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A Philosophical Analysis of Objectivist Education

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A Philosophical Analysis of Objectivist Education

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Dedication

To my family

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A Philosophical Analysis of Objectivist Education

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The history of thought is characterized by two opposing philosophies: *subjectivism* and *intrinsicism*. Within education, this alternative is often referred to as progressive (subjectivist) and traditional (intrinsicist) education. Despite possessing some educational beliefs and practices that are effective, neither of these philosophies of education has been completely successful. This dissertation offers another choice, the philosophy of *objectivism*. Objectivism has never received significant attention from mainstream educators. Therefore, this dissertation will describe what objectivism is, show how it compares and contrasts with progressive and traditional educational philosophies, and argue that it is the more logical and practical. Objectivism has been criticized as obsolete, untenable, or evil, but it will be argued that not only is objectivism tenable and moral, it is absolutely necessary for education to exist.

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Introduction

THESIS. The history of thought is characterized by two opposing philosophies: *subjectivism* and *intrinsicism*. Within education, this alternative is often referred to as progressive (subjectivist) and traditional (intrinsicist) education. Despite possessing some educational beliefs and practices that are effective, neither of these philosophies of education has been successful. This dissertation offers another choice, the philosophy of *objectivism*. Objectivism has not received significant attention from mainstream educators. Therefore, this dissertation will describe what objectivism is, show how it compares and contrasts with progressive and traditional educational philosophies, and argue that it is more logical and practical. Objectivism has been criticized as obsolete, untenable, or evil, but it will be argued that not only is objectivism tenable and moral, it is absolutely necessary for education to exist.

Some secondary features of this dissertation will be (1) that the social justice, diversity, and multiculturalism movement in education is not only flawed but dangerous, (2) that the choice between progressive and traditional philosophies of education is a flawed alternative, (3) that at the heart of this general flawed alternative are specific flawed alternatives like thinking vs. knowledge, theory vs. practice, facts vs. values, reason vs. emotion, the individual vs. the group, selfishness vs. altruism, the abstract vs. the concrete, concepts vs. particulars, the humanities vs. the sciences, the one vs. the many, nihilism vs. absolutism, and equity vs. excellence, (4) that progressive and traditional philosophies of education frequently invert the primary-secondary hierarchy of principles, always with destructive consequences, (5) that this practice is a consequence of pragmatism, the philosophy that most influences education, and (6) that pragmatism is

the philosophic opposite of objectivism because it is short-range, relativistic, and anti-conceptual.

DEFINITION OF TERMS. Philosophy. The method of inquiry of this dissertation is philosophical analysis. As such, my argument will utilize philosophical terms and methodology. Two of the terms are *philosophy* and *theory*. A *philosophy* is defined as a systematic set of wide-ranging principles that include three basic domains of thought: *metaphysics*, *epistemology*, and *axiology*. *Metaphysics* is the study of reality and the nature of existence. *Epistemology* is the study of the method and content of knowledge. *Axiology* is the study of ethical and aesthetical values.

The conceptual domains of metaphysics, epistemology, and axiology are the result of logical reasoning applied to sense experience. Each of the domains is a set of concepts, principles, and axioms. The principles guide experience and practice, but the principles were first derived from experience and practice. That is, a philosopher observes concrete particular instances or objects and abstracts from them concepts, principles, and axioms. In other words, a philosopher uses *induction* to discover knowledge. From the principles that are formed from induction, he uses *deduction* to further extend the philosophy in ways that are not intuitively obvious to form other concepts, principles, and axioms.

Theory. A *theory*, by contrast, is like a philosophy in microcosm. It does not hold specific views with respect to the three main domains of philosophy. It only refers to specific areas of practice such as curriculum or learning, for example. Theory, nevertheless, uses the same processes of induction and deduction as philosophy.

In this dissertation, three major philosophies will be compared and contrasted: *subjectivism*, *intrinsicis*m, and *objectivism*. *Subjectivism* includes the philosophies of *skepticism*, *pragmatism*, *existentialism*, and *Marxism* or *critical theory*. Each of these

philosophies in turn provides the foundation for the *progressive* educational theories of *constructivism, social reconstructionism,* and *post-modernism*. *Intrinsicism* includes the philosophies of *materialism, idealism, realism,* and *religion* or *supernaturalism*. Each of these philosophies in turn provides the foundation of the *traditional* educational theories of *behaviorism, essentialism, perennialism,* and *neo-Thomism*.

This paper at times will differentiate among these philosophies and theories, but more often it will refer to them as either subjectivism or intrinsicism when referring to philosophy and progressivism and traditionalism when referring to education. It is beyond the scope of this paper to define and distinguish each of the philosophies and theories subsumed underneath these two terms to the satisfaction of all readers at all times throughout this paper. More importantly, one of the secondary themes of this paper is that the philosophies and theories subsumed under these two terms, although different in particular ways, possess fundamental principles that reduce them to the same thing: subjectivism (progressivism) or intrinsicism (traditionalism).[1]

Subjectivism. For example, all of the above subjectivist philosophies and theories tend to argue that reality and knowledge are constructed by the perceiver or the community of perceivers and that reason is only one of many faculties of the mind that constructs knowledge. The educational *purpose* of subjectivist philosophies of education revolves primarily around thinking skills, socialization, and social justice, its *instructional method* equates to some form of social epistemology or cognitive pluralism, and its *curriculum* is multi-culturalism or whatever emerges from the construction of knowledge. The term *subjectivism* was selected because subjectivist philosophies define reality and knowledge in relation to the *subject* as opposed to the *object* of perception

Intrinsicism. Intrinsicism, by contrast, holds that there is an objective reality, but only of concepts that exist as concretes apart from human consciousness and that are

absolute across all contexts. It holds differing views about how to attain knowledge of this reality. Some intrinsicists advocate that knowledge is perception, that reality imprints itself onto a passive learner. Some advocate that knowledge can only be acquired through rationality without the use of the senses. And some advocate that knowledge can only be acquired through intuition, faith, or some other mystical medium. The educational *purpose* of intrinsicist philosophies of education is to acquire moral character and cultural or universal knowledge, its *instructional method* is direct instruction, rote learning, and sometimes Socratic questioning, and its *curriculum* is mostly knowledge of the Western world. The term *intrinsicism* was selected because intrinsicist philosophers believe that knowledge, e.g., concepts, exists apart from a human consciousness in a mystical realm or inheres in the objects of perception.

Objectivism. Objectivism is a philosophy that holds that there is one reality, that it can be known only by applying reason to one's sensory data, and that if one adheres to this process, with all of its implications, one will have true knowledge. The educational *purpose* of this philosophy is to develop the student's conceptual ability. The *instructional method* is to have the student form concepts by interacting with a logically structured and developmentally appropriate curriculum. The *curriculum* comprises only the subjects essential to developing one's conceptual faculty. The term *objectivism* was selected because objectivists believe that reality exists apart from the subject.

METHODOLOGY. Philosophical analysis is the method of inquiry of this paper. Since philosophy has been the subject of criticism in the past and present, a minor defense of it will be made. Critics of philosophy often are critical of it because they hold the false dichotomy referred to above as *theory vs. practice*. In the history of thought as well as in education, philosophy as a method of solving real-life problems has been denigrated at times as 'just theory'. The implication is that philosophy is impractical,

useless, or only of intrinsic worth. It has been argued that what society needs is a practical guide; education should teach students how to apply theories. Karl Marx was one of the principle critics of philosophy. He argued that philosophy should be cast into the dustbin of history because it failed to provide society with practical solutions to real problems.[2] Joseph Schwab, in his now famous lecture 'The Practical: A Language for Curriculum', said:

> The field of curriculum is moribund. It is unable, by its present methods and principles, to continue its work and contribute significantly to the advancement of education.
>
> …The curriculum has reached this unhappy state by inveterate, un examined, and mistaken reliance on *theory*.[3]

Objectivists reject the theory vs. practice dichotomy view of philosophy and education. A theory must refer to something in existence, in practice. If it does not, then it is not a theory. Indeed, it is nothing. It is a 'cognitive blank'. Objectivists understand from whence this false dichotomy comes. It is a result of thinkers constructing theories that do not refer to reality. Therefore, it is the *abuse* of theory and not *theory* itself that should be rejected. Objectivism sees the theory-practice dichotomy not as a dichotomy but as a relationship between the concept and one of the particulars it subsumes. A concept is the abstraction of all the particulars to which it refers minus the particular measurements of each, including all the ones yet to be observed. The concept, therefore, is a consequence of the particulars, not the other way around, as it is conceived in contemporary thought in which the particular is a consequence of the theory.

Another criticism of philosophy is that it is not scientific or that because philosophers do not observe subjects either in qualitative or quantitative ways, its conclusions should be considered tentative at best—i.e., as 'just theory'. This paper will refer to quantitative and qualitative research studies, but these studies are not necessarily

true because they use the method of science or some other systematic method of observing subjects. Often the studies are incorrect, not because they use science as their principle method, but because they drew incorrect conclusions from the data. But the notion that unless something is scientific it is not logical or true stems from another false alternative above: the humanities vs. science. Philosophy, as all disciplines in the humanities, yields truth if its methods are logical. Objectivists reject the claim that only science is logical. On the other hand, objectivists also reject the Kuhnian view of science held by thinkers like neo-pragmatist Richard Rorty who believes that the humanities are inherently illogical but that science is illogical too. All disciplines, including the humanities, yield truth *if* they adhere to reality and reason. The humanities' problem lies in its thinkers like Richard Rorty who have rejected reality and reason as their guides.

The rejection of reality and reason leads to the final criticism of philosophy. Philosophy, as the search for truth, is under attack in colleges of education. Truth, it is argued by critics of philosophy, is a mythical word. One cannot have absolute truth only subjective and relative truth. This axiom is actually one of the primary principles of subjectivist philosophies of education, which is now contemporary education's philosophy. Philosophy has become 'post-epistemological'. Metaphysics has been completely rejected. Logic and epistemology in the strong sense have been re-conceptualized as 'social logic' and 'social epistemology', which means one's method or reason and knowledge is determined by their demographic composition. Ethics has been retained because it is fallaciously believed that values have no basis in reality or logic.

Objectivism rejects this re-conceptualization of philosophy. It sees philosophy as the most important form of inquiry mankind possesses because it is the search for truth. Philosophy is the foundation upon which all other inquiry is made, including science. Philosophy then, as defined by objectivism, is the key to understanding in all domains of

thought. Philosophy, at its most basic level, is the formation of concepts. Concepts are the abstractions of particular objects and events in existence and as a result are *the* understanding of all the particular objects and events in existence. One cannot understand existence with a perceptual faculty alone. Perception is the method of animals. Mankind because of his fragile physicality relies on his conceptual apparatus, not his perceptual apparatus.

From the formation of concepts man forms principles and from principles he forms axioms. His entire set of concepts, principles, and axioms—his philosophy—guides him through life. His philosophy binds all the particular concretes and experiences together and tells him what they mean, how they are similar, how they are different, and why. A philosophy tells him how to decide a dilemma, if he has a true dilemma or just a false alternative, and what to do about it.

Aristotle's definition of man as the rational animal has not changed in over two thousand years. If mankind wants to advance as a species, it will only be by his reasoning faculty and no other. Therefore, it is imperative that education not reject philosophy. This does not mean that education should teach philosophy in elementary or secondary schools. It should not. However, it should teach the basic method and purpose of philosophy: concept formation. Currently it does not. It teaches sociology, which only gives us the concepts about culture. Education must go past sociology to its more fundamental base: philosophy.

Methodology: Postscript. At the defense of this dissertation some of the committee members, especially one educational psychologist, expressed concern that many of the claims of this dissertation do not cite scientific data for support. The primary charge is that only claims that are supported by 'data' stand as valid. Arguments that only use logic and anecdotal examples seem insufficient, especially if data exists that

challenge the claims. This issue caused a serious debate between myself and the committee members who brought this charge, so I am compelled to caution future readers who may have the same reaction as these committee members.

My response to these committee members and others who may bring similar charges is primarily the following. This dissertation is a *philosophy* of education paper. As such it uses a certain methodology and is aimed at a certain audience, both of which are outside of the methodology and audience of educational *psychology*. I mention this in the methodology section of the introduction (pp. 5-6). To be sure, even within philosophy there generally are two types of philosophical writing. One is more 'scientific' in that it expects the arguments to be based mostly on references from authorities in the field. The other more 'conventional' style expects arguments to be supported with logic and less references from authorities. This dissertation is an example of the latter, so readers should be forewarned. It is especially the style of the philosophy of education. Additionally, many of my claims are made within an ongoing discussion of scholars who share essentially the same body of knowledge. Thus they do not expect citations and references for every claim. Indeed, citations and references would bog down the prose and are unnecessary if the claim is made with the context of a well-established belief within the field.

Yet some of the committee members rightly argue that even if this is true it does not solve the problem that the claim may not be supported by the data within in *their* field. I admit this is a problem, but after having read the written criticisms of my dissertation (only the educational psychologist made written criticisms), I am confident that each criticism can be answered sufficiently. Yet it is beyond the scope, purpose, and

style of this dissertation to do that here. These charges should be addressed either orally to the committee members by going through each written criticism point-by-point or in another written treatise or essay. In either case I would need to read the research studies that challenge my claims and analyze them for their validity and relevance.

I should also mention that most of the written criticisms seem to fall into one of a few categories. One category are criticism in which the reader may not understand exactly what I mean and therefore the data that supposedly contradicts my claim actually supports what I mean or is irrelevant. Another category is one in which the conclusions drawn from the data that would contradict my claims are flawed. A third category comprises those criticisms that may be answered by the fact that the field of education is largely dominated by a subjectivist philosophy. Therefore, much of the inquiry in education is performed within that paradigm and thus no research studies of objectivist practices exist. In this case my claims may serve as a suggestion for research or merely a challenge to existing research. A fourth category is that much of what I am arguing may not be answered conclusively by science and is properly the domain of philosophy. Chapter one, for example, is purely about axioms that are necessary for scientific research and therefore cannot be proved or disproved by science.

In conclusion, the claims of 'lack of data' that some of the committee members brought against this dissertation are legitimate, especially if one considers that the committee members are unfamiliar with both the methodology and literature of philosophy. Resolving this problem, however, would entail addressing specific written criticisms either orally to those who bring the criticisms or in writing in a future treatise or essay. It would be difficult to answer these claims in this dissertation without

changing its scope, purpose, and style. In either case, I would need to read the scientific research studies that present the 'data' that refutes my claims so that I may analyze it for validity and relevance.

THE HISTORICAL, SOCIAL, AND POLITICAL CONTEXT. The distinction between subjectivism and intrinsicism goes back to at least the pre-Socratic philosophers. The most famous debate between the two occurred in antiquity between Protagorus and Plato. Protagorus' *Homo Mensura* (Man is the Measure) doctrine held that what is true for one person is true for him, even if it contradicts what another person believes to be true. His argument was that everyone sees the world through his own subjective lens and as such one cannot see true reality. The result is man cannot have objective knowledge, only subjective knowledge. Plato argues that the theory is self-refuting because if what is true for me is true, then if I believe the *Homo Mensura* doctrine to be false, it must be false. Since a theory cannot be false when it is true subjectivism is logically self-refuting.

Although Plato's argument is correct, his larger belief system, idealism, is flawed as well. Plato represents the other half of the alternative man has faced over time, intrinsicism. Plato represents intrinsicism in this situation because he believes that concepts or abstractions exist as concretes apart from particulars. These concepts, Plato argues, were not formed by a human consciousness. They exist in some mystical realm that man must contact through pure rationality.

