did.

Scope and Purpose

I had learned a lot of learning theory as an education student.

I knew something about how the experts in the field believed we should prod students to think. These theories are addressed in a subsequent chapter. I was, in any case, not ready for Hannah Arendt and her book, Thinking.

Two things struck me immediately about Arendt's vision of thinking. First, she believed thinking is a natural ability we all possess. Secondly, she talked about thinking as a non-cognitive activity and I liked what she meant by that.

Arendt did not set out to make thinking into some esoteric activity enjoyed only by a chosen few with superordinary intellectual abilities. She maintained that all "men have an inclination, perhaps a need, to think beyond the limitations of knowledge, to do more with this ability than to use it as an instrument for knowing and doing." For Arendt, thinking was "The habit of examining whatever happens to come to pass or to attract attention, regardless of results or contents."¹

She believed we possess this need and inclination to think and that we might, with practice, even develop it into a habit. We think because we are alive. Arendt saw thinking as "an activity that accompanies living."² In her view, thinking is as natural as life itself. Indeed, she agreed with the Greek thinkers who believed that a life without thinking was hardly worth living at all.

Arendt offered me a different reason for worrying about teaching thinking. If thinking was such a natural need and ability, why weren't we doing a better job helping students practice what should

be an innate tendency? Part of this work involved finding the answer to that question.

There was also Arendt's phrase "non-cognitive" thinking. I liked her idea about going beyond knowing and doing. Teachers know from experience that students can know things and do things and still not be thinking. We also know that at times students seem to be doing nothing and act as if they have missed the facts of a lesson but appear to be deep in thought. Perhaps Arendt's non-cognitive thinking would clear up the mystery.

It is critical to understand what Arendt means by non-cognitive thinking. What does it mean to think beyond knowledge and action? My understanding of Arendt is that non-cognitive thinking involves two related activities.

First, Arendt felt thinking was a "quest for meaning." Meaning, in the sense of "dissolve[ing] and examine[ing] anew all accepted doctrines and rules."³ For Arendt meaning was a personal response to the world.

Secondly, to think non-cognitively, that is beyond knowledge, has to do with what Arendt called "thoughts own questions." If non-cognitive thinking was a content, it would have to include "such concepts as justice, happiness and virtue.". In short, Arendt believed thinking has political and moral levels. Accepted "values or virtues"⁴ are legitimate content for non-cognitive thinkers which explains why Socrates was her favorite thinker.

Hannah Arendt's vision of thinking brought back that old desire

to figure out why it seems to be so difficult to teach thinking in our public schools. Non-cognitive thinking should have a place in our schools. After all, don't we want students to question and grapple with ideas? Don't we want students to find personal meaning in the world? My personal inclination is, of course, to shout a resounding yes to such questions. But as a teacher, I intuitively anticipate some problems. Arendt's non-cognitive thinking has to do with morals and ethics. In some ways, it sound dangerous. Students will be encouraged to question rather than accept. As a teacher, I can feel myself moving from thin ice to open water on sharp skates.

It occurred to me that I could not seriously consider using Hannah Arendt in the classroom until I understood what made me intuitively know there would be barriers to overcome. Good will would clearly not be enough. I had to examine some things about the role of the teacher in American society. It was, after all, the teacher part of me which sensed there might be problems with Arendt.

The first chapter examines the role of the teacher in order to discover what tensions exist between the role itself and Arendt's notion of thinking. What is there about our conceptualization of teaching which makes it difficult for a teacher to help students practice non-cognitive thinking? I begin to answer that question by an examination of the historical context surrounding the development of the first public schools. There was an intellectual climate which affected how this society thought about the roles its schools and teachers would eventually assume. It has informed the activities of

both even to this day.

Chapter II investigates the liberal context of American education. Liberalism, in the classical western sense of the word, has influenced how we conceptualize the thinking activity. Put differently, there exists a thought process that reflects the basic liberal beliefs of individualism and competition. In ways this kind of thinking has dominated education in this country. Consequently, it is important to be clear about the nature of what I will refer to as the liberal thought process. This chapter discusses the process in detail, and establishes the limitations inherent in the liberal definition of thinking.

Chapter III explores another barrier to teaching non-cognitive thinking. The chapter maintains that something happens to the teacher and teaching itself as a result of the bureaucratic arrangements of schools. Teaching takes on an organizational definition. It loses much of its essence in terms of the personal relationship between teacher and student.

The organizational definition of teaching reduces teaching to a subordinate position within the school hierarchy. Teachers are told by state certification regulations what competencies to develop and how to teach. Contracts which make the teacher an official member of the bureaucracy often conceptualize what the teacher does in terms of working conditions and wages. In order to teach non-cognitive thinking a teacher must overcome these serious organizational constraints. The tension involves teaching a kind of thinking which would in criti-

cal ways be incompatible with bureaucracy itself.

Having acknowledged the social, ideological and organizational constraints facing the teacher of non-cognitive thinking, the next chapter focuses on the type of thinking most amenable to those conditions. Chapter V argues that teaching thinking is generally an attempt to teach students a certain system of thought. The system is ordinarily understood to be the scientific method.

The chapter examines John Dewey's work on teaching the scientific method as well as his notions concerning thinking. Since Dewey provided much of the foundation work for what is currently done in schools to teach students to think, it is important to clarify what Dewey meant by scientific method and thinking. A careful examination of Dewey's epistemology and his liberal bias uncover important limitations to teaching thinking as if it were exclusively related to method or science as Dewey understood it.

Chapter IV also includes an analysis of the cognitive development theory of Jean Piaget. The argument is made that Piaget's theory fails to acknowledge the possibility and existence of non-cognitive thinking. By treating thinking as the indicator of stage development in children, Piaget like Dewey, reduces thinking to simple cognition. According to Hannah Arendt, thinking can lead to different ends. Piaget's theory presents a limited and limiting understanding of thinking and children. It fails to acknowledge what Hannah Arendt considered the core of the thinking activity: thinking leads to meaning and not simply cognition.

The fifth chapter represents the counterpoint to the preceding sections. Hannah Arendt's work on thinking is explained and some examples of how her notions might be used with students are offered. The question guiding the chapter is: what would non-cognitive thinking look like if we could see it. Using Arendt's description, I isolate the salient characteristics of this type of thinking. Specifically, I examine thinking's reflexive characteristics, its tendency to self-destruct, its need to withdraw from the world, and its active nature. Arendt considered these four characteristics the outstanding traits of non-cognitive thinking.

The chapter ends with sample lessons designed to help students practice non-cognitive thinking.

INTRODUCTION NOTES

¹Hannah Arendt, Thinking (New York: Harcourt Brace Jovanovich, 1978), pp. 11, 5.

²Ibid., p. 176.

³Ibid., p. 176.

⁴Ibid., pp. 178, 177.

CHAPTER I

THE MANDATE TO SOCIALIZE

America expects its public school teachers to socialize students. According to Alfred Schutz that is a reasonable expectation. Societies require that service. Teaching has been understood as fulfilling society's expectation.

The sociology of education literature supports the goal of socialization as a legitimate task for schools and teachers. "One primary task of the schools is the socialization of pupils. The school's responsibility for socializing children is second only to the family's." According to the literature, teaching activities will always involve "teaching those things that are valued by adults in the society."¹ Schools exist, so it seems, for the purpose of socializing the young. Education is needed to "transmit a common cultural fund to the next generation."² The literature is replete with variations on the socialization theme.

Good, Biddle and Brophy believe socialization takes place through the teacher's use of curriculum. Curriculum is seen as a "recipe" for what teachers "should be trying to build in pupils."³ Teachers build into students a knowledge of what society expects from them and what it can tell them about life in the world.

Socialization, according to the literature, is not a neutral process. There is a portion of the literature which points out the

nature of what students are socialized into. The literature, then, makes two important points. Teaching is socialization and socialization means learning how to assume certain social roles (both parents are important).

James Schwartz tells us schools socialize by teaching the "behaviors required for the performance of social roles." Students learn the "dominant behavior patterns of the larger American society."⁴ Students learn where they fit in the social scheme of American life. They learn about class structure.

In somewhat stronger language Joseph Scimecca notes "public schools carry out the mandate of the powerful." They not only "transmit knowledge and skills necessary to an adult member of society," Scimecca also believes schools:

1. keep lower class students from competing with middle-class students, and
2. legitimate the political and social system.⁵

The Marxist critique of Samuel Bowles and Herbert Gintis seems to complete the picture begun by Schwartz and Scimecca. Bowles and Gintis portray the teacher as the socializer of students into the economic facts of American life. The capitalist work force, according to Bowles and Gintis, functions largely because schools track students into certain intellectual divisions. Most students get to belong to lower tracks. Society has its workers.

The point is that schools, through the work of teachers, social-

ize students. Students learn what adults already know about the world. Some of those realities, as Scimecca and Bowles and Gintis, remind us are not pleasant. Schools do not seem to mind. They have accepted society's expectations. Teachers are employed to do the work of the schools.

The Role of the Teacher in American Society

The nature of role can be elusive. It is used throughout this chapter to refer to the "respectable and modal components of social behavior, the expected, pre-determined privileges and responsibilities of any social position." In other words, society defines the kinds of behavior it expects from certain people in certain positions. Certainly individuals do bring their personal characteristics to bear on any role they decide to assume. Social roles are, however, highly structured by social expectations. The role, in most cases, precedes the individual who decides to fill it. An individual may decide to become a teacher. Technically speaking, he or she fulfills the role only when they meet "certain minimal institutionally-defined functions."⁶ The role and not the individual defines those functions.

Another term used throughout this chapter is "school." School is referred to in the sense of a social institution. As such, school represents "the mobilization of individuals into roles and statuses dedicated to the performance of a collective endeavor over durable periods of time."⁷ Defining both the role and school in this way

allows us to see the role of the teacher as essentially doing the work of the school. Teachers promote the collective endeavor which schools espouse. At times, in this chapter, it may become difficult to differentiate between what the teacher's role is and what the schools are trying to accomplish. It is safe to assume there is little difference.

The last term used in this chapter is "socialization." In fact, one of the major points made here is that teachers in American society are expected to socialize students. That means teachers are asked to "hand down knowledge which has been socially derived." According to the phenomenologist Alfred Schutz, that fact is a shared reality for most societies. He notes that "everywhere we find (the existence of) an accepted way of life, that is, how to come to terms with things."⁸

Schutz used various synonyms for socialization which make the term clearer. He says societies pass on systems of knowledge, trustworthy recipes, thinking as usual, to its newcomers. In other words, we have learned some things about ourselves, nature, and life which we can transmit to our young. We know what to fear in nature, and what is useful. We know some things about language, law and government. In short, the young do not have to re-invent the wheel in order to learn about transportation or geometry.

Since "only a very small part of knowledge" is derived from personal experience according to Schutz, societies depend upon ". . . friends, parents, teachers and the teachers of teachers"⁹ to supply the greater part of a newcomer's knowledge of the world. It is,

clearly, an appropriate role for teachers, in any society.

The first section of this chapter reviews the sociology of educational literature to establish the point that in American society we do expect teachers to socialize students. This is followed by an examination of the intellectual climate surrounding the nation's first attempts at defining "school" and "teacher". The remaining sections are designed to show what could be characterized as variations of the socialization theme. The point will be made that our conceptualization of the role of the teacher in this society prohibits the teaching or practice of Hannah Arendt's non-cognitive thinking. Society simply does not expect teachers to teach that kind of thinking.

Where Our Expectations Come From

There are many ways of looking at the evolution of America's public school system. Since this work is concerned with teaching thinking, it seems appropriate to examine the origins of American schools using what Richard Hofstadter has described as the "idea of anti-intellectualism."¹⁰ It is important to understand what kind of "life of the mind" Americans expected their schools and teachers to embody.

"From the beginning, American statesmen had insisted upon the necessity of education to a republic,"¹¹ according to Hofstadter. George Washington and Thomas Jefferson urged the nation to support the establishment of schools for the purpose of creating intelligent citi-

zens. A democracy required enlightened citizens. Schools were seen as the most practical places to accomplish that rather practical end.

The Common School Movement, which began in 1830 and lasted well into the last decades of the nineteenth century, continued the theme of schools as institutions to serve the practical needs of society. The needs were only somewhat different than those Washington and Jefferson worried about. Hofstadter summarizes them in his description of the American system of common schools. Common schools were meant

. . . to take a vast, heterogeneous and mobile population . . . and forge it into a nation, make it literate, and give it at least the minimal civic competence necessary to the operation of republican institutions.¹²

Hofstadter believed common schools accomplished their goals. America's schools "did not astound the world with achievements in high culture" but they did "create a common level of opinion and capacity." He reminds us that Americans never expected schools to be very concerned with the "development of the mind . . . or learning and culture for their own sakes."¹³ The country expected schools to produce political and economic benefits for its citizens: public order and democracy for the rich and economic improvement for the poor. The common schools were sold to the public by promising to deliver those benefits.

There are at least two educational realities which support Hofstadter's conclusion that historically America was not overly con-

cerned that its schools concern themselves with improving students' intellectual abilities. Obviously, the entire anti-intellectual context surrounding the Common School Movement is important as background information. Two, more specific aspects of the public school movement are equally illuminating. One has to do with the content of instruction and the other involves society's response to the teacher's role. Both reflect Hofstadter's charge of anti-intellectualism. Both also give us some indications of what America was prepared to support in terms of intellectual skills. A look at the "schoolbooks" used in the first free public schools clarifies the point.

The contents of nineteenth century school books reveal, according to Hofstadter, the primary intellectual value American society desired to promote: readers and textbooks embodied the value of utility. Books were generally concerned with useful knowledge. Even the "hero literature" used in schools reflected either "virtues of the heart" or specific character traits children were urged to follow. American heroes were "self-made and practical men" with "little use for the intellectual life."¹⁴ They practiced industry, thrift, and discipline. Whatever their accomplishments might have been, the point the readers and textbooks made had mainly to do with the practice of the virtues leading to the achievements. If public schools were designed to achieve practical results, students would learn the value and importance of "practical virtues." Hofstadter believes school books were instrumental in achieving that end.

The second example of America's anti-intellectual attitude dur-

ing the emergence of its public school system was society's attitude toward the role of the teacher. Since schools were expected to accomplish practical results and promote utilitarian values, teachers would, in effect, be responsible for carrying out society's mandate for its schools. The role of the teacher did not escape America's bias against the life of the mind.

Long before the Common School Movement, America had developed an attitude toward the work of the teacher. In colonial times, schoolmasters were hard to find because few men were "content to settle for what the average community was willing to pay."¹⁵ The role became, at best a transient position for men on their way to bigger and better jobs, or at worse a haven for people who could not find any other form of employment. America's history of finding and keeping qualified teachers is not encouraging. The Common School Movement had little precedent to follow.

If there was a precedent for the educational reformers of the nineteenth century to follow, it was that American teachers were not well rewarded or esteemed for their work. Teachers' salaries have always been a national disgrace. We do not pay for work we do not respect. Neither do we grant social status to positions we do not value. Recent studies indicate teachers generally come from lower- or middle-class backgrounds and make only scant social improvement as teachers. The upper classes rarely consider teaching as a vocation. There is, quite simply, little incentive for them to do so.

Common Schools, as we know, set out to create a trained educa-

tional profession. We also know the intellectual climate surrounding the entire movement was going to make that goal difficult to reach. Horace Mann lead the way with the establishment of the "first normal school in Massachusetts in 1839."¹⁶ At last, America had a place to train teachers.

The same spirit of anti-intellectualism which influenced how society conceptualized the purpose of education permeated the first attempts at training teachers. Hofstadter found "the training these schools offered was not very exalted."¹⁷ It is reasonable to assume that since teachers were expected to do practical things for little pay and even less social recognition, how they were prepared was not a grave concern for a society already suspicious of the value of the role itself.

Admission to a teacher training institution even into the late 1900's was a haphazard process. High school diplomas were not needed to gain admission. A few years of high school work usually sufficed. Teachers should know a little more than their students. Normal schools eventually provided a four-year curriculum for teachers but, most often, new teachers had only one or two years preparation before beginning their teaching careers. The emphasis in teacher preparation was to teach teachers practical ways to teach students.

More teachers were needed at the turn of the century than every before. Raising standards of teacher preparation became a forgotten issue. America needed more teachers. The emphasis was on quantity, not quality. "The search for cheap teachers was perennial,"¹⁸

according to Hofstadter.

The history of teacher training in America underscores the country's inability to take the teacher's role seriously. By refusing to support the establishment of highly trained teachers, the nation made its choices. We needed many teachers, not qualified teachers. Teachers deserved only low wages. Their work was not valuable. We were merely asking them to do some rather practical things: teach students to work hard and be good citizens.

As public officers teachers were not going to make a lot of money, nor was society going to worry about their professional training. The teacher's role was cast in pragmatic terms once and, it seems, for all time. The Common School Movement may have had high hopes for a trained educational profession but the anti-intellectual climate of the nineteenth and early twentieth centuries set a different tone for the role of teachers in America.

Richard Hofstadter's analysis of anti-intellectualism in America illuminates the tensions between the nature of school, the role of the teacher, and how this society views the life of the mind. A society that expects its schools to fulfill pragmatic goals, through the work of teachers it refuses to reward, or to prepare seriously in its institutions, speaks in a loud collective voice its attitudes toward intellectual values. The argument can be made that this is literally ancient history. I believe it is important to know that history, nevertheless. In fact, contemporary American education seems to continue the debate over the nature of education, standards of teacher

preparation, and the role of the teacher in American society. How can we participate in the debate without some knowledge of our own history?

There is another reason to be clear about America's initial attempts at defining school and teaching. The concern of this work is the teaching of thinking--a specific kind of thinking. Hannah Arendt's notion of non-cognitive thinking is, in significant ways, different from what schools and teachers are expected to do with students. We cannot hope to fit Arendt into what goes on in American public schools until we are clear about the nature of those schools. Said differently, non-cognitive thinking is not a simple change in curriculum. There is something fundamentally different about Hannah Arendt's vision of what thinking means. Unless we understand just how different she is, it seems pointless to try to devise methods for teaching non-cognitive thinking. Teachers deserve to know the barriers they must face before any attempts at using Arendt are made. Non-cognitive thinking is not practical. To teach it means questioning the role teachers are expected to assume as socializers. For teachers to learn it means re-opening the debate over teacher preparation. Teachers of non-cognitive thinking have to be concerned about the life of the mind. They may be involved in producing citizens who are enlightened beyond Jefferson's wildest dreams. Society might have reason to fear that kind of teaching and that kind of thinking.

Before proceeding to the final sections of the chapter, we should summarize the points made. Richard Hofstadter's analysis of anti-

intellectualism in this country established that historically, schools and teachers were defined in pragmatic terms. The role of the teacher was never given social status, financial reward, or professional training by means of public institutions. Schools, through the work of teachers, were given the practical responsibilities associated with the task of socializing younger members of society. Teachers were expected to produce enlightened citizens.

The Common School Movement institutionalized the purposes of school and the role of the teacher. Schools were still socializing institutions and teachers were still expected to teach students the virtues America stood for. Teachers assumed the responsibility for introducing nineteenth century students into American life.

The idea of teacher as socializer is not inappropriate. The sociology of education literature confirms the notion and seems to go a bit further with it. There seems to be evidence which suggests that the role of the teacher became more defined as the country became more protective of its acceptable way of life. Teachers were to socialize students into some very particular ways of understanding the world. The problem is, there is reason to suspect that certain definitions of teacher are largely incompatible with teaching thinking (non-cognitive). It is important to examine some of the ways the theme of "teacher as socializer" gets played out. The next two sections focus on the two most obvious "variations on the theme" of socialization. From a purely sociological perspective, we learn the process used by teachers to help students learn the behaviors required for various

social rules. From one of the most respected educators in America's history, we learn what an educator believed about socialization. Both approaches help us uncover more tensions between the teacher's social role and the teaching of thinking.

Willard Waller: The Sociologist's View

Willard Waller wrote what is often considered the seminal work on American society and the role of the teacher. In his book, The Sociology of Teaching, written in 1933, he has made the first scholarly attempt at understanding what teaching means in American life. Waller wrote his analysis of teaching after complex social and economic forces of a great depression had just battered the country. The country was in the mood to concentrate on its own problems. The popular phrase of the time summarized nicely what Americans were feeling. It was time for America to "put its own house in order." Willard Waller's book can be seen as a contribution to that effort.

Waller had few misgivings about the nature of the teacher's role. He wrote:

The central role of the teacher in his professional capacity is his executive role. The teacher is the representative of the established order; as such he must be ever ready to force conformity and to enforce discipline. The teacher represents the established order of business, the teacher is the representative of authority, and he is par excellence in the dogmatic position. These are the components of the teacher's role as such.¹⁹

It is clear from Waller's description of the teacher's "executive role" that teaching is a representational enterprise. In two sentences he used some form of "represent" three different times. He mentions "established order" twice. The role of the teacher is to re-present the established order. With some perseverance we can arrive at an understanding of what that means.

His book, The Sociology of Teaching, begins not with a discussion of the role of teachers, but with a chapter entitled, "The School in the Social Process; Vertical Mobility." It is here that we begin the mosaic of what the established order is which teachers represent. This is our introduction to the social realities meant to save teachers from perdition.

Teachers should be clear about what schools are and do in the social process, since whatever schools are meant to do teachers must surely anthropomorphize. Schools, says Waller, are involved in "the distribution of cultural goods . . . the transmission of attitudes, techniques, and knowledge to the younger persons of the community."²⁰ In the social process schools, in effect, ensure the transmission of culture. They socialize the younger members of society. Not entirely, of course, since children have families, peers, religious affiliations, neighborhoods and so forth, all of which introduce them to various aspects of the world they live in. Nevertheless, society expects schools to participate in the socialization of the young. Waller is not alone in that assertion.

Teachers, through their association with schools, are almost by

definition, at least social definition, the actual transmitters of the culture Waller writes about. Although we understand what a transmitter does, at this point it's not quite clear what is being transmitted as culture, other than attitudes, techniques, and knowledge, which at best are somewhat vague terms. Staying with Waller a bit longer, we find an answer.

He notes, "The main burden of Americanization falls upon the public schools . . . the schools Americanize by immersing the young in the culture and tradition of the country, by inducing them to participate as much as possible in the activities of the American arena."²¹ Here is one of the social realities teachers need to know. Culture and Americanization share the same sentence. Teachers transmit whatever young people need to know in order to participate in American life. In other words, teachers transmit the American way of living in the world.

Teachers transmit American culture and tradition so that students can participate in American life. What exactly teachers represent is still unclear. Schools transmit, teachers represent. They represent the established order, according to Waller. Perhaps the answer lies somewhere after the semi-colon in the chapter title: "The School in the Social Process; Vertical Mobility."

If Waller really means that teachers represent an established order, and there is no reason to doubt his sincerity, then it is crucial to understand what he accepts as that order. This becomes clearer by continued examination of his notions about the purposes of

schooling. He explains, "One of the functions of the school is to sort out individuals with reference to their fitness for certain occupations and social positions."²²

The social order necessitates a sorting out process which schools participate in. Waller explains both the process and the role of the school as a "cultural process, which must start anew with every generation, and automatically assigns men to their proper posts. The manner and extent to which they assimilate the cultural heritage determine the niche they will fit into in the social structure."²³ Specifically, he charges that "One of the important things that the school does is to separate individuals into classes corresponding roughly to certain occupational and social strata."²⁴

Schools sort out, separate individuals, and are deeply involved in a cultural process which assigns men to their proper place. It would seem then, that teachers are supposed to represent, that is, act in the role of, a particular social structure, as well as assist in a sorting out process which maintains the structure. Teachers represent to the students the simple fact that in this society there are occupations, social positions, and classes whose existence does not automatically guarantee access. The paradox, of course, is that the teacher is also often expected to convey the myth that education is the key to a better occupation, or higher social status. Waller, perhaps realizing the paradox, attempts to allay our fears by noting: ". . . classes are really more or less open in the United States. The social ladder of the schools is open to all . . . the educational lad-

der is there, and its existence is something."²⁵

The ladder metaphor is significant because it reveals the perplexities involved in trying to understand the role of the teacher. Are classes (social) more or less open because we have social and educational ladders which purport to give us access to various (higher) positions? Is that why Waller can claim that the ladders' very existence is what really matters? If we answer in the affirmative, what does that mean for the role of the teacher? Assuming we answer yes to both questions, then the role of the teacher is largely as symbolic as the ladder itself. Teachers are used by society to represent the notion, the idea, the myth that there are, as Waller described it, "proper posts" for everyone and each person is responsible for determining where he or she will fit in. The ladder is there; climbing depends upon you; teachers represent the business of climbing the ladder.

At least two levels of concern arise from this conclusion. First, the assumptions underlying the proper posts, and "niche finding" responsibilities need examining. Secondly, the ramifications for teachers and teaching when the role is conceptualized as representing the possibility of vertical mobility, needs elucidation. This second level will be attended to first. The first will come later.

Willard Waller's work has been used to see if we could find out what a sociological perspective on the role of the teacher would reveal about teaching. The point was to get closer to the nature of the role itself. Waller supplies interesting insights.

Of course, Waller believed teachers were essentially agents of socialization. He also had some ideas about what society expected as part of that role. Representing an established order, Waller reasoned, meant teachers represented the concept of vertical mobility. Teachers would help students find their places within the social structure.

The tension which concerns this work is what that means for the teaching of thinking. Waller's picture of teachers is filled with descriptions which seem inappropriate for a teacher interested in helping students find meaning in the world. To think non-cognitively means both teacher and student puzzle out things together. Waller's dogmatic, transmitter of culture, teacher seems antithetical to Hannah Arendt's vision of what thinking means.

Waller's portrait of teacher as socializing students into behavior appropriate for various social classes is equally discouraging. If teaching is seriously concerned with the perpetuation of a class society, a society whose morals are already agreed upon, how can non-cognitive thinking, which investigates moral considerations, become part of a teacher's work? Non-cognitive thinking involves questioning the accepted order, not simply passing it on.

In important ways, the sociological role of the teacher prohibits the teaching of non-cognitive thinking. A teacher would violate the role he or she has assumed by implementing Arendt's thinking into his or her teaching. That simply means, teachers should expect problems when they take Arendt's ideas into the classroom. Some of the diffi-

culties will come from the fact that Arendt offers no methodology. Many of the problems will come from what this society expects from teachers. The latter are far more formidable than the former.

John Dewey: The Educator's View

John Dewey wrote about American schools when America seemed to be taking a long, hard look at itself and not liking what it saw. This was a period in our history marked by change and reform. The beginning of the twentieth century was marked by various progressive movements, all promising to reform the myriad abuses brought on by big business and laissez-faire government. Social reform was the order of the day.

Dewey wrote The School and Society in 1899. He wrote Democracy and Education in 1914. Before both books, reformers debated for almost twenty years why schools failed to do the job society expected from them. At last, Dewey had the courage to challenge the lifeless pedagogy being used in the schools. Although we may disagree with his recommendations, we may not ignore his courage.

Most reformers of Dewey's time wanted America to return to the ideals of political democracy, individual initiative, competition, and property rights. They were conservatives at heart and they wanted to conserve the liberal ideology upon which this country was founded. Dewey shared that conservatism and that liberalism.

John Dewey believed that schools served social purposes. He

tried to untangle those purposes from the initial goals of saving the republican virtues. It was not an easy task. It is important to understand what came out of Dewey's attempts to change the relationship between school and society. The point will be made that the basic definition of school, as well as the teacher's role as part of school, seem to elude even one of the most serious of all educational reformers.

John Dewey recognized the fact that America expected schools and teachers to socialize students. He accepted the idea of schools transmitting society's recipe for living in this country. In fact, he clearly stated what he considered to be the relationship between school and society, using transmission as an important link.

Society exists through a process of transmission quite as much as biological life. This transmission occurs by means of communication of habits of doing, thinking, and feeling from the older to the younger.

So obvious indeed, is the necessity of teaching and learning for the continued existence of a society that we may seem to be dwelling unduly on a truism.²⁶

Like Waller, in some ways Dewey believed teaching involved the transmission of culture. He does not, however, expect that this transmission be an indiscriminate process. And of course this insight makes him courageous and forced to come to terms with the question of just what it is we will transmit.

As a society becomes more enlightened, it realizes that it is responsible not to transmit and conserve the whole of its existing achievements, but only such as make for a better

future society. The school is its chief agency for the accomplishment of the end.²⁷

We will be concerned with building a better future society but transmission will still be the role of the school and the teacher. Transmitting the best, of course. Dewey still has the problem of deciding what that best is. He comes at it from two directions, both of which have to do with the teacher's role.

The first approach is to admit that the child comes to school with what Dewey calls dispositions. That is, he or she is growing up in a family and participates to some degree "in the life of those with whom the individual is connected." The child's "social environment exercises an education or formative influence unconsciously and apart from any set purpose."²⁸ The child comes to school already socialized to some degree. What remains in doubt is whether the child has had the best transmitted to him or her. Enter the teacher!

What conscious, deliberate teaching can do is at most free the capacities thus formed for fuller exercise, to purge some of them of their grossness, and to furnish objects which make their activity more productive of meaning.²⁹

The teacher removes the unconscious and non-purpose from the social environment of the young. The teacher creates a deliberate educative environment. The implication being the primary environment was at best well intentioned, but plainly without purpose--and clearly unable to supply the best in Dewey's terms.

It seems reasonable to assume the teacher, in the role of

teacher, will create an environment whose purpose will be educative. Environments are important. What is not quite as reasonable is to conceive of the teacher's role as purger of the grossness of family, social, peer, and religious influence which the child experiences prior to school.

The dynamics set up by viewing the teacher in this light are amazing. The family and the teacher are, at least on some levels, at odds. The child is confronted with the notion that some of what he or she is, is not right. The teacher is choosing what is best. That best must be whatever is common and acceptable to the teacher and school. Different is not best. The socialization the child receives from his or her primary contacts in the family and neighborhood must be superseded by the teacher and school.