Since ancient Greece man has been saddled with this *either-or* alternative. Man faces a choice: either I create existence or it exists in some heavenly realm. I either create morals or I must discover them through some mystical means. It is present in virtually all aspects of life. The newly elected pope, Benedict XVI, said in a recent homily that he disagrees with the current 'tyranny of relativism' sweeping the planet. Yet his solution is absolutism validated by revelation and authority of the church. So one

must either believe in nothing or accept God's teachings. The alternative exists in politics between liberals and conservatives and democrats and republicans. The recent election of George W. Bush was attributed to a growing evangelical movement in America intent on countering the growing relativistic movement. In higher education, a similar dichotomy is present under the heading of the 'Two Cultures' in which the sciences and humanities regard each other with suspicion and hostility.[4]

The alternative occurs in primary and secondary education as well as the choice between progressive and traditional education. John Dewey, one of the founders of pragmatism and progressive education, says in the first line of *Experience and Education*:

> Mankind likes to think in terms of Either-Ors, between which it recognizes no intermediate position…The history of educational theory is marked by opposition between the idea that education is development from within and that it is formation from without…
>
> At present, the opposition, so far as practical affairs of the school are concerned, tends to take the form of contrast between traditional and progressive education.[5]

An author writing about the need for creativity in education says in the spring issue of the *Kappa Delta Pi Record*:

> Throughout the history of public education in the United States, creativity in the classroom often has taken second place to rote learning. From the early days of the 20th century, when scientific management was applied to education, students were treated as products, not unique predispositions, talents, and minds. Traditionalists opposed more open-ended learning as championed by progressive educators like Dewey who emphasized "learning by doing."[6]

Arthur Applebee says in *Curriculum and Conversation: Transforming Traditions of Teaching and Learning*:

> Tradition has been construed as antiprogressive, out of date. It is attacked for preserving the status quo, resisting reform, obstructing social justice.

> …[C]urriculum needs to be re-thought in order to foster students' entry into living traditions of knowledge-in-action rather than static traditions of knowledge-out-of-context…[7]

The traditionalist side also makes reference to the alternative. E. D. Hirsch, Jr. argues in his book, *Cultural Literacy: What Every American Needs to Know,* that literacy is tacitly connected to knowing the dominant culture's knowledge, whatever it may be. Hirsch makes his argument against the prevailing progressive philosophy of education rooted in Dewey's pragmatism and progressivism. He says:

> The importance of such widely shared information can best be understood if I explain briefly how the idea of cultural literacy relates to currently prevailing theories of education. The theories that have dominated American education for the past fifty years stem ultimately from Jean Jacques Rousseau, who believed that we should encourage the natural development of young children and not impose adult ideas upon them before they can truly understand them…
>
> In the first decades of this century, Rousseau's ideas powerfully influenced the educational conceptions of John Dewey, the writer who has most deeply affected modern American educational theory and practice.[8]

The alternative pervades every aspect of education, philosophy, politics, business, and the arts and entertainment. One of the destructive aspects of the alternative is that, like Dewey says, educators adhere to one or the other, incapable of seeing the merits of both or the way in which both can work together more effectively. This dissertation will argue that one should not simply combine the two philosophies, however, or seek a middle road between the two. Rather, an entirely different philosophy is required. This dissertation was written in part to present objectivism as a new philosophy of education.

This dissertation also is written with the intention of contributing to the literature in the philosophy of education. The vast majority of philosophy of education texts, even the recent ones written during this 'post-epistemological' stage, structure the field as subjectivist vs. intrinsicist, although they do not always use those terms. This dissertation

is a significant addition to the literature because objectivism does not reduce to subjectivism or intrinsicism. The additions to the literature during this century—pragmatism, logical positivism (behaviorism), essentialism, perennialism, post-modernism, and constructivism—are only extensions of early philosophies—subjectivist and intrinsicist—not completely new philosophies.

This is only one rationale but represents perhaps the biggest one yet mentioned. In a field that is desperately searching for answers to its problems, objectivism represents the only answer that is not a variation of some former solution already instituted with poor results. Moreover, it is the most comprehensive, specific, and clearly understandable philosophy of education ever developed. Although pragmatism was comprehensive, John Dewey is too vague and obscure to understand. And while perennialism is similar to objectivism in its purposes and curriculum of education, it lacks a specific detailed account of its instructional theory and it still contains elements of mysticism. In short, no philosophy is worthy of solving education's problems over the long-term if it possesses even one minor flaw. A philosophy should be viewed as a mathematical geometry; if one part is flawed, no matter how minor, then the whole is flawed.

STRUCTURE OF THE WORK. The structure of this dissertation is divided into two sections. In the first section, *Philosophy*, the three chapters are *Metaphysics*, *Epistemology*, and *Axiology*, the technical terms for *reality*, *knowledge*, and *values* respectively. Each of these chapters will explicate the three philosophies of intrinsicism, subjectivism, and objectivism on which the second section, *Education*, is based. The three chapters of the second section are *Purpose*, *Instruction*, and *Curriculum*. The structure of this essay attempts to give the conceptual principles of intrinsicism,

subjectivism, and objectivism first and then the educational practices that correspond to the principles last.

In each chapter, a basic three-part pattern repeats. The intrinsicist, subjectivist, and objectivist view is given with respect to the meaning of the namesake chapter, metaphysics, epistemology, axiology, purpose, instruction, and curriculum. In each of the chapters on philosophy a connection between philosophy and education will be made. In all of the chapters a critique of the intrinsicist and subjectivist view will be made. I will also attempt to defend objectivism to likely arguments made against it.

The primary purpose of the structure is to aid conceptual understanding of all of the philosophies. Admittedly, the philosophies and theories may not fit as neatly into the intrinsicist-subjectivist dichotomy. Therefore, exceptions will be accounted for if possible. For example, an argument could be made that behaviorism could fit into either the intrinsicist or subjectivist camp. This discrepancy is justified in the sense that at times intrinsicism and subjectivism actually reduce to the same thing.

Another reason for the structure of the work relates to my intention of contributing to the literature in the philosophy of education. Most texts on the philosophy of education structure the content in the same way that it is structured in this dissertation. A chapter each for metaphysics, epistemology, and axiology is included. In each of these chapters, the different philosophies that influence education are described: idealist, realist, materialist, pragmatist, and so on as well as their theoretical descendents, essentialism, perennialism, behaviorism, and constructivism. Chapters that describe how the philosophy connects to education are included as well. For examples of this structure see Ornstein's and Levine's *Foundations of Education*, Ozmon's and Craver's *Philosophical Foundations of Education*, Sadker's and Sadker's *Teachers, Schools, and Society*, and Griese's *Your Philosophy of Education: What Is It?*. This dissertation

differs slightly from past philosophy of education texts in that its chapters on education are slightly more concrete and specific, whereas most of the literature tends to remain in the philosophical realm even when discussing educational practices. Nevertheless, the structure is deliberately similar to most philosophy of education texts to better assimilate what this dissertation says into the existing body of literature.

Overview. In *Chapter One*: *Metaphysics*, I argue that one reality exists. The subjectivist view is that there is one reality, but one cannot know it because subjectivity prevents one from knowing it. The intrinsicist view is that there is one reality, but the things that are real are not concrete material things but ideas. This chapter is important to education, because education—as defined by objectivism—is learning about reality. If we accept the subjectivist view that reality is whatever one constructs, then there is no need for education. If we accept the intrinsicist view that reality is the immaterial, then education teaches a mystical method of knowing.

In *Chapter Two: Epistemology*, I argue that objective knowledge can be attained. In the process of acquiring knowledge, man first begins by examining several particular examples of some concrete, say, for example, a table. Then, after several examples of tables have been perceived, man abstracts the essential characteristics of the tables into a concept. This concept is objective knowledge. It is an absolute only in relation to some context, however. The subjectivist view of epistemology is essentially social in that one's knowledge is a construct of his socially constructed mind or identity. The intrinsicist view of epistemology varies. Some believe that one acquires knowledge through reason apart from the senses and some argue that reason applied to sense experience attains knowledge. In both instances, mystical features predominate, rendering the philosophies invalid. Epistemology is important to education because it defines the way a student learns.

In *Chapter Three: Axiology,* I argue that the alternative between facts and values is a false one. Historically, the intrinsicist view is that values are absolutes that exist in a mystical realm, whereas the subjectivist view is that values are merely relative or subjective to a given individual or culture. I will argue that values—like facts—can be formed by applying reason to reality. I will show how values are essential to a proper education and how they might be applied in the curriculum.

In *Chapter Four: Purpose,* I argue that education's proper purpose is the development of the student's conceptual understanding and ability. The progressive view is that socialization, social justice, or thinking skills are more important as purposes. The traditional view is that morals or character and knowledge are more important. At this time, I will also discuss the difference between a primary and secondary principle. Both progressives and traditionalists, in and out of education, violate this logical hierarchy. In addition, they have created the false dichotomy of thinking vs. knowledge.

In *Chapter Five: Instruction,* I argue that proper instruction amounts to motivation, integration of concepts, and the hierarchical structure of content. Objectivist instruction emphasizes the one in the many, the conceptual unification of knowledge. Progressive educators advocate disintegration of concepts and diversity, by contrast. Some traditional educators present content in logical ways, but not with a view to concept formation, only with a view to acquire large amounts of data usually passively.

In *Chapter Six: Curriculum,* I argue that curriculum should amount to subjects that are essential for conceptual development. Reading and writing are the primary subjects of the curriculum because they facilitate the acquisition, thinking, and generating of concepts better than other forms of representation like physical movement, music, art, or social interaction. Math is also a primary of the curriculum because it is the science of measurement, which is an essential component of conceptual thinking. History is a

primary of the curriculum because it is the conceptual understanding of mankind. It presents the principles that have guided man in history in concrete form. Science is a primary for the same reason that history is. It gives the student all of the concrete examples of scientific principles or concepts that he must know to better understand physical reality. Finally, literature is the only art in the objectivist curriculum. Art is absolutely important to a conceptual mind because it presents the entirety of thought in a concrete accessible form. Art creates what could or should be even if reality has not yet done so. Literature is the only art of the curriculum because it is the most conceptual art. It is the most conceptual because it is purely literary and, therefore, able to facilitate conceptual thinking more than any other art form.

CONCLUSION. In conclusion, the secondary arguments of this dissertation are that one must be an objectivist at some point, whether one chooses to or not; the only question is how often or how consistently. Those that deny objectivism, tacitly deny reality and reason. Consequently, objectivism is not a theory as it is the foundation upon which theory is made.

I will also properly re-conceptualize the false alternatives of theory vs. practice, thinking vs. knowledge, facts vs. values, reason vs. emotion, the individual vs. the group, selfishness vs. altruism, the abstract vs. the concrete, concepts vs. particulars, the humanities vs. the sciences, the one vs. the many, nihilism vs. absolutism, and equity vs. excellence. These false alternatives are the basis of educational theory and practice and consequently have damaged education.

Finally, the primary purpose of this dissertation is to describe the philosophy of objectivism and how it can be applied to education. Objectivism is the first philosophy not to reduce to either of the false alternatives of relativism or mysticism. Objectivist education seeks to erase the false alternative by applying reason to reality to reach

objective knowledge. Because objectivism is based on reality and reason and uses concepts as its guide to survival and advancement in life, it is the most rational, practical, and moral philosophy of education. Education that adopts its principles will adopt rationality as its guide.

Introduction Notes

1. For a complete explication of all of these philosophies and theories see Howard A. Ozmon and Samuel M. Craver, *Philosophical Foundations of Education, 7th Edition* (Upper Saddle River, NJ: Merrill Prentice Hall, 2003).

2. Ozman and Craver, *Philosophical Foundations*, 308.

3. Joseph S. Schwab, "The Practical: A Language for Curriculum" in *Joseph S. Schwab, Science, Curriculum, and Liberal Education, Selected Essays*, edited by Ian Westbury and Neil J. Wilkof (Chicago: The University of Chicago, 1978), 287.

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7. Arthur Applebee, *Curriculum as Conversation: Transforming Traditions of Teaching and Learning* (Chicago and London: The University of Chicago Press, 1996), 5.

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SECTION I: PHILOSOPHY

Chapter One: Metaphysics

METAPHYSICS DEFINED. In this chapter I will explain what metaphysics is, how it relates to education, what the subjectivist and intrinsicist metaphysical beliefs are and what problems they have, especially in relation to education, and how the objectivist view of metaphysics is more logical and practical.

Metaphysics is the branch of philosophy that studies the ultimate nature of reality or existence. It asks questions such as 'What exists?' or 'What is real?' Metaphysicians seek an irreducible foundation of reality or 'first principles' from which absolute knowledge or truth can be induced and deduced. The term *metaphysics* is derived from the Greek *ta meta ta physika*, which literally means 'those things after the physics.' Aristotle's writings on 'first philosophy' came after his treatise on physics, therefore, Aristotle's editor, Andronicus of Rhodes, named them metaphysics.

At first, questions like, 'What is real?' seem too simple to bother asking. But consider George Knight's example about the existence of a floor and one will see that the question has far reaching implications:

> [W]hat is exactly the nature of the floor upon which you stand? It may seem to have a rather straightforward existence. It is obviously flat, solid, and smooth; it has a particular color; it is composed of an identifiable material, such as wood or concrete; and it supports your weight…Suppose, however, that a physicist enters the room and is questioned about the reality of the floor. She will reply that the floor is made of molecules; that molecules consist of atoms, electrons, protons, and neutrons; and these, finally, of electric energy alone. A third position…is offered by a passing chemist…To him the floor is a hotbed of hydrocarbons associated in a particular way and subject to certain kinds of environmental influences, such as heat, cold, wetness, dryness, and oxidation.

> [I]t is evident that the question of reality is not as simplistic as it [appears]. If the reality of a common floor is confusing, what about the larger problems that present themselves as mankind searches for the ultimate reality of the universe?[1]

Metaphysical questions are the most basic to ask because they provide the foundation upon which all subsequent inquiry is based. Many have attempted to reject metaphysics (e.g., pragmatists and materialists) as overly theoretical abstractions with no basis in sense experience. For example, contemporary bookstores typically shelve books about metaphysics next to the religion and occult section of the store as if to suggest the two are related domains. However, only some aspects of metaphysics can be charged with this critique because even science performs its method within the framework of metaphysical constructs.

Metaphysical questions divide into four different aspects. The first is *cosmology*. It studies the origin, nature, and development of the universe. It asks questions such as, 'How did the universe originate and develop?' The second aspect is *theology*. It studies the nature of deities. It asks questions such as, 'Is there a God?' The third aspect is *anthropology*. It studies the nature of man. It asks questions such as: 'What is the relationship between mind and body? Are people born good, evil, or morally neutral? To what extent are individuals free?' The fourth aspect is *ontology*. It is the most essential to metaphysics because it asks what it means *to be*. It is derived from the past participle of the Greek verb *on* (to be) and hence is an attempt to determine what *is*.[2]

METAPHYSICS AND EDUCATION. The goals of education are more directly affected by metaphysics than any other domain of philosophy. Arnold Griese relates how all of our educational practices reflect our conscious or unconscious assumptions about reality and what is real:

> The Greek citizens of Athens, for example, did not permit their girls to attend schools…[or] enter into the intellectual exchanges with the

> men…They [were] restricted…to the back part of the house where the cooking and household chores were done.
>
> [I]t seems clear that such restrictions placed on the lives of women had to be based on a metaphysical assumption. They…obviously thought that women somehow lacked certain human qualities…[Therefore] [s]chool attendance was restricted to males only.[3]

As the passage above indicates, the educational process is a metaphysical one regardless of one's beliefs. Consider that Christian churches spend millions of dollars on private educational institutions to align their educational goals and purposes with their metaphysical assumptions. Consider also that progressive educators' views of teaching and learning reflect a distinct metaphysical system that differs dramatically from the traditional or Christian view.

Metaphysics is relevant to education because like metaphysics, education is essentially about learning what *is*, however one defines education. If some thing does not exist schools usually do not teach it (e. g., astrology), hence the reason the 'intelligent design' vs. evolution debate is so controversial in contemporary education. The debate revolves around the question of whether or not there is evidence to suggest that intelligent design theory is valid—if it exists. Education, like metaphysics, means at its most basic level looking at reality, taking account of what we know exists (induction), and then deducing more information that is not self-evident from the data. A good example of this process occurs in a mathematics class in which students learn how to do word problems. Usually teachers have students read the problem, list the facts or what they know, and then solve the problem through intuitive common sense or a formalized logical system. Some kind of metaphysical assumption is implicit in this learning experience. When a teacher says, 'Read the passage' or 'What do you know?' he is consciously or unconsciously engaging himself and his students in a metaphysical exercise. What the teacher and students say in response reveals their metaphysical views. The problem then

becomes what view of reality does one want their child to be exposed to in school: the subjectivist, the intrinsicist, or the objectivist view?

SUBJECTIVIST METAPHYSICS. Antecedent Influences. The historical beginning of the subjectivist view of metaphysics dates back to Protagorus who was a Sophist, which was a traveling teacher who instructed students in argumentation and public speaking. The Sophists were known for their claim that they could 'make the weaker argument the stronger', implying that truth is rhetorical. This view is not much different from the present day post-modernist view, which holds that science is a 'rhetoric of truth'. The sophists opposed the philosophers of their time like Socrates and Plato because they engaged in the search for ultimate truth or reality.

Protagorus developed a theory known as the 'Man is the Measure' doctrine, which says, 'Man is the measure of all things, of things that are, that they are, and of things that are not, that they are not.' Protagorus argued that because human perception is fallible and yields wide-ranging results, no absolute knowledge can be had. Whatever exists, is what *appears* to exist. Since the object of perception is unknowable, the only logical position is *skepticism*, the belief that no knowledge is possible. It follows from this conclusion that if no objective knowledge is possible, then values and morals are also subjective.[4]

Moving forward in time to the English enlightenment, George Berkeley wrote in *Principles of Human Knowledge* (1710) that because man cannot 'get out of himself' into the so-called external reality, there is no external reality, at least apart from sense perception. Therefore, to *be* is to be perceived. The so-called 'things' that are 'out there' are really in the mind. A mountain that we see across the river is merely a percept, an idea, because there is no way of transcending our sensory-perceptual apparatus. Reality is merely *phenomenal*.

Pragmatism. Relativism, skepticism, and phenomenalism were antecedent influences on John Dewey and the philosophy pragmatism, which he helped to develop. Pragmatism is probably the most influential progressive philosophy of education, so only its metaphysical views will be discussed here. Moreover, although there are many other subjectivist philosophies and educational theories that imply certain metaphysical views, they are all similar to or in some way an extension of pragmatism. Some of them are *critical theory*, *social re-constructionism*, *constructivism*, and *post-modernism*.

Pragmatism rejects metaphysics out right because metaphysics is the search for an absolute truth or reality. To a pragmatist, existence is what a given community or individual believes *works* or is *useful* in a given situation. Ernest Bayle describes the pragmatist position in the following way:

> We define reality (what is real) as what does, or conceivably might, make a difference to one…
>
> However, from the point of view of much nonpragmatic thought, the idea of reality is a very mundane one. To reach bedrock, so they claim, one must deal with ultimate reality, with what things "really are." In fact philosophy is often defined as the search for ultimate reality, for the nature of ultimate and final being. But a pragmatist counters that such a quest represents utter futility, for how can you know what you would know if you knew what you don't know now? Ultimate and final being is, by definition, beyond mortal being; hence, for mortals the quest is futile.[5]

Central to Dewey's understanding of pragmatism is the concept *experience*. Van Cleve Morris describes Dewey's 'experiential metaphysics':

> We may summarize experimentalist metaphysics by saying that if we must have metaphysics, let us name it Experience.
>
> But we must be cautious not to place too narrow an interpretation on it (experience). It is not restricted to just the experiences of our senses. It includes all that people do and think and feel. It includes quiet reflection as well as active doing, "feeling" as well as seeing and touching. What it does *not* include is a transformation of these quite ordinary experiences into the transempirical (beyond experience) components of reality, which are intellectually out of reach and supposedly of higher

> metaphysical rank than the experiences themselves…reality is a process: experience.[6]

Still another component of John Dewey's pragmatism is his belief in the efficacy of the *scientific method* as a useful paradigm of thinking, inquiry, or problem solving. Dewey believed that the scientific method should be applied to all subjects in school, all real-world experiences, and all situations that present a problem.

> This ebb and flow of doing and undergoing (experience as process) has no particular pattern or rhythm to it, and a great deal of it is unreflective, that is, it passes us by without our thinking about it. As Dewey put it, experience is simply "had." But we can introduce pattern and rhythm into experience by becoming reflective, by taking special pains to *do* under controlled conditions and then to *undergo* with our eyes open, so that we can report what happens. This is what we call "science." It is also what we call "inquiry." [7]

Pragmatists posit that there are no 'pre-established truths'. The world is open-ended, a realm of process and constant change. Three pillars, nevertheless, bolster this non-absolutist philosophy: *usefulness*, *experience*, and *science*. *Experience* and *science* share a fundamental base. Both are rooted in sense experience, although pragmatists widen the meaning of sense experience to include, not only the senses, but the emotions too or anything that counts as experience in the mind of the experimenter. Experience and science both imply that one looks to the environment, takes in what is there, but also contributes something to the experience as well and thereby changes the environment, at least in his mind. Thus experience is the commingling of the environment and the perceiver. The two can never by thought of as independent of one another. Reality can never by conceived as one or the other. Reality is the two 'metaphysically', if you will, fused. A third pillar is *usefulness*. Usefulness is defined as what satisfies the community. Its corollary is *democracy* in that the majority decides what is reality or what works.

SUBJECTIVIST METAPHYSICS AND EDUCATION. *Experience*, the *scientific method*, *usefulness*, and *democracy* are the main pillars of pragmatic metaphysics.

Therefore, the purpose of pragmatic education would be to add meaning to experience. Since people are in continual experience, they must learn ways to effectively deal with experience. According to Dewey, the best paradigm of thought is the scientific method or reflective inquiry. Students would treat experiences like problems to be solved. The student would first define the problem, generate several strategies that seem like viable solutions to the problem, discuss the solutions in an open forum according to the standard of usefulness, and finally implement the solution that is democratically reached by a community of peers.

The instructional strategies used by the teacher would be to place students in projects or situations that simulate the experiences they have in every day life. This does not mean that the students do not stop writing and reading in the traditional sense. It means that no longer would there be a clear dividing line between real-world experiences and academic experiences. The two would merge. Students would work on problems they found interesting and meaningful. The curriculum, therefore, would emerge from the experiences generated by the students.

CRITIQUE OF SUBJECTIVIST METAPHYSICS. Although subjectivist metaphysics currently is the most dominant influence on contemporary education, it still contains many problems. The first problem is that *subjectivism is self-refuting.* Subjectivism claims that reality is subjective. This claim is logically flawed because it holds that subjectivism is an absolute. However, if everything is subjective then this claim is subjective too. Since a theory cannot be false when it is true, subjectivism is false. Nevertheless, subjectivists often counter by saying that this refutation is flawed because the argument is subjective or relative as well. This response is also self-refuting because it would be asserting a subjective truth that there is no objective truth, which is

the same thing as asserting nothing. So subjectivism either refutes itself or it says nothing.

A second problem is that *subjectivism's, i.e., pragmatism's, conception of truth as useful is problematic.* Dewey was a proponent of democracy because he believed that what is true is determined by the majority opinion. This belief has many problems. For one, what if the majority is wrong? First, if the majority of Germany supported Adolf Hitler's belief that Jews are an inferior species, on what grounds could the minority viewpoint claim he is wrong? According to pragmatism, they cannot. Nazi Germany then is completely justified in their actions according to pragmatism.

In the recent election in which George W. Bush won the American presidency, democrats, who share many of pragmatism's principles, would have to affirm that the election of Bush means Bush as president is more *useful* than John Kerry. From the moment the opposing candidate won, they would have to admit that their candidate is the wrong person for the job. This is obviously a flawed opinion to hold, since it denies the possibility of debate, the very thing pragmatism desires. The majority or the minority can always be wrong, so there should be a better standard for *useful* than merely the majority opinion.

Second, if an idea works then presumably the idea is connected to reality in some way. Johannes Kepler's first law of planetary motion says planets orbit the sun in *elliptical* paths. Nicolaus Copernicus' theory says that the planets orbit the sun in *circular* paths. Scientists have rejected Copernicus' theory and accepted Kepler's theory. Why? Pragmatists would reply that, 'Kepler's idea makes a *practical difference* in our attempts to calculate and predict the motions of the planets, so it is to be preferred to Copernicus's idea.'[8]

Objectivists would argue that the first theory is accepted because it is *what is actually occurring and true* not just because it is merely useful. Pragmatist's use of the equivocal term *useful* should be replaced because ultimately what pragmatists mean in is truth.

Third, many things are useful that are plainly false. Religious or political views may be useful in the hands of a skilled manipulator but may prove to be false and damaging later. Likewise, many things are true and yet not proven to be useful in the immediate present. Pure mathematics and theoretical physics, because of their highly conceptual nature, are not readily useful to the average person in society but later in time may prove to be indispensable. In one sense, education is an example of something that does not seem useful in the present but will be useful later after one has grown up, graduated, and gotten a job. Therefore, *useful* seems limited. As a standard of truth it only addresses immediate problems and only solves them in the short term. Principles, by contrast, are long range because they address the problem on the principle level and thereby solve the problem forever.

A third problem is that *subjectivism implies non-education*. Given that students construct meaning rather than adhere to reality—according to subjectivists—what does this mean for education? The answer is that students cannot learn anything and thus education is pointless. Learning, whether formal or informal, necessarily implies an external reality that must be learned from, not created. If knowledge is constructed why have any education at all? If knowledge is constructed, the best education would be for students to stay at home and construct their own knowledge. As soon as one proposes a purpose, a curriculum, or a method of instruction, they are maintaining that a reality outside of them exists. Why this purpose of education, why this curriculum, why this instructional method and not another can never be asked within a subjectivist framework.

To do so means to be an objectivist. Objectivists realize that learning presupposes something to be learned, something outside of them. If it is in them, then there is no need for learning because they have already learned it.

Take as an example, a boy in a primitive hunter and gatherer tribe being taught to hunt by his father. If he does not conform to reality, would he not fail as a hunter? He absolutely cannot construct his own meaning unless his own meaning coincides with reality. A teacher in his tribe would not say to the boy, 'I am not going to tell you how to hunt because that presupposes that I know reality, which I don't. You and the other children need to decide on your own how to hunt. Our way is just our way and we have no special claim on how to hunt. There are no principles by which to hunt that we can give you.' If this scenario was allowed to play out, as it is desired by subjectivist educators, the new generation would probably not become competent hunters. Even if one of the tribal teachers who is knowledgeable about hunting only served as a 'facilitator' of hunting, that still presupposes that his knowledge is a more accurate view of reality.

In summary, the subjectivist view of metaphysics is flawed. One, it is logically self-refuting. Not only does subjectivism make an objective claim when it says there are no objective claims, it also holds many absolutes in its philosophy: experience, the scientific method, democracy, usefulness, etc. How can a philosophy that has rejected absolutes have so many absolutes? Two, its centerpiece concepts of democracy and usefulness are problematic. What is democratic or useful is not always true, good, or right. Therefore, democracy and usefulness are not ultimate standards by which to assign metaphysical import. Finally, subjectivist metaphysics necessarily implies no education. If the child's own opinion is more important than the teacher's and the goal and content of education, why would education be needed? As soon as one posits the need of a

teacher, a goal, and a content, one must logically hold that an external reality exists that can be known.

INTRINSICIST METAPHYSICS. Idealism. We now shift to the other choice in education: *intrinsicism*. Notice that much of the language of both philosophies, subjectivism and intrinsicism, plays off of the distinction between the two. For example, notice how Morris distinguishes pragmatism (subjectivism) from intrinsicism in the following passage:

> What [pragmatism] does *not* include is a transformation of these quite ordinary experiences into the transempirical (beyond experience) components of reality, which are intellectually out of reach and supposedly of higher metaphysical rank than the experiences themselves…[9]

Morris points out a central theme of intrinsicism: its belief in the 'transempirical' nature of knowledge and reality. One of *intrincisim's* most notable example of this feature is found in *idealism*, the philosophy of Plato. Plato regarded ideas or, as he called them, *forms* as the only real things in existence. Idealism is actually a theory of concepts and thus a theory of epistemology. Plato's *theory of forms* arose from a seemingly unsolvable problem in epistemology in his time. Philosophers were stumped by the fact that concepts remained static while the particulars they referred to change. For example, the concept *table* never changes no matter what the size, shape, or character of the table one perceives. The philosophers of the time apparently regarded change as somehow less than real and therefore attached a higher status of existence to things that did not change. Since concepts did not change and their particular referents did, concepts—and not the particulars—were more real than the particulars.

Plato further deduced that if the particulars ultimately are not real, then the method of perceiving them must not be real either. Following this line of logic, it is easy to conclude that *conception* and not *perception* is the highest form of thought for an

idealist. Plato believed he solved the problem of universals. He concluded that the things in existence have no real existence at all. When one perceives them, one is actually engaging the concept (forms) through the process of thought (rationalism). George Knight summarizes idealism in the following way:

> …[R]eality for the idealist is dichotomous—there is the world of the apparent, which we perceive through our senses, and the world of reality, which we perceive through our minds. The world of the mind focuses on ideas, and these eternal ideas precede and are more important than the physical world of sensation. That ideas precede material objects can be illustrated, claim the idealists, by the construction of a chair in the mind before he or she could build one to sit on. The metaphysics of idealism might be defined as a world of the mind.[10]

Plato is not the only idealist. Many subjectivists are also idealists: Rene Descartes, Immanuel Kant, Jean Piaget, and George Berkeley, who was discussed in the subjectivist section. Anyone who denies that sense experience is the basis of knowledge and that ideas are the primary 'things' in reality is an idealist. Berkeley's phenomenalism was discussed as a fundamental doctrine of subjectivism and yet it is also discussed here in the intrinsicist camp. This connection between intrinsicism and subjectivism introduces one reason why the alternative between subjectivism and intrinsicism often is a false one. There are real differences between the two to be sure. However, when one considers that subjectivism claims that reality is subjective and that intrinsicism claims that reality can only be known by a mystical method, the two do not seem like opposites. It will be shown later that materialism, which technically should not be an intrinsicist doctrine, can be reduced to phenomenalism and thus to idealism—its philosophic opposite.

Realism. Classical realism is most attributable to Aristotle, one of Plato's students. Aristotle differed from his master in that he believed the fundamental starting point of knowledge was the particulars, not the concepts. Whereas Plato believed true

knowledge came from within through a process of thought communing with the realm of concepts, Aristotle believed true knowledge came from looking without, to the actual things in existence. He argued that these particulars existed independent of our thoughts, beliefs, or desires. Knight also summarizes this aspect of realism:

> For the realist, ultimate reality is not in the realm of the mind. The universe is composed of matter…so it is the physical world in which mankind lives that makes up reality…The vast cosmos rolls on despite mankind and its knowledge…The laws controlling the cosmos not only govern the physical universe, but they are also operating in the moral, psychological, social, political, and economic spheres…In its variation of configurations, realism is found at the philosophic base of much modern science.[11]

Aristotle, however, did not deny the existence of the *forms*. He believed everything in the world consists of two things: *form* and *matter*. Form can be thought of as concepts or rationality. All things are arranged in a hierarchy with the things with the most *matter* at the bottom and those things with the most *form* at the top. Humans are placed at the top because they are almost pure form, whereas the earth and animals are at the bottom because they are almost pure matter. Since humans possess the most potential for conception or rationality, they occupy the top of the *form-matter* hierarchy.