Dewey's teacher, then, chooses the best environment for the learner. Part of how he or she does this is by being aware of what the child brings to school, which may reflect the child's (characteristics) membership in a particular family, neighborhood or religion. Why would Dewey want the teacher to do this? Because the search for the best demands it. Recall that Waller had his ladder which could be used to move about from what he termed open social classes. Dewey also believed that social groups imposed limitations which could be escaped. He had no ladder. Instead he envisioned "an educational institution which shall provide something like a homogeneous and balanced environment for the young." Dewey felt that the best would be found in an environment within which students would "rise above . . .

unlike customs, different races and differing religions . . . for a new and broader environment . . . a unity of outlook upon a broader horizon."³⁰ Lessen the differences and create a wider panorama--in other words, less could produce more. The paradox is, of course, the more which is produced is merely more of the same. Reformers of Dewey's era were generally conservative.

This two-pronged approach of purging differences and promoting sameness presented problems for Dewey. He understood the dilemma caused by sameness. In another context, speaking to teachers about methodology he warned: "Imposing an alleged uniform general methodology upon everybody breeds mediocrity in all but the very exceptional."³¹

Although he apparently understood the dilemma, his solution reflects the social and political context of America. He wrote: "Every individual shall have opportunities to employ his own powers in activities that have meaning."³² The good students use their own powers to excel. Mediocrity happens to those who don't have those powers or who choose not to use them. In either case, the onus is on the individual. School and teaching is seen as a neutral party in the whole process. Waller told us education gave us ladders so people could rise above their class limitations and Dewey tells us there are opportunities to be used for the same purposes.

It would be wrong to leave Dewey without noting that to criticize his method for reforming American education is not the same as disregarding his vision altogether. Here was a man who believed citizens

should participate on equal terms in a democratic society: institutions should be re-adjusted when they no longer serve the needs of all: and people should bend together in cooperative human pursuits. His words are unusually eloquent and strong and say better why his vision cannot be simplified or devalued.

School facilities must be secured of such amplitude and efficiency as will in fact and not simply in name discount the effects of economic inequalities, and secure to all the wards of the nation equality of equipment for their future careers. Accomplishment of this end demands not only adequate administrative provision of school facilities and such supplementation of family resources as will enable youth to take advantage of them, but also such modification of traditional ideals of culture, traditional subjects of study and traditional methods of teaching and discipline as will retain all the youth under educational influences until they are equipped to be masters of their own economic and social careers. The ideal may seem remote of execution, but the democratic ideal of education is a farcical yet tragic delusion except as the ideal more and more dominates our public system of education.³³

Acknowledging the courage of Dewey's vision of education, I return to what was stated at the outset of this section. Teaching, the role of the teacher, is primarily the work of a socializing agent. As such it is a means by which society introduces its young to the American way. If this responsibility is the first and most important work of the teacher, then the role by definition, has to do with what Hannah Arendt calls thoughtlessness. The role of the teacher is in some important ways and on some levels to provide the "stock phrases," "adherence to conventional, standardized codes of expression and conduct [that] have the socially recognized function of protecting us

against reality."³⁵ Teachers are expected to equip students with responses to facts and events which the society has determined will reflect its understanding of the world. It can be argued that responses perhaps need to be automatic. We cannot think about everything. However, if we see the role of the teacher as primarily a response-giver, we elevate Arendt's idea of thoughtlessness to a peculiar level. What happens is that the activity of thinking which Socrates claimed gave meaning to life, is simply not what the role of the teacher is about. That is not the same as saying teachers don't want students to think. Dewey certainly did. It is saying, however, that in the institution called school, the role of the teacher is to carry out the mandate society has given that institution: the socializing of American youth is the primary duty of teachers in this society. The role of the teacher, how this society conceptualizes what teachers will do with students, is in conflict with what it means to think.

The Teacher's Role as an Impediment to Teaching Thinking

The purpose of developing the position that American schools and teachers are required, by the society they serve, to accept the roles of primary socializing agents in a child's life is significant. Schools and teachers are managed by the role society has carved out for them.

As socializing agents, teachers are responsible for transmitting

useful knowledge to students. Historically, America expected schools to promote the pragmatic virtues necessary for the running of the republic. As a nation, we began conceptualizing the role of school/teacher with scant regard for things intellectual.

When we tried to vary the rules, by examining the sociological and philosophical implications of our definitions, interesting things happened. People like Willard Waller and John Dewey seemed to have gotten stuck. When schools and teachers are responsible for the transmission of a society's store of knowledge, it doesn't matter if you change the nature of what is transmitted. Waller believed teachers transmitted behaviors which students had to learn in order to assume certain social levels. Dewey believed schools could achieve social diversity and cultural pluralism by teaching children what they needed to know in order to think. Whether or not teachers socialize by Waller's methods or by Dewey's, the simple fact is transmission is still transmission.

There is something within the conceptualization of teaching as transmission which presents serious obstacles to teaching students non-cognitive thinking. Even Dewey, as we shall see later, in his concern with teaching thinking, was hemmed in by the rule the teacher was to play as a socializing agent.

Teachers who might be interested in teaching non-cognitive thinking are clearly going to violate society's expectations. Transmission might still occur, but students would be encouraged to question much of what is being transmitted. Socially derived meaning about the

world might still be transmitted. Students, however, would not be forced to accept it. Students would be taught how to make meaning for themselves. Students might even learn that all the important questions, liberalism believes were settled long ago, are really still "open" for discussion. Society does not expect schools to produce questioning, meaning-making students. Teachers would in ways have to step out of their roles to help students practice in Hannah Arendt's vision of thinking.

CHAPTER I NOTES

¹Thomas Good, Bruce Biddle, Jere Brophy, Teachers Make A Difference (New York: Holt, Rinehart and Winston, 1975), p. 88.

²Educating the Expert Society, p. 16, quoted in Good, Biddle and Brophy, Teachers Make A Difference (New York: Holt, Rinehart and Winston, 1975), p. 90.

³Good, Biddle and Brophy, Teachers Make A Difference, p. 89.

⁴James Schwartz, The Schools and Socialization (New York: Harper and Row, 1975), p. 1.

⁵Joseph A. Scimecca, Education and Society (New York: Holt, Rinehart and Winston, 1980), p. 24.

⁶Michael Parenti, Power and the Powerless (New York: St. Martin's Press, Inc., 1978), p. 115.

⁷Ibid.

⁸Alfred Schutz, On Phenomenology and Social Relations (Chicago: The University of Chicago Press, 1970), p. 79.

⁹Ibid., p. 96.

¹⁰Richard Hofstadter, Anti-Intellectualism in American Life (New York: Vintage Books, 1963), p. 253.

¹¹Ibid., p. 299.

¹²Ibid., p. 304.

¹³Ibid., p. 305.

¹⁴Ibid., p. 307.

¹⁵Ibid., p. 321.

¹⁶Ibid., p. 317.

¹⁷Ibid., p. 317.

¹⁸Ibid., p. 319.

¹⁹Willard Waller, The Sociology of Teaching (New York: John Wiley and Sons, Inc., 1965), p. 325.

²⁰Ibid., pp. 18, 19.

²¹Ibid., p. 17.

²²Ibid., p. 21.

²³Ibid., pp. 21, 22.

²⁴Ibid., p. 22.

²⁵Ibid., p. 23.

²⁶John Dewey, Democracy and Education (New York: The Free Press, 1944), pp. 3, 4.

²⁷Ibid., p. 20.

²⁸Ibid., p. 16.

²⁹Ibid., p. 21.

³⁰Ibid., p. 21.

³¹Ibid., p. 21.

³²Ibid., p. 113.

³³Ibid., p. 172.

³⁴Hannah Arendt, Thinking (New York: Harcourt Brace Jovanovich, 1971), p. 5.

C H A P T E R I I
T H I N K I N G I N A L I B E R A L S O C I E T Y

Chapter I argued that the primary goal of education in America is the socialization of students. A general answer to the question of what that socialization means is: students learn the American way of life. It is important to establish a more specific answer.

One way to understand the specifics of the American way of life is to examine liberalism. Since "liberalism [is] the particular ideological context of education in America"¹ it is important to both define liberalism and give a brief history of its growth in this country.

Clearly, any ideology affects the thinking of the people it dominates. To understand how liberals think, I will use the work of John Stuart Mill. Mill's On Liberty gives us critical insights into the relationship between certain liberal notions and how a liberal conceptualizes the process of thinking.

Once we are clear about the nature of the liberal thought process, it seems necessary to examine how American education has been influenced by the process. Gary Wills' penetrating analysis of the intellectual marketplace supplies one of the best vehicles for such an examination. Wills makes important connections between education and liberalism's emphasis on process and neutrality. Wills tells us exactly how education has responded to the liberal thought process.

Briefly, then, this chapter clarifies what it means to be socialized into a certain way of thinking. Next I examine this thought process as it is defined and informed by its liberal characteristics. Finally, this chapter makes the necessary connections between a liberal way of thinking and education. In effect, this chapter begins to answer the question of what kind of thinking goes on in American schools, and why.

What is Liberalism?

As a topic, liberalism almost defies a brief explanation. However, as the context for this work, it more than deserves careful attention. A definition and history are in order.

One way to work out a definition of liberalism is to consult a consensus historian. These historians, according to Gary Wills, "launched an effort to describe America in terms that preclude theoretical conflict."² In other words, a consensus historian describes what is American about America. These theorists search out the ideas which in many ways produce an ideology. They examine the "framework of interrelated ideas used to articulate, develop, and sustain the consensus upon which a community lives, acts, and takes direction."³

"The core of the consensus theory is this: the U.S. is a nation founded on classical western liberalism."⁴ Louis Hartz, in his book The Liberal Tradition is, of course, an ardent supporter of a consensus approach to the study of American history. His work is used to

clarify what is meant by the phrase classical western liberalism.

Hartz believes our liberalism can be traced back to the political theories of many eighteenth century English thinkers. Hartz is particularly interested in John Locke.

Briefly, the roots of our liberalism can be traced back to John Locke. Locke believed that men were intended to occupy a kind of state of nature characterized by freedom and equality for the inhabitants. Although Locke believed that the state of nature was basically tranquil, he wrote that there would periodically be conflicts. Locke postulated that at such times the state (government) should act as judge and resolve any disputes or conflicts among the citizens. This vision was important for Locke's theory of how government should work. To understand Locke better, it is helpful to trace how he applied both his vision and theory to his homeland.

Locke's England was steeped in feudal traditions. The freedom and equality which he believed characterized individuals in a state of nature was seriously threatened by "myriad associations of class, church, guild, and place"⁵ which entangled the lives of Englishmen under feudalism. These feudal associations and institutions were impediments to Locke's liberal vision.

As we have seen in Locke's vision the state assumed the role of judge in times of conflict within the state of nature. Locke set out to create a different but related notion of the state. The state would still be judge but in a more forceful and powerful way. Locke looked to the state to untangle his countrymen from the web of feudal

associations and institutions which seemed to be robbing freedom and equality from Englishmen. In order to create that kind of state, Locke had to "elevate the state over feudal associations."⁶ The state had to become not simply a judge, but supreme judge.

Locke's new attitude toward the state frames his theory on government. The theory had two sides to its argument. The first was an implicit defense of the state's power. Locke, as discussed earlier, raised the state to a "much higher rank than ever before." In fact, the state was to have the power to "legitimately coerce individuals."⁷ The first half of Locke's theory thus defended and elevated the state.

The second half of Locke's theory was more explicit. The state would be limited in its power. In other words, the supreme judge was to have limited jurisdiction. The private interests of individual citizens was to be off limits to the supreme judge. Citizens pursuing their self-interest were not to be interfered with by the state. Locke's liberalism depended on a clearly defined sense of individualism. The state would not entangle individuals the way feudal associations had in the past. Individuals were to be free to pursue their interests, and fortunes.

When the Founding Fathers used Locke's theory of government they were fixated on the second half of Locke's argument. In America, the power of the state was to be limited. Of course the men who wrote the Constitution, whether they realized it or not, had also borrowed the implicit first part of Locke's theory. The Founders clearly defended

and created a powerful federal and state government but limited the powers of government. The problem was not so much what the Founders thought they were borrowing from Locke, as what happened to Locke's liberalism when it was transported and applied in this country.

America certainly got some of Locke, but more importantly, we created our own brand of liberalism by perverting Locke.

The key to the problem of Locke in America, as well as the source of the perversion and contradiction which our liberalism embodies, is according to Louis Hartz, the fact that America had no feudal traditions for liberalism to overcome. Locke argued for a strong but limited state to put an end to the powerful feudal associations which defined and limited the lives and ambitions of his fellow Englishmen. In America, there were no such associations or institutions. By simply using Locke without this important ingredient we created our own peculiar brand of liberalism.

What and how we borrowed from John Locke resulted in the liberalism which has dominated this country ever since the Founding Fathers sat down to work out a government. In other words, lacking a feudal past to fight against, the Founders created a government in search of an enemy. The enemy, it turns out, became any non-liberal notions.

Without any real enemies, our liberalism, according to Hartz, became a kind of "moral unanimity" and generated a "conformitarian spirit" in the citizens. So pervasive is the acceptance of liberalism in America that it has spawned its own tyranny. It is almost impossible not to be liberal in a liberal nation. We are easily "bound down

by restrictions" fit for a lion when in reality the majority in this country has always been as "amiable as a shepherd dog." Our brand of liberalism, since it tolerates and has no enemies, has created a sense of unity, conformity and sameness by making enemies out of anything not liberal. Said differently, our liberalism denies us the experience of freedom in its fullest sense by eliminating as much variety as possible. As Santayana wrote, "even what is best in America is compulsory"⁸ and we have for a long time assumed that liberalism was the best and perhaps only vision. In a very real sense when we corrupted Locke's vision we managed to blind ourselves in the process.

There were other aspects of liberalism that we borrowed and applied successfully. The liberal dream of social freedom and social equality was carried over into various areas of human activity. In the economic sphere liberalism held that individuals had a natural right to pursue their interests without interference from the state or from society (Adam Smith). Free and equal individuals should compete. Since liberalism assumed a natural good will between individuals, competition would merely indicate people were pursuing their self-interest in an enlightened manner. No need to regulate or restrict so natural an activity, thought the liberal dreamer. Competition and self-interest, logical correlates of social freedom and equality, became accepted liberal beliefs. Each liberal notion became morally acceptable and unanimously approved by a society well on its way to becoming exclusively liberal in ideology.

Liberalism, then, is the articulation of a set of beliefs. The

liberal ideology holds that government should be limited and protective of private enterprise. Competition, individualism, opportunity and achievement are critical liberal values. The liberal vision, with its spirit of conformity promotes a kind of national acceptance of certain moral and ethical questions. In a liberal society, people seldom ask questions. Most teachers can attest to that.

When we talk about education as socialization, it is crucial to remind ourselves that we socialize students into a liberal society. Specifically, we introduce them to individualism, competition, achievement, and conformity. When and if we teach them about government, we often teach the Constitution, which, according to Hartz, is where we have "enshrined" the Lockean creed.⁹ Liberalism has found its place in American education.

There is another important connection between liberalism and education. It has to do with thinking. If Louis Hartz is right and there is such an entity as a "natural liberal mind [with] its quiet, matter of fact, soldier-like charm and innocence,"¹⁰ then what kind of thinking does that mind do? Hartz gives us part of the answer. He believes the liberal mind rarely speculates, except about scientific matters. From Hartz's description of the liberal mind, we can assume the liberal thinks about facts. John Stuart Mill will tell us more about how a liberal thinks.

If we go back in history to a liberal and a thinker who actually wrote about thinking, we can discover the rest of the answer. Hartz was a good beginning. John Stuart Mill is the real beginning.

A Classic Liberal's Thought About Thinking

The search for the origins of the modern liberal thought process takes us back to John Stuart Mill's classic work, On Liberty, published in 1859. Like John Locke, Mill wrote for middle-class English businessmen. Apparently, these new businessmen needed assurance they were on the right path. Mill told them where the liberal road leads, and quieted their consciences.

For Mill the road was obvious. It started and ended with the individual: "Among the work of man which human life is rightly employed in perfecting and beautifying, the first in importance is man himself."¹¹

It is easy to imagine how consoling these words were for the liberals, hard at work getting ahead. Mill reassured them. They had their priorities straight: they were on the right road.

Mill plants the individual firmly at the center of his theory. Mill believed man's destiny was perfection and only those individuals seriously involved in self-improvement would achieve their destiny.

Mill and his ideas about individualism give us our first clue to the liberal thought process. If self-improvement is the primary goal of man's existence, then thinking must be rightly employed to accomplish that end. Said differently, if thinking did not lead to individual perfection, Mill would have to exclude it from the work of man. Mill had given thinking a goal. The liberal thought process was never intended to be as open-ended as liberals like to pretend.

Mill believed it led somewhere.

Competition and Thinking

It is fun to picture Mill's individuals, heads bowed, intently pursuing their own perfection. Bowed heads sometimes bump into other bowed heads. These clashes make the liberal road bumpy, and the end hard to reach. It is useless to pretend that individualism is not directly related to competition. No one likes to get bumped. Mill does not try to pretend.

Only imperfect individuals, by definition, can be made perfect. Mill believed as strongly in our fallibility as he did in our perfectibility. Interestingly, he had a formula for regulating the kind of competition inherent in fallible man's quest for perfection. Mill's formula gives us another component of the liberal thought process.

Fallible beings, even those intent on self-improvement, make mistakes. Correcting those mistakes created a kind of contest for Mill. An individual's opinion must compete against the opinions of others, and win, before his opinion is considered to be true or right. Mill continued:

There is the greatest difference between presuming an opinion to be true because, with every opportunity for contesting it, it has not been refuted, and assuming its truth for the purpose of not permitting refutation.

Mill's formula included, "complete liberty of contradicting and dis-

proving our opinion . . . and on no other terms can a being with human faculties have any rational assurance of being right."¹²

The liberal thought process consists of exposing one's opinion to the scrutiny of other individuals. Fallible beings, on the road to perfection, improve themselves by competing with others for the privilege of maintaining their own opinions. Mill has finally given us the core of how a liberal thinks. He thinks tentatively. He can never be sure he is right until his opinion has survived the contest. Perfection is winning the battle. Thinking is part of the battle. Hartz told us the natural liberal mind was soldier-like.

If competing for the truth by subjecting an opinion to the critique of other individuals is the core of the liberal thought process, openness toward opposing ideas is certainly an integral part of the fray. Mill claimed that, "any person whose judgment is really deserving of confidence . . . has kept his mind open to criticism of his opinion and conduct."¹³

Openness means listening to all sides, suspending judgment and interpretation, until "facts and arguments are brought before the mind." An open mind has "shut out no light which can be thrown upon the subject from any quarter." An open mind goes after facts--as many as possible--before assuming his opinion is correct. In fact, Mill urged us to invite "the whole world to prove [our opinions] unfounded."¹⁴ Competition and openness on a grand scale!

Through competition and openness, we arrive at the only "certainty attainable by a fallible being." Not only has Mill shown us

the path, he insisted, "and this is the sole way of attaining it." In Mill's view, he had found the only and "the best that existing state of human reason admits of."¹⁵

Mill's liberal thought process guarantees "we have neglected nothing" in our search for the truth. If, by chance or fallibility, we have missed some facts, or opposing ideas, we need only keep "the lists open, [hoping] that, if there be a better truth, it will be found."¹⁶ Mill hedges his bet on the liberal thought process. If your thinking is competitive and open and sometimes wrong, it doesn't really matter. Better truths will be discovered and you can abandon your erroneous opinions in favor of the better and newer truths.

I began this section with the assertion that it would be useful to look at John Stuart Mill in order to understand something about liberalism and thinking. Mill gives us the liberal thought process. Positioning the individual and his destiny of perfection at the summit of his theory, Mill worked backward and made thinking one of the things man does to improve himself. Thinking should further man's quest for perfection.

John Stuart Mill explained how a liberal should think in 1859. Like Locke, he wrote for a definite group of people. Historically, we know that Locke's theories did not stay in England. In fact, they found their way into one of America's most cherished documents, the Constitution. Mill's liberal thinking process also made its way across the Atlantic. America's educational institutions have housed Mill's theories almost from their inceptions as institutions.

How we have constituted the ideas of John Stuart Mill is the subject of the final section of this chapter. Mill gave us the process a good liberal uses to think through his positions and opinions. Unlike Locke, the process is not a part of the Constitution, although it can be argued that Mill's process was certainly used in the actual formation of the Constitution itself. The question remains. Has the liberal thought process taken root in America and if so, where can we find it? The first part of the question is obvious, once we admit we are a liberal society. One way to answer the second part of the question is to turn to an observer of contemporary American life. We need to look critically at our institutions to discover just how much liberalism they have retained. Specifically, we are searching for evidence of the liberal thought process. Gary Wills supplies that evidence.

Gary Wills has written a penetrating analysis of the rise and fall of Richard Nixon, Nixon Agonistes. In important ways, it is a book about what Wills calls "an older set of hopes and doubts . . . called liberalism."¹⁷ It is a book about America and liberalism.

It is also, at least in one section, a book about American liberalism and how Americans think about thinking. Wills asserts: "Liberalism clearly was and is the philosophy of the marketplace, and America is distinguished by a 'market' mode of thought in all its public life."¹⁸

In other words, Wills believes we have inherited a particular way of thinking. His charge that we use it in all our public life

intimates that America has an officially approved brand of thinking. It is a charge Wills is able to substantiate.

Wills begins with Thomas Jefferson and builds his case for the existence of an approved thinking process. Jefferson's "justification for public schooling" was the need for "an enlightened citizenry" to make the republic work. Public schools were to be the means to a political end. Schools would "equip citizens to choose the best possible men and policies in the political marketplace."¹⁹ A kind of partnership seemed to develop between government and education. The political marketplace needed the academic marketplace. It is perhaps more accurate to refer to that relationship as something more than a partnership. Schools were destined to actually imitate government--at least in terms of one process.

The political marketplace has a process for doing its business. It gets the best men to make the best decisions for the majority of citizens. Public policy is the result. Citizens "must go along with the decisions" of these men. Citizens do not have the right to "defy [decisions] except through future market procedures."²⁰ Once the political marketplace has followed its process for making policy, citizens must respect that process by adhering to policy. Only the process can change policy.

Jefferson and other statesmen wanted public schools to prepare citizens to participate in that process. According to Wills, the "pure liberal vision" figured out how to create an "intellectual marketplace" which would feed into the political marketplace. We know

it today as academic freedom. Citizens would be equipped for the running of the republic if the republic's schools were structured to allow "the free play of ideas."²¹ After all, the political marketplace arrives at the best decisions because the best men's ideas compete until the best idea wins (becomes policy). What better place to practice choosing best ideas than the public schools. At last, America would have an enlightened citizenry.

The political marketplace and the intellectual marketplace would share a "unity of method . . . a mode of working toward the truth."²² There would be more than a partnership between government and education. There would be an official, governmentally approved way of thinking. There would be a market mode of thought, as Wills described it. Its characteristics will be remarkably familiar.

American Education and Liberalism

Gary Wills was primarily interested in the connections between liberalism and higher education. It was, as we know, the university students who gave Richard Nixon and his cohorts a hard time. Although this study focuses on the connections between liberalism and how America's public schools teach thinking, I have decided to use Wills since he deals directly with how liberalism has informed our attitudes toward ideas and thinking.

The most critical liberal attitude Wills describes is a "value-free openness toward ideas."²³ All other characteristics hinge upon

this liberal notion of openness. It is of course, John Stuart Mill, in ivy league dress. The next important liberal attitude which seems to have crept into our beliefs about thinking has to do with the importance of process. Historically, we have been fond of process. We have been good liberals.

An example of what Wills calls value-free openness toward ideas is probably useful. Wills' examples come from higher education but we can find them at any level.

Secondary social studies texts normally devote a few pages to various forms of government other than our own. Students learn definitions for socialism, communism, dictatorships, and so on. Teachers, after presenting appropriate "pros and cons," seldom teach students that other systems are better than a democracy. The mere act of introducing these other systems to students seems to satisfy the liberal need to give all ideas a fair hearing. Somehow teachers fulfill the neutrality stipulation just by using the text. The scene is common and most social studies teachers have played it.

Wills reminds us that we only pretend at being value-free and open to all ideas. Those of us who have taught know what he means. There is little, if any, serious questioning of certain ideas. It is not the role of the teacher to upset the "thinking as usual" (Schutz) but, rather, to pass it on. We must pretend to be open to all ideas, while at the same time prepared to transmit those our society finds acceptable. It is an interesting dilemma. So we pretend, and believe what we pretend.

We seldom have to pretend about our feelings for process. Teachers must "concentrate on processes for reaching a conclusion." (John Stuart Mill would be proud of us.) In the intellectual marketplace teachers are expected to "hand on . . . facts and knowledge of the facts . . . and the only conclusions allowed are those forced on one by the facts."²⁴ Clearly, facts are important for a liberal thinker, but process is everything.

Teachers teach how to gather facts and reach conclusions. Gathering and reaching are processes. Facts and conclusions are only parts of the process. Truths that are reached outside of the liberal thought process are wrong, according to Wills, not in themselves, but because they violate the process. A marketplace, be it political, economic, or intellectual, operates within certain well defined parameters. The parameters, in America, have always been the liberal beliefs in competition, individualism, and equality. Best men and best ideas win because they survive the process. The process, as we have seen, has an official, governmentally approved status.

Making the Liberal Connections

The initial point of this chapter was that we are a liberal society. Liberalism has imprinted upon our national character certain values and beliefs. As a nation we have held fast to the ideas of individualism, competition, and achievement. Our liberalism is deep and pervasive. Few, if any, of America's social institutions have

escaped its reach. It forms the context of our major social endeavors. It is the context of education in this country.

Part of liberalism's impact on education has to do with how liberals think. John Stuart Mill believed in a process for forming opinion, testing ideas and ultimately getting at the truth. It is a process characterized by openness and competition. Individuals could perfect themselves by using Mill's process.

Gary Wills argues that our educational institutions embody Mill's liberal thought process. Education's partnership with government hinges on a shared method for arriving at the truth. Marketing thinking (the liberal thought process) is officially sanctioned. Our schools teach a process for finding the best ideas, the right solutions, and the best facts, while claiming to be value free in their approach.

Perhaps liberalism's most insidious effect on how we have come to think about thinking, especially in our schools, is the confusion between a process and the thinking activity itself. It is all but impossible for a teacher in a public school to seriously challenge the process. Imagine the courage necessary to question whether or not this liberal thought process is really thinking at all.

What does all this mean for the teaching of non-cognitive thinking? Liberalism simply adds another layer of barriers to Hannah Arendt's vision of thinking. The natural liberal mind hardly questions or looks for meaning. The important questions have all been settled.

The liberal thought process does not go beyond the "limits of knowledge." It gathers knowledge and facts.

Most importantly, for the liberal, thinking should lead to the truth. For Hannah Arendt, thinking was concerned with meaning. She does not confuse the two.

These are significant obstacles to the practice of non-cognitive thinking. They are formidable in themselves. They are almost indestructible once they are organized into a system. The next chapter examines the connections between the bureaucratization of the public schools and what that means for teachers and the teaching of thinking. What happens to thinking once bureaucracy comes to teaching and the public schools? Is there thinking after bureaucracy?

CHAPTER II FOOTNOTES

¹David Schuman, Policy Analysis, Education, and Everyday Life (Lexington, Massachusetts: D.C. Heath and Company, 1982), p. 289.

²Gary Wills, Nixon Agonistes (New York: New American Library, 1979), p. 509.

³George C. Lodge, The New American Ideology (New York: Alfred A. Knopf, Inc., 1975), p. 14.

⁴David Schuman, Bureaucracies, Organizations and Administration (New York: MacMillan Publishing Company, Inc., 1976), p. 7.

⁵Louis Hartz, The Liberal Tradition in America (New York: Harcourt Brace Jovanovich, 1955), p. 60.

⁶David Schuman, The Ideology of Form (Lexington, Massachusetts: D.C. Heath and Company, 1978), p. 55.

⁷Hartz, The Liberal Tradition in America, p. 60.

⁸Ibid, pp. 10, 12, 129.

⁹Ibid., p. 9.

¹⁰ibid., p. 7.

¹¹John Stuart Mill, On Liberty (Indianapolis: Bobbs-Merrill Educational Publishing, 1977), p. 13.

¹²Ibid., p. 24.

¹³Ibid., p. 25.

¹⁴Ibid., pp. 25, 26.

¹⁵Ibid., p. 26.

¹⁶Ibid., p. 26.

¹⁷Wills, Nixon Agonistes, p. 1.

¹⁸Ibid., p. 326.

¹⁹Ibid., pp. 319, 316.

²⁰Ibid., pp. 316, 317.

²¹Ibid., p. 319.

²²Ibid., p. 316.

²³Ibid., p. 318.

²⁴Ibid., pp. 318, 319.

C H A P T E R I I I
BUREAUCRACY AND THE SCHOOLS: ANOTHER LAYER

The chief wonder of education is that it does not ruin everyone concerned in it, teachers and taught.

Henry Adams

Chapters I and II pointed out two serious obstacles to the teaching of non-cognitive thinking. The first has to do with the socializing aspect of the teacher's role in American society. The second obstacle is the classic western liberalism which dominates much of life in this country. As socializers, teachers are expected to pass on certain cultural understandings about the world. In a liberal world, the teacher passes on many liberal notions about life in the world. Particularly important to this work are the liberal notions about thinking. Having presented those two rather formidable opponents to the teaching of non-cognitive thinking, we move on to the next layer. This layer has to do with bureaucracy and its impact on public schools and teaching.

This chapter examines three critical connections between bureaucracy and what goes on in the public schools. The first connection is revealed in the content surrounding the Common School Movement. The context of nineteenth century urbanism and industrialism are recalled in order to clarify the preconditions which lead to bureaucracy in the schools. These preconditions disclose why bureaucracy

became the chosen organizational model for the school reformers.

The next connection discloses how bureaucracy affects teacher training. By looking at the process of state certification, we can see what has happened to teaching as a result of the school reformers' push to standardize teacher training. State certification regulations are studied to discover what it means to teach to the eyes of the organization. Said differently, we will learn what bureaucracy considers important about the work of the teacher.

The final tension between bureaucracy and teaching unravels itself with an examination of the link between the school system and teachers' unions. Using a sample teacher contract, we tease out how the school organization responds to unions. The argument will be made that in serious ways the unions have been overpowered by the bureaucracy. By puzzling through the union-negotiated contract's treatment of the teacher it becomes clear that unions have been unable to change critical aspects of the bureaucratization of American education. The nature of what remains unchanged is important for this work.

These three connections or tensions reveal the thickness of the bureaucratic layer facing the teacher interested in teaching non-cognitive thinking. In this chapter, the teacher confronts organizational obstacles which he or she must deal with intimately, and on a daily basis. These are close to home tensions. It would be pointless to pretend they do not exist. It would in ways be harmful. Part of practicing non-cognitive thinking is a close examination of what it means for something to exist. Bureaucracy exists. We must understand

what it means, especially what it means for teachers.

Disorganized Schools

During the late seventeenth hundreds into the early decades of the eighteenth hundreds, when children received formal schooling it was done in what was known as a district school. These schools were local and easily accessible. The local communities controlled the school. "Power over the schools resided with the parents"¹ is the general characterization of how the district schools were organized. More specifically, local citizens formed themselves into school boards to do the parents' bidding.

If the community was dissatisfied with a teacher, they would act to have him removed. School boards were part of the process. Washington Irving's caricature of Ichabod Crane was not all fiction. The community paying Ichabod Crane's salary could have been real. "His rustic patrons consider[ed] the costs of schooling a grievous burden and schoolmasters mere drones,"² wrote Irving. In spite of the truth of that description America went right on building schools and searching for teachers.

In the early 1830's prior to the first real efforts of the common school reformers, America had schools and children attending them. In 1833 when Horace Mann was just beginning his reform tactics, the small town of Cincinnati had "eighteen public schools and nearly as many private ones."³ In New York City almost 60 percent of all children

aged five to fifteen were attending either public or private schools.

In many cities private schools were using excess funds to help the children of poor families who wanted a private school education. In 1830 Philadelphia was able to "admit without charge" into its private schools "the children of poor artisans and orphans . . . and those city residents unwilling to send their children to public schools."⁴ The unreformed and disorganized schools were apparently serious about providing schools for children. The state of Connecticut could boast one private school for every public school as early as 1841.

David Tyack notes how strongly two of the western states felt about their schools prior to the Common School Movement. In Iowa a group of farmers "secretly moved an entire schoolhouse one night"⁵ to a site they felt was more appropriate for schooling. In Oregon there were actual feuds over how the schools were to be run. One feud was strong enough to result in three schools since no one group would compromise its beliefs about the nature of schooling.

The unreformed and disorganized schools were obviously an integral part of community life. People cared about their schools. The country schools in the west were "frequently the focus for peoples' lives outside the home."⁶ Schools were places children went to learn and where adults could gather for community meetings, social activities, or religious practices. Local communities were organized enough to use their buildings well.

The problems with the unreformed district schools were not about

enrollment or the availability of schools themselves. The reform of the district school system came about because of the environment surrounding the school reformers. America was undergoing changes which were to affect almost every aspect of life in this country including the public schools. These changes precipitated the reform of the district schools as much or perhaps more than any educational reformation inspiring the country at the time. In ways the revolution had little to do with education, as we shall see later in this chapter.

Organizing the Schools

There is some question as to exactly what aspects of schooling needed to be organized. The district schools were fairly numerous and well-attended. Private schools were available and assistance with tuition payments had been worked out in many states. The quality of teaching may have been questionable, but at least local communities could get rid of incompetent or mischief makers if they saw fit to do so. In order to understand where the impulse to organize American schools came from, we have to examine the context of the common school reform movement. The common school advocates began the push for organizational changes as part of the re-forming of education. How they got to that point is a complicated but necessary story to tell.

I will begin this section with a look at America well after the Common School Movement had come to an end. It is helpful to see what

America looked like after the many changes of the middle to late nineteenth century.

In September of 1904 Max Weber, the eminent German scholar, visited America. He observed various aspects of the new world with disbelief, fascination, and serious concern. The Brooklyn Bridge, rush-hour traffic in Manhattan, and skyscrapers fascinated him. Labor and immigration problems caused him to wonder about a country which could boast of so many advances and yet whose people still suffered from want and misery. The Indian and Black problems bothered him. The cities seem to bring all these problems to life for Weber. His observations of city life in Chicago reveal his worry. In Chicago Weber saw

the Greek shining the Yankee's shoes for five cents, the German acting as his waiter, the Irishman managing his politics, and the Italian digging his dirty ditches . . . the whole gigantic city . . . is like a man whose skin has been pulled off and whose entrails one sees at work.⁷

Max Weber left America for Heidelberg before Christmas. He resumed writing Wirtschaft and Gesellschaft, which was published in 1922. One of the sections is his now famous essay "Bureaucracy." In that essay Weber described how a modern bureaucratic organization worked. It is important to understand Weber's insights in order to recognize how and when the American public schools resorted to that particular organizational form. When the word bureaucracy is used in this chapter it is Weber's masterful analysis which gives meaning to the word. It is helpful to summarize his monumental contribution to the study

of organizations. To understand bureaucracy we must start with Max Weber.

Max Weber and Bureaucracy

Max Weber knew what he had seen in 1904 in America. He knew part of why the city of Chicago looked like a man with his insides out. He recognized what contributed to the distribution of tasks he watched various immigrants perform. Clearly, the Yankee as Weber described him, was management. He did not shine shoes, dig ditches, or wait on tables. He didn't even do his own politics. The immigrants were obviously not at the top of the Yankee's system. Weber had witnessed some effects of America's tendency toward bureaucracy.

Weber, in his essay on bureaucracy, described six major characteristics of bureaucracy. I will describe each briefly. Bureaucracies are ordered by rules and laws and authority is based on these laws together with the position occupied within the organization. There is a hierarchy of authority within the system. Written files are kept. The organization depends on the thorough and expert training of its managers. Officials or managers view their positions as vocations which they dedicate their lives to. Finally, there are general rules which must be learned. They may be highly technical relating to the business of the organization. These characteristics usually mark a highly bureaucratized organization.

Bureaucracies are then "closed systems of regulations and a

hierarchy of rules [in which] authority relies on laws and rests on impersonal positions."⁸ It is one way of organizing a system. Weber recognized its presence in America and wondered how a democracy promising equality could tolerate bureaucracy. Not only did we tolerate bureaucracy, as the history of the common school reform will show, America embraced it as the organizational form for its one best system of education.

A Time for the Common Man

The decades before Max Weber's visit to America are full of the preconditions leading to the advent of bureaucracy in America. Liberalism, industrialization and reform converged in the mid-nineteenth century producing some amazing events and people. America was ready to focus her energies in new directions. This re-focusing began with a new look at the common man.

In 1828 Andrew Jackson was elected president in large part by white men voting for the first time. Jackson was the first president not from either Virginia or Massachusetts. He was a frontiersman, from the backwoods of America. In the eyes of old established families like the Adams' of Boston, he was not well-born or well-bred. He was common in the most pejorative sense of the word to many Northerners.

In Jackson's eyes he represented the common man in an altogether different sense of the word common. His presidency would put govern-

ment, at every level, in offices appointed or elected, back into the hands of the people. The era of the Whigs who represented money, banking, and manufacturing interests, had supposedly come to an end. In fact, Jackson proclaimed: "In a country where offices are created solely for the benefit of the people no one man has any more intrinsic right to official station than another."⁹

Jackson's proclamation did have some qualifications in practice. It clearly helped one get appointed to office if you also happened to be Jackson's friend.

Jackson's administration came to an end in 1837. There were changes in America during those years. One must be careful not to confuse these changes with the fantasy that the common man was finally taking over America. The rhetoric of the new democrats did not create a different American ideology. The Jacksonian democrats were as liberal as the Whigs they seemed to despise. The basic structure of government remained unchanged.

Jackson himself was a strict constructionist of the Constitution. He defended the union of states. He believed both in limited government and a strong executive branch. If he complained of being a "dignified slave" to the office of president, it was mainly because he centralized administration as much as any Whig ever had. The liberal notions of limited government, constitutions, and equality under the law survived the Jacksonian era.

Louis Hartz gives us at least two reasons for liberalism's survival even in the age of Jackson. Hartz believes democrats and Whigs

both shared an "impulse toward capitalism." The farmer as well as the new workingman in the cities had the "mentality of an independent entrepreneur." Men either owned property or fantasized about owning it. There were incredibly large and powerful forces, industrialization and urbanization, which seemed to sweep everyone along one path. America's liberal heritage taught Americans not to fear the existence of only one path. In fact, liberalism thrives on unanimity in all directions. If Jackson's presidency heralded the rise of the common man, a shared liberal ideology could prompt this statement. "We are all of the same estate--all commoners."¹⁰ Said differently, America's liberalism unites its citizens in any way possible. Unity not commonality is important. We will pretend to be one with any class as long as we are seen as one nation. The liberalism thread runs deeply into the reform movements which begin with Jackson's presidency and continue to the end of the nineteenth century.

At the very least, Jackson's era did bring attention to the working man; it gave him a voice in things. Between 1828 and 1831 some workers' groups even supported a larger public school system. The working people's ideas about school reform were not the same as those of reformers like Horace Mann and Henry Barnard. The difference was substantial and according to Sidney Jackson the working man did not mind saying so.

They [workers] did not like the school atmosphere; discipline was too strict. Curriculum was unsatisfactory; workmen wanted . . . instruction in the laws of the country . . . in the art of speaking one's own mind . . . few

teachers knew how to think.¹¹

It will become obvious how small the workers' voice really was in terms of school reform. Jackson's presidency may have given the working class a chance to speak but their voices were muffled in the clamor of a changing America. The louder voices of men like Mann and Barnard prevailed.

The Common Man and the Cities

Horace Mann was one of the leading advocates of the common school reform. A story about his mother and some of her neighbors neatly sums up some of what the common man was about to face. It seems Mrs. Mann and her women friends would get together and braid straw for hats. They would first braid the straw and then concentrate on making various types of hats. A local factory was built with machines which could take the braided straw and weave it into hats more quickly than Mrs. Mann and her friends. The women realized, with a little coaxing from the factory owner, that it would be more profitable for them to braid and sell as many strands as possible to the factory and forget about making hats themselves. Mrs. Mann and her neighbors stopped making hats and started making money. It is a story writ large across America. Industrialization was taking hold.

Industrialization was changing the landscape of America. Between 1820 and 1850 industrial methods were revolutionized. The introduc-

tion of steam-powered boats (1809) followed by railroads in 1826 made it possible to do business on a scale larger than most people ever imagined. Not only was it possible to move goods across the country, the Erie Canal (1825) made it practical and profitable to ship goods out of the country.

Factories increased in number and size to keep up with the new demand for goods. The dollar value of their output grew in thirty years (1839-1869) from \$240,000,000 to \$1,630,000,000. Household economics either cooperated with the factory system, as in the case of Mrs. Mann, or as was more often the case, they were simply swallowed up by the factory system. In fact, the local factory Mrs. Mann did business with was probably overrun by a larger factory with better machines.

Cities seemed to offer factories the practical things needed for production. People, power and available transportation came to be associated with America's cities. They grew at a frenetic pace. Between the years 1820 and 1860 the total population "grew about 33 percent per decade." Most of that population settled in the cities. In 1830 Chicago was a small muddy-road town, but by 1860 it had become a metropolis of 109,000 people. In one year alone, Boston added 37,000 Irish immigrants to its population, making the total population over 114,000. Nationwide during the forty-year span between 1820 and 1860 the number of people living in cities increased from 693,255 to 6,216,578.¹² Cities and factories and people had reached an all-time record high in terms of numbers. Other things seemed to increase

almost in direct proportion to the numbers of cities, factories, and people.

The Common School Movement As Reform

The Common School Movement, which began during Andrew Jackson's presidency and ended during the first and only term of president Rutherford B. Hayes in 1880, deserves examination for at least two reasons. The movement ties together the liberalism already discussed in this work with the industrialization and urbanization of nineteenth century America. Secondly, the reform of the common schools sets the stage for the bureaucratization of American education. In important ways the common school movement was the last educational reform of American schools. Much of what it accomplished we live with today.

One way to understand the movement is to start with Mrs. Mann's son, Horace, born in 1796, and his brother, Stanley, who belonged to a farming family in Franklin, Massachusetts. The farm never provided a prosperous living for the Manns and by the time the brothers had to make decisions about their own careers, the farm had entered a "period of terminal decline."¹³ Industrialization had come to Franklin, Massachusetts.

Stanley Mann invested his inheritance in a textile mill which eventually did quite well. Horace left the Franklin farm for college and later law school. He became a solicitor for a group of Bostonian merchants who paid Mann to collect debts from farmers who had fallen

on bad times. He worked hard for his employers and in time set up an independent law practice making enough money to become his brother's partner in the textile business.

The Mann brothers, especially Horace, had successfully made the transition from family farm to urban life. Not everyone did. The cities were quickly becoming what Max Weber found in 1904. Urban poverty had increased dramatically. G.H. Evans in 1844 noted that in 1804 "the number of paupers in the whole United States was one in three hundred." In 1844 the number of poor in New York City alone was "one in every seven of the population."¹⁴

Boston merchants may have welcomed the services of Horace Mann, but not every man seeking employment in the cities shared Mann's reception. The new cities and manufacturing life created some rather ugly living conditions for many. Workers were not protected from "the destitution and disease, vermin and vice"¹⁵ resulting from low wages, long hours of work and unsanitary tenements offered to them for housing.

Horace Mann and his associates, most notably Henry Barnard, had their own responses to the poverty and miserable living conditions brought about by industrialization. Mann and his fellow reformers "were troubled by threats to social harmony."¹⁶ The increase in crime and violence in America's new cities would undoubtedly bring the whole social order to its knees. Poverty and the poor became the reformers' target. The manufacturers who contributed to the deplorable lives of many of the workers became the allies of the reformers.

In fact, Edmund Dwight, a wealthy cotton textile manufacturer nominated Mann to become the first Secretary of Education in Massachusetts (1837) and paid Mann out of his own pocket \$500 for his services in that position. Mann courted the support of the Lowells, Appletons and Lawrences of Massachusetts. All were wealthy manufacturing families. Mann's bias had been clearly established.

As Secretary of State, Mann lobbied for reform of schooling to counteract the poverty he believed was threatening the social fabric of the nation. "Education . . . is the great equalizer of the conditions of men--the balance wheel of the social machinery" exhorted Mann. He believed education would prevent the poor from revolting because education "prevents being poor." Citizens should gladly support the common schools because they alone "prevent dishonesty, fraud and violence." And finally, "if education could be equally diffused, it will draw property after it,"¹⁷ reasoned the liberal Mann. For Mann the common schools were the surest means to eliminate poverty and create an harmonious social order.

The "lower classes" would "rise easily" in schools by being allowed to mingle with "strong minds" aimed at "higher attainments."¹⁸ Schools would improve the children of the poor.

It is important to remember Mann's bias. The poor and the workers threatened the social order. Some controls needed to be put on these people. Mann appealed directly to manufacturers to support the common schools. After all, manufacturers would benefit most from schools which would produce "character trained and disciplined work

force."¹⁹ Educated workers, Mann explained, were more "docile and quick at work; [had better] domestic and social habits;" they were cleaner, more punctual and displayed "fidelity in the performance of duties." It simply made good business sense for manufacturers to gain Mann's effort to reform America's public schools.

It became obvious that the thrust of the reformers was a very particular kind of socialization. The fabric of society could not be torn by the disorder in the cities. Schools would be "instruments for disintegrating mobs."²⁰ The violence and riots in Boston in 1834 against the Irish, as well as the infamous "Bloody Monday" in Louisville, and the Draft Riots in New York gave the reformers fuel for their crusade. Mann described the mobs as "wild beasts" which education could tame. The reformers portrayed the schools as saviors of the public order.

One of the goals of the reformers was to create some kind of state control over the schools. The reform, after all, could not be effective if the district school system was allowed to continue. These schools were too decentralized. They were virtually autonomous and in the hands of lay members of the community. One community board had visited the Boston Latin School in 1845 to formally evaluate the school. The board declared the school was "in its usual good condition"²¹ and ended the evaluation and report. Mann and his friends decided the district schools and its school committees must go.

Samuel Gridley Howe, a friend of Mann's, made the first substantive attack on the district school system. He chose Boston. Howe

"devised a uniform written test" which he and a subcommittee gave to the top class in all of Boston's grammar schools. Less than one-fourth of the correct answers were given by any class tested. Each school differed noticeably in terms of how the students did on the test. Howe proclaimed he had at last enough data to prove the present system was "wrong in the principle of its organization, inefficient . . . and production of little good compared to its expense."²²

Howe began to formulate a new organizational model for the schools. The system needed one leader, not a host of committees and subcommittees. Howe decided to call him a commissioner. We know Howe's professional leader by the title "superintendent." The leader would coordinate policy between the school board, the city government, and the schools. Chicago and Philadelphia adapted Howe's recommendation. Organizing America's public school system had begun. The seeds of bureaucracy were being planted. The push toward centralization, hierarchy, and positions of authority was powerful and soon became pervasive throughout the country.

There were educators who fought the organizational attempts of the reformers. Charles Francis Adams, a school board member, called the new administrators "drill sergeants" and described the schools as "a combination of the cotton mill and the railroad with the model State prison." Mary Abigail Dodge likened the reformed school system to a factory. She felt the "superintendents [were] overseers, the teachers workmen and the system of supervision fit only for factories." And finally the pediatrician Joseph Mayer Rice in 1892 de-

scribed the schools as "mechanical" with teachers following "pre-scribed routine, fearful of losing their jobs." The superintendent Rice observed in St. Louis reigned supreme, made arbitrary rulings and "his word is law."²³ Evidently not everyone appreciated reorganization as much as Mann and his associates.

Bureaucracy Becomes More Obvious

Although the new organizational attempts met with some dissent, the push for more organization continued. Three critical goals were set by the reformers. Schools needed to be graded, homogeneously grouped, and curriculum standardized. Written examinations had to be routinely given and the schools had to be committed to certain general norms of conduct for their students.

Horace Mann and Henry Barnard had liked the Prussian model of graded elementary schools as far back as 1838. It took the designer John Philbrick in 1848 to finally give the Prussian model a home. He designed a school building to fit the model. It was four stories high, had a large auditorium, twelve classrooms, and one desk for each student. The principal had his office and would be assisted by one male sub-principal. Ten female assistants (teachers) would occupy the classrooms. Students would be tested so that each classroom would have students of equal ability following the same curriculum. Philbrick was the first "egg crate school's" principal. By 1860 most major cities had schools resembling his design.

Curriculum would be standardized. Philbrick proclaimed, "A good program for one city would be . . . a good program for every other city." Superintendents were about to earn their keep. It fell to them to write curriculum for their schools. One superintendent boasted of being able to sit in his office and "know on what page in each book work was being done at the time in every school in the system."²⁴

Standard curriculum meant examinations. Some cities had uniform city wide tests. Most were written. The principal was usually the examiner. Teachers were not given testing responsibilities especially when the issue of moving to the next grade was being determined. Illinois was the first state to try standardized testing state wide: in whatever manner or form testing became part of the new system.

The last goal of the organizers directly related to classrooms was the need for consensus around the deportment of students. A statement issued in 1874 and signed by seventy-seven leading educators dramatized the point. The educators agreed that schools should promote the following behaviors in students: "(1) punctuality, (2) regularity, (3) attention, (4) silence."²⁵ Schools were solidly on the path toward bureaucratization. Not only would they be organized like bureaucracies, schools would teach the virtues and habits necessary for functioning within a bureaucratic organization. The one best system had been found.

Bureaucracy and Teaching: What Became Important

The early days of the Common School Movement set the stage for the advent of bureaucracy into the school system. The reformers argued for centralization and professional leadership in the form of a school superintendent. Another of the movement's goals was to create a trained educational profession. How that training started and what it has developed into is closely connected to what it now means to teach in a bureaucratically organized school system. The important connections have to do with hierarchy, standardizing teacher training, certification and the unionization of teachers. Each of these tell us more about bureaucracy and teaching. They also help us understand why it is difficult to teach non-cognitive thinking in the public schools.

Horace Mann had lamented the "intense want of competent teachers" for the common schools. Since most districts still hired teachers the reformers reasoned that they would only be effective if they could figure out how to control teacher training. Mann, of course, came up with the idea of a "normal school" for prospective teachers. His fellow-reformer Calvin Howe suggested the normal schools follow the example of the Prussians who trained their teachers using a "regular, standard, prescribed course of study."²⁶ Special institutions for training teachers and special programs of study were important first steps in creating a trained educational profession.

Not everyone was as pleased as the reformers would have liked.

Taxpayers resented being taxed for the operations of the normal schools. Critics like Orestes Brownson found more substantive issues to raise. Who are to be the teachers in these normal schools? wondered Brownson. Mann and his associates had the answer. The state government, not the local districts, would appoint teachers to the normal schools. Local school boards and committees would have little to say about how the normal schools functioned. Brownson countered that teachers would then be employees of the government and not the community. He was more than a little prophetic, this Mr. Brownson.

The first normal school opened in 1839, but hardly paved the way for an avalanche of such institutions. In 1840 a bill was introduced to abolish all normal schools. Mann helped defeat it. By 1860 there were only 12 in the nation and by 1880 only 25 states had normal schools. What the reformers had succeeded at was planting the notion that teachers needed specialized training to do their jobs. Given the preconditions toward bureaucracy already existing in the nation as well as the push to organize schools, it should not be surprising that the idea of specialized training took hold. There was clearly miles to go in terms of working out exactly what the nature of that training would be, but Mann's normal schools at least represented a beginning. Former teachers would be appointed by the government to teach prospective teachers.

Teachers and Hierarchy

We have already seen how Stephen Howe convinced the Boston school system it needed a professional leader to coordinate and centralize its schools. Most other major cities followed Boston's example and school superintendents became the leaders of the systems. They were actually more boss than leader.

Everyone in the re-formed systems knew who the boss was. In describing the new superintendents, David Tyack points out he "was vested with sufficient authority to keep all subordinates in their places, and at their designed tasks." We have already noted the superintendent's power over curriculum. In St. Louis the superintendent was hiring and transferring teachers. Wilhelm Payne describes how the supers saw their rolls.

Organization implies subordination. If there is to be a plan, someone must devise it, while others execute it. As the members of the human body execute the behests of the supreme intelligence, so in human society the many must follow the directions of the few.²⁷

Teachers were obviously the subordinates. They executed the supers' plans and followed his directions. The school hierarchy had been drawn.

If superintendents were super bosses, principals were not far behind. Henry Barnard described the principal's role as the person who "arranges studies and the order of exercises, administers discipline . . . superintending the operations of each classroom to secure

harmonious action."²⁸ The principal, as portrayed by Barnard, was just a mini-superintendent. The gap in terms of authority, between the superintendent was obviously very significant. The distance between the teacher and both the principal and superintendent was astounding.

It would be a mistake to think that superintendents answered to no one. In most states school boards were very powerful. They removed superintendents at will, but especially when political considerations ruled. San Francisco superintendents were appointed on the "basis of party affiliation."²⁹ If a democratic school board had difficulty with a republican superintendent, he was promptly dismissed. Local school boards could and did make life miserable for superintendents who differed from them politically. One super in Philadelphia in 1883 was not allowed into certain schools because the local school boards opposed his administration. School boards, in ways, were even more super than some supers.

The Common School Movement ushered in two important bureaucratic characteristics affecting teachers. Normal schools were created to standardize teacher training and school superintendents assumed a subordinate position to teachers. Principals were also more powerful and had more authority than teachers. Only local school boards occupied higher positions in the system than either superintendents or principals. The teacher's place in the school hierarchy was firmly established way back in the mid-1800s.

Teacher Certification

Superintendents and principals were not the only controlling factors in the lives of teachers. In 1839 Massachusetts, New York and Kentucky had state departments of education. Originally these departments were to handle the financial aspects of public schooling. By the mid-1800s the state departments of education had entered the business of examining teachers for competency and issuing state certificates, "thereby establishing certain uniformities."³⁰ By 1900 state certification was recognized as the hallmark of a qualified teacher.

The meaning behind the certificate seems to have been unimportant at least for the state. Even after the teacher examination had been replaced by college and university programs for teacher training, James Earl Russell, dean of Teachers College from 1898 to 1927 admitted candidly, "None of us had any philosophy of education."³¹ In other words, the state certified teachers upon completion of certain required programs, regardless of whether or not those programs or teachers had anything to do with increasing teacher competence. More recently, studies by William Popham and Arthur Moody, together with Robert Bauswell to determine if teacher training had any effect on student learning found no significant correlations. In fact, Popham found most students learned more from untrained teachers who had familiarity with a given subject. States still have the power to certify teachers in spite of the perennial questions concerning what makes a good teacher. The state became concerned with the length of

study, and the types and numbers of course credits a prospective teacher should accumulate.

In 1883 America witnessed the civil service reform movement. In important ways this event signalled the entrenchment of bureaucracy in the nation. Its influence extended to the state control of teacher preparation. The National Civil Service Commission tried to define "the status of employees, clarify their rights and obligations, and provide 'objective' means for their selection."³² Although teachers were not literally state employees, the certification process began to include some civil service characteristics. School positions began to be classified and specific requirements delineated.

In 1946 the National Education Association set up a commission to study the state certification process. The NEA wanted a larger say in the process. They soon realized that they could act as an advisory group to the various state agencies but state control over teacher preparation was far too entrenched to make any real changes in the system. For example, the NEA argued that professors have greater responsibility in the certification process. Perhaps the training institutions themselves could grant certification. The argument fell on deaf ears. By 1950 the states had firmly established their control over teacher preparation and certification. To understand just how state control over teachers affected teaching one should examine some of the actual certification requirements mandated by a state. I have chosen the Massachusetts guidelines for two reasons: I am familiar with them and they are examples of "revised" certification regula-

tions. A look at these regulations will demonstrate how rooted teaching is in bureaucratic thinking. The regulations underline what an official governmental agency believes to be the important components of what a teacher should know in order to be licensed by the state to perform his or her job properly.

Massachusetts revised its regulations "for the certification of educational personnel"³³ in 1979. The Massachusetts Board of Education was responsible for the project. The new rules went into effect September 1, 1982. The following material is taken from the published document outlining the new regulations.

We will begin with the areas one can be certified in. There are first of all fifty-two areas of certification. Certificates are issued for various grade levels. Some are valid for every level. A few are for pre-school and nursery school teaching. In terms of bureaucracy, it is astounding to see the degree of specialization which has entered the teaching arena.

There are, of course, a number of "standards" which must be met by people seeking certification from the state. Interestingly, there are General and Common Standards. More interestingly, the general apply to the training institutions while the common standards apply directly to the teacher. There are enough standards to go around. The "candidate" must be able to demonstrate competencies in certain areas. The first standard the candidate will demonstrate is:

1. gives clear and concise explanations and directions

Followed by:

2. frames questions so as to encourage inquiry.

It is immediately apparent what the State Board of Education understands when it thinks about teaching. Teaching is about speaking clearly and giving short explanations and good directions. Teachers as map-makers. Secondly, teaching means asking questions so that students will use a particular method of learning. Inquiry is a loaded word. Educators know it as a distinct methodology. It has its roots in Dewey's progressive movement. It is scientific inquiry.

Each area of certification is arranged according to requirements and competencies (Standard I). The requirements specify exactly how many hours of course work and pre-practicum work must be done to be certified. Generally, the number is 36 for course work, 21 for pre-practicum. There are certificates which require only 30 hours. Two examples are "Teacher of Young Children with Special Needs" and Severe Needs Teachers. It is difficult to understand why less course work is required in those areas.

Some certificates require other certificates first. For example, "Teacher of Children with Moderate Special Needs," "Generic Consulting Teacher," and "Unified Media Specialist"³⁴ all require a Massachusetts Teaching certificate prior to applying for the second certificate.

The regulations address what is normally considered the tricky issue of teacher competencies. Not so tricky for the state. Each of the fifty-two areas has no less than three and no more than nine competencies. Most have three. A few examples of state recommended com-

petencies are helpful in considering what is important in an organized educational system.

The "Teacher of Social Studies" at any level must be competent, 36 hours worth, in the "social sciences in general." In case one does not know what those are, they are listed. Secondly, the social studies teachers must know "contemporary, social, economic, and political issues" and their "historical roots." Thirdly, the teacher must know "modes of inquiry and research used in the social sciences." They too are listed. It is an important list in terms of teaching non-cognitive thinking. The list includes "observation, collection of data, evidence, inference, deduction, value judgement."³⁵ The state will certify social studies teachers if they know, and presumably are willing to teach what amounts to the scientific method.

What is important in teaching social studies is knowing social studies and teaching methods of scientific inquiry.

One more example, and since the next chapter discusses John Dewey and Jean Piaget's work with young children, I have chosen "Early Childhood Teacher (K-3)." The competencies necessary for state certification include: "the effective early childhood teacher knows:

1. stages and characteristics of normal child development
2. sensory, motor, social, emotional and cognitive development
(Piaget would be proud)
3. learning theory . . . especially the development of logical abilities
4. subject matter of early childhood education

5. curriculum design³⁶

The state has decided that it is important for new/young students to be taught in developmentally appropriate ways. Of course, that is not all bad. It does, however, assume there are developmentally sound theories, especially cognitive ones. Even if there existed such perfect theories, the point remains that the state is saying these theories are most important for teachers of young children. Cognitive development is what early childhood education means. Developing logical abilities is a mandated, state-required competency. John Dewey would be pleased.