Materialism. Materialism is the doctrine that matter is the ultimate reality of existence. Materialism is the philosophic opposite of idealism. Idealism holds that the senses are a by-product of mind, whereas materialism holds that the mind is a by-product of the senses. Realism says neither. Realism says that the senses are the beginning point of knowledge. One must first look to the senses and then through induction abstract concepts to engage the realm of the *forms*. Materialism, by contrast, says that knowledge begins at the sensory level but never moves beyond it.

It would appear that materialism should not be included under the heading of *intrinsicism* because it regards only material things as real. However, when the

materialist view of reality is analyzed it reduces to *phenomenalism*, which is a variant of idealism. Consider that materialism holds that matter is the only thing that exists. Since consciousness is not matter, it follows that materialists believe knowledge of matter can only come from sense perception rather than consciousness. However, if existence is only that which one perceives then one is a *phenomenalist*, which is an idealist doctrine that says ideas are the only things that exist. Therefore, materialism although seemingly the opposite of idealism, is actually still a form of mysticism. Because of this mystical base, materialism is associated with intrinsicism.

Neo-Thomism. *Neo-Thomism* or *religion* essentially is a Christian form of Aristotelianism (classical realism). Religionists may believe that knowledge begins with the senses and that reason is our primary method of dealing with sensory data, but ultimate reality is still tacitly connected to God who created the universe.

Jacques Maritan describes the neo-Thomist view:

> The Thomist idea of man coincides with the Greek, Jewish, and Christian idea: man as an animal endowed with reason, whose supreme dignity is in the intellect; and man as a free individual in personal relations with God, whose supreme righteousness consists in voluntarily obeying the law of God; and man as a sinful and wounded creature called to divine life and to freedom of grace, whose supreme perfection consists of love…[12]

Like Aristotelianism, neo-Thomists hold that knowledge begins with sensory experience of objects that exist apart from human consciousness. Neo-Thomists also agree with Aristotle that the objects of perception contain the *forms* themselves, which must be attained by *rationality* or *intuition*. However, neo-Thomists invoke a religious method into their epistemology: *revelation*. One must use reason to know the forms, but one must also use revelation as well. The *forms* include values that prescribe how to behave, which are also imbedded in the universe and must be extracted through a combination of reason, intuition, faith, and revelation.

INTRINSICIST METAPHYSICS AND EDUCATION. Intrinsicist metaphysical beliefs have impacted education longer than subjectivism. The entire middle ages was dominated by a religious view of reality, so it follows that educational views and practices coincided with religionist's assumptions about reality. For centuries, the curriculum included reading, writing, Latin, and Greek for the distinct purpose of reading and understanding the bible. Many Christian private schools today still operate by this purpose of education.

The Christian aspect of education eventually fell to the background in the early twentieth century with the development of *essentialism* and *perennialism*. Both of these traditional theories of education are rooted in idealism and realism respectively. However, although these two theories do not emphasize the religious aspect of their belief system, they are still mystical because both theories posit that facts and values exist independent from a human consciousness.

Such beliefs imply a purpose of education that includes learning knowledge and morals. But not just any knowledge and morals can be learned. Essentialists and perennialists believe that knowledge and morals are present within the great works of the Western world. Therefore, the curriculum becomes the learning of a set body of knowledge. Since the knowledge is eternal and unchanging, there is no need for students to actively engage in the learning process. They can memorize, read, discuss, think about, or write about the knowledge, but ultimately these activities will not be as constructive as the subjectivists desire.

Materialism has impacted philosophy, psychology, and education in the form of *logical positivism* and *behaviorism*. Materialism implies that the purpose of education is to mold student behavior through stimulus-response mechanisms according to the desires and needs of society. The word 'behavior' is to be substituted for knowledge and

learning, since knowledge and learning can only be measured by behavioral changes in the student.

Teachers in this system set up 'learning' situations in which the students are rewarded for correct responses to stimuli. The curriculum can be anything a school desires. Instruction is the primary focus of materialism. That is, the purpose and curriculum can be anything one desires as long as the psychology of materialism is used. Nevertheless, such a theory implies a content. For example, if one is determined by stimulus-response mechanisms, then one does not have free will. Therefore, it follows that materialist educators would not include curricula that imply free will.

CRITIQUE OF INSTRINSCIST METAPHYSICS. Idealism, realism, and neo-Thomism are all flawed metaphysical views because they invoke *mystical* aspects into their philosophies. Since one cannot prove or supply evidence that suggests the validity of these mystical aspects, they must be rejected outright.

This criticism is not an appeal to materialism, however. For materialism, and its variants *logical positivism* and *behaviorism*, are flawed as well. I will give a critique of logical positivism in the forthcoming section, but the critique also holds for materialism and behaviorism. Logical positivism is a theory that was developed in part to make science more logical by ridding it of metaphysical language and beliefs and making it rigorously empirical. It holds the *verifiability criterion of meaning* as its centerpiece, which says:

A sentence S is meaningful if and only if S (or its negation) is verifiable.

A sentence is verifiable in two senses, strong and weak. In the strong sense, a sentence is verifiable if it can be empirically proven. Some examples are 'Mount Everest is the tallest mountain in the world,' or 'George Washington was the United States' first president.' In the weak sense, a sentence is verifiable if experience renders the statement

probable. For example, scientific laws like Newton's laws of motion are true in the weak sense because no one can observe the infinite number of cases in which the law applies.

Another class of verifiable statements is the logically necessary or analytical statements. These statements are true only by definition, not experience. Some examples are 'All bachelors are unmarried men,' or 'All bodies are extended'. These statements are tautologies or necessarily true because the meaning of the predicate is contained in the subject. That is, the meaning of *bachelors* is the same as the meaning of *unmarried men*. Such statements, it is believed, are known *a priori* or prior to experience. Logical positivism holds that statements such as 'The forms are the ultimate entities in the universe,' and 'God created man,' are neither verifiable in a strong or weak sense. They are neither true nor false and therefore assert nothing and contain neither knowledge nor error.

Objectivism's argument against logical positivism is that it necessarily entails the destruction of the mind because one cannot empirically verify any statements in the strong or weak sense about the mind. However, regardless of a lack of direct observation of the mind, one does observe behavior that infers a mind all the time, so to disregard such evidence is a misguided subordination of reason to the senses, or consciousness to existence.

Second, logical positivists sometimes claim that they do not deny the mind or the existence of God, only that neither's existence can be proven empirically. Objectivists also reject this *agnostic* view of the mind or God's existence. Objectivists hold that agnosticism is illogical. To have no evidence for something's existence and still claim that you cannot know is to deliberately evade what evidence tells you. If the evidence does not suggest something's existence, then one must not assume its existence or an agnostic view of its existence.

Third, the *verifiable criterion of meaning* theory is self-refuting. Logical positivism holds that, 'A sentence S has literal meaning if and only if S (or its negation) is verifiable.' This sentence is itself unverifiable and therefore meaningless. Thus the logical positivists must do metaphysics in the process of determining meaninglessness after all.

Fourth, if we fully accept logical positivism's program we necessarily restrict ourselves to statements about the present. The past is unobservable so statements about it must be unverifiable. But even if we confine ourselves to the present, our language is still full of metaphysical concepts such as *change*, *cause*, *substance*, *property*, *event*, *identity*, and *individual*.

Fifth, it is ironic that logical positivists believe they are improving science by keeping it rigorously empirical because they are simultaneously rejecting much of what is considered science. Scientific theory involves metaphysical principles that guide its inquiry: *space*, *time*, *matter*, and *motion*. It would be impossible to reject these principles and still be able to do science.

In summary, intrinsicist metaphysics is flawed. Idealism, realism, and neo-Thomism invoke unverifiable constructs in their view of what is real. Materialism, by contrast, attempts to reject unverifiable constructs but must reject anything that is not directly perceived by the five senses, including the past, the mind, and even their own verifiability criterion of meaning. Intrinsicist metaphysical beliefs negatively impact education because they conceive the learner as one who must mystically contact an imaginary realm of truth or a mindless S-R mechanism in which no volitional or conceptual learning can take place.

OBJECTIVIST METAPHYSICS. Introduction. Two main view of reality have haunted man. The intrinsicist view says that things exist as concepts or that the essence

or concept of a thing exists in the thing itself. The subjectivist view denies that we can know reality at all. The objectivist view rejects both intrinsicist and subjectivist metaphysics and argues that the basic axioms of *existence*, *identity*, *consciousness*, *sense perception*, and *causality* are affirmed in every action, thought, and communication. One cannot refute them because they are the foundation of refutation. Therefore, objectivist metaphysics is also not a theory, but rather the foundation of theory.

The Axioms of Existence. ***Existence.*** Objectivist metaphysics is an extremely delimited subject and as such contains only three axioms: *existence*, *consciousness*, and *identity* and their corollaries, *sense perception* and *causality*. The first and most important is the *axiom of existence*. This axiom says that something exists as opposed to nothing. As one looks around a room and sees a table, a book, a pen, he knows, unless there is some rational reason to believe otherwise, that these things exist. Leonard Peikoff explains that:

> This axiom must be the foundation of everything else. Before one can consider any other issue, before one can ask what things there are or what problems men face in learning about them, before one can discuss what one knows or how one knows it—first, there must be something, and one must grasp that there is. If not, there is nothing to consider or to know.[13]

This axiom does not tell us anything *about* what exists, only that something *is*. It does not specify an existent's exact nature or tell us how we should respond or behave with respect to it. The axiom only addresses one question: does it exist or not? This is an important qualification of the *axiom of existence,* for critics of objectivism allege that this axiom entails metaphysical content. That is, critics of objectivism mistakenly believe that objectivism says that knowledge can be known *a priori*. This is actually more akin to Immanuel Kant's metaphysics. According to Kant, the *categorical imperative*, which says that one has a duty to be altruistic, is known *a priori* or innately. This is not a

characteristic of objectivism. Indeed, all 'floating abstractions' that are innate, recalled, or known *a priori* like Kant's *categorical imperative* or Plato's *theory of forms* are more akin to idealism since they reject the validity of the senses in attaining knowledge.

Consciousness. The *axiom of existence* implies a second axiom: *consciousness*. The *axiom of consciousness* holds that you or I exist because to know that something exists implies that a consciousness perceives it. That is, consciousness is inherent in grasping that something exists or else there would be no grasping of existence. In Ayn Rand's words:

> If nothing exists, there can be no consciousness: a consciousness with nothing to be conscious of is a contradiction in terms…[B]efore [consciousness] could identify itself as consciousness, it had to be conscious of something. If that which you claim to perceive does not exist, what you possess is not consciousness.[14]

Identity. The first two axioms imply a third: *identity*. *Identity* is an axiom because if something *is*, then it must have an identity. The two axioms—*existence* and *identity*—imply one another and cannot be separated. The two are not features of one another; they are corollaries of one another. When one perceives existence, he or she implicitly *identifies* existence. Knowing that something *is*, means knowing that *something* is. 'A leaf cannot be a stone at the same time, it cannot be all red and green at the same time, it cannot freeze or burn at the same time. A is A.'[15]

Sense Perception. An axiom is a self-evident or universally recognized truth and, as such, can only be proven *ostensibly*. That is, one can prove an axiom exists only by referring to particular instances of it. For example, one cannot prove that an apple exists other than showing it to someone and saying, 'See?' Subjectivists and intrinsicists alike have throughout the history of philosophy and education attempted to subvert the axioms of existence, but they have failed because any attempt to refute them necessarily affirms

their existence. The axioms are beyond proof or refutation because they are absolutely necessary for proof and refutation.

Objectivism, however, demands that humans *validate* all of their knowledge in some way, even axioms. So how does one validate an axiom if axioms are above proof or necessary for proof? *Sense perception*. If one must prove that an apple exists, he or she must first perceive it. *Sense perception*, therefore, is axiomatic because it is humankind's first step in knowing existence. This is why *consciousness* is secondary to *existence*. A person's mind must conform to existence, not vice versa, where existence conforms to consciousness. The latter is the subjectivist hierarchy of metaphysics. If knowledge is independent of sense perception and derived only from consciousness, then experience would not only be unnecessary but impossible. Sense perception is axiomatic.

Understandably, objectors might respond that the senses are often incorrect, therefore, if something is flawed it cannot be axiomatic. To this objection, objectivists answer that it is not the fallibility of the senses that are axiomatic. It is that the senses are our *primary* means of knowing reality that is axiomatic. Without the senses there could be no knowledge of reality. This is an axiom. Second, notice what else this claim overlooks. It says that the senses are fallible. How can one know the senses are fallible if the senses are fallible? There must be something else besides the senses that humans use to know reality that the senses alone cannot provide. *Reason*. We know—not immediately but eventually—when our senses fail because we are reasoning animals capable of overcoming the flaws inherent in the senses. For example, we know that the mind and atoms exists even though we cannot directly observe them with our senses. We infer that they exist by observing indirect consequences of their existence that the senses do perceive. In this sense, the senses are actually never fallible. Rather, they perceive

things the way they appear, which is the proper function of the senses. It is the mind that discovers if the appearance is reality or not.

Causality. *Causality* is a universal relation between two items one of which is the cause of the other.[16] Causality is a corollary of the other axioms, especially the *axiom of identity*. From the first sensation, an infant grasps implicitly that something exists. Then with time, the child will distinguish objects from one another and thus the *axiom of identity* is grasped. Finally, the *axiom of consciousness* is grasped when the child becomes aware that he or she is the perceiver of the objects. But while the *axiom of identity* is being established by the learning infant, so is its corollary, *causality*. When a child manipulates the object, the object moves in a specific way consistent with its identity, its nature. If the child moves a ball, it rolls—*cause and effect*. If the child tries to lift a heavy book, it remains still—also *cause and effect*. Thus causality is part of the identity of objects because all objects react in ways that are consistent with their identity.[17]

CRITIQUE OF OBJECTIVIST METAPHYSICS. The typical subjectivist critique of objectivist metaphysics takes one form. It says of the search for ultimate reality, 'How can you know what you would know if you knew what you don't know now?' In other words, subjectivists demand omniscient knowledge of the universe as the standard of knowing reality. The point of this challenge is that the search for ultimate reality or knowledge is circular because it entails that in order to search for truth, one would need to know what it is beforehand in order to identify it when one discovers it. The answer to this challenge is that the question itself is flawed. If, for example, one wanted to known how many people bought lottery tickets over the weekend, it seems reasonable to assume that if one counted the number of tickets bought over the weekend, they would then be

right to assume that they have discovered how many tickets were bought. This does not imply that one must have knowledge of what they are searching for beforehand.

Still the subjectivist might persist in asking how does one know that the *axioms* exist? This question is really the same as the first one, only in a different form. The objectivist response is that in every act, thought, or communication, they are affirmed. Take the lottery example from above. By considering the scenario of people buying lottery tickets, one first must assume that tickets, people, and a lottery system *exist*, not to mention a place in which they exist. Second, each of these 'things' has an *identity*, a ticket, a person, a lottery system, etc. that are different from other thing's identity. If they did not have an identity, they would not exist. Third, a *consciousness* is perceiving them. It is tacitly understood that if these 'things' exist, something is perceiving them that exists and that thing has a consciousness. Fourth, that the 'things' are perceived pre-supposes that they are perceived in some way: *sense perception*. And sense perception cannot be wrong. Only a conceptual, volitional consciousness can be wrong or right. When one says sense perception is fallible, what they really mean is that the consciousness did not understand the nature of the perception. Finally, *causation* is assumed in every act, thought, and communication because to posit that there is a lottery system in which people buy tickets that one or more patrons will claim at some future point in time means tacitly that people were *caused* to buy the tickets, that the buying of tickets *caused* them to claim their winnings or if they lost to never buy another ticket. In sum, all forms of inquiry including science, which has at times attempted to destroy metaphysical inquiry, must assume these axioms.