The point of this discussion about state certification is to be clear about the connections between bureaucracy and teaching. When the state gathered to itself the authority to standardize teacher training and following the example of civil service decided to provide objective means for certifying teachers, something significant happened to teaching. The important, in terms of officially approved, aspects of teaching became how many credit hours a prospective teacher completed. Can he or she prove they are "in good health, of sound moral character"³⁷ and has paid the processing fee? Is he or she competent in the area of certification? Does he or she know what the state considers to be important for an "effective teacher of social studies"? What if the new teacher does not want to teach the inquiry method? Is he or she incompetent, or insubordinate? These questions are possible because of the organizational arrangements of the system itself. They are possible because of the centralization and bureau-

cratization of education.

The significant question for this work is what happens to the teacher who wants to teach non-cognitive thinking. First of all, there is no certificate for him or her. Secondly, in the fifty-five page document comprising the Massachusetts Certification regulations, there is not one time when the word "think" or anything resembling "think" is used. The state of Massachusetts does not certify people to teach thinking, nor is it a competency they want to standardize--or recognize.

Teachers and Unions: Bureaucracy and Unionization

One final connection between bureaucracy and teaching needs to be made. It has to do with teachers unions. It does not have to do with being for or against unions. That is not the problem. The concern is what happened to teaching when unions became a reality. Said differently, unions tell us something about what is important in teaching. In ways, unions help the bureaucracy designate the rights and responsibilities of the workers (teachers). The question is how helpful is this classification for teachers who might feel it is important to be thoughtful in their work and help students learn to practice thinking as a part of schooling? Those are significant questions and issues to be explored in this section.

The history of teachers unions in this country is woven into the larger struggle of the new working class which emerged as a result of

industrialization and urbanization. In critical ways the unionization of teachers reflects that context. A brief examination of the first attempts at unionization clarifies the point.

Before San Antonio, Texas and Chicago, Illinois witnessed the first teachers unions at the turn of the century (1904) teachers organizations were actually a "mixture of social clubs and self-improvement societies."³⁸ These clubs were voluntary associations and were segregated according to sex and position within the school system. Those are not insignificant differentiations and need to be recalled when we examine who began the first teachers unions and for what purpose.

It seems admirable that teachers would voluntarily form associations in 1830 to improve their work. Unfortunately, the local groups decided to establish a national center, probably as part of the general trend to centralize education. The American Institute of Instruction was the first national association of teachers. In 1857 the National Teachers Association was begun, quickly changing its title to the National Education Association (NEA), which is what we know it as today. The stated purpose of the association was a little different from the small, local self-improvement clubs. The NEA set out to elevate "the character and advance the course of popular education in the United States."³⁹ Somehow the notion of self-improvement seemed to be getting lost!

The NEA opposed the unionization of teachers. The membership agreed that the "pursuit of improved wages and other economic bene-

fits" was unprofessional. It should be noted that the association was dominated by school administrators. However, the teacher members of the NEA shared the opinion that unionization would demean their profession. The NEA membership made no stir as the keynote speaker of their 43rd annual convention in 1904, Aaron Gove, superintendent of the Denver schools, told them about the nature of their jobs. Gove explained, "It [teaching] is comparable to the turning out of work by an industrial establishment . . . a task assigned by chief of police, or a soldier on duty." A superintendent may appear to be despotic, continued Gove, "but that despotism can be wielded with a gloved hand."⁴⁰ Here we have Gove telling an association opposed to unionization, because only manual laborers unionized, that their work was "comparable" to the work done by factory workers. In ways, Gove's language fed the slowly but steadily growing movement toward the unionization of teachers.

In his talk, Gove spoke with concern about the "growing feeling that the public school system should be a democratic institution."⁴¹ Teachers were asking for more of a voice in the system. What exactly they were asking for is best seen by a brief look at one of the pioneers of teachers unions, Margaret Haley.

Margaret Haley led the crusade to unionize the Chicago teachers. She too addressed the NEA convention along with Aaron Gove. Her talk was different. Haley spoke about the need to organize to save democracy in America. The conditions of teachers throughout the nation were as undemocratic as the subordination of factory workers, an-

nounced Haley. They are underpaid, untenured for the most part, overworked and have little say about their work. Teachers had become "automatons and mere factory workers."⁴² She quoted John Dewey's remarks decrying the fact that no "official and constitutional provision" existed for teachers to participate in discussions involving the nature of their own teaching. It was a good speech. Margaret had mentioned democracy and Dewey, salaries, tenure, and hours of work. She had, in effect, framed the issues unions would be concerned with from 1904 to the present.

Margaret Haley's battle for Chicago's teachers was a fight for better treatment of women teachers. In 1885 women teachers outnumbered men ten to one.⁴³ In 1905 the NEA released a study indicating only 2 percent of all elementary teachers were male. By 1920 86 percent of all teachers were female. Women teachers were white collar workers. Haley intended to empower against their employers, the superintendents and school boards. Haley and her sisters in the struggle to unionize, most notably Catherine Goggin and Ella Flagg Young, set out to wrench from the men a bit of democracy in the form of equal pay and benefits and some say in the performance of their jobs. In ways they got what they asked for and little more. Few superintendents would ever deliver the Gove type address again to teachers in any city. Even the conservative NEA gave its presidency to a woman every other year. By 1925 79 percent of women teachers were being paid on an equivalent basis to men. In 1904 the percentage had been a mere 18. The unions were making progress. The progress,

however, was in part, a way for the bureaucratically organized system to socialize teachers into their places within the system. Equal pay, tenure, pension plans, even the improvement of working conditions for teachers did little to alter the basic organizational structure of the school systems themselves. Margaret Haley, clearly a courageous "lady labor plugger" and her fellow union crusaders were hardly different from Horace Mann or Henry Barnard. Unions and common schools seemed to have strengthened the notions of bureaucracy by adding more of what Max Weber described as administrative regulations, levels of graded authority, written documents, and emphasis on expert training. The connections between bureaucracy and unionization are most apparent in the written contracts teachers have today. A look at a sample contract shows how the educational bureaucracy has actually socialized teachers into believing that teachers unions have changed the way schools are run. A closer look reveals how teachers have been coopted by the system, with some help from their unions, into a rearranging of the furniture of bureaucracy with no serious attempt to check to see if the house was in need of more substantive repair work. What contracts discuss reveal what teachers have come to understand and believe are critical issues relating to their work. Like the regulations governing state certification the language of the contract tells us what it means to be a teacher, especially a union teacher, in this country. The particular contract referred to in this section is the "Negotiated Contract" of the Amherst-Pelham Teachers Association and the Amherst and Pelham, Massachusetts, School Committees. The Amherst

Teachers Association is an affiliate of the Massachusetts Teachers Association and the National Education Association.

The contract begins with an acknowledgment of "our common purpose," to provide "a high quality educational program at reasonable cost." Teachers, administrators, school boards and taxpayers are obviously considered by such a purpose. The contract continues with, lest teachers forget, the school district's hierarchy. The parties to the contract "declare" that the Superintendent "implements the policies established by the Committee" [school committee]. Eighty years of unionization and the arrangement is virtually untouched. Policy is made by school committees, handed down to superintendents and "the professional staff"⁴³ implements it.

Teachers are referred to in this section delineating the hierarchy as "professional staff." They are to provide "effective instruction" in the classroom. The next section is interesting. Fulfillment of that responsibility "can best be achieved through consultations and frank exchange of views and information among the various members of the hierarchy. It goes on to list what the nature of the exchange should be. The parties involved should discuss "policies related to wages, hours, and other conditions of employment."⁴⁴

Margaret Haley has made her mark. More importantly, someone has figured out how to connect wages and hours to effective instruction. At the very least, if and when the teachers, supers, and school committees talk, we know the agenda.

Article 10 of the contract is "Responsibilities and Duties" of

the professional staff, sometimes called teachers. There are two main categories in this section. The first is "Professional Conduct," which is the Code of Ethics prescribed for all teachers. It is an Appendix to the contract. Section B describes "general duties." The section is a real tribute to the ability of the unions to have banished forever the autocratic rhetoric of the superintendents of the early 1900s and replaced it with the professional rhetoric of bureaucracy--a polite bureaucracy at that.

Teachers are "expected to attend all duly called meetings" of the system, the school, and the department in which they teach. They are expected "to cooperate" with department heads who are also above them in the hierarchy. Elementary teachers are also expected to "cooperate actively" in implementing the recommendations of "curriculum committees." These committees are obviously somewhat higher in the hierarchy than teachers. Finally, all teachers shall "cooperate with administrative officers."⁴⁵ Presumably, that means the local principal and vice principal.

Teachers represented by this negotiated contract seem to do a lot of cooperating with many bosses. The language of the union approved contract cements the teacher firmly at the bottom of the hierarchy.

The contract contains an article on "conditions of employment." The article describes working hours, class size and lunch. Working hours is an interesting paragraph. The first sentence extends some professional deference to the teacher. As a "member of a professional team" the teacher "judges" when his work day is done. However, "all

teachers are expected to work (7) hours, exclusive of a lunch period." A "working day is defined"⁴⁶ in effect by when school opens in the morning and when a teacher leaves the building. As a professional team member no teacher would presume to arrive at school at ten because he or she decided he would leave at five on a particular day. The point is again the pretense of professionalism the union is satisfied with. The teacher gets to decide when to go home--big deal!

Two sentences end the discussion of class size. Staff are "consulted" if they are likely to have over 25 students. If a teacher has a class of more than 25 and doesn't like it, he or she can appeal the decision to the superintendent. Read carefully, these two sentences say that even after a teacher objects to having thirty seven-year-olds in one class, the superintendent may decide to override his or her objections and retain that class size. Consultation is not decision-making.

Lunch periods get one long sentence. The good news is that teachers may have one, duty free. It will be thirty minutes long, sometime between ten and one-thirty.

One more interesting aside, teachers who have been in the system for some time are referred to as veteran teachers. One of the union's original promises back in 1904 was to eliminate military language from conversations about teaching!

There are three more sections to the conditions of employment article. Section E discusses when a teacher earns extra money for attending meetings or teaching beyond the regular hours. There is

another section on tutoring, which essentially forbids the teacher to tutor for pay his or her own students. Finally, it is the teacher's duty to report any physical assaults while at school to the Superintendent. A teacher can also report the matter to the police. The contract stipulates the first notice should go to the teacher's immediate superior, then to the superintendent.

That ends the description of the conditions which are important enough to be part of the contract. Basically, the article defines the working day, guarantees a lunch period, sets a changeable number of students a teacher may teach, says what a teacher cannot do after school hours (tutor for money), and encourages the teacher to report physical assaults while on duty. With a little imagination, an argument can be made that these conditions could describe the working conditions in any large factory. Most factories set the hours of work for employees, give them a specified time for lunch, speak to issues of safety on the job, and often refer to earning money after hours with the pejorative term "moonlighting." In ways this contract treats the teacher's work in the same way as a factory owner thinks about his employees.

The important parts of a teacher's working conditions have little to do with instruction. If we take the contract seriously, the important working conditions have everything to do with running the system. Hours are set. Class sizes are decided. Even lunch is scheduled. What a teacher does on his or her own time seems to be a legitimate concern to the negotiators. The seemingly benign procedure for re-

porting assaults is designed to protect the system in case of litigation. The teacher reports to the superintendent or principal before the police. One assumes, if necessary, he or she first takes care of any medical needs. The union may have helped the teachers to get improved working conditions. Class sizes are certainly smaller than they ever have been. The mistake is to miss what the union failed to do. It failed or never made any serious attempt to challenge the notion that teachers are simply smaller bureaucrats within a larger bureaucratic system. For a contract to discuss a teacher's working conditions in terms of hours, class size, extra money and reporting procedure (numbers and regulations) merely capitulates to the needs of the system. It is the system which benefits from these working conditions. The teachers reap their rewards as part of that system.

There is one section of the union negotiated contract which does appear to address the nature of the teacher's work in the classroom. It is contained in an article on "Assignments and Transfers." Teaching assignments are made by the Superintendent. Principals assign teaching duties. In secondary schools Department Heads may recommend a teacher teach a particular subject area. The principal has the final say, however.

Secondary teachers, customarily thought to be well-trained in their respective subject area, are directed and supervised by department heads. According to contract this is serious supervision. The department head supervises the "courses taught and details of course substance." If there is no department head, the principal assumes

the supervision of the teacher. The obvious question is what if the teacher knows more about European history than either of the possible supervisors. The contract does not address that possibility. Rather, it seems to assume either then tension will never exist or somehow if it does, it will get resolved. Most teachers know how these disputes get settled. The teacher is in no position to demand much of anything, even in his or her own area of expertise. You can be an expert in a bureaucracy and still be at the bottom of the hierarchy. There's not much power at the bottom.

The section ends with the veiled promise that teachers will know where and what they will be going to teach the following school year before they leave for the summer. Whenever possible this promise is kept. If subsequent adjustments have to be made, the agreement is off. A tricky promise, at best!

I have, of course, selected sections of the Amherst contract for discussion here. No doubt negotiators have worked long and hard to improve the salary schedule and general working conditions for teachers. We know class size is down, salaries are up, hours are less (in 1911 a teacher worked 8 hours). How much of that is due to the work of unionizers is difficult to determine. Some definitely is. The point is not the effectiveness of unions but what unionization has meant to teaching. Using a sample union negotiated contract, I have tried to show how unions have failed on the larger issues by focusing on these issues which affect the operation of the system more than they affect the actual work of teaching. In critical ways, the bur-

eaucracy and its needs have determined the categories to be discussed at contract negotiations. The teachers have responsibilities and duties while the school board, superintendent and principal assign, transfer, evaluate, promote and make decisions. The school hierarchy is untouched in the language of the contract. On the contrary, it is reinforced.

An examination of a teacher's contract should tell the examiner something about what the parties think is important enough to negotiate about. The Amherst contract indicates almost on the first page that hierarchy is important. It goes on to connect effective instruction with having "frank exchanges of views and information" among the members of the hierarchy. These exchanges, according to contract, are about wages, hours, and conditions of employment (class size, lunch, assaults, tutoring). Obviously, the parties have agreed that these topics are important. The question is: important for what? Are teachers better teachers because their contracts talk about such things? It seems to me these issues are important for the smooth operation of the system itself. Clearly, the teaches benefit from having smaller classes and lunch periods. But if effective instruction is what we are after here, the correlation between what the parties to the contract are willing to discuss and good teaching has yet to be made. In fact, teaching is not really discussed at all. The position of the teacher is discussed. In a bureaucracy position and not the nature of the work is important. The unions have done very little for teaching. In fact, they have helped conceptualize

teaching in some very unhelpful ways. Teaching is not about wages, hours, and general conditions of employment. The operation of the bureaucracy is about those things. We have learned to cooperate with a powerful system. We are still learning what the price is.

Bureaucracy and Teaching Thinking

This chapter has been about American schools and bureaucracy. I looked at the why of bureaucracy by tracing the preconditions of urban industrial America. The Common School Movement, with its promise to control and socialize the new city population, was a big part of the preconditioning for bureaucracy. The reformers push to centralize school authority, standardize teacher training and classroom instruction added momentum to the bureaucratic tendency of the newly organized school system. Bureaucracy was the most efficient means of accomplishing the reformers' goals. Social order would be secure and a new centralized and standardized system would be in place.

As the reality of bureaucracy in the schools became more and more evident around the turn of the century, teaching received some interesting and different definitions. In terms of teaching thinking it is important to mention the changes. The state became the certifying agency for teachers. As a result, the state maintains the right to define what makes a person capable of doing the work of teaching. We saw some of the requirements of the state of Massachusetts. Teaching is discussed in terms of credits and competencies, hours and skills.

The state's common standards reduce teaching to giving good explanations and directions, and using the inquiry method with students. For some of the fifty-two area of certification the state sanctions the use of particular theories and methodology. Cognitive development and logic is important for early childhood teachers, while scientific method is standard fare for the social studies teachers. The state, as part of the bureaucratic structure of public schooling, has the authority to regulate what a teacher learns in order to become a teacher and what a teacher teaches in order to be effective within the system defined meaning of teaching. Teaching is what the state needs it to be to operate a successful system. The teacher is regulated into being a giver of information and an advocate of the inquiry method of learning. Obviously, not all teachers take the state seriously. Some other kinds of teaching takes place in Massachusetts. The point is we can locate, because of the state's bureaucratic hold on public schooling, an officially sanctioned version of what it means to teach. As far as I can tell, the state makes no overt attempts to give its blessing to the kind of teaching necessary to help students practice non-cognitive thinking. The system needs teachers who adhere to the regulations. The regulations give priority to cognition, logic, inquiry and the scientific method. The state certifies teachers to do the teaching of those things. For the state and for certified teachers, teaching becomes cognitive, logic, inquiry, and the scientific method. The state presents serious obstacles to the teaching of non-cognitive thinking. Bureaucracy can and does function

quite well without it.

The last section of this chapter examines the connections between bureaucracy, unionization and teaching. The emphasis is on the power the school bureaucracy wields over even supposedly strong teachers unions. A sample teacher contract was used to underscore the point. A union negotiated contract, when studied carefully, reflects the existence of a school hierarchy with teachers at the bottom, followed by students and perhaps clerical, janitorial and cafeteria help. Teachers are urged to cooperate with those in positions of more authority than themselves. The contract, like the certification regulations, defines teaching in ways which serve the needs of the bureaucracy. The parties to the contract are free to discuss how teachers can be effective instructors. The contract, approved by the union, agrees that these discussions will be about hours, wages, and conditions of employment, which amounts to class size, lunch periods, reporting physical assaults, and tutoring students for pay after school hours. Evidently all parties agreed to those categories since the contract has been ratified and is presently in effect.

The teachers union, at least as evidenced in the sample contract referred to, was unable to substantially check the power of the bureaucracy. The question is: who benefits from discussions around issues of hours, wages and conditions of employment? The organization, to operate smoothly, need clarification of those areas at least as much as teachers. Teachers could probably teach without having written regulations about when to start and end the day, and when to have

lunch. The system most likely could not function without those same regulations. The union, in ways, serves both the managers and the managed.

It is important to understand that teachers' contracts reflect something about what it means to teach. The categories mentioned above are equated with effective instruction. The contract implies that part of being an effective instructor means working a set amount of hours, being on time, and obeying superintendents, principals, department heads, and curriculum committees. It means accepting teaching assignments and transfers. It means cooperating and consulting and then implementing whatever final decisions are made at the upper levels of the hierarchy.

The unions have clearly had an impact on teaching. They have solidified the teacher's place at the bottom of the hierarchy and helped to conceptualize teaching as little more than work done for wages. Again the question is, who benefits from that kind of definition? Is teaching helped by conceptualizing it in terms of hours, wages, and working conditions? Do we know more about effective instruction because we can read what a teacher does in his or her contract? I don't think so. I suspect what we begin to understand is something about the power of bureaucracy to define and regulate positions within a system.

The conceptualization of teaching as seen in teacher contracts is a significant obstacle to teaching non-cognitive thinking. Teaching thinking is simply not about hierarchy, hours of work, and wages.

It doesn't fit into any of the approved categories for frank discussions. As we shall see, it depends on such things as friendship and withdrawing from the world in order to reflect and listen to experience and memory. Thinking goes on in a world far different from the one described in the teacher's contract. It would be enormously difficult to negotiate a contract for a person wanting to teach thinking. The person would not understand teaching the way the unions and the school managers understand it. So much of what had been negotiated would be at best irrelevant, and at worse really harmful.

There is little use in denying the need to organize public schooling in this nation. Bureaucracy has helped the country educate vast numbers of people. Some of them have accomplished wonderful things for their fellow men and women. That is not the argument. That is the agreement. The argument is that as a nation, but more importantly as individuals, we have had to pay a price for the new huge machine we call public education. Part of the price is what has happened to teaching. Bureaucracy clearly tolerates the activity of teaching but it superimposes upon the activity definitions which suit its purposes. It grabs up teachers in its powerful and far-reaching tentacles and teaching becomes a part of its anatomy. The essential relationship between student and teacher, which really is teaching, is somehow squeezed out of the catch. One can teach students to think, even when part of a bureaucratically run school, but the hard part is doing it without what was lost in the squeeze.

CHAPTER III FOOTNOTES

¹Joseph A. Scimecca, Education and Society (New York: Holt, Rinehart and Winston, 1980), p. 24.

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³David Nasaw, Schooled to Order (New York: Oxford University Press, 1979), p. 34.

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⁵David B. Tyack, The One Best System (Cambridge: Harvard University Press, 1974), p. 17.

⁶Ibid., p. 15.

⁷H.H. Gerth and C. Wright Mills, From Max Weber (New York: Oxford University Press, 1958), p. 15.

⁸David Schuman, Bureaucracies, Organizations and Administration (New York: Macmillan Publishing Co., Inc., 1976), p. 55.

⁹Nasaw, Schooled to Order, p. 16.

¹⁰Louis Hartz, The Liberal Tradition in America (New York: Harcourt Brace Jovanovich, 1955), pp. 89, 108.

¹¹Nasaw, Schooled to Order, p. 49.

¹²Tyack, The One Best System, pp. 30, 31.

¹³Nasaw, Schooled to Order, p. 31.

¹⁴Nasaw, Schooled to Order, p. 15.

¹⁵Ellwood P. Cubberly, Public Education in the United States (Boston: The Riverside Press, 1934), p. 149.

¹⁶Theodore Rawson Crane, ed., The Dimensions of American Education (Reading, Massachusetts: Addison-Wesley Publishing Company, 1974), p. 40.

¹⁷Ibid., p. 45.

¹⁸Nasaw, Schooled to Order, p. 38.

- ¹⁹Ibid., p. 45.
- ²⁰Tyack, The One Best System, p. 74.
- ²¹Ibid., p. 34.
- ²²Ibid., pp. 35, 36.
- ²³Ibid., pp. 82, 85.
- ²⁴Ibid., pp. 45, 48.
- ²⁵Ibid., pp. 49, 51.
- ²⁶Nasaw, Schooled to Order, pp. 60, 61.
- ²⁷Tyack, The One Best System, p. 59.
- ²⁸Ibid., p. 58.
- ²⁹Ibid., p. 93.
- ³⁰Scimecca, Education and Society, p. 65.
- ³¹James D. Koerner, The Miseducation of American Teachers (Boston: Houghton Mifflin Company, 1963), p. 25.
- ³²Scimecca, Education and Society, p. 65.
- ³³Massachusetts, Certification of Educational Personnel, p. 17.
- ³⁴Ibid., pp. 38, 41, 48.
- ³⁵Ibid., p. 21.
- ³⁶Ibid., p. 19.
- ³⁷Ibid., p. 3.
- ³⁸Tyack, The One Best System, p. 200.
- ³⁹Scimecca, Education and Society, p. 183.
- ⁴⁰Tyack, The One Best System, p. 257.
- ⁴¹Ibid., p. 257.
- ⁴²Nasaw, Schooled to Order, p. 143.

⁴³Tyack, The One Best System, p. 61.

⁴⁴Amherst-Pelham Teachers Association, Negotiated Contract
(Amherst: Amherst-Pelham Teachers Association, 1983), preamble.

⁴⁵Ibid., article 1.

⁴⁶Ibid., article 10, p. 9.

⁴⁷Ibid., article 11, section B, p. 11.

CHAPTER IV
TEACHING THINKING IN PUBLIC SCHOOLS

Acceptable to everyone as an element of the teaching-learning process, thinking is perhaps alone in its exalted position. Some educators consider thinking the ultimate end of all teaching.

Burleigh C. Wellington

Chapter II ended with the question, is there thinking after bureaucracy. The next chapter laid the groundwork for the answer. Teaching thinking in schools organized as bureaucracies will be, at best, a difficult task. Bureaucracies function best when individuals understand what is expected from them as occupants of certain hierarchical positions. The school bureaucracy does not expect teachers, as subordinates, to teach or practice a type of thinking which questions the established order or challenges the assumptions behind the standard way of doing things. Teachers are literally in no position to do that kind of teaching. The groundwork, in effect, suggests that in a bureaucracy, Hannah Arendt's non-cognitive thinking is on shaky ground.

It would be a mistake to assume that public schools are not concerned with teaching thinking. There is little argument concerning the importance of thinking in our schools. Hans Furth, maybe a bit dramatically, points out: "Who could not be in favor of thinking? This is like asking whether you favor motherhood or mental health."¹

His point is well taken. Just imagine what would happen if the

National Education Association refused to endorse the teaching of thinking in American schools as one of the goals of education! Most Americans would be horrified at the thought. Somehow we have grown comfortable with the notion that we ought to be teaching students to think.

For my purposes the question is not whether we should be teaching thinking, or even if we are doing a good job with what we do now to teach students to think. My assumptions are that thinking belongs in schools and that we probably do some good teaching of it right now. The question which interests me is what kind of thinking are we teaching in our schools? What do we mean when we say that we are in favor of thinking?

One need only read the literature on learning theory and educational philosophy to begin to find the answer. From a learning theorist we hear: "the most exalted of all the psychological functions is the thinking out of the solutions to problems."² And from John S. Brubacker's study of modern educational philosophers we find: "Indeed so important is training in problem-solving that many advocate the problem method where answers are already well known in advance."³

What the learning theorists and the educational philosophers mean by thinking seems to have something to do with problem solving and problem solving seems to be what teachers are expected to do to teach thinking. Obviously solving problems is an important part of a student's educational experience. Learning how to figure out solutions is a worthwhile process. The argument will be made that this method

does not go far enough in terms of teaching non-cognitive thinking. Problem solving, like the scientific method, keeps the learner locked into a particular way of using knowledge. The pattern does not always result in thinking.

In this chapter I will look at two important forces which have affected the way schools go about teaching thinking. The two I have selected are science and psychology. To understand how science has influenced the teaching of thinking I have chosen to examine the epistemology of John Dewey as well as his work concerning the nature of thinking and its place in public schools. For the psychological piece of the picture, I have selected Jean Piaget, a developmental psychologist and major contributor to learning theories designed to increase cognitive abilities in children. Together, these men and their work provide valuable insights into the nature of what is done in schools to teach thinking as well as some understanding of why it is done.

The why part of the problem is discussed in the first few pages of the chapter. A brief review of some of the school conditions in America at the turn of the century is helpful as a starting place. It is important to know what John Dewey and his fellow progressives were reacting against. Although Piaget was certainly not responding to the same environment, he obviously shared Dewey's belief that active learners are better off than robotized ones. In ways, both men could have shared a similar distrust of the school bureaucracy's tendency toward standardized curriculum and inert subject matter. It

is helpful to remind ourselves of the historical fact that such classrooms existed and Dewey was clearly right in questioning their educational soundness.

The next section examines the nature of Dewey's epistemology. There are problems with Dewey's knowledge claims. There is, of course, his liberalism, which compelled him to figure out a system which would promote the uniformity needed in a liberal world. Another consideration is Dewey's narrow interpretation of science as basically the use of the scientific method. Both his liberalism and his understanding of the nature of science clearly influenced what he recommended for use in the schools. Unable to seriously challenge the bureaucratic organization of the schools, or the legacy of the common school reformers' use of the schools as restorers of social order, Dewey simply offered American education new methods of instruction and new subject matter. His was a reform of technique.

Finally, I examine John Dewey's work on the nature of thinking and his vision of how schools should teach the thinking activity. Again, it is important to note Dewey's liberal concerns about what thinking in the schools would eventually mean for society. This section points out how Dewey was almost forced by his own epistemology to view thinking in a very narrow and limited sense. Once thinking is equated with scientific method, thinking becomes the end result of the five logical steps of the method. If thinking were scientific method, there would be no problem. Even Dewey's system does not make it so. Thinking is more and different from testing and observing.

There is the entire area of non-cognitive thinking which Dewey's epistemology fails to consider. It is a serious failure which must be acknowledged in order to understand how thinking is taught today and why non-cognitive thinking faces an uphill battle for a place in the public schools.

The second half of the chapter looks at the work of Jean Piaget. Piaget had, and continues to have, an enormous influence on teaching in this country. His theory concerning the cognitive development of children is often used as a basis for constructing curriculum. Piaget developed a theory about how a child's thinking ability matures. The theory represents a definite perspective on the thinking activity. In ways, Piaget is as helpful as Dewey in terms of advocating that learners become actively involved in learning. Piaget also shares certain limitations in terms of what his theory is not able to do or tell us about thinking. The limitations of Piaget are examined in order to be clear about the limitations of cognitive theory in relation to teaching thinking. It may be helpful to know the difference between developmental stages in children, but once that knowledge is obtained, can we then assume that we help a child's thinking ability to develop by moving him or her through subsequent stages? Where does developmental theory stop being helpful? Do we know more about teaching thinking because we know developmental theory? What happens to our notions about thinking when we examine it through the eyes of a psychologist? These questions guide the section on Piaget and complete the answer to the question, what do we do to teach thinking in the schools? The

works of Dewey and Piaget are important pieces to the puzzle.

Toeing the Line in the Reformed Schools

As mentioned in the previous chapter, the Common School Movement, especially during the later decades of the 1800s, brought substantial organizational changes to the public school system. Schools became bureaucratically organized as a way to deal with the growing need to socialize the new urban population. Reformers targeted the public schools as one vehicle for homogenizing what seemed to be a population on the verge of being out of control. Public order seemed to demand an ordered public school system.

Students and teachers were directly affected by the impulse to organize the schools. Some of these effects have already been discussed. In terms of what people like John Dewey were responding to, it seems necessary to review briefly some of the conditions facing both teachers and students in the reformed schools. Not only were Dewey and other progressive reformers aware of these conditions, at least Dewey had some rather peculiar responses to the problem. Unfortunately, his response to the bureaucratically spawned problems failed to become the focus for his reform proposals. The following is a brief description of the reformed classrooms.