The intrinsicist argument against objectivism is usually in the form of a defense against the challenge brought by objectivists. Objectivists challenge intrinsicists that they cannot make an argument because they do not rely on logic or reason to support their

conclusions. That is, there is no evidence to support their mysticism. Objectivists argue that sense perception is the basis of knowledge. To this claim, intrinsicists argue that atoms and the mind are not directly perceived and, therefore, objectivism is inconsistent to argue that they exist. Although neither of these things can be perceived by human senses, they can be perceived indirectly. That is, one can directly observe the *effects* of something's existence.

OBJECTIVIST METAPHYSICS AND EDUCATION. The implications of these views of reality impact education in significant ways. What one believes about reality equates to what one believes about education and vice versa. If it is assumed that an ideal society is one that allows individuals to choose their own metaphysical view, it follows that society would allow individuals to choose their education. Metaphysics and education cannot be separated. A choice of one is a choice of the other. Our current educational system does not give individuals the freedom to choose their education. Therefore, at least in the realm of education, individuals cannot choose their metaphysical views either.

Subjectivism is the current philosophy of education, therefore, the metaphysical view implicitly and explicitly taught to students is a subjectivist one. Educators are essentially saying that reality cannot be known; it is constructed by each individual or culture. Critics of subjectivist education, usually intrinsicists, argue that their view be taught, which is that absolute knowledge and values exist apart from human consciousness. Subjectivists often reply that the intrinsicist view of reality dominates society at large, so their (the subjectivist's) view of reality is justifiably taught to students if only to expose them to another 'world-view'. Objectivists argue that the only way to justly resolve the issue is to preserve individual rights; that is, allow one to choose one's education and thus metaphysical views. The only system in which this can exist is a

laissez-faire system of privately owned education where students choose their school and metaphysical view.

Another aspect of objectivist metaphysics and education is that if reality is the foundation of all knowledge, then education must be reality-based. The definition of 'reality-based' does not denote a world only of the senses apart from reason. Reason is man's primary tool of dealing with reality, so reason and reality are the assumptions upon which education is grounded. Education that is reality-based wants the child to actively engage in the content, but not in the same way a subjectivist would. A subjectivist believes that the individual conception of reality is the result of the interaction. Objectivists reject that belief as flawed if not dangerous. Students taught that what is real is what they construct or feel are not educated.

Teachers must at all times guide students in the habits of mind that are reality oriented. Take as an example a teacher who instructs his students to read and respond to a passage. In the discussion that ensues after reading the passage, teachers typically receive several kinds of responses. One student may imagine details and inferences within the text that are not suggested by the text, but, nevertheless, the student insists he 'feels' are there. When pressed to support his claims he shrugs his shoulders and says, 'I don't know. That's my interpretation.' Another student reads the text, which is about an adolescent who steals a bicycle. When asked why he thinks the character stole the bicycle, he evaluates the character in relation to a commandment of the bible. When asked by his teacher to evaluate the character without reference to religion, he refuses. Still another student evaluates the text but gives reasons for his opinions by listing two or three details that logically infer his conclusions. The third student is the student who is receiving a reality-based education.

In an observation of a student-teacher teaching the 'main idea' of a passage, I observed an example of non reality-based instruction.[18] The teacher read a story to a class of fourth graders. After the story he asked them what was the main idea of the story. At least three different main ideas were given from the group. The teacher rather than correct the students said that each student was right because each main idea was right in relation to a particular character in the story. So the students learned that the word 'main' is relative. The logical consequence of this philosophical belief is that the word 'main' loses its meaning. There is no reason to have a word 'main' if it is relative. Relativism is deadly because it logically leads to nihilism. And nihilism means no education.

CONCLUSION. It has been shown that neither intrinsicist or subjectivist metaphysics is valid. The intrinsicist view is mystical in that one must invoke rationality apart from the senses, the senses apart from rationality, revelation, or intuition as a means of knowing reality. The subjectivist view rejects reality completely arguing that one cannot know it, which is an absolute claim in itself and, therefore, a logical self-refutation. The objectivist view is the only rational one since it holds that reality—the axioms of existence—are implicitly affirmed in every act, thought, and spoken word. Each of these view's impact on education is immeasurable considering that education implies—consciously or unconsciously—a metaphysical view. Subjectivist educators imply that reality cannot be known, yet inconsistently demand that education be compulsory, ignorant that their metaphysical view actually implies no-education. If reality cannot be known, why learn anything? Intrinsicist educators imply that reality can only be known by mystical means, yet inconsistently demand that the student be rational, ignorant that this conflicting message subverts the goal of education and the student's confidence in reason. Why be rational if irrationality is the only way of knowing reality?

The two views reduce to the same thing: no-education. The objectivist view, by contrast, tells the student explicitly that reality can be known, only by applying reason to sense experience, and that if one does this and is objective—that is, removes the influence of race, gender, and any other environmental factor—one will have knowledge. One must ask themselves what metaphysical view they agree with, since their choice of education will be a choice of metaphysics.

Chapter One Notes

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12. Jacques Maritan, *Thomist Views on Education, in Modern Philosophies of Education*, The 54th Yearbook NSSE, edited by Nelson B. Henry (Chicago: University of Chicago Press, 1955), 63-64.

13. Leonard Peikoff, *Objectivism: The Philosophy of Ayn Rand* (New York: Meridian, 1993), pp. 4-5

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16. Penelope Mackay, "Causality," in *The Oxford Companion to Philosophy*, edited by Ted Honerich (Oxford: Oxford University Press, 1995), 126-128.

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18. Jamin Carson, "Observations of Student-Teachers Using Constructivist Methods" May 12, 2005. The information referred to here was taken from observations of student-teachers during their student-teacher semesters at a research one university in the southwest region of the United States between the months of September 2004 and May 2005. Observations were conducted over a nine-month period across approximately twenty-three student-teachers on average of about nine to fifteen observations each for a total of about one hundred and eighty-seven observations. This data has not been published yet.

Chapter Two: Epistemology

EPISTEMOLOGY DEFINED. In this chapter, I will explain what epistemology is, how it relates to education, what subjectivist and intrinsicist epistemology are and what problems they have, especially in relation to education, and what the objectivist theory of knowledge is and how it is the more logical and practical one of the three philosophies.

Epistemology is the study of the nature, source, and validity of knowledge.[1] It asks the questions, 'What is true?' and 'How do we know?' Thus epistemology covers two areas: the *content* of thought and *thought* itself. Or in educational terms: *curriculum* and *instruction* or *content* and *method*. Whatever man calls knowledge must be true or else it cannot qualify as knowledge. It is merely an opinion and if so not necessarily important to mankind. But before one can call his knowledge true he must validate it by some means. It is the means that will primarily be discussed in this chapter. The method of acquiring knowledge is crucial, for if one's method is flawed then surely the content will be flawed as well.

Epistemology's relationship to metaphysics is one in which metaphysics logically precedes or provides the foundation for epistemological processes. All thought and language is constructed against the backdrop of metaphysical assumptions. In the last chapter, it was argued that the backdrop is limited to only the axioms of existence, identity, consciousness, and their corollaries sense experience and causality. According to objectivism, the backdrop does not include the intrinsicist world of *forms* or supernaturalism. Nor is the backdrop subjective, relative, unknowable, or non-existent.

EPISTEMOLOGY AND EDUCATION. Epistemology and education are tacit companions since both are primarily the act of knowing. Epistemology is the motor of education in a sense because it drives the educational process. Whatever educational

theories and practices one employs will be consistent with his or her theories and practices of epistemology. Therefore, as we discuss epistemology, we are essentially discussing education. For example, what is interesting about the following passage is that if one reads it with 'education' in the place of 'epistemology', the passage still makes sense. This is important because the two, education and epistemology, possess the same essential function.

> The purpose of [epistemology] is to guide man's mind in the acquisition of knowledge, so that his conclusions at each step of his development correspond to the facts of reality. In essence—to condense a science into a sentence—what epistemology teaches man is: begin with the evidence of the senses; form concepts according to the actual (mathematical) relations among observed concretes; use and apply concepts according to the rules of (Aristotelian) logic. If you follow this method, with all of its implications, your conclusions have been validated and you are entitled to claim them as true.[9]

SUBJECTIVIST EPISTEMOLOGY. Pragmatism. *Scientific Method.* Just as the pragmatist's metaphysics is one of experience, so is the pragmatist's epistemology. The specific method the pragmatist advocates for interacting with the environment is the *scientific method*, which can be regarded as a five-step process:

1. An individual or society confronts a problem.
2. A diagnosis or definition of the problem is made.
3. An inventory of possible solutions to the problem is constructed.
4. The individual or society conjectures the consequences of the possible solutions.
5. The consequences are tested.

Dewey advocated using the scientific method in all aspects of life. He saw it as the perfect paradigm of thought. It follows then that educators would employ it in their instruction. In fact, in contemporary schooling many first-year teachers out of colleges of education are taught to teach this method of thinking, especially in science and math.

Democracy. Democracy is a government in which all of a society's members contribute equally and equitably to solving a problem. What emerges from this process is situated knowledge. According to pragmatists, the scientific method, should be conducted within this framework. Each member of society or, in the context of a classroom, each student in a collaborative group would employ the five-step process listed above. The results would be discussed and debated among the members of the group who in the end democratically arrive at a solution to the problem most can accept.

CONSTRUCTIVISM. Jean Piaget. Constructivism is more of a theory of learning than a theory of epistemology, but it is more relevant to education than pragmatist epistemology because it specifically addresses the psychological processes that occur when learning or acquiring knowledge. Constructivism's founder, Jean Piaget, was a biologist as opposed to Dewey, who was a philosopher. One of Piaget's and constructivism's principles is that *knowledge is constructed*. The term construction is not merely a metaphor, however. Whereas traditional conceptions of learning include the passive reception of reality as it really is, the progressive conception of learning includes the active construction of reality as it satisfies the learner. The difference is that the former implies that objective knowledge is possible, whereas the latter implies that it is not.

Schemes. Constructivism holds that a human consciousness possesses at birth the ability to make sense of the world.[2] Man uses a *scheme* (a body of knowledge) to make sense of specific things, but not necessarily for everything a person would encounter in the environment. For example, an infant's primary scheme is sucking, but as the infant develops, that scheme becomes obsolete, so a new scheme is constructed.

Adaptation. The process of adjusting schemes in response to the environment is called *adaptation*. Adaptation involves two sub-processes: *assimilation* and

accommodation. Assimilation is the process whereby a person understands a new object in terms of his existing schemes. Sometimes the existing schemes 'work' and sometimes they do not. For example, another scheme that an infant possesses is 'banging things'. Banging pots and pans may work, but banging an egg might not. The term 'work' can be defined as that which satisfies the learner. For example, an adult might not believe that banging an egg works, but an infant might. When a person is dissatisfied with the existing scheme's ability to effectively deal with the environment, he modifies his existing schemes. This process is called accommodation.[3]

Stages of Cognitive Development. Piaget also developed stages of cognitive development that a child and adolescent moves through as he matures and learns. The four main stages of development are in Figure 1:

Figure 1: Piaget's Stages of Cognitive Development

Stage of Development	Approximate Age	Cognitive Ability
Sensorimotor	Birth to 2 years	Largely perceptual bound and unable to form high-level concepts. The concept of 'object permanence' is possible by age two.
Preoperational	2 to 7 years	Can use symbols to represent objects in the world. Still egocentric and centered.
Concrete Operational	7 to 11 years	Can think logically, but needs concrete and real-world experiences to perform logical problems. Abstract thinking is not possible. Thinking is less egocentric.

Formal Operational	11 years to adulthood	Abstract and purely symbolic thinking possible. Systematic experimentation possible.

Source: Robert E. Slavin, *Educational Psychology: Theory and Practice, Fifth Edition* (Boston: Allyn and Bacon, 1997), 35.

Piaget's stages of development hold that humans move from the sensory level, to the perceptual level, and finally to the conceptual level as they develop. These stages are relatively fixed. A child at a certain stage of development is simply unable to perform the abilities at a higher level no matter what the training.

Lev Vygotsky. A number of criticisms and modifications of Piaget's stages of development have occurred since he first developed them. For one, researchers are not sure that development precedes learning. Some researchers, like another constructivist, Lev Vygotsky, hold that learning precedes development. One will not simply develop the ability for abstract thought without the education to draw it out. Likewise, students can learn things much earlier than expected. Lev Vygotsky may have impacted contemporary education more than Piaget because he posited that intellectual development can only be understood in terms of one's historical and cultural contexts. The sign system a child grows up with largely determines the nature of his development in terms of how he thinks, communicates, and solves problems. Examples of a sign system are a culture's language, their writing system, or their counting system.[4]

Neo-Pragmatism. Richard Rorty is the primary advocate of *neo-pragmatism*, which can be thought of as a refined version of Dewey's pragmatism. Neo-pragmatism retains pragmatism's theory of knowledge that says what works is true, however, it casts doubt on Dewey's fascination with the scientific method as epistemology's primary method of inquiry. Since Dewey's time, Thomas Kuhn wrote *The Structure of Scientific*

Revolutions, which challenges the traditional conception of science. Kuhn re-conceptualized science as a paradigm of thought in which scientists practice science within the framework of certain theories and practices. Periodically, the framework no longer solves all or some of the problems facing the scientific community, so the older paradigm is discarded for a new one.[5] It is easy to see how this subjectivist theory of science fits neatly into pragmatism and constructivism. It is pragmatic in that science is what works and it is constructivistic in that the scientific framework can be seen as a scheme that a learning student periodically assimilates and accommodates.

At the heart of Rorty's challenge to science is the challenge to rationality. He argues that rationality defined as a method that one sets down in advance to solve a problem is flawed. Rationality, as the standard by which to evaluate knowledge, necessarily eliminates the humanities and other systems that require forms of inquiry that are epistemologically unable to lay down a rational method in advance. Further, rationality connotes rigidity, objective-subjective dichotomies, and other ideas that are contemptible and destructive to a functional society. Rorty says:

> The second meaning of "rational" is, in fact, available. In this sense, the word means something like "sane" or "reasonable" rather than "methodical." It names a set of moral virtues: tolerance, respect for the opinion of those around one, willingness to listen, reliance on persuasion rather than force. These are the virtues which members of a civilized society must possess if the society is to endure. In this sense of "rational," the world means something more like "civilized" than like "methodical."[6]

Neo-pragmatism has influenced education more so on the college and university level, but aspects of it still have affected primary and secondary education. For example, Howard Gardner and Elliot Eisner argue that subjects like mathematics and English, which typically utilize one's rational ability only cater to one kind of student. Gardner and Elliot argue that the mind is capable of other abilities that are not considered rational, but contemporary education rarely addresses these abilities. Rorty echoes these

sentiments in the following passage in which he mentions the distinction between the mind of a logical discipline like law and the mind of the artist:

> We think of poets and painters as using some other faculty than "reason" in their work because, by their own confession, they are not sure of what they want to do before they have done it. They make up new standards of achievement as they go along. By contrast, we think of judges as knowing in advance what criteria a brief will have to satisfy in order to invoke a favorable decision…[7]

Post-modernism. Post-modernism is not a theory of epistemology, but it has affected epistemology and progressive education. Like neo-pragmatism it has mostly impacted colleges and universities, but it can be found making its way into mainstream education now that scholars of education are researching and writing about it. Post-modernism is similar to pragmatism in that it has abandoned the search for truth. However, post-modernism takes it one step further and declares that one must not only abandon the search for truth, one must also abandon the language of truth. Post-modernists typically study how 'rhetorics of truth' such as science impact a society. People, cultures, and disciplines that claim truth demarcate themselves as better than others, which ultimately results in inequitable treatment.