David MacRae described the beginning of a school day in Ward School No. 50, New York City, in 1860. Five hundred children listened in silence to the principal conduct the object lesson of the

day. The principal asked the students what they would do when they saw an object. MacRae reported the children answered in unison: "We are to think of its qualities, parts, uses, colours, and form." When the principal had completed the opening session, the pupils "rose and moved off with military precision to their various recitation rooms."⁴

Recitation rooms prevailed into the late 1800s. Teachers would give a problem, for example, in arithmetic, and students would immediately figure out the answer on their slates. Normal procedure was to have the first student finished recite his calculation to the class. Silence prevailed throughout the classroom.

In 1890 Joseph Rice visited hundreds of city classrooms. His description of what it meant to "toe the line" summarizes nicely the state of the reformed classrooms. Recitation periods were used to test just how well students were memorizing their lessons. Recitation rooms had actual lines which a student had to approach to recite his lesson. Rice found that the students had to: "stand on the line, perfectly motionless, their bodies erect, their knees and feet together, tips of their shoes touching the edge of a board in the floor"⁵ and recite the text from memory. If they failed to "toe the line" exactly, even if they had memorized the lesson, they were given a failing grade for recitation. Toeing the line was part of learning in the common schools. There are countless horror stories of students marching from one part of school to another, of long hours of sitting perfectly still in uncomfortable chairs, of students

reciting in unison and individually lists of facts they were required to memorize. In short, the reformed schools turned out to be very rigid and dull places.

Clearly, part of the problem was numbers. The reformers wanted every white child in school. How else were the schools to control and socialize the masses? There was one school in New York City which accommodated, in the same building, a primary department of 1,309 children, a boys department of 507, and a girls department of 461. Some kind of control was obviously needed in such crowded conditions.

Part of the problem had to do with the reformers' belief in the efficacy of standardization. If all the students could learn the same things in the same way, wonderful things would happen. The social fabric of society would be salvaged. The masses would be controlled and the children would learn the traits needed to participate in the life of this newly urbanized and industrialized nation.

There were, of course, the dissenters like Joseph Rice, who were truly dismayed at what passed for learning in the reformed schools. At the turn of the century in Chicago, a movement to humanize the schools began. Francis Parker began training teachers in 1896 in techniques which would use the students' natural curiosity as a basis for instruction. John Dewey began his famous Laboratory School at the University of Chicago. These schools were part of a larger movement often described as the progressive movement in education. This attempt to reform the schools, like the common school movement, had its leaders and purposes. Both controlled some of what the movement would

accomplish. However, in significant ways, the school organization itself controlled the movement. One way to understand the power of the school bureaucracy is to look at John Dewey's contribution to the formation of a new education. In certain respects, Dewey was unable to challenge the organizational and administrative problems contributing to the pitiful classroom conditions in the urban schools. We shall soon see that it was not ignorance of those factors which prevented Dewey from focusing on organizational issues.

John Dewey and the Reformed Schools

John Dewey recognized the problems with the rigid and dull reformed schools. He was also well aware of the organizational impact of bureaucracy on public schooling. In 1902 Dewey stated: "It is easy to fall into the habit of regarding the mechanics of school organization and administration as something comparatively external and indifferent to educational purposes." He believed such a habit to be dangerous since the organization and administration of a school "really controls the whole system,"⁶ thereby seriously affecting what the child does in the classroom.

Dewey also understood what had happened to teachers as a result of the school hierarchy which placed them at the bottom of the system. Teachers were substantially removed from critical decisions concerning their work. Dewey saw the problem and realized both the roots and the extent of the dilemma. He remarked that he had failed to discover,

a single public school system in the United States where there is official and constitutional provision made for submitting questions of methods of discipline and teaching . . . to the discussion of those actually engaged in the work of teaching.⁷

Dewey apparently lamented the teachers' loss of voice within the newly organized system. There was, it seems, a remarkable amount of silence at the bottom of the hierarchy and Dewey knew it. He did not choose to address that issue as part of his reform.

Dewey understood the consequences of bureaucracy in the schools. He realized what the reform had accomplished in the schools. In 1922 Dewey predicted that testing and classifying students would serve only to perpetuate the present order. He had, so to speak, put his finger on the problem. The common school movement was meant to preserve the social order.

John Dewey had figured out how the bureaucratization of education was affecting students and teachers. Unfortunately, he either failed to keep that focus in mind, or he understood and/or feared the enormity of the organizational dilemma facing the public school system. Whatever his reasons, John Dewey decided to create a focus of his own rather than confront what he knew to be the more significant issues facing the schools.

To understand what Dewey selected as his reform issue, we can begin with the opening up of the John Dewey Laboratory School (1896-1904) in Chicago. Dewey was clear about the purposes his school was designed to serve. The lab school would serve scientific ends. Re-

search had come to education. The school would be organized "especially for the purpose of scientific investigation and research into the problems connected with the psychology and sociology of education." The school would "further the application of scientific concepts and methods to the conduct of school work."⁸ Dewey had obviously decided what he would spend his energies on: he would investigate the connections between scientific concepts and teaching and learning. Teachers were brought to the lab school to learn how to use the child's natural curiosity as a basis for instruction. Instruction would be based on science and the methods used by scientists in their work. The focus for Dewey was firmly set. He would concentrate his efforts on improving instruction by introducing science and the scientific method into the public school systems. The organization which Dewey knew to be really controlling the whole system was not to be his primary concern. Dewey had decided to leave the bureaucracy alone.

Many of Dewey's ideas for improving the public schools were in fact vast improvements over the "toeing the line" recitation rooms. Students actively engaged in various projects were considerably better off from children marching into dull and lifeless classrooms. There are, however, some points to recall about the nature of Dewey's epistemology and the extent to which his own liberalism influenced his proscriptions for the schools. If Dewey's work was simply a passing education innovation, the points might not be important. His importance to contemporary students is unmistakable.

John Dewey and American Education Today

In a special section of the Sunday edition of the New York Times, January 9, 1983, entitled, "Teaching to Think: A New Emphasis," the new emphasis is described as teaching students the skills of analysis, synthesis, and making generalizations based on gathered evidence. Obviously, we don't look to newspapers, even the Times, for educational leadership, but it is significant that it reports as new, much of what John Dewey recommended for the schools back in the early 1900s. The report indicates our "leading educators and curriculum developers"⁹ are concerned that students are not taught problem solving skills.

Bernard H. McKenna, program development specialist for the National Education Association, endorsed the report's recommendation that schools teach what could only be characterized as Dewey's scientific method. McKenna reminds us in 1983 that "thinking skills come into play if the student takes information and classifies it, compares it, makes inferences, draws conclusions and formulates hypotheses about it."¹⁰ Although McKenna may have forgotten the exact order Dewey described as the scientific method, he has the general idea Dewey outlined more than seventy years ago.

Finally, there are books written still extolling the virtues of "systematic inquiry and its products." Eugene Meehan in 1981 published his version of Dewey's epistemology and method, Reasoned Argument in the Social Sciences. Meehan reflects Dewey's assumptions

that people learn from experience, adapt behavior accordingly, and self-correct when necessary. Knowledge, according to Meehan, evolves from trial and error, and "application and observation of consequences." The human condition is constantly improved by such a system, in Meehan's view. Of course, not every launch is fertile and productive, leading to improvements" but every attempt to modify existing conditions creates "another launching pad for further experiments."¹¹ Apparently, the ability to self-correct never ends. More experiments are always possible! Although Dewey would not have used the launching pad metaphor, I suspect he would have liked it. Meehan's system bears more than a close resemblance to Dewey's epistemology. The links will become increasingly obvious.

Dewey's influence, then, cannot be dismissed. In our own decade, educators still write of the need to teach the scientific method to students in order to help them acquire thinking skills. Scholars like Meehan continue to produce books detailing the value of systematic inquiry. In the last chapter, we saw that even state regulations governing teacher certification allude to the necessity of teaching inquiry skills and developing the logical ability of students. There is ample evidence to support the contention that education is still heavily influenced by science, scientific method and John Dewey. The evidence suggests we go back and look at exactly what Dewey meant when he urged American schools to adopt a more scientific content and approach toward instruction.

Science, the Scientific Method and Dewey

It was clear from Dewey's words that he understood the schools suffered from problems with the whole system. He knew that students were directly affected by the bureaucracy which separated teachers from critical decisions about their work. He also objected to the standardization of instruction and the continual classifying and testing of students. Unfortunately, he chose to focus his response in another direction. As a good liberal he could not attack the basic structures of the system, but rather suggested some new techniques and methodologies for use in the schools. Science and the scientific method were his hope for the schools.

It is helpful to be clear about what Dewey meant by science and the scientific method. Science, for Dewey, was the knowledge gained from methods of observing, reflection, and testing. The method was, of course, scientific by definition. More will be said about the method as it is related to thinking later. At this point, it is important to note that the scientific method as Dewey understood it, required some kind of problem, suggestions of solutions, testing and observing the possible solutions, and finally accepting or rejecting the solutions.

The knowledge gained by using the scientific method was, to use Meehan's phrase, self-correcting. Dewey assumed that if "current beliefs" were in need of revision, his system would help an individual "weed out what is erroneous . . . add accuracy and shape new be-

lief."¹² The new beliefs would have been formed from facts gathered throughout the process of observing and testing.

Science and its method could, as Dewey defined them, create knowledge which would "change the environment." Not just the individual's environment. Dewey believed that science would lead to "social progress" and to new "possibilities of action."¹³ His hope for science came partly from his own historical context and partly from his liberalism.

Dewey was impressed by the "wonderful transformation of production and distribution known as the industrial revolution." Science had discovered the "secrets of nature" and produced a "great crop of inventions." Although Dewey realized that most of the progress associated with the industrial revolution was, in his words, "only technical" he believed that an "educational use of science" would bring about an elimination of "evils once thought inevitable."¹⁴

Science in the schools would create an intelligence in individuals which would convince them that they could direct the future. After all, if man could invent steamboats and telegraphs, he could also eliminate disease and poverty. Dewey saw no problem with using the scientific method in virtually every area of concern to mankind. The schools would teach us how to use science to direct human affairs regardless of the nature of the affair.

Dewey's social context obviously gave him reasons to believe in the power of science. His liberalism helped him figure out the specifics of the educational uses science would serve. To understand

how Dewey's liberalism directed his program for the schools, we have to examine how Dewey envisioned science in the schools.

Dewey and Occupations as Curriculum

Not all of the transformations brought about by the industrial revolution were wonderful. Dewey was well aware of the not wonderful. He knew of the "evils endured . . . in industrial occupations." His response was perfectly in line with the liberal reformers who preceded him, and those who came after. Horace Mann saw the schools as excellent vehicles for socializing the masses into hard working and morally responsible citizens. Dewey believed the "mass of mankind" could learn the "scientific content and social value" of occupations and thus become hard working, morally responsible, and enlightened citizens. The liberal focus was on adapting the individual to existing conditions. Dewey was giving the masses a new perspective with which to view the "evils endured."¹⁵ In reality, the perspective was as old as liberalism itself. The schools would perpetuate the liberal belief that we are all of the same estate.

The problem for Dewey was how to use science, a generally revered discipline, to bring about a new perspective on industrial occupations. It was never his intention for "the mass of pupils to become scientific specialists." The important thing was that they get "some insight into the scientific method." Dewey wanted the schools to teach students how to discover the connections between

scientific methods and industrial occupations. If he could figure out how to accomplish that kind of instruction, students would learn the evils endured in certain kinds of employment had little to do with the work itself. Future workers would march off to work convinced that they were contributing to the advancement of society. They had learned that despite the poor conditions surrounding their work, these occupations were "intrinsically valuable and . . . truly liberalizing."¹⁶ Essentially, Dewey's approach would give future workers a new, liberal perspective on their jobs. If workers had to suffer, it was the price paid for taking part in the experiments needed to advance the cause of progress. According to Meehan, not all launches are productive, but all are necessary in a self-correcting system. Some evils have to be endured while the system tests, observes, and restructures.

To make the scientific method available for the masses, Dewey urged the schools to teach students "the scientific way of treating the familiar material of ordinary experience." Subject matter would come from "men's fundamental common concerns . . . food, shelter, clothing, household furnishings, and the appliances connected with production, exchange, and consumption." Activities would include "gardening, weaving, wood construction, manipulation of metals, cooking, etc." Students would learn how certain occupations evolved throughout the course of history and how they fit into the "present social organization." Dewey believed students needed to learn how certain activities were the result of experimental methods. As a

result, they would understand that most occupations were based on scientific principles. By bringing into the schools, as legitimate subject matter, ordinary experiences and everyday occupations, and urging that students learn the scientific principles governing these things, Dewey was creating the "common subject matter" necessary for a "unity of outlook"¹⁷ so necessary to the liberal vision.

In Dewey's school all students would learn the scientific method and how it was used to create tools and occupations throughout the ages and even to the present day. Children would learn how to find the value in existing circumstances. Said differently, the scientific method could be a useful tool for preserving and maintaining the existing social order. The method was as inherently standard as the classifying and testing of students Dewey deplored. His liberal believe in what Hartz described as community based on uniformity had blinded his vision. He failed to go beyond his own liberalism. The scientific method was simply a new liberal technique which was never intended to alter the substance of American education. Schools were for homogenizing the population. Dewey had discovered a new way to promote an old ideal.

John Dewey, Science, and Thinking

Dewey was obviously concerned that the schools develop common subject matter. He urged that subject matter be treated scientifically. Students were to learn how various occupations were the re-

sults of the scientific method. If the mass of students would never be scientists, they could at least learn how a scientist thinks. One of the problems with Dewey's theory was, as we have seen, the extent to which his liberalism influenced his conceptualization of the purpose of the scientific method in the schools. Dewey's liberalism will also reappear in the section describing his work on thinking. There is in addition another problem with Dewey's understanding of science and the scientific method. It has direct connections to his thought on thinking and needs clarification.

Dewey used a very narrow understanding of science and the scientific method, at least when he discussed them in relationship to education. We have already noted that Dewey believed science used observation, reflection, and testing to produce knowledge. This knowledge was then used to revise existing beliefs in light of new facts. Science is thus reduced to a process or a technique for acquiring, in a systematic way, facts and knowledge. Science may resemble Dewey's definition, but it is also more and different from what Dewey believed.

Karl R. Popper sees science as beginning "with myths, and with the criticism of myths." He would, of course, disagree with Dewey's notion of teaching how experiments contributed to the development of contemporary tools and occupations. Popper believes science does not begin with a "collection of observations, nor with experiments, but with critical discussion of myths and with magical techniques and practices."¹⁸ It is a different way of looking at science.

Science is not always tied to the scientific method as Dewey described it. The idea of a method implies a certain unbending and unchanging way of doing science. Yet, there are many instances when the methods and its rules are "violated and such violations are not accidental . . . they are necessary for progress."¹⁹ There are stories of physicists who weave theories from their own private speculations. John Archibald Wheeler pictured one gigantic electron "careening back and forth from the ends of time"²⁰ and theorized that the reason all electrons are alike is because there is really only one gigantic one. Wheeler violated the scientific method but was nevertheless a scientist doing scientific thinking.

The point is there are real scientists doing scientific work but who clearly understand the importance of nonscientific ways of figuring things out. They wonder, play with ideas, imagine solutions to perplexities, all in the name of science. They do what Daniel Boorstin described as experience rather than experiment. John Dewey's conception of science and the scientific method left out these possibilities and presented science to the schools in a rather rigid and formalistic way.

One way to understand Dewey's failure to portray science in terms other than formalistic, is to examine his notions about thinking. I will also extend the discussion of his liberalism in this section. Beginning with Dewey's reasons for advocating that schools use the scientific method to teach thinking, it is possible to understand how his narrow conception of science influenced what we will come to see

as a limited view of the thinking activity.

John Dewey's classic statements about the nature of thinking, its place in American schools, and how it can be taught, are contained in his book, How We Think. The preface supplies us with important insights into the origins of Dewey's concern about the subject of thinking.

The Preface tells us that Dewey was seriously concerned that American schools lacked a "steady and centralizing factor to unify the multiplication of studies, materials and principles" existing in the schools. Dewey's solution was to urge that schools adopt "as an end of endeavor that attitude of mind, that habit of thought, which we call scientific." After all, he explained, children naturally possess "the attitude of the scientific mind"²¹ and merely need instruction in how to develop and use this natural ability more fully.

On the practical side, Dewey reasoned, if schools would develop "this scientific attitude of mind" in students, it would further "individual happiness . . . and reduce social waste."²²

Dewey had solved the problem of how to unify, steady, and centralize the schools, make people happy and socially responsible, by simply tapping into what was already in our nature as human beings-- thinking scientifically.

Again we see traces of Dewey's liberalism. The schools needed to be centralized and unified. Schools should teach students to think using the scientific method and the sense of uniformity needed in a liberal society would be achieved. We are also reminded of his fail-

ure to address the organizational issues contributing to the problems in the reformed schools. In fact, Dewey seemed to have been contributing yet another standard method for use in the schools. Students would learn to think using the scientific method.

Maybe Dewey realized what he was advocating for schools to do was, in some respects, as important for the organizational life of American schools as it was for the students' life of the mind. That realization, and this is pure speculation on my part, may account for his use of the phrase reflective thought to describe the kind of thinking his book would be about. Initially, he does not use the term scientific to define the highest form of thinking possible. It is a curious switch from his remarks in the preface to the book.

With Dewey it is necessary to struggle through his definitions in order to understand the meaning of what he is describing. A new word or phrase, here or there, often changes his thought considerably, or at least changes our understanding of what he is thinking. The first definition of thinking, reflective thinking as he called it, follows.

Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the ground that support it, and the further conclusions to which it tends is reflective thinking.²³

In clarifying this definition, Dewey added those important new words and phrases I alluded to. What characterizes reflective thinking? How would we know it if we could see it? Is it the active,

persistent, and careful consideration which makes it reflective? Not quite! Dewey tells us that what characterizes reflective thinking is its search for "evidence, proof, voucher, warrant." Reflective thinking never relies on its "own direct account"²⁴ of something. There is nothing scientific about one's own direct account, apparently. Evidence is everything for the reflective thinker. Scientific is creeping into Dewey's definition.

Although Dewey tells us reflective thinking is the only educative thinking, we are still left with his remarks about scientific thinking in the preface. We did learn, after all, that scientific thinking would save our schools. Dewey needs to alter his definition of reflective thinking to allow the scientific aspect more room. Finally, he delivers the definition of thinking which gets at the heart of what he meant by scientific thinking.

Thinking [is] that operation in which present facts suggest other facts [or truths] in such a way as to induce belief in the latter upon the ground of the former.²⁵

An important new word has been added to the definition. Thinking is about facts, present and future, old and new. Scientists deal with facts to support or deny hypotheses. Or to paraphrase Dewey, new facts are believable, maybe even true, if they either build on, or are connected to, the old facts. Thinking is figuring out if new facts are compatible with the old.

It remains for Dewey to give us a more detailed description of how the mind goes about this fact sorting process in order for us to

fully understand what he means by scientific thinking. Basically, here is his description of the method. The mind experiences,

- (a) a state of perplexity, hesitation or doubt (which brings about)
- (b) an act of search or investigation directed toward bringing to light further facts which serve to corroborate or to nullify the suggested belief.²⁶

At this point we have the skeleton and heart of Dewey's theory of how we think. The heart is science and the skeleton is the scientific method. One of the problems in trying to figure Dewey out is that he is never fond of filling in his skeletons. He will, however, give us more about thinking and how it can be taught if we stay with him a bit longer. Before I sort out those important Dewian notions, I think it is important, given the context of this work, to mention a curious dalliance Dewey has with John Locke and John Stuart Mill.

Dewey used Mill to support his belief that facts are really what concerns the thinking activity. According to Dewey, Mill had stated:

Everyone has daily, hourly, and momentarily [the] need of ascertaining facts . . . facts themselves are of importance . . . judg[ing] evidence and to act accordingly is the only occupation in which the mind never ceases to be engaged.²⁹

Dewey couldn't agree more. The mind is the fact gatherer. But Mill does not say the mind is ceaselessly engaged in thinking. The mind's main occupation is judging. Although the mind is always engaged in the thinking process, because it is meant to be the judge more than the thinker, the mind for Mill is a "mere observer, detached

and impartial."²⁸

When the mind is conceptualized in that way, what seems to be needed is some way of teaching it to recognize or choose what Gary Wills has called the victorious idea. For the liberal, the scientific method seemed to fit the need. Dewey's liberal bias had obviously influenced his own thinking. Dewey had found out why the schools should be teaching the scientific method, and it turns out the reason has much to do with how liberalism sees the nature of the mind. The liberal mind thinks in scientific ways.

John Locke, one of liberalism's important thinkers, had definite ideas about the mind and thinking. Locke warned the mind had "a natural tendency to go astray" and the mind's work, thinking, should be "controlled by education."²⁹ Dewey read Locke and found the justification he needed for his belief that scientific thinking belonged in American schools. Using Mill and Locke, Dewey's push for the teaching of scientific thinking seemed to have the liberal imprint and support so necessary for acceptance in liberal America.

Using Mill and Locke, Dewey made the significant liberal turn in his understanding of the mind, and what kind of thinking, and why it should be taught in American schools. Dewey's scientific thinking insures what Wills has called the "academic market . . . the pretense that real intellectual neutrality can be maintained."³⁰ Scientific thinking demands an intellectual neutrality until all the facts are in. These liberal ideas, apparently no strangers to Dewey, supported and encouraged his faith in the efficacy of scientific thinking for

American schools.

The problem is that something happens to the thinking activity itself once it is defined as scientific and then layered over with liberal notions of intellectual neutrality. Thinking becomes doing science and, for Americans, being liberal.

In a long passage, Dewey describes the business of education, which is perhaps the best example of what I am getting at. The business of education Dewey believed, was to train minds. As he described how that business looked, we see the curious mixture of his faith in science and his liberal bias emerge. What we do not see is what it means to think without the scientific method and without liberalism. We are no closer to understanding thinking, but we do get very clear about what scientific liberal thinking is all about. Dewey's words about the business of education and the training of the mind deserve quoting in full. Education should strive

to cultivate habits of discriminating tested beliefs from mere assertions, guesses, and opinions . . . to develop a lively, sincere, and open-minded preference for conclusions that are properly grounded . . . and to ingrain . . . methods of inquiry and reasoning appropriate to the various problems that present themselves . . . The formation of these habits is the Training of The Mind.³¹

It seems to me Dewey hasn't left out very many scientific or liberal terms in his description of the trained mind. The missing piece, I believe, is how does all this science and liberalism become thinking.

Dewey's Method for Teaching Thinking

Dewey's faith in the scientific method, together with his acceptance of liberal ideas about the mind and the nature of thinking, provided the support necessary for Dewey to tell educators he had found the solution to the problem of a lack of shared objectives. Dewey was saying teach students to think scientifically and our schools will have a common and steadying goal. Dewey knew that his mere recommendation, even if supported by Mill and Locke, would fall on deaf ears if he did not also supply a method for teachers to use. It is time for Dewey to fill in the skeleton of his thinking theory.

Although Dewey hedged a bit before giving a method, claiming good teachers can be trusted to develop their own methods for teaching thinking, he nevertheless equivocated and gave us what he called a general technique. This general technique most concerns this work because, I believe, it has remained a critical component in the teaching of thinking even to this day. It is what we do when we teach thinking.

The method consists of five distinct steps which Dewey refers to as logically distinct. Teaching thinking requires the teacher to guide a student through the following steps: The student must encounter:

- (i) a felt difficulty; (know)
- (ii) its location and definition;

- (iii) suggest possible solutions;
- (iv) development by reasoning of the bearings of the suggestion;
- (v) further observation and experiment leading to its acceptance or rejection: that is, the conclusion of belief or disbelief.³²

The language may be somewhat unfamiliar at first, but most teachers will recognize this method as the scientific or problem-solving method of instruction. Somewhere between defining the problem through observation, and verifying the solution through experimentation, thinking is said to take place. The steps may vary in quantity and quality, but no step may be eliminated. The life cycle of a thought, like the life cycle of a human being, must go through the appropriate (normal) stages of development.

To be sure Dewey never intended this method to have a "fixed rigidity" about it. He believed flexibility was guaranteed by allowing that people do think at different rates of speed and varying intensity. The problem-solving method insured that thinking was never "a mechanical routine" but also that it never became a "grasshopper-like movement."³³ Dewey's version of thinking was somewhere in the middle.

Exactly how a teacher should apply his method, Dewey remained elusive about telling. There are, of course, "school occupations" which he favored and which he believed were amenable to the scientific method. In addition to what we have come to understand as the "normal" subject matter in school, Dewey suggested,

intelligent work in gardening, cooking, or weaving, or in elementary wood and iron, may be planned and will inevitably result in students not only amassing information . . . but in their becoming versed in methods of experimental inquiry and proof.³⁴

For Dewey experimental inquiry was the same as thinking. The subjects which lead to thinking he referred to as the "preeminently logical studies . . ." of arithmetic and formal grammar. Here the scientific method of inquiry finds its best application. However, he cautioned that the "regular subject matter"³⁵ of the school can be used to provoke thinking if the teacher avoids using drill, memorization, and testing for correct answers.

Dewey's method, and the little information he has given teachers regarding how to use it, has had a curious result. Educators have understood what it means to use the scientific method, and even know Dewey's five-step plan for helping students do scientific thinking. The scientific method has dominated the field of instructional methods ever since Dewey, simply because the five-step method is imminently teachable. Some teachers even have students memorize the method hoping, I assume, that the students will learn to think because they can repeat the five steps needed to solve a problem. The point is, the answer to my original question, what are we doing when we teach thinking, is we are teaching five steps used by some scientists to do science. Since Dewey equated scientific thinking with thinking and concluded the schools should be teaching the method, schools have often attempted to teach thinking using Dewey's techniques. There is

no reason to believe that Dewey's method is better or more effective for teaching thinking.

In a very real sense, Dewey had given us the foundation work upon which we have built most of our attempts to teach students to think. His foundation has been both permanent and limiting in terms of what it will support. It supports only what it has postulated from the outset as the solution to this country's educational problems. Teaching the scientific method would steady, unite, and centralize instruction and save the public schools themselves. That is not the same as saying teaching the scientific method would promote thinking in students. The goal of teaching the scientific method was primarily related not to thinking but to organizational needs.

There is no reason to believe that teaching students how to use the scientific method is a mistake. Scientific thinking is not a bad thing. The point is, it is not the only kind of thinking human beings can do. John Dewey knew that and has written at length about the need for creative thinking in our classrooms. Unfortunately, American educators have latched onto only a portion of Dewey's work on thinking and our schools have continued to teach the scientific method as if it was directly linked to improving students' ability to think. The reasons for this specialized approach to the teaching of thinking are as much a part of the liberal context of American education, and its bureaucratic arrangements today as they were in Dewey's time. American education is wedded to the teaching of the scientific method because it is a comfortable organizational and political fit. It has

been hard to make room for other possibilities. It is hard even now.

John Dewey believed and taught the scientific method as a way of thinking. If children could learn the "essentials of reflection," i.e., the scientific method, be helped to recognize the value of trial and error, "thinking itself would be an experience" for them. It was Dewey's hope that thinking would then serve the purpose inherent in the thinking activity itself: thinking would provide the "solidity, security, and fertility"³⁶ needed to deal with the future. Said differently, Dewey failed to recognize the importance of thinking itself. Its value was derived from its use. In the end Dewey had come to understand thinking in the same narrow sense as he had understood science and the scientific method. In critical ways, Dewey missed the essence of thinking. Perhaps it was his liberalism or his inability to focus his attention on the serious organizational problems plaguing the schools which contributed to his limited vision. The why is not a crucial factor to figure out. The point is that the schools are still filled with variations on Dewey's theme of scientific method as thinking. We need to at least acknowledge that much of what we do now to teach thinking can be traced back to John Dewey, his liberal reform efforts, and his limited vision of science and what it means to think. We need not continue to live with Dewey's limited vision as if no other existed. We will begin to understand another vision of thinking when we explore the work of Hannah Arendt. For Arendt thinking was not confused with science or scientific method. She is a wonderful counterpart to Dewey.

The Psychological Approach and Jean Piaget

If, as the first section suggests, John Dewey set the stage, in terms of giving us a theory of how we think and how we should teach thinking, Jean Piaget has assumed center stage, as it were, with his work on the developmental stages of the growth of intelligence. He is certainly the most popular of the cognitive development theorists.

There is almost no questioning the simple fact that American education has been fascinated and influenced by the work of Jean Piaget. Prospective teachers are introduced to Piaget either in their educational psychology courses or their methods courses. Although his work seems most applicable in the elementary grades, secondary school teachers and curriculum developers for all grade levels are all influenced by his stage theory as they devise their instructional methods. Secondary school teachers believe their students should be functioning at the formal operational level, even if they can't remember the name of the stage. They teach their students accordingly.

What makes Piaget such a powerful figure in American education is difficult to answer conclusively. The fact that few people get to be teachers without learning his theory is certainly part of the result. Since his writings are never easy to understand, he has been explained to teachers through a variety of "Piaget for Teachers" books. These how-to books are always popular with teachers. I suspect the bulk of the answer to why Piaget is so popular in this country has to do with the claim that his theory is grounded in develop-

mental psychology. I think teachers somehow feel safe with the notion that here is a man who tells us how children develop their ability to learn and to think and has done his work as a psychologist. His theory must rest on solid ground. I think teachers are impressed with the psychological aspect of Piaget's work and use him with a certain sense of respect. (He is at least as popular as psychology.)

Before untangling Piaget's theory about how we think, it is helpful to recall some facts about the man. Born in Switzerland in 1896, Piaget apparently developed an early interest in biology. In fact, at age 10 he published an article on an albino sparrow he had been observing in a nearby park. We should note that he was not subject to his own developmental theory since it assumes a ten-year-old would be unable to do that kind of thinking or writing.

From his initial interest in biology, Piaget began studying how various species adapted to their environments. He later became fascinated by how knowledge about such things as adaptation came about. This led him to his final line of inquiry. Piaget set out to investigate the "general human capacity for the scientific enterprise."³⁷ For this line of inquiry he worked in the field of developmental psychology. The concerns which were to dominate his work until he died became: How do we know and How do we think?