Post-modernists distinguish themselves from pragmatists because, they claim, pragmatism is still a rhetoric of truth. Hugh Tomlinson says:

> [H]as Rorty in fact broken with realism and the rhetoric of truth?…[D]espite the apparently radical nature of his pronouncements, Rorty is still wedded to the 'God's Eye point of view'. He adopts the 'ethnocentric view that there is nothing to be said about either truth or rationality apart from descriptions of the familiar procedures of justification with a given society…Rorty is standing 'beyond' society, giving an overview of the way it 'really is'.[8]

Post-modernism's theory of knowledge is essentially the *sociology of knowledge*. What is true is what a given community constructs as true. Like the neo-pragmatists, they reject that reason plays a central role in knowing, but they go further than neo-

pragmatists by claiming that irrationality may even be desirable. Paul Feyerabend, for example, says the following:

> [Rationalism] has no identifiable content and reason no recognizable agenda over and above the principles of the party that happens to have appropriated its name. All it does now is to lend class to the general drive towards monotony. It is time to disengage Reason from this drive and, as it has been thoroughly compromised by the association, to bid it farewell.
>
> …many things were achieved despite Reason, not with its help…My arguments in the following essays will deal with the false consciousness created by the presence of this distorting agency. I start with a philosophy that undermines the very basis of Reason, namely relativism. [9]

Social Epistemology. The 'philosophy' that combines the doctrines of pragmatism, constructivism, post-modernism, and the rejection of rationality and reality as standards of knowledge is *social epistemology* or the *sociology of knowledge*. Contemporary schools of education have re-defined philosophy, which once meant the search for truth, to the search for subjective truth, hence the reason one is more likely to find some variant of the *sociology* of knowledge rather than a *theory* of knowledge in graduate education curriculums. The theory harkens back to Protagorus' 'Man is the Measure' doctrine described in chapter one, which says truth is relative to the perceiver.

Lorraine Code argues in 'Is the Sex of the Knower Epistemologically Significant?' the following thesis:

> The position I take in this book is that the sex of the knower is one of a cluster of subjective factors (i.e., factors that pertain to the circumstances of cognitive agents) constitutive of received conceptions of knowledge and of what it means to be a knower. I maintain that subjectivity and the specificities of cognitive agency can and must be accorded central epistemological significance, yet that so doing does not commit an inquirer to outright subjectivism.[10]

Although Code argues for a feminist way of knowing, her thesis implies there are infinite ways of knowing. Social epistemology probably has impacted education more than any other subjectivist philosophy or theory. For example, today's educational purposes are defined as *social justice* in that education must address the ways of knowing endemic to a student's culture. Culture is not defined only in term's of one's ethnicity, however, but more broadly to include one's class, education, gender, geography, nationality, and so on. In short, every individual and every group has a way of knowing that educators must account for in their educational purposes, instruction, and curriculum.

SUBJECTIVIST EPISTEMOLOGY AND EDUCATION. Subjectivist epistemology can best be understood as social epistemology. Individuals construct their own reality in the context of their environment. Therefore, education should avoid implying consciously or unconsciously that one truth or one method of knowing is possible or preferable. Reality and method are plural. Education's purpose should be social justice, socialization, and thinking skills. Since society and traditional education falsely holds that there is one reality and one method, progressive education must undo both injustices by making education a example of plurality. Progressive instruction should allow students the freedom to construct the reality they are satisfied with using the method that satisfies them.

CRITIQUE OF SUBJECTIVIST EPISTEMOLOGY. The most significant problem with subjectivist epistemology is that—like its metaphysical view—it is self-refuting. Subjectivism claims that absolute knowledge is not possible. Yet this statement is an absolute knowledge claim itself. If absolute knowledge is not possible—as the subjectivists argue—then they have no basis to make this claim. By making this claim, subjectivists are, like Hugh Tomlinson says above, 'standing beyond society and giving an overview of how it really is'. Tomlinson warns against such 'rhetorics of truth'. He

argues that pragmatism, although a relativistic philosophy, is still a rhetoric of truth because it pretends to know one reality, even if only to question it. I maintain that post-modernism is also a rhetoric of truth, however, for the same reason that subjectivism is self-refuting. Post-modernists argue that all language of truth is a rhetoric, but is not this 'non-truth language' a rhetoric of truth too?

Subjectivism's self-refutation illustrates how the objectivist axioms of existence described in chapter one are irrefutable. Any act, thought, or communication in some way implicitly or explicitly necessitates the axioms of existence and by consequence that knowledge is possible. One cannot escape the axioms of existence because they are the foundation of escape. This is why pluralism, diversity, subjectivism, or relativism of any kind is a flawed theory of education. In the attempt to prove that reality is plural subjectivists must say reality is one. And if we can have knowledge of reality, then it follows that there is right and wrong knowledge. And it follows from this that education ought to be about learning the right knowledge. The right knowledge, to an objectivist, is that which is true.

Constructivism, although it provides scientific evidence for its case, is also self-refuting. Schemes, adaptation, and the stages of development are not completely flawed in and of themselves, indeed, they are actually true, but the *conclusions* that subjectivists have reached from the evidence about them are flawed. For example, the primary conclusion drawn from the research is that knowledge is constructed. A construction of knowledge is defined as a scheme or body of knowledge that a person uses to make sense of the world. Reality can only be understood in terms of one's schemes. When a scheme ceases to make sense of the world, a new scheme is constructed or an old scheme is modified. My question is this: how does one know that a scheme ceases to make sense of the world, without knowing how reality really is? It is impossible without logically

contradicting oneself to posit this theory. To put the question another way: what *scheme* is deciding that a scheme is inadequate to make sense of the world? If all knowledge of reality is understood only in terms of some constructed scheme, then the scheme that is deciding that the schemes are not making sense of the world is also constructed. And the scheme that is deciding what scheme should decide to decide that a scheme cannot make sense of the world is also constructed and so on in a vicious circle. According to constructivism, a person is always at least two steps removed from reality.

I argue that the construction of knowledge or reality is not a logical conclusion of the theories about schemes, adaptation, or the stages of development. For one thing, if we construct knowledge, then the schemes, adaptation, and stages of development are also constructions and therefore we have no reason to follow them anymore than non-constructivist theories of learning.

Second, the theory actually supports an objectivist view of reality. The difference between the constructivist and objectivist model is that the former says one's concepts *are* reality, whereas the latter says one's concepts tells one *about* reality. The difference between the two is significant. In the former model there is in a sense only one to consider: one's scheme. There is no reality and no objective consciousness guiding the formation of concepts about reality. In the objectivist model, there are three things to consider: reality, one's knowledge about reality, and one's consciousness that compares one's knowledge with reality. The constructivist model does not account for the fact that man compares his knowledge with reality all of the time. How else can one have knowledge without comparing the two? The objectivist model does account for it. Objectivists argue that one's consciousness engages reality, forms concepts that are based on reality, and then under the guidance of one's consciousness refines the concepts to better understand reality. This process is guided by one's adherence to objectivity, the

volitional adherence to the rules of logic. If one removes reality or an objective consciousness forming concepts about reality from the equation, as constructivists have done, then one does not have knowledge; they have opinions based on subjective whims.

All three theories—schemes, adaptation, the stages of development—only work if one posits an objectivist view of reality and knowledge. A scheme is just another word for hierarchy of knowledge. Adaptation is just another word for adjusting one's hierarchy of knowledge after learning something new about reality. The stages of development are just the objectivist view that all knowledge (concepts) begins in reality (sense-perception).

When a child bangs an egg (assimilation) and learns that banging it destroys it so he does not bang it anymore (accommodation), the child is responding to how reality is, not *only* to what satisfies him. In truth, both *reality* and what *satisfies* him are at play. A person at one time may want to break open an egg and at another time may not (what satisfies him), but without knowledge of the egg's identity (reality), he would not be able to do this. Actually, the word 'satisfies' is an implicit admission of an objective reality; what satisfies depends on reality. One cannot know what satisfies himself apart from reality.

INTRINSICIST EPISTEMOLOGY. Idealism. Idealism's method of knowing reality is what is referred to as *rationalism*. Rationalism is the belief that reason, logic, or the intellect is the primary method of knowing reality. Rationalism holds that the senses provide little or no knowledge. One can, for instance, know that if **x** is equal to **y** and **y** is equal to **z** that **x** is equal to **z** without reference to experience, objects, or input from the senses. Rationalism also tends to argue that the mind possesses *innate knowledge* and that learning consists of 'remembering' this knowledge. Or it holds that the objects of knowledge are *dependent* upon the knower.

Idealism's specific method of knowing is called *deduction*. Deduction is the forming of conclusions logically derived from basic premises. It is also defined as moving from universals to particulars. For example, the following syllogism is an example of deduction:

Major Premise: All men are mortal.

Minor Premise: Socrates is a man.

Conclusion: Socrates is mortal.

The first two premises are the absolute or universally held premises; the conclusion is the particular logically derived from the two premises. Deduction always yields *necessary truths* or facts and is the primary method of mathematicians.

Idealism validates its beliefs by adhering to the *theory of coherence*. This theory tests knowledge by testing whether or not truth claims cohere to statements already accepted as fact ahead of time. If the new knowledge coheres with the knowledge that is accepted as fact, then the new knowledge can be considered true and factual as well.

Realism. Realism's method of knowing is what is referred to as *empiricism*. Empiricism is the belief that knowledge begins in sensory experience. Empiricists typically hold that the mind is *tabula rasa* (blank slate) and that it is impressed upon by images that are derived from sensory data. In this sense, the objects of knowledge are *independent* of the knower.

Induction is the primary method of knowing that realists use. Induction is the drawing of general conclusions from particular instances. Induction yields only *contingent truths* or knowledge and is the primary method of scientists.

Realism validates its truth claims by adhering to the *theory of correspondence*. This theory tests truth claims by how well the match what exists in reality. For example, if someone claims that it is raining outside, this claim is tested by going outside and

observing the weather. Thus the theory of correspondence implies that the senses are valid and that they are the beginning point of knowledge.

Neo-Thomism and Religion. Neo-Thomism also stresses the role of the senses in acquiring knowledge. And like realism it holds both the *principle of independence* and *correspondence*, that objects exist apart from the knower and that truth claims must correspond to something in existence. But neo-Thomism also differs from realism in a significant way. Fredrick Breed explains one of the differences:

> St. Thomas fully agrees with the moderns that sense experience is the starting point, but would reject the view that knowledge consists in an inference from sensation. He would say rather that in perception man uses sense experience as a medium of intellection and through it is able to grasp the intelligible nature of its object.
>
> And just what does the intellect apprehend? Here St. Thomas follows Aristotle in saying that sense experiences the material particulars, and intellect abstracts the intelligible forms as concepts.[11]

From the preceding passage, one can see that neo-Thomism is more akin to Aristotelian realism, which relies on some mysticism, than modern realism, which does not.

Neo-Thomism is also different from Aristotelian realism in that it invokes a Christian element. Whereas Aristotle posited the existence of the universal forms as apprehended by the intellect, St. Thomas posited the existence of spiritual forms as apprehended by revelation. Rachel Goodrich describes St. Thomas' Christianized realism:

> Man's mind then, we may say, is apt for the apprehension of the intelligible, but there is also that in things which renders them apt to be apprehended…Their intelligibility resides in the fact that they have been creatively thought by God—and truth for St. Thomas thus has double reference. Truth consists first in the things themselves as creatures corresponding with the archetypal thoughts of God; and only secondarily applies to true judgments of the human intellect, which, as itself god's

> creation, is able to conform itself adequately to its object…Here then is what has come to be known as the correspondence theory of truth…[12]

Materialism. Materialism is the philosophy that says matter is the only thing that exists. Materialism is connected to realism in that it places sense experience at the center of knowing. However, since it holds that everything that exists is matter, it necessarily denies the existence of ideas or the mind. In this sense, materialism can be said to be the philosophic opposite of idealism, which denies the existence of matter and posits that only ideas are real.

Behaviorism is essentially a materialistic theory of knowledge. Since materialism denies the existence of ideas or knowledge, its theory of knowledge must be defined differently than traditional theories of knowledge. Behaviorism, therefore, defines knowing or learning as a 'change in an individual caused by experience'.[13] There are many different variants of behaviorism: *classical conditioning*, *law of effect*, *operant conditioning*. For the sake of simplicity, I will generalize these different theories into their most basic principle: the *law of consequences*. The law of consequences says that changes in behavior occur in relation to the consequences that result of the behavior. For example, if a student reads a book and enjoys it, he will read more and as long as he continues to enjoy reading he will read. Likewise, as long as he reads a book and does not enjoy it, he will not become a reader.

INTRINSICIST EPISTEMOLOGY AND EDUCATION. Intrinsicism has impacted education for a much longer time period than subjectivism, although subjectivism is currently the most dominant philosophy. For example, largely throughout the middle ages, a religious view of the universe dominated society. Therefore, education was dominated by the same religious views: Platonic idealism, Aristotelian realism, and neo-Thomism. Even today many private religious schools still adhere to neo-Thomism. Neo-

Thomism is also the philosophy that influenced *essentialism* and *perennialism*, the two educational philosophies of William Bagley and Robert Hutchins respectively. These theories were the most influential traditional educational theories of the twentieth century and were considered the philosophical opposite of pragmatism and progressive theories of education.

The practical consequence of intrinsicist philosophies and theories where the purposes, instructional methods, and curriculum are concerned are varied but similar. For *idealists*, the purposes of education is knowledge of the universal forms or concepts. Since idealism places little significance on sense perception, learning would not be hands-on or active. It may be student-centered since one can only know his own ideas, but since the forms are universal, they are open to all people, so solipsism would probably not be allowed in an idealistic classroom as it might be in a subjectivist one. The method of knowing would be *deduction* and the *theory of coherence*. Any ideas formed in the mind of the student must cohere to other ideas and the entire set of ideas must follow from accepted fact or dogma. Finally, one's way of knowing must assume that the objects of knowledge are dependent on the knower. Since the curriculum is the universal forms, some set body of knowledge that is accepted as fact would be taught. *Essentialism* as advocated by William Bagely sought to teach cultural knowledge to fuse society into one culture and to build national character. *Perennialism* as advocated by Robert Hutchins and Mortimer Adler sought to teach the great ideas and works of the Western world, arguing that these books and ideas are universally true across all cultures.

Realism's purpose of education would also be knowledge of universal concepts, but it would ground its instructional practices in sense experience and concrete examples. No abstract teaching would be done without reference to some concrete example, since that is where the universal form lies. Further, rather than pure deduction as the method of

knowing, students would first use the methods of empirical investigation: *induction* and the *theory of correspondence*. Nevertheless, the curriculum would remain similar to idealism in that it would employ cultural knowledge or the great books and ideas of the Western world. *Neo-Thomism* is also a direct influence on essentialism and perennialism. Neo-Thomism essentially is a religious realism and as such would employ the same purpose, methods, and curriculum of learning that realism would, but it would substitute Christianity into the curriculum and method of learning.

Finally, *materialism* in the form of *behaviorism* had a large impact on theories of learning in the early part of the twentieth century. Its purposes of education are relative to what society wants. Since man does not have free will, it follows that education can be used to produce the kind of student society wants or needs. John Watson said:

> Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take anyone at random and train him to become any type of specialists I might select—doctor, lawyer, artist, merchant-chief, and yes, even beggar-man and thief, regardless of his talents, tendencies, abilities, vocations, and race of his ancestors.[14]

CRITIQUE OF INTRINSICIST EPISTEMOLOGY. The following are the most common arguments brought against intrinscism. They are not necessarily the argument that objectivists would make. Many of these arguments would actually be refuted by objectivism, especially the ones against the *theory of correspondence*. However, the arguments against the *theory of coherence*, *materialism*, and *mysticism* are all consistent with objectivist beliefs.

First, with respect to the *theory of correspondence*, a common question is how can one compare his ideas with reality, since it is impossible to get outside one's own body or mind to objectively judge? Second, the theory assumes the validity of the senses. Yet the senses mislead us at times. Third, how can the theory account for ideas that exist

but do not correspond to anything in existence: for example, ethics, logic, and mathematics? Fourth, the *theory of coherence* is flawed because it is possible to have ideas that logically cohere to one another within a system, but still have the system be supported by false premises. Religious and political leaders often are guilty of this fallacy. Fifth, *materialism* is flawed because if material is the only thing that exists and the only way to know that something exists is to perceive it, then one is necessarily reduced to *phenomenalism*, where only one's perceptions are real. Ironically, that leads back to materialism's philosophic opposite, idealism, and therefore means that materialism is internally inconsistent. Finally, idealism, realism, neo-Thomism, and materialism must be faulted for their mystical methods of attaining knowledge. Each at some point breaches with what reality and reason suggest.

OBJECTIVIST EPISTEMOLOGY. Logic. Objectivist epistemology is to be preferred to subjectivists or intrinsicist epistemology because it does not lead to relativism, nor does it lead to mystical accounts of knowing. Objectivism's only method of knowing reality is *reason* and *concept formation*. Reason or logic is that which corresponds to reality or the *theory of correspondence*. Objectivism uses both *deduction* and *induction*, but like the realists places induction in the primary position. Induction is the primary because sense experience is the source of all knowledge. This does not mean that objectivism is a variant of materialism. It only implies that a deduction is always about some 'thing'. The 'thing' can only be known through sense experience, lest one invokes supernaturalism, the flaw of idealism and religion. The standard Socratic syllogism holds as its major premise that 'all men are mortal'. This premise could only have been known through sense experience or induction. Therefore, induction precedes deduction.

Rationalists tend to argue that the mind does not need sense experience to know that if **x** equals **y**, and **y** equals **z**, then **x** equals **z**. On the contrary, if the symbols **x**, **y**, and **z** are symbols of something, a consciousness still needs to sense something to form the concept *something*, not to mention the concept *symbol*. A consciousness may have the ability to reason without sensing anything, but the ability will never be activated without *first* sensing something. This refers to the false alternative of thinking vs. knowledge, which is also present in education. Thinking always implies thinking about something. One cannot separate the two. And since something always implies an object of perception that exists independent of the knower, it follows that all thinking implies sense experience.

Logic's Connection to Reality. Reason is the primary tool of objectivist epistemology. Reason or logic is the science that investigates the principles of valid reasoning and correct inference, either from the general to the specific (deductive logic) or from the specific to the general (inductive logic). Reason is more than just making sense, however. The thinker's of this so-called post-modern age argue that there are no absolutes or no foundation of principles from which man can deduce a moral code. In the last chapter, I showed that, at the very least, one objective reality exists. I showed that there is one reality, it has an identity, and there is a conscious mind perceiving it. From these self-evident truths, it was deduced that sense perception and causality are also absolutes. Now I want to add another axiom: *reason*. Reason is man's only means of knowing, but what does it mean to be reasonable or logical and what does reason have to do with reality? Reason is nothing more than adhering to what *is*. In other words, reason and reality are corollaries. One cannot have reason without assuming the axiom of existence.

The origin of reason lies in another name for it, logic. The word *logos* is Greek for 'word.' It also means 'proportion' or 'ratio' in the mathematical sense and 'meaning' and 'reason' in its fullest sense. However, its primary meaning is derived from the verb *legein*, 'to join together' and also 'to say'. *Logos* is literally saying a meaningful word.[15] Logic, however, is not just making sense as the layman understands it. Logic is tacitly connected to reality. One might say that logic is purely about words and thoughts corresponding to what is metaphysically real. Juan Marias says:

> *Logos* tells us what things *are*, and is closely related to being. The principles of logic—for example, the principles of identity or contradiction—are ontological principles that refer to the behavior of entities. I cannot say or think that **A** is and at the same time is not **B** because **A** *cannot be and not* **B**. Logic is nothing but metaphysics. What mode of being is *logos* concerned with? Evidently, with being as seen from the viewpoint of truth or falsity.[16]

Marias is saying that logic is not something we construct. He is also not saying that logic exists as a *form* in the sense that intrinsicists like Plato or religionists might argue. Rather, logic is the correspondence between language and what exists or what is real.

Subjectivists would probably respond that there are 'gray areas'. A gray area is a situation in which the truth cannot be clearly established. Some people obsess over gray areas, arguing that all of life is gray areas and that there is no such thing as 'black and white'. This is not so. Life presents humans with legitimate situations of uncertainty, but because a situation is uncertain does not mean that uncertainty is its final status. It only means we will discover the truth in the future, eventually. There is an explanation for everything, eventually. Moreover, because a person can recognize uncertainty means they have known the opposite experience of certainty. This is a absolute principle: A

negative can only be recognized as a negative—'uncertainty'—because its positive opposite is already known.

Objectivity. Objectivism's fundamental epistemological principle is that thinking must correspond to reality to be valid. Objectivity is the only method of reaching reality or the facts. The controversy surrounding this definition of objectivist epistemology is that many believe 'the facts' are inaccessible. 'The facts' will always be grasped subjectively, so 'the facts' can never be factual. Objectivists, however, believe that the facts are accessible if one grasps the meaning of the concept *objectivity*. Objectivity is to '*volitionally*…adhere to reality by following certain rules of method (logic)…' To *volitionally* adhere to reality is to consciously accept that the senses are valid and that one reality exists. Without (1) choosing to adhere to reality by affirming the axioms of sense perception and existence and without (2) choosing to follow certain rules of method (logic), one cannot be objective.

The rules of the method are the rules of logic. Some subjectivists balk at the use of rules as an objective methodology, arguing that the concept of 'rules' presupposes subjectivity. That is, rules are manmade so it is circular to use manmade rules to obtain non-manmade knowledge. Objectivists do not believe that the rules of logic are man-made. The principles of existence are also the principles of logic. They are not socially constructed or contingent but necessary. Humankind could not have invented another method of logic that would in some way differ fundamentally from the logic that we have. If they did, they would have to against the back drop of the principles of existence and logic.

Objectivity is a choice that one makes. As a consequence of making this choice one is necessarily—indeed, consciously and systematically—looking beyond his ancestry, class, culture, emotions, ethnicity, genes, gender, learning style, nationality, personality type, political affiliation, and religion. To be objective, which objectivists regard as possible, one must do just the opposite of what contemporary education asks its students and teachers to do—look beyond these insignificant features to attain truth. At all times, one must ask themselves if they are adhering to the rules of logic or if they are merely expressing a desire of themselves or the group to which society has categorized them. The term 'addressing the needs of student' is a purely non-objective method of knowing and learning. It is a form of predetermination and therefore is not a theory of knowledge at all. Rather, it is a form of nativism, innate knowledge, and as such means learning is impossible.

Emotions and Feelings. Because of the importance objectivists place on reality and reason, one may believe that objectivists believe that the emotions play no part in a human's consciousness. This is not true. Subjectivists often argue that emotions are a valid form of knowledge and that education ought to take a more positive view of emotions instead of relegating them to secondary class status beneath reason. Recall that both Rorty and Feyerabend argue that faculties opposed to reason, e.g., emotions, can be just as effective as reason. Objectivism holds a different view of the relationship between emotions and reason that does not necessarily pit the two against one another:

> A feeling or emotion is a response to an object one perceives (or imagines), such as a man, an animal, an event. The object by itself, however, has no power to invoke a feeling in the observer. It can do so only if he supplies two intellectual elements, which are necessary conditions of any emotion.

> First, the person must know in some terms what the object is. He must have some understanding or identification of it (whether true or false, specific or generalized, explicit or implicit). Otherwise, to him, the object is nothing; it is a mere cognitive blank, to which no one can respond.
>
> Second, the person must evaluate the object. He must conclude that it is good or bad, desirable or undesirable, for his values or against them. Here too the mental content may take many forms; the value-judgments being applied may be explicit or implicit, rational or contradictory, sharply defined or vague, consciously known to the person or unidentified, even repressed. In whatever form the individual holds his values, however, he must estimate the object in accordance with them.[17]

Objectivists see emotions not as an equal or incompatible faculty to reason but as a corollary to value-judgments, which may or may not be reasonable. Therefore, emotions are not *ipso facto* irrational. For example, obviously a person who sees his friend in pain will react emotionally with anger, sadness, or fear. These emotions are not irrational to have. Under the circumstances, they are quite normal and rational. Because you value this friend and the friend is in pain, naturally one would respond emotionally because his values are being violated.

But say that the friend commits a heinous crime that violates another value that supercedes the value of friendship. If the friend murdered another human being, one would probably not feel pure sadness at the friend being incarcerated. Rather, one may feel shock, or confusion, or later, resentment. But say that despite the fact the friend wantonly killed an innocent person, you continue to empathize with him and decide to free him from jail. Even if one had these emotions, which may even be understandable, acting on them is quite another thing. One should never act on emotions that stem from irrational value-judgments. In this case, it would be irrational to value the friendship over the killing of an innocent person, no matter how close the friendship. So emotions are

not a faculty of knowing. They are only indicators of how one's value-judgments are being affected, which may or may not be rationally formed.

Concept Formation. Now the basis for knowledge has been laid: *reality* and *reason*. We know that reality exists. We know it because of consciousness and sense perception. However, these two things alone will not necessarily yield knowledge, only that something exists. Reason is the second aspect of knowledge, but reason can only work if one volitionally separates oneself from his demographics and emotions (objectivity). Once these two pillars are properly accepted, the third and final pillar of objectivism can be put in place: *concept formation*.

Objectivists see human cognition—and thus learning—as three different stages or levels: the *sensual*, *perceptual*, and *conceptual*. The first stage is the *sensual* level in which a human's consciousness is impressed upon by sensory data through the five senses. At this point, conscious experience is an undifferentiated mass that is not retained in memory. A sensation does not inform a consciousness *what* exists, only *that* something exists. In a room filled with furniture, a person's senses would only implicitly or automatically 'tell' him or her that something is impinging on his or her senses. Sensations do not differentiate between floors, tables, chairs, sofas, etc. Implicit at this level is the concept *existence*.

Discriminated awareness begins at the second stage, the *perceptual* level. Peikoff says, 'A percept is a group of sensations automatically retained and integrated by the brain of a living organism.'[18] Percepts are the experience accompanying perception of objects and events and should be distinguished from sensations or sense data.[19] An example of a percept is a specific existent like a chair or table. Perception tells a

consciousness that there are several different existents (chairs or tables) in the room but not what they are and not that each represents a class of things. At this level, there is an implicit understanding that several things exist in the room that are separate from one another. The concept *identity* is implicit in the mind of the human consciousness at the perceptual level.

The third stage is the *conceptual* level. This is the stage in which humans form *units* from the existents. 'A unit is an existent regarded as a separate member of a group of two or more similar members,' says Peikoff.[20] The third stage is uniquely human because it is here where one recognizes explicitly in his or her consciousness, that a table is one *unit* from a class of other tables that share its essential defining characteristics. This conceptual process is made possible by learning that two or more objects—the tables—are similar in certain ways that make them categorically different from chairs. Therefore, '[a] concept is a mental integration of two or more units which are isolated according to a specific characteristic(s) and united by a specific definition.'[21]

Concept Formation as a Mathematical Process. Concept formation is an implicitly mathematical process. Both concept formation and mathematics involve the use of the implicit concept: *unit*. Without the concept *unit* humans would not be able to form concepts—or count, measure, identify quantitative relationships or enter the field of mathematics.

This insight is significant because if concept formation is the basis of education and mathematics is tacitly related to concept formation, then mathematical processes are also basic to education—and therefore, basic to all subjects: science, history, reading, writing, literature, etc. This point certainly challenges *Multiple Intelligences Theory*

(MI), which posits that minds are actually different 'intelligences': linguistic, mathematical, musical, spatial, inter-and intra-personal, kinesthetic, and so on. MI theory holds that mathematical intelligence is only *one* kind of intelligence with no more special primacy in the human mind than any of the other intelligences. Objectivists would vehemently reject this hypothesis. If concept formation is the center of human cognition, and mathematics is the center of concept formation, then mathematics is the center of human cognition.

Perhaps more significant than any of these implications mentioned just now, is the fact that logic is inherently mathematical. Since logic is tacitly connected to reality, mathematics is tacitly connected to reality too. The reader can probably see where this chain of reasoning is going. If mathematics is a metaphysical, logical, and epistemological necessity, then education is not a pure social construct. For decades, educators have made two different arguments with respect to the purposes of education. One camp, the subjectivists, have argued that education is constructed. Education is what the community says it is. The other camp, the intrinsicists, have argued that education is an essence that inheres in concepts, things, or in heaven. Both are wrong. Rather, the objectivist view is that education is the logical consequence of *reality*, *logic*, and *concept formation*, properly understood.

Concept formation is a mathematical process because it implicitly involves the concept *unit*. For one, the two main processes that make regarding existents as units possible are mathematical in nature: *differentiation* and *integration* or *analysis* and *synthesis*. The terms *analysis* and *synthesis* are ubiquitous in education. In schooling, their meanings are obviously familiar to math teachers, but they are also familiar to

English teachers who teach their students to compare and contrast characters in a novel, or history teachers who teach their students to compare and contrast people and events in history, or science teachers who teach their students to compare and contrast organisms, or among all teachers who have been exposed to *Bloom's Taxonomy*, which designates *analysis* and *synthesis* as two of the highest human mental functions in learning.

Differentiation and *integration* are similar processes to *analysis* and *synthesis*. Recall how the consciousness of a human works. First, a child senses and then becomes aware of things or objects (perception). At this stage, the concept *existent* is implicit in the mind of the child. He or she knows that something exists. Next, while still at the perceptual level, the child distinguishes among the existents. That is, he or she sees the same object at a different time and place and recognizes it as the same thing. At this stage, the concept *identity* is implicit in the mind of the child. Finally, the conceptual stage occurs when the child grasps relationships among the existents. The child achieves this feet by grasping the *similarities* and *differences* among existents. Differentiation is merely the process of distinguishing one or more objects of awareness from the others. Integration is the process of uniting elements into an inseparable whole. When we move from the sensory to the perceptual level, we separate out of the chaotic objects of existence the specific objects that differ or are the same as other objects. This is an automatic process. However, when we move from the perceptual to the conceptual, it is not automatic but conscious and volitional, but still a process of differentiation and integration

Ayn Rand says, 'Measurement is the identification of a relationship—a quantitative relationship established by means of a standard that serves as a unit.'[22] This

unit enables humans to conceive of imperceptible things such as great distances in ways that are accessible to a human mind, which naturally possesses a limited scope of experiences. Humans cannot perceive great distances such as those spanning the gulf among the planets and stars, but with measurement and its tacit concept *unit* we can. Rand says that:

> [The] purpose of measurement is to expand the range of man's consciousness, of his knowledge, beyond the perceptual level: beyond the direct power of his senses and the immediate concretes of any given moment….
>
> The process of measurement is a process of integrating an unlimited scale of knowledge to man's limited perceptual experience—a process of making the universe knowable by bringing it within the range of man's consciousness, by establishing its relationship to man.[23]

Measurement Omission. Measurement and conceptualization, therefore, share the same processes. In both, first, the purpose is to bring the universe within understanding of a human consciousness. Second, this process involves discovering a mathematical relationship among concretes. This is achieved in both instances using quantification. When a human consciousness forms a concept, he or she differentiates and integrates the existents of his or her perceptual field into units and then into concepts. Particular units like a table differ from other units in its conceptual class *table* only quantitatively, only with respect to measurement. That is, when a person sees two tables and recognizes that they are conceptually the same thing, he or she is *omitting the measurements* of both tables while simultaneously *retaining their characteristics*. Omitting the measurements means leaving out the *length* of the legs and top, the *shape* of the legs and top, the *number* of legs, the *size*, *weight*, *color*, and *design* of the table. All of these characteristics mentioned are retained but each of their corresponding measurements is omitted when forming a concept. A standard definition of table is, 'an

article of furniture with a flat horizontal top upheld by one or more supports.' Notice that such a definition retains the characteristics but omits the particular measurements of each. Conceptualization does the same thing.