An interesting story describing how Piaget first became interested in how children think seems appropriate. The story goes that Piaget was testing French school children in an attempt to standardize the Alfred Binet intelligence test for French-speaking students. He

was fascinated by how many children of the same age got the same questions wrong. He deduced, then and there, to try to discover what was missing in these children's intellectual development which might account for these common errors. Piaget's assumption was that the children's reasoning processes were deficient. Piaget never assumed that Binet's test items were at fault.

Margaret Donaldson, another developmental psychologist, who incidentally refutes much of Piaget's findings, shares a similar story but with an interesting twist. While using a certain intelligence test with children, she became concerned with the number of errors the children were making. Her question was, "How are the items for these tests chosen?"³⁸ Why are these particular questions such good predictors of a child's intelligence, she wondered. Those questions led her to inquire into how a child's thinking was related to a given problem. She never assumed the problem was with the child's developmental state, but rather that the child's way of understanding the world was incompatible with the way the test itself was constructed.

The story of Piaget and the French school children illustrates a significant part of his perspective on the question of how children think. Children have trouble thinking in the ways which would satisfy the Binet intelligence test. That is, they don't think like the adults making those tests and they should. The rest of his perspective comes from his work as a scientist. He believed the "capacity which makes scientific knowledge possible is the same as that capacity

which underlies human intelligence." In other words, since human beings create scientific knowledge, it follows that human thinking is scientific by nature. In Piaget's own cryptic sentence: "The logic of development is the development of logic."³⁹

This terse sentence actually describes Piaget's work very accurately. He assumed, and to his satisfaction proved, the skills involved in thinking logically or scientifically are the basic skills involved in developing "the mature capacity for thinking."⁴⁰ It remained for him to show in what sequence the thinking capacity matured. To do that Piaget the biologist and Piaget the developmental psychologist worked out a developmental stage theory. The biologist believed human beings possess certain mental structures, primarily the nervous system and sensory organs, which develop and mature. The mental structures of a four-year-old are not as developed, as say a twelve-year-old, for example. The developmental psychologist added that we can recognize the difference between the four-year-old's structures and the twelve-year-old by observing the difference between the activities of the two children. Piaget assumed, based on his observations of children of various ages, that since they played differently, used language differently, understood space, time and numbers differently, the children's mental structures must indeed be different. Piaget had framed his theory.

By the 1940s Piaget had developed the body of his developmental theory. Based on his observations of infants, most often his own three children, together with his work at the Binet School with older

children (2-7), Piaget developed his now famous "main developmental stages" theory. According to his theory there are four main developmental stages which form the normal course of a normal child's intellectual development. Said differently, Piaget claimed he had discovered not only what the mature capacity for thinking looked like, but how it came to be.

Since the stage theory is so crucial to understanding Piaget, it must be mentioned, if only in outline form. Since Piaget gave his highest endorsements to Hans Furth's explanation of his work, I will use Furth's descriptions of the various stages:

Sensorimotor	Birth	Perception, recognition, means-end coordination
Preoperational	1-5 Years	Comprehension of functional relations, symbolic play
Concrete Operational	6-7 Years	Invariant structures of classes, relations, numbers
Formal Operational	11-13 Years	Propositional and hypothetical thinking ⁴¹

I should mention that Piaget never intended these chronological ages as anything more than approximations. However, he allows no latitude, in terms of the number or sequence of the stages themselves. Normal development proceeds according to the developmental stages outlined above.

A brief but significant aside is in order at this point. One of Piaget's stages is the concrete operational stage. A child learns to

manipulate objects and symbols in preparation for the formal thinking stage. It is a stage to be overcome, as it were, bypassed on the road to the highest level of development. Hannah Arendt, in her book Thinking, notes the Chinese alphabet is composed of concrete symbols. Writing the word "friendship" in Chinese is a matter of drawing an image which represents the concept friendship. In this case, "the image of two united hands serves for the concept of friendship." Arendt remarked that the Chinese "think in images and not in words. And this thinking in images always remains concrete."⁴²

This should not be construed to mean Arendt believed the Chinese are incapable of thinking abstractly. It does, however, make it difficult to apply Piaget's developmental stages to the normal Chinese person. Apparently, for the Chinese concrete thinking is thinking. It is not a stage at all. It is the normal development of their ability to think. I mention this insight on the part of Arendt only to challenge the use of the word normal to describe what in essence is an arbitrary sequence, used to describe the development of an arbitrarily selected segment of the population. Piaget's theory is clearly culture bound and possibly wrong even for that culture.

At this point, it seems I have at least two choices. I could go through each stage explaining the stage and giving my critique of the stage or I could try to tease out what Piaget's stage theory means for understanding how children think and how we should go about teaching thinking in school. The second choice seems more palatable and appropriate for this paper.

As indicated earlier, Piaget developed his stage theory on the assumption that a parallel exists between a human being's mental structures and his ability to think. The more developed the mental structures, the better able we are to think formally, abstractly, and scientifically. There is a definite hierarchy to his theory. The progression is from no thinking to abstract thinking. Should we then assume we are born with no mental structures, and then proceed to develop those we will need to be abstract thinkers? Or are our structures merely dormant at birth, but present nevertheless?

There is research which supports Piaget's assumption that our mental structures develop over a period of time. At birth an infant's brain is only one-fourth its final size. Obviously, it develops as the child develops. (Maybe Piaget got his four stages from the infant's brain size?) We know of other changes in our nervous system and in some of our sense organs as well.

The one question which remains troubling for me is what is an infant doing with such a large brain if it is not working--not thinking. Does the infant need such a large brain just to do sensorimotor things like reaching, sucking, crying and the like? Is he really not thinking at all before the age of six or seven?

Piaget's response would have to be yes, the child does no thinking from birth through age six or seven even though he has a fairly large brain. Piaget believes the infant and child, prior to the concrete stage, merely responds to his environment using innate sensorimotor skills. There is no such thing as an infant thoughtfully cry-

ing. A series of physical stimuli and sensory responses cause the crying. The infant and child before six do what they do because they are egocentric and not because they think. They see their worlds from their own perspective and their actions should be interpreted as stemming always from their own points of view. For Piaget, this indicates a non-thinking stage.

It is critical to understanding what Piaget is telling us about thinking and how we do it to be clear about the term egocentric, which he uses to characterize the non-thinking and pre-thinking stages. The stage theory begins with a non-thinking stage, a relatively long developmental period in real ways. From this non-thinking stage, and Piaget would have to add because of it, comes a thinking stage. The notion is contrary to his own cognitive developmental theory which tells us cognition is cumulative. You can't go from non-thinking to thinking. If some kind of thinking is not going on during the first two developmental stages, Piaget has to explain what appears to be a flagrant contradiction in his theory.

Piaget's response is to postulate that what the infant is doing with his big brain is nothing more than surviving. The child before the age of six or seven is doing nothing more than acting egocentrically, building his own understanding of the world based on his own experience. At best, the term egocentric seems hardly appropriate for a young child. It sounds inherently pejorative. Even when Piaget explains that he simply means young children see the world only from their own perspective, we still get the sense that there is something

wrong with that kind of non-thinking! We do not think correctly, if we take Piaget seriously, from birth to age six. Our thinking process is flawed from the outset. Only time and the normal course of development will save us.

Clearly, Piaget formulated his stage theory before other scientists and psychologists did serious work concerning how infants manage to relate to their environment. We simply know more now than he did about how and why an infant behaves in certain ways. Be that as it may, it is fair to note the problems with Piaget's theory in light of the fact that his work is used by teachers who sometimes fail to make the critique.

There is research which indicates how wrong Piaget may have been regarding his first two non-thinking stages. Joseph Childton Pearce, who actually uses some of Piaget's work in his provocative book, Magical Child, noted: "Research shows infants make no random or useless movements: from the beginning every action has meaning, purpose, and design."⁴³

The infant may not be thinking abstractly, but if Pearce is right, something other than non-thinking or egocentric behavior is going on. Adults, who supposedly are in formal operational stage, do not always act with meaning, purpose and design.

Not only does research indicate that infants may indeed think, there is also research which seriously questions Piaget's use of the term egocentric to describe young children. He has assumed two things by the use of that term. Children relate to the world only from their

own point of view and secondly that this indicates a non-thinking stage.

Piaget based his assumption that children are egocentric on an infant's inability to understand the constancy of objects. His experiment showed that if you show an infant a toy and then hide the toy in a box, the infant will not look for it. The child assumes the toy has ceased to exist says Piaget. Other studies have shown that infants who are shown a toy or an object which is then later removed from their sight by merely turning the lights in the room off will then reach out to try to find the toy. Evidently, how the object is removed and not just that it is removed is significant. Perhaps the toy in the box experiment indicates something about the infant's understanding of location rather than the infant is unable to recognize the existence of things unseen. Young children and infants are aware that out of sight does not mean the end of some thing's existence--except some time.

Regarding a young child's inability to recognize other points of view, another egocentric indicator for Piaget, an interesting study by Michael Marastos and detailed in Margaret Donaldson's book, Children's Minds, bears telling.

The experimenter told a five-year-old he would have to explain the movements of a toy truck along a certain route to a blind-folded adult. The child carefully explained the path the toy was following while simultaneously moving the toy up and down a ramp and around a few obstacles. The child was then asked to do the same task, explain

the toy's movements, but this time to an adult who was watching him. The child simply said, "Watch this" and proceeded to put the truck through its paces. He used no words other than the ones mentioned. The experimenter asked the child which way of explaining he preferred. The child indicated he preferred using no words. It seems that the child was not egocentric enough to use the preferred method when he realized the blind-folded adult would not benefit from such an explanation. Donaldson's book is filled with examples such as this which underscore some weaknesses in Piaget's central concept that a child is basically egocentric until age six. The significance of Donaldson's work may very well be that it challenges not just Piaget's theory but that it challenges the very foundation of his work.

The question is why does Piaget seem compelled to picture the infant and the child as egocentric in the first place? I believe there are two reasons. There is, of course, what Pearce calls Piaget's "unconscious bias." Piaget was interested in the "development of rational scientific, linear, digital thinking."⁴⁴ On a common sense level we know that infants and young children don't do that kind of thinking. Piaget, then, has to conclude whatever it is the child is doing to make sense of the world cannot be called thinking. He reserves that word for the formal operational stage in which real thinking, rational and scientific, goes on. Piaget's refusal to acknowledge the child's understanding of his world as anything other than sensorimotor reflexes and egocentric behavior establishes the thinking hierarchy as he wants it to be. Wants is an important word here. Piaget

does not want the infant or young child's activities to be described as thinking. He had already worked out his hierarchy as a scientist. His developmental psychologist self simply accommodated his findings to the hierarchy. Could he seriously expect the scientist to say that his thinking was not at the top of the thinking ladder?

The second reason for Piaget's egocentric stage is a little more subtle but connected to the first. During the egocentric period Piaget acknowledges the child develops his own way of seeing the world. Piaget believed the development was done to an almost complete degree. The child could see no other points of view beside his own. We have seen there is research which shows Piaget may have been wrong. More importantly, the point seems to be, Piaget saw this egocentric stage as something to be overcome. Having one's own point of view, based only on one's own experience, is wrong or at least not thinking in the Piagetian sense. The child must "decenter" himself in order to think.

The teacher's job becomes increasingly obvious. We must help the child decenter himself and become less egocentric. Teach the child to "shift" (Piaget's word) his point of view so that he becomes open and receptive to the possibility that he is wrong about the world. Only his ability to think scientifically will enable him to form opinions and trust his point of view. Until he is capable of that kind of thinking there is no need to put much stock into what the child thinks. He will eventually learn the one way, the best way to think. He will learn to think in propositions and hypotheses. He will learn to think as a scientist.

It seems to me that even if the most gentle of teachers using the best Piagetian thinking games sees the young child's understanding of the world as something which must be replaced by a scientific attitude, something wrong happens. What the child learns is not thinking and what the teacher teaches is not thinking. The child learns what kind of thinking matters to his teacher and ultimately in his world. At best, the teacher teaches a method for solving problems. The young student learns that he has spend a lot of his young life preparing to learn how to think, and unfortunately not much of what he learned about the world is going to carry much weight in school. School is where you really think. It seems preparation for thinking is just not thinking, and may not even be helpful.

Piaget's insistence on seeing the young child as incapable of thought manages to make the teacher responsible for the student's thinking. The lesson is clear for the child: Thinking is never just me with myself in the silent dialogue of finding out what the world means. Thinking is me and my teacher--mostly my teacher.

Piaget's theory seems to put up more obstacles to thinking than it removes. He states that children must become "autonomous thinkers." They must learn to think for themselves. More accurately, they must learn to become proficient at scientific thinking, so that they will do it automatically, and to the exclusion of any other type of thinking. To accomplish that type of autonomy, they learn to shift their points of view around until they have the right one. They, in effect, must undo their initial and egocentric ways of seeing the

world, until they have a reason for their egocentric, but scientifically correct, ways of seeing the world.

I believe Piaget adds an important ingredient to the question I asked at the beginning of the chapter. What are we doing when we teach children, our students, to think? Dewey's contributions to the answer seems to be: We teach them to use the scientific method to solve problems. We teach them to think scientifically. Piaget clearly echoes Dewey and seems to add: We teach students to think scientifically because anything else is not thinking and because we want our children to develop normally.

Confusing Thinking and Action

There remains one more Piagetian notion which must be examined. Briefly, it is what Donaldson referred to as one of Piaget's basic beliefs. She wrote that for Piaget "the origins of thought are to be found in action."⁴⁵

His emphasis on the connection between action and thinking, specifically that action causes thinking, has made him extremely popular with pre-school and elementary teachers. He seems to provide a psychological reason for keeping children busy.

Piaget postulated that living organisms are self-regulating. Living organisms adapt to their environments. Most scientists would agree, as would most of us non-scientists. Specifically, living organisms either assimilate or accommodate to their environments. As-

similation means an organism deals with the environment by incorporating the environment into its already existing structures. Accommodation means the organism changes its behavior to fit the environment. The two processes are complementary and occur most often together as one process. Equilibrium is attained when the organism keeps a balance between the processes.

Living organisms, then, appear to do a lot of activities. They regulate themselves by assimilation, accommodation and some combination of both. Even in a state of equilibrium, Piaget says we are still active. We are preparing for the next regulation we will make.

Since our structures for dealing with the environment are used to activity, actually need activity in order to regulate us, Piaget assumed thinking originated in action. Furth explains that for Piaget "thinking should be taken as synonymous with intelligent action."⁴⁶

If thinking is intelligent action, then a child learns to think by doing activities. Piaget reasoned since the first developmental stage was characterized by physical actions, the following stages must incorporate activity into their thinking work. As a result, Piaget sees the normal child as either doing physical manipulations with objects or symbols, or doing those same manipulations in his mind, depending upon the developmental stage. The concrete operational child cannot only order, classify, combine, separate and arrange things in series; he can eventually do those activities in his mind. He does not need to put one block next to another to understand that one and one adds up to two.

What happens when we believe Piaget and teach thinking as if the origin of thinking is action? Since Piaget gave such high ratings to Hans Furth's interpretation of his work for teachers, I will use Furth to answer the question.

In the forward of the Furth book, we find both a warning and a clue to the answer to the question of how thinking is connected to action. The warning is Piaget is not Dewey. Even if you "may be included to think that Furth's notion of a 'school for thinking' is but a new version of Dewey's progressive education with its accent on experience and action"⁴⁷ you should not confuse Piaget with Dewey. When Piaget talks about action and experience it has a psychological twist.

Piaget, unlike Dewey, based his work on psychology. Psychology says a child learns to think by doing. Furth points out that a school based on activity, as Piaget describes it, "builds upon the deep insights of Piaget's half-century of work to put educational practice on a new psychological foundation."⁴⁸

The last half of the Furth book describes what a school would look like if it was a school for thinking based on the work of Piaget. It turns out that the thinking school is a very active place.

The school, which is probably equivalent to a kindergarten through fifth grade school, has no fixed curriculum, at least until fifth grade. A student's day consists of thinking games, art, crafts, drama, music, field trips, and reading, which is done by the teacher. It is helpful to know what these thinking games are about and why only

the teacher is allowed to read.

It is unnecessary to describe each game in detail. The titles give us a fairly clear sense of what the game involves. I will list them as Furth describes them in his book. The games include the following:

- Symbol-picture logic game
- The Probability Game
- Spatial Transformations Game
- Matrix Task Game
- Sorting Game
- Classifying Game
- Pattern Recognition Game
- Visual Thinking Game⁴⁹

It is obvious that the games attempt to develop those skills Piaget has isolated as necessary for scientific thinking. The students are actively involved in the manipulation of objects or materials until they understand the skill which the game is designed to reach.

A word about the place of reading in the school for thinking. Reading is scheduled for the teacher but never "imposed on the child." Neither is writing. Naturally, few of us would want to see reading or writing imposed on a child who was honestly not ready for either. Furth's position, and one with which Piaget obviously agrees, is a bit more forceful than that. Furth is really convinced that:

The average five- to nine-year-old child from any environment is unlikely, when busy with reading or writing, to engage his intellectual powers to any substantial degree. Neither the process of reading nor the comprehension of its easy content can be considered an activity well suited to

developing the mind of the young child.⁵⁰

It seems fair to wonder if there is just not enough activity in reading and writing to qualify them for inclusion in the school for thinking.

Furth goes on to tell us that reading is not only useless before age nine, it is apparently harmful for thinking. He notes that "a school that in the earliest grades focuses primarily on reading cannot also focus on thinking. It must choose to foster one or the other."⁵¹

One is left to speculate on why it is children under nine want to read. Most children eagerly want to learn what the written word means. What is more confusing is that many of them are very good at it.

The school for thinking must then be against reading, at least in spirit. Furth does allow that some children around age seven may want to read and should be allowed to do so. These are exceptions to the rule, however. The normal child wants and needs activities if his thinking skills are to develop according to Piaget's stage theory.

Why this confusion between action and thinking? Certainly his scientific background led him to understand that living organisms are either actively adapting or they perish. Perhaps he feared lest the inactive mind perish.

I suspect, however, his problem with thinking and action has more to do with where his stage theory leads. After all, if the mature capacity for thinking means we are able to think scientifically, we

should understand something about scientists. They are active. They do experiments. They gather evidence. They test, form hypotheses and create theories. Teachers do not prepare students for that kind of thinking by letting them read and write. Classrooms become miniature laboratories in which students do things with objects so that they will learn the skills involved in scientific thinking. I believe that is why Piaget must postulate that thinking comes from action. It makes his developmental theory seem logical.

The Limitations of Dewey's and Piaget's Vision

Piaget's research into how children think is an awesome amount of work. We cannot underestimate his popularity with American educators. The man was given almost unprecedented attention in this country during the 1960's and 1970's. Teachers are continually offered courses and seminars in Piaget's theory. The 1983 annual conference for kindergarten teachers in the New England area was dedicated to workshops on Piaget. Like Dewey, his thought lives on.

Popularity is not the problem. The problem, as I see it, is certainly similar to Dewey's insistence that schools teach scientific method. Piaget's bias is not given the attention it deserves. Teachers are so busy being impressed by his psychological credentials, I believe we fail to take into account what Piaget told us about the nature of thinking and the child. It seems to be we only come up against that kind of critique of Piaget in books not primarily written

for teachers or likely to be read by them.

I am referring to Joseph Chilton Pearce's book, Magical Child. He asks us to look critically at Piaget. Pearce reminds us that Piaget's "brilliant observational analysis of the development of rational, scientific thinking is of immense worth, but something profoundly significant is missing."⁵²

Pearce believed Piaget failed to give adequate attention to a child's ability to do other kinds of thinking beside scientific thinking. A young child can fantasize, ask questions, pretend, and generally figure out a lot about his world in non-scientific ways. Is all that to be simply called "magical thinking" as if it comes from nowhere and disappears, or worse, that it is some cruel hoax nature has played on children? If we take Piaget seriously, we would have to answer yes. The thinking which he considered normal, as normal as his developmental stage theory, has little to do with anything other than rational, scientific thought. A teacher using Piaget hardly has time to think about what is missing.

The central concern for Piaget, and for those teachers who believe in his theory and methods, is how to move the child from non-thinking egocentric activity to intelligent action (thinking). The solution as we have seen in Furth seems simple enough. Teach elementary age students to do the skills most often associated with scientific thinking and once a child reaches adolescence, the teacher can then provide experiences with problem solving--thinking in propositions and hypotheses. For teachers that means a lot of work--lots of

activities. What could be missing if the child is active in school?

The question is not even whether it all works. It probably does and it can be argued that Piaget and Furth offer an improvement over much of what is done in many of our schools. I still have that nagging sense that something is missing. We know how to teach children to think scientifically. We knew that with Dewey. Dewey showed us how it made sense given the liberal nature of our society. Piaget tells us it makes sense psychologically. They are a hard combination to beat. The initial question remains, What are we doing when we teach thinking? I think the answer is still the same. We teach children how to think rationally and scientifically. We teach them thinking skills needed for scientific thinking. We keep students active and we believe they are thinking.

It remains for the final chapter to clarify what I feel is missing from Dewey and Piaget. At this point, lest we make the mistake of thinking our schools are really not all that interested in teaching scientific thinking anymore, let me just briefly review some of the contents of the January, 1983 New York Times Supplement entitled, Teaching Thinking: A New Emphasis, which I referred to in the previous section. The "new programs" make my point.

First the concerns. 1981 reading test results "disclosed by the National Assessment of Educational Progress showed a decline in inferential reasoning of students."⁵³ In 1979, mathematics tests showed a marked decline in problem-solving ability. Our children are not learning how to reason or figure.

The Times, in an effort to calm our fears, goes on to give us a sampling of the available commercial solutions to our problem of the decline in students' ability to think. They are each in their own ways real tributes to Dewey and Piaget. The best three as I see them are:

1. Strategic Reasoning. This program out of Stamford, Connecticut, offers six problem-solving techniques reputed to help teach thinking. The student must learn to analyze, classify, break a whole into part, sequence, synthesize and see relationships.
2. Structure of the Intellect. This is an impressive program. J.P. Guilford, the designer, claims to have isolated 120 discrete skills involved in thinking. "Thousands of separate lessons have been created to teach those skills." Some of the skills include creating hypotheses, making inferences, classifying information, and drawing conclusions.
3. Instrumental Enrichment. Developed by Reuven Feuerstein, this program teaches students how to use the traditional problem-solving tasks in everyday situations and then apply those skills in classroom situations with traditional subject matter.⁵⁴

The "new emphasis" in the Times' headline sounds a lot like more of the same to me. Problem solving and scientific thinking seem to be the commercial solutions. There are enough statements from educators in the supplement to lead the reader into believing that these solutions are just what teachers have been looking for.

The still missing remains. Why is it that we cannot envision, even in 1983, any other approach to thinking other than problem solving and the scientific method? There is little evidence that we even do that well.

The answer is complex. Some of the pieces I have already alluded to in previous chapters. Clearly, scientific thinking fits the needs of the liberal and bureaucratic society we live in. Scientific thinking socializes by teaching us one acceptable way of thinking--seeing the world. Moreover, respected men in the field of education, philosophy, and psychology have convinced American educators that thinking, the thinking which should be going on in our schools, is properly scientific in its nature. We naturally want to solve our problems in a scientific way they tell us. But over and beyond all those reasons lies the simple fact that we have not tried much of anything else. Our teachers have stayed with Dewey and Piaget even as they attempt to design new programs to help students think. It seems as if we do not know anything more about thinking or how to teach it than what we have learned from, for instance, John Dewey. In significant ways it seems we have stopped thinking about thinking.

The next chapter will examine another way to think about thinking. I will look at thinking without the scientist's bias. I believe the chapter will answer the question of what is missing when we teach students only scientific thinking.

CHAPTER IV FOOTNOTES

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¹⁵Ibid., p. 200.

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C H A P T E R V

HANNAH ARENDT AND THINKING

So I asked him, a fellow teacher, why we seldom discussed learning or how to help students think in the faculty room. He reminded me of the purposes served by faculty rooms; places to let off steam. He left and returned with a sign he had made for our faculty room. It read: "NO Thinking Allowed Here." The other teachers nodded in agreement and one suspects approval.

from the Introduction

The faculty room encounter together with a personal dissatisfaction with my own teaching are critical forces behind this dissertation. In the major portion of the work I examined some of the social, political and institutional realities which make it difficult to teach non-cognitive thinking. Those realities make that faculty room scene possible and in some cases unavoidable. I have also examined some of the notions teachers accept and believe about teaching students to think. The connections between the context and what teachers believe about teaching thinking are clear. Well-intentioned teachers get trapped by some very powerful and pervasive forces which seem to mitigate against anything not sanctioned by liberalism and its helpmates bureaucracy and educational methodology. In short, most teachers do what the system allows. The "No Thinking" sign may be disheartening but entirely accurate.

Having learned how powerful and organized the whole educational system is, the next step seemed to involve making some choices. One

can choose not to be a part of the system. You can try and ignore the constraints I have discussed. You can be a "radical teacher." You can try to see the problem in a different way. I decided to do that.

Hannah Arendt and her work on the nature of thinking offered a framework which allowed for a different perspective. Her book, Thinking, is not expressly written for teachers and contains no methods for helping students learn how to think. In fact, Arendt tells us in her introduction exactly why she wrote the book. After witnessing and reporting on the trial of Adolf Eichmann, she wondered if, "the activity of thinking . . . could make men abstain from evil-doing or even actually 'condition' them against it."¹

Arendt was concerned with a moral issue and believed there might be connections between thinking and evil. Immediately one senses we are about to leave the realm of liberal neutrality for some stormy uncharted seas.

Arendt brought the investigation out of the educational and political context and into the world of just plain thinking. She seemed to be the perfect counterpoint.

The first thing to be done in this chapter is to clarify what Hannah Arendt meant when she used the word think. We will have to understand what she had in mind when she expressed her concern about "non-cognitive" thinking. One way to appreciate Arendt's special definition of thinking is to examine how she separates thinking from how scientists use thinking in their work. Two things result from this examination. We understand better what she means by thinking

and we have better reasons for questioning the emphasis on scientific thinking and the ignoring of "non-cognitive" thinking in our schools.

The next section deals with the characteristics of non-cognitive thinking. What would this type of thinking look like if we could see it? Since Arendt insisted on the invisibility of the thinking activity, it seems useful to discuss the outstanding characteristics of the thinking activity in order to have her perspective clear in our own minds.

The second part of the chapter is about making judgments. I have already made judgments about the liberal, bureaucratic context of American education. I have judged some of the existing pedagogy which claims to be useful for helping students learn how to think. After Arendt it seemed necessary to take a stand regarding non-cognitive thinking and how it might fit into the schools. I offer examples of how an elementary or secondary teacher might go about presenting opportunities for students to practice thinking. The examples are not intended as a curriculum of any kind. My purpose is simply to make Arendt's work on thinking more available for teachers interested in using it.

What Is Non-Cognitive Thinking?

Arendt's Perspective

Hannah Arendt wrote Thinking after witnessing and reporting the proceedings of the trial of Adolph Eichmann. Her personal judgment

of the man was that he was "neither demonic nor monstrous" but seemed to possess, to an extraordinary degree, what Arendt described as "thoughtlessness."² To understand Arendt's concept of thinking, it is helpful to begin with what she meant by thoughtlessness.

Arendt was struck by Eichmann's dependence on "routine procedures." She noted, "he was helpless" without them. At the trial Arendt observed how Eichmann's language was replete with "cliches, stock phrases, adherence to conventional codes of expression," all of which seemed to protect him from the reality of the events and facts before him. Even his language reflected his dependence on routine, highly structured procedures. Arendt concluded that Eichmann's grasp of reality was severely limited. If an event or fact did not fit the routine procedures, he had mastered, Eichmann was incapable of a response. More accurately, he was unable to even recognize the need to attend to a new reality. "Eichmann differed from the rest of us only in that he clearly knew of no such claim at all,"³ which in Arendt's eyes made him guilty of thoughtlessness, in extremis.

Thoughtlessness, as Arendt saw it, was marked by certain characteristics. A person responding to reality in a less than thoughtful manner, relies on learned responses regardless of whether or not those responses are appropriate to the present reality. A thoughtless person's language is often riddled with conventional phrases. It matters little if these phrases fit the situation. Thoughtless people fail to recognize that new events and facts may require different language. In effect, these people really fail to respond to the newness of any

reality. One need only to recall the Watergate hearings to understand how language often discloses thoughtlessness. Those who heard the testimony of some of our highest government officials, and maybe some of the least thoughtful people, became aware of a new vocabulary. We learned how and when to use phrases like, "at that point in time," "inoperative," and "in the interest of national security." We realized there were such things as "third-rate burglaries" and a need for "definitive" definitions. The language of Watergate was often very sad and sometimes even comic. It was a language which served to conceal the activities of men who seldom reflected on what they were doing. The classic statement of course, credited to Herbert Colson, neatly summarizes the point. Mr. Colson, when confronted with the possibility that he may have been guilty of perjury, replied: "What I was saying was true at the time. Only later was it proved untrue." Those sentences are priceless examples of what Arendt found in Eichmann's language. A thoughtful person could hardly have uttered such foolishness.

Arendt had formulated her idea of how a thoughtless person used language. Next, she wondered about the consequences of thoughtlessness. As a result of the Eichmann trial, Arendt puzzled over the connections between thoughtfulness and the "problem of evil." Eichmann had, after all, performed evil and wrong deeds. Had he done them out of thoughtfulness? Arendt reframed the question into what could be considered the pivotal question guiding her work on thinking. Her thrust was to discover if thinking,

The habit of examining whatever happens to come to pass or to attract attention, regardless of results or contents, could this activity be among the conditions that make men abstain from evil doing or even actually condition them against it?⁴

The question which Arendt felt had imposed itself on her contains an important part of her perspective on what she called "this thinking business." Arendt would work through her concerns about thinking from a decidedly moral perspective. She made no apologies for this perspective and reminded readers who might feel such a viewpoint would be best subsumed in ethics courses, that ethics should treat matters of custom and habit, and not questions of good and evil. Eichmann's problems were, in Arendt's view, more and different from bad manners or forgotten customs. She would examine the activity of thinking from a moral perspective because she believed in the connections between thinking and the problem of evil. She would choose a thoughtful course of action by refusing to be hemmed in by routine procedures. Eichmann was a new reality warranting a new response. Arendt would be thoughtful.

I decided it was important to mention why Hannah Arendt wrote about thinking and to acknowledge her perspective on the topic. Two reasons compelled me to do this. First, it is difficult to understand Arendt much of the time. Understanding why she wrote Thinking makes that effort a little easier. Second, since Arendt's perspective on thinking is bound up with moral considerations and this work is about teaching thinking in public schools, it seemed necessary to be as

clear as possible about the nature of the kind of thinking Arendt wrote about. Specifically, given the pretense that our schools do not engage in teaching morality, it seemed important to acknowledge that this chapter will be discussing the work of a thinker who claimed no such pretense or bias. In other words, Arendt's perspective on thinking clearly violates the American educational establishment's claim that what goes on in the schools is essentially value-free and neutral. Arendt believed thoughtful people would distinguish between good and bad, right and wrong, and display those choices through their language and actions. Thoughtful people are neither neutral nor value-free. In ways, then, Arendt's work on thinking, because of her perspective and even before any discussion of it takes place, faces an uphill battle in terms of fitting it into the public school system. On to the battle!

Science and Thinking Are Not the Same

In the preceding chapter I argued that scientific thinking, although clearly an important concept to be taught in schools, was not the only form of thinking available to teachers and students. The objections had to do with exclusivity more than with the nature of scientific investigation itself. One way to understand Hannah Arendt's non-cognitive thinking is to examine her distinctions between a scientist using thinking and the nature of the thinking activity itself. Her distinctions help clarify what she understood to be the nature of

cognition or cognitive thinking as opposed to non-cognitive thinking.

There are four important words to understand when trying to tease out what Arendt considered evidence of cognitive thinking. All four are discussed in relationship to how a scientist uses thinking in his work. The words are common-sense reasoning, cognition, meaning and truth. Together they form the critical distinctions between doing science and doing thinking.

Common-Sense Reasoning and Cognition

Arendt believed scientists use "thinking in every scientific enterprise." The word "use" is key. She felt that a scientist uses thinking as a "means to an end."⁵ As such, thinking for a scientist is but another instrument for acquiring knowledge. Arendt's concern was that the thinking activity itself was not itself in that enterprise.

When thinking is used as a means to an end, something happens to the thinking activity. Arendt felt thinking was never itself in scientific investigations because the end of such work is cognition or knowledge. She believed thinking did not end in cognition, as she understood the meaning of cognition.

Arendt, borrowing from Kant's Critique of Pure Reason, visualized cognition as the intellect's "grasp of what is given to the senses." In the case of the scientist, cognition results from gathering evidence to test hypotheses and form conclusions. This evidence appears

to the scientist's senses, and if it proves his theory, the rest of us who share the world must be able to see the evidence and results. Even when it seems that the scientist is dealing with invisibles, theories, atomic particles, and the like, Arendt felt that eventually the scientist returns to his laboratory and forces "that which does not appear of its own accord . . . to appear."⁶ In other words, the scientist literally shows us how, for example, genetic coding works. He can isolate actual genes under a microscope to show his findings. There are film strips for science teachers which depict the most remarkable, and normally invisible human system. Students get to see the work of scientists. They can, in most cases, know how the circulatory system works. They have acquired knowledge or cognition by virtue of the fact that scientists have formulated that knowledge in the first place.

Cognition, then, is the result of our ability to use our senses to determine "what something is or whether it exists at all." If the nature of that something is not self-evident to us, we go in search of evidence to help us understand the nature of that something. When enough evidence has been collected and all errors dispelled, conclusions are reached and knowledge or cognition has been attained. In effect, cognition is the result of what Arendt described as "science's basic goal--to see and to know the world as it is given to the senses."⁷

There is another way to understand cognition. Arendt believed that common-sense reasoning is actually a shorter version of the cog-

nitive process used by the scientists. Exploring how she arrived at that position deepens our understanding of what a scientist does when he uses thinking in his work. It will also help the effort to separate cognition from thinking. It should become apparent why cognition or common sense reasoning cannot be equated with the thinking activity itself.

Hannah Arendt formulated at least a two level understanding of common sense. The first level she discussed in The Human Condition. The second, which she referred to as commonsense reasoning, was more connected to her vision of thinking and she explained it by an elaborate discussion of Thomas Aquinas' description of a sense experience. More will be said about this second level. The first of her understandings is important to mention here.

In The Human Condition Arendt talked about common sense as the sense which ties all our other senses together and fits them into a common world. Common sense is a kind of guardian over our other senses. Since our sense perceptions are private, Arendt believed, our common sense took those private sensations and fit them into a common world. Our common sense, which she felt was the highest sense, was not just an inner faculty for Arendt. In her view common sense not only keeps all the other senses together, but it creates a bond between the senses, reality and the world. Common sense insures that what our senses perceive is real by making all our senses fit for the world. Common sense is a private sense for use in the world. On another level, when common sense is prolonged as in scientific enter-

prises, it becomes less our private path to the world and more of an inner faculty without relationship to the world. It becomes something we have in common rather than a sense which makes the world a thing to be shared in common.

Arendt credited Thomas Aquinas for "what we call common sense." This sixth sense fits us into a common world. "The reality of what I perceive is guaranteed" by the fact that there are "others who perceive as I do" and my own five senses "have the same object in common."⁸ For example, a group of people seeing, smelling, and tasting a piece of fruit can agree to the nature of that fruit because they each perceive it to have the looks, odor and taste of the fruit they all know as "apple." Each person's senses, although refined to different degrees, have responded to a common object. The group share a context which enables them to call this fruit an apple and each person uses his senses to perceive the same object. Context and object are shared: the nature of the fruit is common sense. The group knows the apple is real. Common sense assures us of reality.

Common sense reasoning is the process the intellect uses to understand what the senses are trying to grasp. Back to the apple. Let us suppose that someone in the group is not quite certain the fruit is an apple. The fruit does not taste like an apple to him. It would be foolish to try to convince him, by argument, that the fruit is indeed an apple. He trusts his senses. The way out of the problem is to use common sense reasoning which means the person or group would have to search for more evidence to convince the doubter.

Other apples could be tasted. Pictures of apples could be discussed. The person could compare the tastes of other fruits with the red fruit. As much evidence as possible would be collected until the individual could see for himself that the fruit is an apple. Whatever illusions he may have had about the fruit's identity would eventually be dispelled. The sheer force of evidence would be compelling. Common sense reasoning would tell him the fruit is an apple. The group has shared the use of a faculty for knowing the world. It is common sense turned inward before going out to the world.

Cognition and common sense reasoning are important parts of what a scientist does. Arendt felt strongly that neither activity was thinking itself, although thinking, she believed, was connected to cognition and knowledge. The connection has to do with the end results of thinking and knowing.

The scientist wants to solve his problem. He can do so only by formulating "factual statements [which] are scientifically verifiable." Not only does he work toward a solution, he works to discover the truth. Even if his theory, his truth, is later proved untrue, for the moment he has located truth. Cognition or knowing "aim at truth".⁹ Thinking has other aims.

"Thinking's quest" Arendt reasoned, is meaning. Thinking is not concerned with "what something is or if it exists at all" knowing or common sense reasoning worries about those questions. Thinking is concerned with "what it means for it to be,"¹⁰ in the first place. Arendt's position is that the scientist is able to ask questions about

molecular behavior because he shares with all of us a concern for the "unanswerable question." A scientist, in other words, studies how molecules adhere to one another, because he is curious about what it means that molecules exist at all. The latter question, unanswerable for the most part, compels the scientist to work on the former. Thus, the connection between knowing and thinking is that thinking makes us into question askers. Unable to settle the unanswerable questions of meaning, we can, with the scientists, at least ask questions to which there are answer. At that level knowing and thinking are unmistakably connected.

I have examined Arendt's version of cognition, common-sense reasoning, truth and meaning. More work will be done with meaning later. These notions are crucial for understanding non-cognitive thinking because they illuminate what Arendt understood as cognitive thinking or knowing. For Arendt a cognitive thinker, a person interested in knowing, relies primarily upon sense perceptions to know what something is or if it exists at all. If a question arises, he or she uses a process called common sense reasoning to settle the problem. This process involves gathering evidence which will either corroborate his solution or correct errors in his perception. Eventually, this thinker has enough verified factual statements to conclude he has arrived at the truth, even if the truth is provisional and replaced by other truths down the line. The aim of cognition is knowledge and the end result of knowing is the truth. Cognitive thinking, then, is the use of the senses in search of knowledge which will yield a truth

which can be factually presented and verified. Hannah Arendt found scientific inquiry to be one of the best representatives of cognitive thinking. Having examined cognitive thinking, Arendt's non-cognitive thinking becomes the next step.

Non-Cognitive Thinking

At this point we know a few things about non-cognitive thinking. I have already discussed Arendt's intention to discover the connection between thinking and moral considerations. It is safe to assume non-cognitive thinking has something to do with morals. Having figured out what cognitive thinking is, then, by definition non-cognitive must be something other than acquiring knowledge and truth, searching for evidence by using common-sense reasoning to solve problems. Although we have some ideas about what it is not, the best way to understand non-cognitive thinking is to examine what it is.

It is important to understand that Hannah Arendt did not rely on the phrase "non-cognitive" to explain what she meant by thinking. In fact, she does not use the phrase until page 191 of her 216-page volume. The way she used the phrase and the particular point at which she used it are significant.

After carefully explaining in the first nearly 200 pages of her book, what she meant by thinking, it is as if Arendt wanted to remind us of what she had wondered about in the introduction. Her concern was whether or not thinking had anything to do with telling right

from wrong. Her bias was that it did. If she should prove herself right, she states in strong language, "then we must be able to demand its (thinking) exercise from every sane person."¹¹ She, in effect, makes her demand by using the phrase non-cognitive to tell us what kind of thinking we as sane people must do.

Thinking in its non-cognitive, non-specialized sense as a natural need of human life . . . is not a prerogative of the few but an ever present faculty in everybody.¹²

She quickly added that it is possible to fail as non-cognitive thinkers. Even "scientists, scholars, and other specialists in mental enterprises not excluded." The consequences she mentions are alarming.

A life without thinking is quite possible; it then fails to develop its own essence--it is not merely meaningless; it is not fully alive. Unthinking men are like sleep-walkers.¹³

Thus, the context within which she used the phrase non-cognitive gives critical clues about how important it was to her to make the distinction between thinking and cognition. The thinking she described was not to be confused with how thinking was used in other mental enterprises. Said differently, Arendt was certain that one could be a scientist, scholar, or teacher and still not be thoughtful. A person full of knowledge could conceivably be empty of thoughts. Since Arendt had made the crucial distinctions between cognition and thinking, there was no contradiction in imagining that possibility.

The Distinctions

Since this section began at the end of the Thinking book, we have to go back some to understand the nature of thinking in "its non-cognitive, non-specialized sense." There are two routes available for gaining that understanding. One is Hannah Arendt's almost poetic description of her favorite thinker, Socrates. The other is found in the section of the book entitled, "Mental Activities in a World of Appearances." It is less poetic and at times difficult. In the first two subsections she discusses "the outstanding characteristics of the thinking activity."¹⁴ Both routes seem necessary. I will begin with the more theoretical aspects and save the poetry for last.

There are four characteristics Arendt considered critical to the thinking activity. Her description of them, without explanation, is one way to begin the discussion. The outstanding characteristics of thinking are:

Its withdrawal from the common-sense world of appearances, its self-destructive tendency with regards to its own results, its reflexivity, and the sheer awareness of activity that accompanies it, plus the weird fact that I know of my mind's faculties only so long as the activity lasts.¹⁵

In the previous section, it was noted that the results of scientific investigation are meant to appear and be shared by the rest of us in the world. Even things which may not have been meant to appear, a scientist in his laboratory, may force into appearance. The nature

of a scientist's work demands that his solutions be, literally, shown to the world. Arendt remarked that thinking was never itself when used in such an enterprise. Part of what Arendt was referring to has to do with the "main characteristic of mental activities . . . their invisibility."¹⁶ Thinking, in itself, is invisible.

Hannah Arendt looked at the world as a phenomenologist. Her perspective on thinking flows from her perspective on the world. Thinking never appears. Acting and speaking need a "space of appearance" and people who "see and hear in order to be fully actualized."¹⁷ Thinking has no such need.

Thinking may involve "objects" which "are given in the world," but thinking itself "lacks the ability or urge to appear." When a person is thinking, during the activity itself, even at its most active state, thinking is still not manifested for others to see. "The only outward manifestation of the mind is absentmindedness."¹⁸ That is, someone may be so engaged in thinking that they completely disregard their surroundings. Absent mindedness is visible, thinking is not.

One way to understand thinking's invisible characteristic is to connect invisibility to one of Arendt's characteristics of thinking; thinking withdraws from the world. It is safe to assume that something is invisible if it leaves the world! Thinking leaves the world because it de-senses "the particulars given to the senses."¹⁹ Unlike cognitive thinking, thinking goes beyond sense perceptions.

Thinking de-senses whatever is given to the senses by transform-

ing a visible object into an invisible image. My eyes see a sunset and my mind is able to retain the image of the sun and vivid colors sinking into the west. I have a memory of a sunset. Let's pretend I am reading a poem about a sunset and am aroused sufficiently to want to remember what that sunset was like which is now stored in my memory. Now my mind deliberately tries to recall what that sunset looked like. Try as I may to remember the details of the sun's position and the actual colors flooding the sky, I seem to be able to recall, not so much the image of that sunset, but the concepts of beginnings and endings which sunsets represent to me. My thinking has gone beyond sense perceptions. While trying to recollect an image of a sunset, stored in memory, I temporarily withdrew from the poetry I was reading and began thinking about sunsets. Thinking demands that withdrawal in order to understand not only absent sunsets, but those "things that are always absent, that cannot be remembered because they were never present to sense experience."²⁰ Things like freedom, immortality and God.

Withdrawing from the world in order to think is the first characteristic of thinking. This withdrawal is necessary because thinking is invisible and has no urgency to appear. Secondly, to de-sense an experience requires leaving one's surroundings, at least mentally, in order to recollect from memory whatever image one has stored there to represent the experience. The image recollected is often different from the initial image because the thinker is able to think beyond sense perceptions.

The second characteristic of Hannah Arendt's concept of thinking is "its self-destructive tendency with regard to its own results."²¹ It follows from the fact that thinking is invisible and does not seek to appear that the results of thinking must do something. One hardly anticipates Arendt's claim that they self-destruct. It is, however, the easiest characteristic to understand.

Arendt compared thinking's self-destructive tendency to Penelope's web. The web is undone every morning regardless of how much work has been done on it the previous evening. Yesterday's thinking satisfies yesterday's needs. If I want to think the same thoughts today and have the ability to do so, that is fine. Today's thinking, however, is now. Arendt handles this characteristic in more detail in her section on Socrates. She discusses this self-destructive characteristic in highly poetic ways. For our purposes here, it is helpful to remember that thinking does not result in the Truth. Results are not the same as meaning which is the aim of thinking. Results or solutions belong to a different mental enterprise.

The third characteristic of thinking is reflexivity. Arendt handles this trait in greater detail later when she discusses her favorite thinker, Socrates. Reflexivity has to do with withdrawing from the world in order to think. It is also the characteristic which clearly defines the nature of the life of the mind.

In terms of thinking, reflexivity actualizes the "original duality inherent in all consciousness." Consciousness can be thought of as two sides of the same coin. One side accompanies all my activi-

ties. If I study, write, or ride a bicycle, that part of my consciousness assures me it is the same "I" doing each activity. Consciousness on this level acknowledges a "continuity of the self"²² even if I am not always directly aware of myself during an activity. Consciousness says literally, I am studying, I am writing, and I am bicycling.

There is also another side to consciousness. This side is activated by the reflexive property of the mind's activities. When an individual withdraws from the world in order to think about an experience he or she wants to go beyond the "sheer givenness" of the activity. To do this thinking, an individual must conduct what Arendt described as the "soundless dialogue of the I with itself." If I want to think about my writing, I discuss the activity of writing with myself. In other words, another I is activated, through the reflexive property of thinking, when I begin to think. I think with myself about activity or event. Reflexivity, consequently, actualizes the "original duality inherent in all consciousness."²³ When I think, the I am of consciousness (continuing self) engages in conversation with the I-am-I (sheer self-awareness). The doer of the activity talks about the event with himself or herself. Since thinking is reflexive, it allows the self of self-awareness (thinking ego) to act back upon the self of the continuing, same-self who acts and speaks. As a result, I can withdraw from the world to think. I can converse with my self: the same self who acts, and the self who exists only when I think, can participate in a dialogue together.

Reflexivity is thus the property which makes the thinking dialogue possible. Since consciousness is both the self who acts, and the self who thinks about the act, reflexivity activates both selves in order for the thinking dialogue to take place. In other words, the reflexive property of thought splits consciousness temporarily to make conversation between the selves a possibility. Arendt discussed this split and its importance for thinking in her section on the two-in-one and Socrates. At this point it is helpful to keep in mind that reflexivity produces the duality necessary for the thinking dialogue.

Arendt linked the active nature of thinking to its reflexive property. The duality necessary for thinking produces an active thing ego. That is, I am aware of thinking only as long as I am thinking. When I stop thinking, when I go back to reading poetry, I stop being aware of my mind's ability to think. An example of this "weird fact" that I know I am thinking only as long as the activity lasts may be helpful.

A young boy was sent to his room to think about his inappropriate behavior. While sitting on his bed thinking, he fell off. The concerned father rushed up to the boy's room and asked what the boy was doing. He replied he had been thinking. As soon as the child's body hit the floor, the activity of thinking stopped. He was aware that he had been thinking, but could not think while hitting the floor or answering his father's question. Thinking stopped, strictly speaking, the moment his surroundings inserted themselves into the boy's consciousness. Most likely, he was more aware of hitting the floor than

he was of the activity his mind had been engaged in before the fall. As soon as the thinking activity is over, the "weird fact" is that I am no longer aware of my faculty of thought.

To summarize the four important characteristics of Hannah Arendt's non-cognitive thinking, it should be remembered that thinking is marked by: its invisible nature and its need to be removed from the world of appearances, its compulsion to think anew and not be satisfied today with yesterday's thoughts, its reflexivity which enables the thinker to have his own company after withdrawing from the world, and the peculiar quality of the thinker's awareness of his thinking only as long as the thinking activity lasts. Putting these characteristics schematically next to the characteristics of cognition make the differences more obvious:

<u>Cognition</u>	<u>Non-Cognitive Thinking</u>
Aims for knowledge and truth	Aims for meaning
Relies on sense perceptions and evidence	Uses a de-sensing process
Uses common-sense reasoning	Uses reflexive process
Demand verifiable results	Results are self-destructive

Arendt's Poetic Explanation

There is another way to understand what Hannah Arendt meant by non-cognitive thinking. It is found toward the end of her book, in the sections discussing Socrates, "a model, an example of a think-

er."²⁴ Here Arendt discussed the most outstanding characteristics of thinking, using Socrates as an example, and employing poetic, rather than technical language.

A word about Arendt's example is helpful at this point. She wanted as a model a thinker "who was not a professional." For her that meant finding someone who was comfortable in the world of appearances, a participator in the activities of life. That person must also have "the need for reflecting" on experiences, thus typifying most of us who both act and think about our actions. Arendt deliberately avoided selecting a professional thinker because she believed thinking was not a "prerogative of the few but an ever-present faculty in everybody."²⁵

Arendt anticipated objections to her model thinker. She noted "there is a great deal of controversy about the historical Socrates"²⁶ and it is difficult to justify transforming an historical figure into a model. She seemed to take both objections in stride. Unfortunately, she observed, Plato used Socrates in his philosophy and formulated many un-Socratic doctrines pretending to be true to Socrates' thinking all the while. She felt these inconsistencies were fairly obvious. The second objection, using historical figures as models, she handled by reminding us of how often it is done. Poets do it all the time. Writers of all kinds, she reflected, find representative, or ideal types, who seem to possess a certain significance for the reader. Even if the historical figure has to be adjusted somewhat to fully represent what the author has in mind, the technique

apparently justifies the adjustment. I suspect Arendt gave herself permission to use this method because somewhere underneath her political scientist, philosopher self, lived the self who wrote poetry as a student and argued with Heidegger about poetic nuances.

The first "outstanding characteristic" of thinking Arendt alluded to, and I discussed in the previous section was thinking's invisible nature. The thinker withdraws from the world of appearance to engage in a non-appearing activity. Arendt may have received some inspiration for this characteristic from Socrates, whom she noted, was "well aware that he was dealing with invisibles . . . [and] used a metaphor to explain the thinking activity." The metaphor Socrates used was the wind. "The winds themselves are invisible, yet what they do is manifest to us and we somehow feel their approach."²⁷ It is a metaphor Arendt seemed to be fond of.

The first half of Socrates' metaphor is understandable: thinking is as invisible as the wind. The second half, the reference to "manifestation," is less clear. Arendt clarifies the point in her discussion of how the wind of thought works. Within this same discussion, she clarifies thinking's self-destructive property.

We have to formulate the appropriate image for this wind of thought to understand how it works. Arendt did not interpret Socrates' metaphor as a light, breezy, zephyr-type wind. Arendt's wind was far more powerful than that. The wind of thought, by its very nature, is strong enough to "unfreeze, as it were, what language has frozen into . . . words (concepts, sentences, definitions, doc-

trines)."28 The latter are manifestations of thought which the wind of thought, if aroused, can do away with.

The wind of thought is strong enough to be destructive. It can take hold of "established criteria, values, measurements of good and evil" and treat them like frozen thoughts it wishes to unfreeze. The wind of thought is powerful enough to do the hard work of thawing out those "customs and rules" so familiar to us that we "can use them in our sleep."²⁹ In other words, thinking's work is to create what Arendt called "perplexities" where none had existed before the tough wind of thought began stirring things up. Like the invisible wind, thinking is sometimes powerful enough to show us what it can do. We may not see hurricane winds, but we can witness the devastation they often leave in their tracks.

The wind of thought is capable of destructive and self-destructive activities. When thinking is destructive it plays the role of what Socrates termed a "midwife." That is, as midwife, thinking discovers whether opinions are real or "mere wind-eggs"--of which the bearer must be cleansed." Wind-eggs are to be destroyed because they are opinions based on "unexamined pre-judgments,"³⁰ as it were. Not only are they not real, they prevent thinking from taking place. A good midwife would never pretend that a lifeless child was identical to a child full of life. The midwife's job is to know and declare the difference between a living and dead child. In that role, the midwife is destructive because the role demands she destroy any illusion of reality where none should exist. Like the wind of thought, the mid-

wife must be strong.

Thinking is also self-destructive. The wind of thought must search out "accepted opinions and values" examining "their implications and tacit assumptions" as often as is necessary. Thinking about something today does not "make further thinking unnecessary." On a practical level Arendt felt that: "thinking means that each time you are confronted with some difficulty in life you have to make up your mind anew."³¹

It is in that practical sense that thinking is self-destructive. Cognitive thinking searches for results to solve problems, hopefully once and for all. Not so with non-cognitive thinking. In fact, if one tries to pass off the results of non-cognitive thinking as if they were "the solution" to a problem, Arendt believed, the only conclusion possible would be "a clear demonstration that no man is wise."³¹ For thinking aims at meaning, which is not wisdom and is entirely without results.

This is probably a good place to summarize what has been discussed concerning the wind of thought. It is altogether possible Arendt used this Socratic metaphor for thinking to explain one of the outstanding characteristics of thought, namely, its invisible nature. The wind of thought is a powerful force subjecting words, definitions, doctrines, to critical examination. It is concerned with the assumptions behind routinely unexamined opinions. It does not deal gently with prejudice-pre-judgments.

Thinking's wind is destructive in the sense that it delivers from

the thinker lifeless opinions. It is self-destructive because of its need to find meaning rather than results. The search for meaning accompanies life; it does not end. One must be ready to think things through as the need arises. The wind of thought is not a seasonal wind; it blows where and when it will. It is fairly constant.

In her more technical descriptions of thinking's characteristics Arendt noted that thinking was both reflexive and an example of "sheer activity" which lasts only as long as the activity itself lasts. In her more poetic descriptions of these characteristics, the link between the two traits is more obvious.

The "Two-in-One" or the Reflexivity of Thinking

This reflexive property seemed to hold the answer to Arendt's question concerning the connection between thinking and the problem of evil. She states: "If there is anything in thinking that can prevent men from doing evil, it must be some property inherent in the activity itself."³² Arendt hopes that property was reflexivity.

Arendt returned to Socrates to understand thinking's reflexive characteristic. She found the basis for her position in the following Socrates' proposition:

It would be better for me that my lyre or a chorus I directed be out of tune and loud with discord, and that multitudes of men should disagree with me rather than I, being one, should be out of harmony with myself and contradict me.³³

Arendt believed it was the thinking experience which inspired Socrates to make that statement. The Socrates speaking in the quote just cited is "the more chiefly devoted to thinking."³⁴

Hannah Arendt concluded from Socrates' description of the danger of being out of harmony with himself that he had to be referring to two of something. She reasoned you need at least two different tones for harmony. If you played only one tone, you could not describe the tone as in harmony or out of harmony. It would simply be a tone. Two tones, however, can make or not make a harmonious sound. To be out of harmony with myself, Arendt reasoned, must mean Socrates' experience of thinking led him to believe in a duality inherent in thinking. Socrates was talking about two selves.

In the world of appearances I appear as one person. When I withdraw from this world in order to think, the one person I appear to be is split, by thinking, into two. This split occurs because thinking is a silent dialogue between me and myself. When I think I talk about something with myself. Since the thinking dialogue takes place away from the world, in solitude as it were, I can be conscious of another self because there is nothing else to distract me. The solitude surrounding the thinking activity and the dialogue in which thinking takes place, actualizes the "two-in-one" in myself. I think about something with myself.

One way to understand this two-in-one so necessary for thinking is to recall that Arendt declared thinking to be an activity--"sheer activity" to be specific. She formulated that position, partly,

because of thinking's need for dialogue between me and myself. She noted: "It is this duality of myself with myself that makes thinking a true activity, in which I am both the one who asks and the one who answers."³⁵ In other words, when we are engaged in thought we are consumed by activity. I both ask the questions and answer them. For example, I may ask myself what does it mean, "all men are created equal" and answer my own question by trying to "unfreeze" any or all of those words. I discuss with myself what the assumptions and implications of that sentence are. The sentence becomes a perplexity I work through, rather than a statement of fact I simply accept. It is this process which inspired Arendt to list "sheer activity" as one of thinking's outstanding characteristics.

At the end of the thinking activity, as we have seen, I do not arrive at truth or solutions to my perplexities. What remains of the process is the experience of "agreement, [being] consistent with myself."³⁶ Arendt believed it was crucial for the "two-in-one" to be "friends and partners" in the thinking activity. The thinking dialogue demands a particular morality from the thinker. Arendt, of course, hoped to build upon this connection between thinking and morality to answer her own questions formulated after the Eichmann trial.

The thinker must be in good terms with himself in order to think. He needs his own friendship and partnership to think about the perplexities he finds himself in. In fact, it is better for the thinker "to be at odds with the whole world than be at odds with the only one

you are forced to live together with."³⁷ The thinker is at odds with himself when he acts in contradiction to his own thinking or discovers after examining what he has said or done that he had contradicted his own thinking. In order to think, a person must be careful to remain friends with himself and not act or speak in contradiction to what his own thinking has discovered.

It sounds a lot like Arendt is trying to connect thinking and conscience. In ways she was doing just that, but being careful to use the word "conscience" in a very specific manner. Conscience, for Arendt, was not the voice of God or a series of "positive prescriptions" about how to live one's life. Conscience, as she understood it, was the self-waiting at home to participate in the thinking dialogue with you "only if and when he goes home." If one never goes home and examines things, if a person fears the self-waiting at home, if he never starts the "soundless solitary dialogue we call thinking." Arendt believed that person was clearly capable of "committing any crime." She reasoned: "A person who does not know that silent intercourse will not mind contradicting himself . . . he will never be either able or willing to account for what he says or does."³⁸ This kind of man forgets easily because he does not have a friend at home to discuss things with. What he does today, good or bad, is thus easily forgotten.

Arendt had finally figured out a connection between moral considerations and thinking. To use the example of Eichmann, what Arendt had discovered was that this man was capable of evil deeds because he

was incapable of thought. He could not actualize his two-in-one because he apparently had no self at home with whom he could discuss things. Consequently, he could not engage in the dialogue necessary to the thinking activity. His deeds were not a matter of "wickedness or goodness . . . intelligence or stupidity"³⁹ as much as thoughtlessness. The man was incapable of thought which made him imminently qualified to perform some of the basest deeds man has ever recorded. Arendt had made the connection between thinking and the problem of evil. It was clear to her that thinking's reflexive property, the two-in-one dialogue, was the basis for a person's ability to make moral decisions.

There are two reasons for following Arendt's search for an answer to the moral issue which inspired her work on thinking. First, we learn more about what she felt was the real nature of the thinking activity. Secondly, in a work concerned about teaching thinking in public schools, we must face the fact that to advocate the teaching thinking discussed by Arendt, is in critical ways, to begin a discussion about morals in education. To ignore Arendt's connections would lend credence to the pretense that the public schools are somehow managing to avoid values and morals in their work with students. Arendt's work would then be dismissed because it would appear to violate the neutrality schools supposedly maintain toward moral issues. The point, of course, is that this neutrality in matters moral or purely academic has never really existed. More reasons will have to be found to dismiss Arendt's work on thinking from the schools.

What do we know at this point about what Hannah Arendt described as "this thinking business?" What kind of thinking is meant by the phrase, non-cognitive thinking? What is this thinking like which I am suggesting belongs in our schools? A brief summary will help answer those questions.

In her more poetic sections, Hannah Arendt turned to Socrates for help in describing the thinking activity. Thinking is likened to a wind. The wind of thought, invisible yet strong, subjects unexamined opinions, customs, and rules to critical examination. Words, which represent frozen thinking, are prime candidates for this wind. The wind of thought thaws out words to find the meaning behind a sentence, a concept, a definition or a doctrine. If that thawing out process creates a perplexity, the thinker can share that perplexity with others and with himself. The wind of thought is disturbing.

Thinking is reflexive and active by its very nature. In order to think a person withdraws from the world to begin a solitary silent dialogue with himself. He wants to settle his perplexities. He asks himself questions and answers those questions for himself. It is a very active process in which he, literally, is totally involved.

The thinking dialogue can take place because thinking divides us into the "two-in-one" which exists in all of use. In simple terms, I have the ability to talk with myself about things. I can exercise that ability only if I am on good terms with myself. I have to be friends with myself for the thinking dialogue to happen. I cannot contradict myself.

The thinking dialogue can be impeded by something other than contradicting myself by being at odds with myself. In its simplest form it can be described as never discussing things with myself. Some people, perhaps, anticipate a difficult conversation and choose not to ask themselves questions. In effect they never start the dialogue. They can contradict themselves, think they are not accountable for their actions, and even commit crimes because they have never discussed these things with themselves. Thoughtless people, and not just wicked or stupid people, can perform morally unacceptable acts. Thinking, as a result, is a moral act. It is an act we are all capable of doing or not doing.

Hannah Arendt's non-cognitive thinking is very different from what we usually refer to as scientific thinking. She would argue that her form is thinking in its "non-specialized sense" while scientific thinking is a specialized version of thinking. Everybody has the "ever-present faculty" to think in non-cognitive ways. That does not mean everyone chooses to use that faculty. "A life without thinking is quite possible," Arendt decided, although such a life, in her eyes, would be "meaningless . . . and not fully alive." People who do not think are "like sleepwalkers."⁴⁰

Thoughtful people are not sleeping through life. In some of her strongest and most descriptive language, Arendt summarized her thoughts about the experience of thinking. She describes how the thoughtful person acts. Her words deserve to be used.

The thinker does not act because of rules "recognized by multi-

tudes and agreed upon by society." The thoughtful person's criterion for action is "whether I shall be able to live with myself in peace when the time has come to think about my deeds and words." Arendt called this criterion a "moral side effect" of thinking. It may be valuable to the thinker, but it does "society little good,"⁴¹ except in certain situations.

Clearly Arendt was thinking of Nazi Germany and Eichmann as an example of a situation in which thinking may have done society some good. She wrote:

When everybody is swept away unthinkingly by what everybody else does and believes in, those who think are drawn out of hiding because their refusal to join in is conspicuous and thereby becomes a kind of action.⁴²

We know, of course, that Eichmann joined in the criminal activities of Nazi Germany. He was swept away by the enterprise. His actions were not hidden. What seemed to Arendt to be missing was any evidence that Eichmann thought about his actions. The wind of thought was not manifested in his actions. He did not possess "the ability to tell right from wrong, beautiful from ugly."⁴³

It is that ability, inherent in the thinking activity, which cognitive thinking often fails to develop. The aim of cognition is knowledge. There are moments in life when a person needs the knowledge which comes from using the intellect to solve problems. But there are other moments, which Arendt characterized as "rare." Perhaps not as rare as she hoped! "When the stakes are on the table

. . ." and when thinking "may indeed prevent catastrophes, at least for the self."⁴⁴ I can think of no better justification for teaching non-cognitive thinking.

Non-Cognitive Thinking and Teachers

It isn't that, knowing the answers myself, I perplex other people. The truth is rather than I infect them also with the perplexity I feel myself. Which, of course, sums up neatly the only way thinking can be taught.⁴⁵

Presenting justifications for considering Hannah Arendt's non-cognitive thinking as an alternative or addition to what is normally done in schools to teach thinking is one thing. Figuring out the specifics of what that would look like is quite another story. Hannah Arendt's book is little help. She was not interested in methodology. The only sentence she wrote which even touches on the issue of teaching thinking, is her reference to Socrates' ability to perplex others. She referred to that ability as "the only way" non-cognitive thinking can be taught. It is probably best to start there and puzzle through how to translate Arendt into something helpful for teachers who want to teach non-cognitive thinking.

Arendt's statement describing the only way to teach thinking is striking in its simplicity. Socrates was good at getting people to think because he was genuinely puzzled about certain things. I don't think Arendt understood his perplexity to be equivalent to the commonly held belief that teachers should be interested and enthusiastic

about their subject matter. The two notions may be related but they are not identical.

I believe Arendt purposefully choose the teacher as the place to start figuring out how to teach non-cognitive thinking. If the teacher does not practice that kind of thinking, it is probably pointless for him or her to expect to teach it to students. Which brings us to the first problem: how will teachers learn to practice non-cognitive thinking?

One of the criticisms of most teacher training programs discussed earlier in this work was the almost indoctrinating quality of many programs. Future teachers very often discuss the same "critical issues in education" in educational psychology courses, sociology of education, and methods of instruction courses. As a result they learn what an acceptable opinion is regarding such critical topics as grading, individualized instruction, lecture vs. hands-on instruction, and disciplinary procedures. Inadvertently, this repetition serves to underscore what the critical issues in education must be. Teachers are then doubly indoctrinated. Teacher preparation seems to be a good place to start answering the question of how to help teachers practice non-cognitive thinking.

Teacher preparation must become less a process of socializing teachers into their roles and more of an opportunity to think about the nature of the work about to be done. The difference is significant. One place to begin rethinking teacher preparation in order to increase the practice of non-cognitive thinking is in the methodolog-

ical component of the program. The methods course has often been criticized as ineffective by the students who take them as well as the faculty teaching them. In The Miseducation of American Teachers, by James D. Koerner, he notes that "courses on methods of teaching offer the least substance of all." The textbooks used are "dreary and unimaginative collections of vague recommendations, lists of skills and objectives."⁴⁶ The courses give ready-made answers to instructional problems. Little attention is given to exploring the nature of teaching itself. Future teachers learn someone else's recipes for teaching.

The other side of the methods course dilemma is the future teacher's part in the problem. Having supervised student teachers for three years, I was stunned to discover how much they had expected from their methods course. If they were experiencing difficulties, the culprit became "that methods course" which should have given them more skills, more practical things to do with students. These new teachers had already been socialized into believing in the existence of a "bag of tricks" and they were angry at being cheated of an opportunity to buy the bag. It is an interesting piece of the problem. Methods courses, even if ineffective, are seen by many future teachers as "the place" to learn how to teach.

I sense the methods course can be a place for future teachers to practice non-cognitive thinking in addition to being a place to learn something about teaching. Instead of teaching prospective teachers how to create lesson plans, grade students' work, write test questions

and so on, the methods course could be a place to discuss what it means to teach another person. Rather than having individuals dwell on the practical aspects of teaching, the course could revolve around carefully selected books which deal in some way with teaching. Possibilities for a reading list might include:

Zen and The Art of Motorcycle Maintenance

If You Meet the Buddha Along the Way, Kill Him

Plato's Republic

Half the House

Teacher

Zen and the Art of Archery

Magister Ludi and the Glass Bead Game

My experience with student teachers leads me to believe that they are anxious to talk about teaching. This kind of course could at least begin the process.

The methods class would include a paper. The students would be expected to describe what they understand as teaching. They would use the books discussed in class in addition to any personal experiences they have had with teaching, excluding classroom teaching. Experiences might range from teaching swimming to working with youngsters in camp situations. The point would be to articulate what they understood as the meaning of the teaching activity. Through discussion, and in writing, they will share their perplexities with friends, not in order to solve their problems, but to "learn whether his perplexities were shared by them." In important ways the prospective

teacher will begin to practice non-cognitive thinking. At the very least, he or she will see what it looks like when a teacher tries "the only way" possible to teach thinking.

Perhaps a somewhat more obvious way to include Hannah Arendt's work in teacher preparation programs is to construct a course around the book Thinking. The format would be similar to the re-thought methods course just described. Students would read and discuss her book. They would be asked to write a paper applying Arendt's notions of thinking to teaching. Although this description does not seem to convey a radical departure from what is normally done with students in higher education, I believe the experience of reading and writing about Hannah Arendt's work, at least for education majors, could be a giant step away from the normal course offerings future teachers are required to take. Arendt's notions present serious challenges to people interested in teaching thinking. Consequently, she acts as a nice counterpoint to the socialization future teachers receive as part of their preparatory program.

Teachers are both socialized and, as we have seen, socializers. After helping prospective teachers understand and practice non-cognitive thinking, the next step must be into the classrooms themselves. What can teachers do to help students practice non-cognitive thinking? It is a big and difficult question.

Non-Cognitive Thinking In the Schools

We had the sky, up there, all speckled with stars, and we used to lay on our backs and look up at them and discuss about whether they was made, or only just happened.
(from Huckleberry Finn, Mark Twain)

To develop a standard curriculum which teachers could use to teach non-cognitive thinking would clearly contradict the very notion of thinking. Teachers would not be practicing thinking, as Hannah Arendt explained, the nature of thinking, if they simply implemented a pre-packaged plan of instruction. It does seem possible, however, to offer some examples of what non-cognitive thinking would look like in a classroom. They are given in the spirit of John Dewey's remarks about how to train good teachers. Dewey's replay was to trust that good teachers would figure out their own methods of instruction. Thoughtful teachers, I believe, will figure out how to help students practice thinking. These examples are given with that belief in mind.

For purposes of discussion I will treat elementary school as containing kindergarten through eighth grades. The school is divided into primary grades (K-4), intermediate level (5-6), and junior high section (7-8). Grades nine through twelve is what we normally consider secondary or high school.

Regardless of the grade level discussed, there are at least two ways to approach the teaching of thinking. One way is to develop lessons strictly for the purpose of practicing the de-sensitizing process so vital for non-cognitive thinking. This method seems most appropri-

ate for primary grades. The other possibility is to use the subject matter itself, history or literature for example, as vehicles for helping students practice their ability to go beyond acquiring facts or memorizing information. In short, the students would be required to think. Examples of both methods will be given with indications of what I consider appropriate grade levels.

While reading Hannah Arendt's book on thinking I was struck by her discussion of the Greek concept of admiring wonder. "In Greek philosophy," she wrote, "there exists one answer to our question What makes us think?"⁴⁷ She found the answer in Plato's citing of the origin of philosophy as Wonder. It is this sense of wonder which, I believe, can form the basis for teaching thinking in the primary grades.

Arendt modified Plato's Wonder by adding the adjective admiring to it. Using Homer's description of what happens to men "to whom a god appears," Arendt concluded that this "wonder-struck beholding" men suffer upon seeing a god is the "responding wonder" we are all capable of. She explained: "In other words, what sets men wondering is something familiar and yet normally invisible, and something men are forced to admire." Admiring wonder is "neither puzzlement nor surprise nor perplexity," it is "what we marvel at . . . in admiration which breaks out into speech."⁴⁸ Teachers who have worked with primary grade children will recognize this wonder as a characteristic of young students.

What follows is a sample lesson using Arendt's "admiring wonder"

as a starting point to practice thinking. The lesson is designed to introduce the student to the desensitizing process so necessary to non-cognitive thinking. It is designed for use with primary grade students and can be modified to suit the different grade levels within the primary unit. It is deceptively simple, and as one friend remarked, "doesn't seem all that revolutionary." The discussion of the lesson will highlight what I believe are the critically important aspects of this kind of lesson.

Sample Lesson: What Is Friendship?

Grade Level: Primary Grades (K-4)

Materials: Any visual representation of an activity depicting an act of friendship.

Discussion: The teacher discusses the pictures, slides or film strip with the class.

The first level of discussion focuses on what is going on in the picture. Who are the people and what are they doing kinds of questions. The teacher helps the class establish that the picture shows friends in an act of friendship. Let the children wonder about friendship. Is it something they like and admire? The second level of discussion moves to meaning. What does it mean to be a friend and what do people do to show friendship? Students are encouraged to recount personal stories which show experiences with friendship.

The third level of discussion revolves around being friends with

myself. How can I be my own friend and what do I do which shows I am my friend are helpful questions.

Closing Activity: After completing the discussion, the teacher instructs the students to find a quiet, comfortable place in the room where they can be alone with only themselves for friends. The students are asked to recall one of their experiences with friendship. Give them time to search their memories. When they have recalled one, they can then select an activity to do which will express what they remember. Depending on the grade level, the activities could range from drawing, to writing poetry, building structures, creating collages and so on. The finished products can be shared with the class or simply displayed.

Clearly, the lesson is not complicated nor does it call for sophisticated materials. It does, however, have critical implications for teaching non-cognitive thinking. Some of these implications are:

- The concept of friendship is fairly abstract. The lesson assumes the primary grade student can handle the abstraction. Friendship is a familiar, yet invisible something, most children admire. Students learn to deal with invisibles.
- The lesson mirrors the de-sensitizing process. The child moves from a visual experience, seeing the pictures, to internalizing the friendship experiences, and then recalling an experience from memory. This process is crucial in non-cognitive thinking.

- The lesson begins with the class discussing the picture together. The student then discusses only with himself or herself their experiences of friendship. Arendt reminded us "I first talk with others before I talk with myself" (189) and in that way I discover that "I can conduct" a dialogue of thought with myself, if I am my own friend. The student learns two important characteristics of thinking: talking with friends and talking with the self.
- The lesson does not yield a definition of friendship. The students develop their own meanings which can be seen through the activity chosen to represent their thinking. The student goes beyond cognition.
- There is, of course, the moral dimension to the lesson. Do friends help one another regardless of the nature of the activity? Do friends lie for friends or steal for friends? These questions are probably very appropriate for some groups and certain grade levels. What does the friend called self have to say about those questions? Thinking and moral considerations are brought into the lesson.

These implications, I believe, are buried under what appears to be a simple lesson. Only if the teacher is aware of them, and teaches with them in mind, will the students feel the effects of a lesson designed to begin teaching non-cognitive thinking.

The same format can be used with a number of other topics. Pri-

mary grade students wonder about many aspects of nature. They marvel at snow, the seasons, wind, clouds and stars. Lessons could be formulated around those interests.

There are a number of "read-aloud" books which elementary school teachers, especially primary grade teachers, can use to stimulate the thinking process. Jim Trelease's Read-Aloud Handbook provides a detailed guide to more than 150 titles to choose from. Many of these books address "invisible yet familiar" topics which children could discuss and reflect upon. There are books dealing with everything from bad days, sibling rivalry, and peer pressure to divorce and even death. If used thoughtfully, children can be helped to think through these issues.

The intermediate grades (5-6) present further possibilities for teaching thinking. Although there is probably more opportunity at this level to incorporate non-cognitive thinking into regular subject matter instruction, I believe it is still important to have lessons structured for the sole purpose of practicing thinking. At this level, when it is so easy for students to move away from the wonder of the primary grades, I would focus the thinking lessons on meaning and questioning. The non-cognitive thinker searches for meaning and understands that basically he or she is a question-asking being.

Hannah Arendt believed thinking's end was the quest for meaning. One way to understand meaning is to visualize it as a continuum. On one end we find the meaning which comes from admiring wonder. We wonder about what something is. At the farthest end of the continuum

meaning is far more powerful and active. At this end meaning "re-
lently dissolves and examines anew all accepted doctrines and
rules"⁴⁹ as a result of thinking's practical need to think anew as
long as we are alive. At different points along the meaning continuum
we are either closer to wondering or critical examination of existing
opinions and values. Perhaps intermediate grade youngsters are some-
where to the right of wonder, ready to begin work which lays the
foundation for critical examination.

Arendt discussed an interesting concept related to meaning. She
used the phrase "frozen thought" to explain how words come to repre-
sent a "shorthand without which thinking could not be possible at
all." Her example is the word "house." House is a frozen thought.
That means that we use the word house to represent "a great number of
objects." Houses can mean huts, country homes, cottages, townhouses,
wooden, brick, or cement structures. If we were riding down a street
lined with various types of dwellings we would refer to them all as
houses. We would not differentiate between structures of brick and
wood. All would be houses. Arendt believed we use the word house in
this way because "we have a notion" somewhere in our minds which al-
lows us to "recognize particular buildings as houses."⁵⁰ We don't
have to think about the meaning of house each time we see one. We
have a "frozen thought" in our minds which represents what we under-
stand by house. If we were asked to unfreeze that thought, we would
have to think about what the word house implies for us. We might ask
ourselves what is the invisible thing all these structures share which

causes me to call them houses. It could be that each time I use the word house I think of home, or permanence, or a dwelling place. If certain structures represent these notions to me, then I have a meaning for the word house. I can unfreeze the word if asked.

It seems to me students at the intermediate level can unfreeze frozen thoughts and thus practice non-cognitive thinking. Teachers need to be careful with this kind of activity in order to avoid constructing lessons which merely involve discovering the etymology of words. The point must not be finding definitions for words. Dictionaries should not be part of these lessons. The student must unfreeze the frozen thought using his or her own thinking and not a dictionary or encyclopedia. The focus is on discovering what original meaning the student has in his or her mind which enables them to use a particular word to represent a specific concept. An example might be helpful.

Students could be asked to collect pictures of as many different kinds of cars, lamps, families, books, desks and so on. They would then be asked to think about what makes them able to use one word to describe many and different things. They could then use whatever original meaning they discover within themselves as criteria for developing their own representations of a car, a family and so on.

Again this is a deceptively simple exercise. The student must rely on his or her own ability to think about the meaning behind a concept which ordinarily he or she simply uses without much thinking. In this lesson, the student is asked to abandon the short-hand version

of thinking, in favor of the longer process which requires him or her to literally stop and think about something. This type of lesson prepares the student for movement towards the opposite end of the continuum. Questioning one's own understandings might make it easier to question the opinions of others.

Students at the junior high school level seem to be ready to move towards the critical examination side of the meaning continuum. Adolescents are notorious for their rebellious natures. Possibly lessons could be developed which would play off that inclination. At this level it is probably appropriate to use both subject matter and straight thinking lessons to practice non-cognitive thinking. A combination of both could be tried. I will offer an example of subject matter used as a vehicle to practice non-cognitive thinking. Since I am most familiar with teaching social studies, the lesson will be based on a junior high school social study concept.

Somewhere between seventh and eighth grade, students learn some things about the American revolution. They learn the causes of the war, the major battles, and the names of important people associated with the revolution. Most students understand that America fought England and obtained the independence it wanted. Students usually end up with a lot of facts and a vague notion of what the war was about. That may not be a bad outcome. They need to know some facts about the American revolution. They also need to go beyond the factually given and practice thinking.

At this level, and into high school, the teacher must go be-

yond the textbook. Social studies textbooks are routinely criticized for being bland. They are written for "average students by textbook writers"⁵¹ who want to sell books. Issues are presented from one point of view "without offering different interpretations of events."⁵² Textbooks have often neglected minorities and gloss over mistakes the United States has made in "foreign policy in the interest of 'good citizenship.'"⁵³ Although some changes have been made by some publishing companies, textbooks are still criticized by teachers and students for being dull and failing to connect with student concerns. The teacher must figure out how to bring the student beyond the book.

Back to the American revolution and the junior high school class. For the sake of discussion, let's pretend the class knows some facts about the revolution. They have read and maybe even answered some question in their texts. The teacher now wants to move beyond the factual information. The teacher wants the students to think about the invisibles of revolution. No generals, battles, or dates!

Most seventh and eighth grade students have some notions about what it means to rebel against rules, parents, teachers and so on. They understand that some forms of rebellion are tolerated (dress, music, language) while others are pronounced wrong or bad. They realize that rebellions have some connections to morals. A non-cognitive thinking lesson could be developed around the morality of revolution.

The lesson would begin with unfreezing the word revolution. The

teacher gives examples of revolutions. They might include historical, contemporary, and personal experience. The class discussion focuses on discovering the notions students have in their minds which compel them to classify some events as revolutions.

The lesson moves from unfreezing the word revolution to the last phase of the desensitizing process. The class is asked to recall any personal experiences they have had with "rebellious behavior." Students share their stories with the group. The teacher directs the discussion to include an examination of the rightness or wrongness of the behavior. Helpful questions might include:

- Who judges actions as rebellious activities?
- What does it mean to violate codes of conduct?
- Is there ever justification for a revolt? What would that look like?
- Are there bad revolutions?
- Can you make good and bad statements about the American revolution?

The lesson concludes with the teacher giving the students time to recall an example from their own lives when they participated at some level in an act which showed some degree of rebellion. At this age level the teacher would most likely ask the students to write an essay describing that experience.

The students have moved beyond the facts of the American revolution. They have puzzled through the notion of revolution from their own perspectives and experiences. Revolution is not a frozen word

they associate with a history book. They can now form their own opinions about the rightness or wrongness of revolution. When they read social studies texts in the future they may be better able to decide for themselves when citizens are justified in revolting against governments. Hopefully, some groundwork is being laid for the more critical examinations. Students at the secondary level should practice within the various disciplines.

Teaching at the secondary level is a challenging job. It can be very difficult and extremely satisfying work. Since my experience at this level covers only ninth and tenth grade social studies teaching, I will use those grade levels and that discipline in the example which follows. I believe the format is applicable to the upper levels of high school students.

Again, it should be noted that history and government textbooks have been highly criticized for their lack of imagination in presenting material. Many teachers feel little obligation to remedy the situation. Very often students are subjected to endless classes of reading the text and answering questions at the end of each chapter. Class discussions are designed to check the student's comprehension and retention of the material. In short, history and government classes are not thought provoking experiences for most students. Obviously, there are some teachers who manage to make their classes enjoyable and stimulating. The problem is these teachers are very often few and far between. It is simply too lazy to just teach the text and no more. I am suggesting that high school teachers go beyond

the teaching of facts. High school students are ready and able for non-cognitive thinking.

Hannah Arendt did not write often about education. There is, however, one essay in which she described the function of school. I believe it is imminently applicable to high schools. Arendt wrote "the function of the school is to teach children what the world is like and not to instruct them in the art of living." Secondary schools should be about teaching what the world is like. Teachers must then help students go beyond gathering facts and information since these are often misleading indicators of what the world is like. But this going beyond should never be understood as a mandate to teach certain values or help students discover "what the good is." To learn what the world is like means helping students practice thinking about the nature of the world.

History textbooks discuss what the world is like from a certain bias perspective. Since they are meant to be used in American public schools, they present this country in the most favorable light possible. Maybe that's an important thing to do. America has much to be proud of. The problem is there is little room for thought when the world is presented as a series of victories for the good guys. After all, when a child brings home a near perfect report card, there's not a lot for the parent to discuss with the child. Too many history textbooks give America straight A's.

How can the teacher help students think in a non-cognitive sense about subject matter which is simply not perplexing to begin with?

The teacher must do more than teach the text to stimulate thinking. The teacher must teach what the world is like. There are issues in our world which are perplexing. It is up to the teacher to share those perplexities with students.

The first task then for teachers interested in helping high school students practice thinking is to choose topics or events which will "shake [students] from sleep and make [them] fully awake and alive." The five causes of the civil war does not qualify. Topics might include how wealth is distributed in this country, the effects of advertisement, the working class in America, how the media affects our perceptions of the world, the role of special interest groups in government, the place of government in our lives, and so on. These topics lend themselves to the critical examination so vital for the thinking activity.

The teacher presents examples to the students showing, for instance, how special interest groups go about influencing members of Congress. Students are encouraged to examine the assumptions and implications of that kind of activity. Class discussion would involve talking about the moral implications of lobbying and the use of pressure and power to achieve results. Students are asked to form their own opinions on the topic by reflecting on any personal experiences with pressure and power. A brief paper could be written by students expressing their reflections on the topic.

The format for secondary schools must include a topic which stimulates students' interest, examples of the topic, class discus-

sion, and papers or essays which disclose the students' personal reflection on the issue. The teacher must be willing to bring to his or her students controversial issues. He or she should encourage students to be critical and questioning learners. Practicing non-cognitive thinking is risky business. The moral dimensions of any issue are part of the process. Students should be helped to take definite positions on issues after thinking through the assumptions and implications involved. The safe middle ground of liberalism will give way to the shaky sands thoughtful people often stand on.

To summarize this section, I will review some of the connections between teaching thinking and the schools. Since Hannah Arendt used only one sentence to describe how thinking can be taught, I assumed that non-cognitive thinking can, indeed, be taught. According to Arendt, thinking can only be taught by a person who is perplexed at things other people simply accept or ignore. The teacher of thinking is not indoctrinated but constantly examines and questions the meaning of things. He or she is interested in what the world is like since their job is to introduce students to that same world. Teaching non-cognitive thinking, then, requires thoughtful teachers.

At the elementary school level a thoughtful teacher can use the children's sense of wonder to stimulate thinking. The primary grades seem ideal for that approach. The intermediate grade youngsters can be given experiences with discovering meaning and desensitizing activities. Junior high school age students can practice thinking by being allowed to use those adolescent characteristics of rebellion

and questioning on subject matter and selected topics. High school students can be introduced to a more critical examination of what the world is like. At this level students can discuss the morality of topics.

To be sure, this suggested list of ways to practice non-cognitive thinking is not comprehensive. I believe thoughtful teachers will figure out their own methods. The suggestions are simply places to begin teaching what Hannah Arendt discussed in her work on thinking. Two things are important about these beginning exercises. First, they do not require elaborate teaching materials. Secondly, these exercises are ways to practice thinking. That means they must be done on a regular basis. They are not fillers for rainy days or interesting ideas to be used on dull Friday afternoons. Thinking requires practice. Arendt believed we have to be ready to think anew as many times as life confronts us with "some new difficulty." I can think of a better way to meet that challenge than through practice.

Thoughtful teachers who understand the characteristics of non-cognitive thinking will want to help students practice thinking. Having some suggestions for ways to do that might be helpful. However, they must still face the facts presented in the first part of this work. Teachers are socializing agents, paid conservators of society. They represent certain liberal values which have worked their way into how we think about thinking. A liberal society is cognitively and scientifically oriented. In addition, teachers are part of a large bureaucracy. As subordinate members they are not

encouraged to be thoughtful. They learn how to do their jobs. It is difficult to be critical as a subordinate. These are powerful obstacles to the teaching of thinking.

I have argued that it is important to know the social, ideological and institutional barriers to teaching thinking. I believe it is vital to recognize these obstacles before attempting to teach thinking. When we fail to see the context we work in, as teachers we are easily fooled into either believing that the latest "educational innovation" holds the answer to all our problems, or we feel helpless to change the nature of what we do with students. Both positions are sad. If we know and understand the interaction of the forces discussed earlier, we can at least begin to re-think what we do as teachers. We will be able to separate out what we do in our social roles, from what we do because of our positions within a bureaucracy, from what we do as members of a liberal society. It may happen that through all this separating teachers will at last come to see the essence of their work buried underneath piles of unnecessary overgrowth. I believe a part of that essence will be that teachers can be part of the "only way to teach thinking." Teachers should be teachers of thinking. Thinking may very well be the essence of our work.

CHAPTER V FOOTNOTES

¹Hannah Arendt, Thinking (New York: Harcourt Brace Jovanovich, 1978), p. 5.

²Ibid., p. 4.

³Ibid., p. 4.

⁴Ibid., p. 5.

⁵Ibid., p. 54.

⁶Ibid., p. 57.

⁷Ibid., pp. 57, 58.

⁸Ibid., p. 50.

⁹Ibid., p. 61.

¹⁰Ibid., pp. 62, 57.

¹¹Ibid., p. 13.

¹²Ibid., p. 191.

¹³Ibid., p. 191.

¹⁴Ibid., p. 88.

¹⁵Ibid., p. 88.

¹⁶Ibid., p. 71.

¹⁷Ibid., p. 72.

¹⁸Ibid., pp. 70, 71, 72.

¹⁹Ibid., p. 77.

²⁰Ibid., p. 77.

²¹Ibid., p. 88.

²²Ibid., pp. 74, 75.

²³Ibid., pp. 74, 75.

²⁴Ibid., p. 167.

²⁵Ibid., pp. 167, 191.

²⁶Ibid., p. 168.

²⁷Ibid., p. 174.

²⁸Ibid., p. 174.

²⁹Ibid., p. 175.

³⁰Ibid., p. 173.

³¹Ibid., p. 176, 177.

³²Ibid., p. 180.

³³Ibid., p. 118.

³⁴Ibid., p. 182.

³⁵Ibid., p. 185.

³⁶Ibid., p. 186.

³⁷Ibid., p. 188.

³⁸Ibid., pp. 190, 1981.

³⁹Ibid., p. 191.

⁴⁰Ibid., p. 191.

⁴¹Ibid., pp. 191, 192.

⁴²Ibid., p. 42.

⁴³Ibid., p. 193.

⁴⁴Ibid., p. 193.

⁴⁵Ibid., p. 192.

⁴⁶James D. Koerner, The Miseducation of American Teachers (Boston: Houghton Mifflin Company, 1963), p. 79.

⁴⁷Arendt, Thinking, p. 141.

⁴⁸Ibid., pp. 142, 143.

⁴⁹Ibid., p. 176.

⁵⁰Ibid., pp. 171, 170.

⁵¹Albert Alexander, "Does the American History Textbook Still Wear a Gray Flannel Cover," Social Education (March 1969): 324.

⁵²Mark M. Krug, "Safe Textbooks and Citizenship Education," School Review (Winter 1970): 463.

⁵³Ibid., p. 469.

⁵⁴Hannah Arendt, Between Past and Future (New York: The Viking Press, 1968), pp. 195, 192.

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