The implications of this discovery are important to education. For example, measurement omission and concept formation are algebraic in nature. Rand points out that:

> The basic principle of concept-formation (which states that the omitted measurements must exist in *some* quantity, but may exist in *any* quantity) is the equivalent of the basic principle of algebra, which states that algebraic symbols must be given *some* numerical value, but may be given *any* value. In this sense… perceptual awareness is the arithmetic, but *conceptual awareness is the algebra of cognition*.
>
> The relationship of concepts to their constituent particulars is the same as the relationship of algebraic symbols to numbers. In the equation $2a = a + a$, any number may be substituted for the symbol 'a' without affecting the truth of the equation. For instance: 2 x 5 = 5 + 5, or: 2 x 500,000 = 500,000 + 500,000. In the same manner, by the same psycho-epistemological method, a concept is used as an algebraic symbol that stands for *any* of the arithmetical sequence of units it subsumes.[24]

Rand's point that the perceptual level is mathematical and that the conceptual level is algebraic parallels the cognitive development of a child. Algebra is typically taught somewhere between seventh and tenth grade depending on the preparation of the student. It generally marks the time when a child moves from the perceptual to the conceptual level. Prior to these grades students need more sensual, perceptual, and concrete instruction. But once the child reaches a certain stage, he should move to the conceptual level almost completely.

The point is that human consciousness is mathematical at all levels of human development, not just at the conceptual level. In the early years of development, a child is thinking mostly on the sensory and perceptual level. At this stage of development, elementary mathematics, which requires little conceptualization, is the most appropriate

to learn. Not only is it the most appropriate, it literally is the way sensory and perceptual thought works. As the child grows, his or her conceptual ability also grows. Once conceptualization is possible—that is, once the child acquires several experiences and percepts—algebra, because of its conceptual nature, becomes possible and represents the cognitive ability of the student.

This parallel between math and thinking in child development is a crucial discovery that has important implications for so-called 'reluctant' or 'non-typical' learners. Reluctant learners, as minorities are often labeled, are often portrayed by subjectivist educators not as being behind or under-prepared but as possessing a distinct way of learning. This theory is justified by social epistemology, which argues that a person's race, class, gender, etc. are ways of knowing that should be taken into account by teachers. The parallel between the hierarchy of cognition and the hierarchy of math suggests that these students are kept from conceptual subjects not because they think differently, but because they are still developmentally on the sensory and perceptual level. Objectivists hold that human consciousness is *fundamentally* the same if developed appropriately from birth. All humans must first learn on the sensory-perceptual level before learning on the conceptual level. So-called 'concrete' learners are not concrete learners in that they cannot learn on the abstract level. They are only developmentally on the concrete level, but will eventually move to the abstract level if progressed appropriately.

This is consistent with Piaget's findings, which suggest that students must first engage content on the concrete level before understanding it on the conceptual level. However, Jerome Bruner and other constructivists of the Vygotskian strain argue that students can learn conceptual material earlier than suspected. Although it is possible to learn abstract material earlier than expected, the hierarchical nature of thinking and

knowledge must still be obeyed. Otherwise, without learning on the sensory or perceptual level sufficiently before progressing to the conceptual level, the resulting knowledge will be much like a Platonic *form,* a floating abstraction without connection to reality or experience. Ironically, this is an example of the traditionalist version of knowledge out-of-context.

On the other hand, this does not mean that objectivism is simply a Piaget version of constructivism. Constructivist practitioners design assignments that remain far too long on the perceptual level. Once the student understands the concept on a concrete level, he should be moved upward toward the conceptual, toward the principles connecting all of the particular examples in his experience. Education should always be moving from the perceptual to the conceptual and back again, but the conceptual level is always the goal.

Higher-Level Concepts. A higher-level concept essentially is an abstraction from an abstraction, so the process of concept formation is basically the same. A student may be able to conceptualize *father*, *teacher*, *dog*, or *plant,* for example, but *organism* is a much more difficult conceptual task to perform. When a child emerges from the perceptual level, he cannot conceptualize *organism* because there are no actual things in existence called organisms. There are only *fathers*, *teachers*, *dogs*, and *plants*. To form the higher level concepts like *organism* a student has to acquire the basic sensations and perceptions to conceptualize all the middle level concepts that *organism* depends on: *father, teacher*, *dog*, *plant,* and so on. And before a student can conceptualize each of these middle level concepts, he must first conceptualize the lower level concepts on which each of them depend. For example, the concept *father* can only be grasped after several fathers have been observed, not just the student's father. Therefore, higher-level

abstractions like *organism* or *culture* all depend on knowledge of the middle and lower level concepts.

There is still another higher level of concepts beyond those such as *organism* called *concepts of consciousness*. *Concepts of consciousness* are 'mental integrations of two or more instances of a psychological process possessing the same distinguishing characteristics, with the particular contents and the measurements of the action's intensity omitted.'[25] Some examples are *thought*, *memory*, and *love*. Notice that the definition of *concepts of consciousness* is essentially the same definition for lower level concepts. Both processes of abstraction are the same and they both require *measurement omission*. The two different levels of concept formation differ only in their distance from the perceptual level. Lower level concepts such as *dog* are closer to the sensual and perceptual level than *organism*. Further away from the perceptual level than *organism* are the *concepts of consciousness* such as *love*. A *concept of consciousness* such as love is formed when a person becomes aware of his or her consciousness with respect to something. Using love as an example, a person may notice that when he is in the presence of a certain person, he feels 'good', 'pleasure', 'desire', etc. He also notices that these feelings grow in intensity the more he is around this person. Over time, he assigns a concept to these feelings since they occur regularly, not only in the presence of this one person but also in the presence of other people about which he feels the same way, however, he omits the particular contents of the concept as well as its felt intensity.

Definition. The final step in concept formation is *definition*. The function of a definition according to Ayn Rand is, 'to distinguish a concept from all other concepts and thus to keep its unit differentiated from all other existents.'[26] When a child defines its percepts, it touches or points to what it refers and says 'that' or 'this'. Later, as a child

abstracts a concept from all of those unnamed percepts, he or she attaches a name to the existent to which the concept refers. This name is the definition.

A definition includes only the essential characteristics of a concept, not all of them, for that would require too much memory. Therefore, a definition also is a means of economizing one's memory or body of knowledge. Each definition contains two parts, the *genus* and *differentia* (species). For example, in the name, *John Smith*, *Smith* is the *genus* and *John* is the *differntia*. Also, *humans*, *lions*, *and eagles* are part of the *genus animal*, but *human* is part of the differentia *rational*, whereas *lions* and *eagles* are part of other differentia.

Knowledge and Certainty as Contextual. There is only one kind of knowledge: *absolute knowledge*. Absolute knowledge is always contextual: true given certain conditions, situations, contexts, what we know, an awareness of reality, our knowledge, etc. Like knowledge, definitions are contextual. Like concepts, definitions are developed by a consciousness within a certain context of knowledge or awareness of reality—knowledge or awareness that is neither completely ignorant nor omniscient. At early stages of cognitive development, a child's definitions, though simplistic, are valid, as far as his knowledge and awareness of reality are concerned. But as additional knowledge about reality is discovered, the early definition the child possessed ceases to be adequate given the new knowledge and awareness. For example, Rand describes how a child might develop the definition of *human*. The child, Rand says, would probably define *human* as 'a thing that moves and makes sounds'. Given the knowledge and level of awareness of the child, this definition is perfectly valid. That is, 'a thing that moves and makes sounds' fits the function of a definition. A definition's function is to distinguish a concept from other concepts or to distinguish a unit from other existents. The child's definition does just that. Given all of the child's knowledge, experiences, and awareness

of reality, which is probably confined to the limited realm of his home, ‘a thing that moves and makes sounds’ is enough to define a human, to distinguish it from the furniture.

However, as the child’s knowledge of reality expands to include more existents and more concepts, ‘a thing that moves and makes sounds’ no longer distinguishes a human from the family dog. Therefore, the child revises the old definition in light of new knowledge and redefines human to mean, ‘a thing that walks on two legs and has no fur’. Later, this definition given the context of knowledge will also be inadequate. Eventually, he will develop ‘rational animal’ as the definition of human, which is the definition given the widest context of knowledge we have available to us so far. Notice that the definition of *human* in the widest possible context does not contradict the less sophisticated definition of human, ‘a thing that moves and makes sounds’. ‘A thing that moves and makes sound’ and ‘rational animal’ both refer to the same thing, but both cannot serve as a definition given the *widest* context. Given the *current* context of humankind’s knowledge of reality, ‘rational animal’ is the correct definition.

These two facts: (1) that definitions are contextual *and* (2) that new definitions do not contradict old ones but build on them has extremely important implications for education. First, someone might mistake this objectivist view of definition for a subjectivist view because it maintains that knowledge is contextual. Subjectivists typically argue: who can say that one person is right about reality and another is wrong; both are right given their different contexts. This conclusion should not be drawn from the two premises listed at the beginning of this paragraph. This conclusion is equivalent to saying that one could use a young child’s definition of human, ‘a thing that moves and makes sound’, and an educated adult’s definition of human, ‘rational animal’, interchangeably or that both are correct given their contexts or that there is no vantage

point from which to choose one definition over another. This is not a valid conclusion to draw from the premises above. One definition is right because given the *widest* context, the *widest* knowledge, 'rational animal' defines human better than 'a thing that moves and makes sounds'.

If this view of knowledge is correct, there is no basis to argue that we cannot know the most important knowledge to teach, which is the current assumption underlying all choices in education. The current argument driving education is that because knowledge is contextual, one can only be right or wrong within a given context. It is easy to see how this definition can be confused with the objectivist one, but the subjectivists and objectivists define *contextual* differently. Many subjectivist educators maintain that education is inherently racist because its purposes, instructional methods, and curriculum are defined within the context of an Anglo American viewpoint and thus are too narrow. They argue that education must expand to include all cultures' views of reality as equals rather than hierarchically in which one is better than another. This subjectivist view of education means that in a course designed to teach about what it means to be a human, the teacher must teach that a human means to some cultures 'a thing that moves and makes sound' and to other cultures it means a 'rational animal'. One cannot say that one definition is more right because knowledge is contextual or there is no privileged view of reality. There is no basis from which to derive this conclusion. Education must teach that 'rational animal' is the better definition because given the *widest* possible context, it is the best definition, the most accurate view of reality. This is the actual meaning of *contextual*. It does not mean that 'rational animal' will never be refined to mean something more—if knowledge is discovered to warrant a refinement. It is an absolute only with respect to the context.

Second, subjectivist contextuality of knowledge is actually a relativist view of concepts because they argue that it is impossible to see reality objectively, therefore, one cannot choose between two definitions since one cannot objectively determine which view of reality is more accurate. If this view of knowledge is correct, we have no basis to condemn the Nazi's for their crimes against humanity, or murder, or any view of reality that conflicts with the widest context of knowledge. Currently, many school districts are arguing for the inclusion of the *theory of intelligent design* in primary and secondary science curriculums as a competing theory with the *theory of evolution*. Given the subjectivist theory of concepts, one would have to accept the *theory of intelligent design* as an equally viable as the *theory of evolution*.

The implications for the different definitions of the term *contextual* are significant. Essentially the objectivist definition of contextual defeats any argument for the sociology of knowledge and thus for any multicultural doctrine of education. This does not mean that education should not study different cultures. But multiculturalism is not simply the study of different cultures. It is driven by a flawed view of epistemology, therefore, any study of multiculturalism will only inculcate a flawed view of culture as well as reality and knowledge. One can and should study cultures as part of history only within the objectivist metaphysical and epistemological viewpoint.

Third, another implication for knowledge and education is that Thomas Kuhn's argument that knowledge is not accumulative but paradigmatic is incorrect. Einstein's definition of physics, for example, does not refute Newton's definition, but rather extends it. Einstein could not have discovered his contribution if Newton had not discovered his *first*. According to the principles of subjectivism, which are essentially the same as Kuhn's view of science, knowledge does not proceed logically from simple to complex,

nor does it accumulate and build on preceding knowledge. It is constructed by the community who are determined by individual and culturally constructed knowledge.

Fourth, the analogy of a child defining a human as 'a thing that moves and makes sounds' who eventually moves to an educated adult who defines a human as 'rational animal' is a good analogy for education to follow. With each new grade of school, a student's definitions become more comprehensive, and therefore, his or her view of reality becomes wider. The alternative, the subjectivist view, says that such progression is an illusion.

To complete this section on definitions, it must be added that a definition is not an arbitrary selection of several of the unit's features. It includes all the of the unit's features in a condensed form. A concept is not interchangeable with its definition, however. The concept *human*, for example, is not interchangeable with *rational animal*. To do this means to reduce the concept down only to the features mentioned in the definition, which are left out only for economical reasons. A concept designates existents, including all of their characteristics, whether definitional or not.[27] Rand says:

> It is crucially important to grasp the fact that a concept is an "open-end" classification which includes the yet-to-be-discovered characteristics of a given group of existents. All of man's knowledge rests on that fact.
>
> The pattern is as follows: when a child grasps the concept "man," the knowledge represented by that concept in his mind consists of perceptual data, such as man's visual appearance, the sound of his voice, etc. When the child learns to differentiate between living entities and inanimate matter, he ascribes a new characteristic, "living," to the entity he designates as "man." When the child learns to differentiate among various types of consciousness, he includes a new characteristic in his concept of man, "rational"—and so on. The implicit principle guiding this process is: "I know that there exists such an entity as man; I know many of his characteristics, but he has many others which I do not know and must discover." The same principle directs the study of every other kind of perceptually isolated and conceptualized existents…

> Since concepts represent a system of cognitive classification, a given concept serves as a file folder in which man's mind files his knowledge of the existents it subsumes. The content of such folders varies from individual to individual, according to the degree of his knowledge—it ranges from the primitive, generalized information in the mind of a child or an illiterate to the enormously detailed sum in the mind of a scientist—but it pertains to the same referents, to the same kind of existents, and is subsumed under the same concept. This filing system makes possible such activities as learning, education, research—the accumulation, transmission and expansion of knowledge.[28]

It should be clear from this passage that education as it is currently conceived treats the 'primitive, generalized information in the mind of a child or an illiterate' and the 'enormously detailed sum [of knowledge] in the mind of a scientist' as equals with regard to what is best to teach. Obviously the knowledge of a scientist is superior to the knowledge of a child or illiterate, yet contemporary education does not discriminate. If anything, it teaches him to question science but not his own culturally constructed truths, which are more often the product of tradition and religion than reason.

It is also important to note that a person's concepts do not change. The knowledge a person has of his or her units may grow and their definitions may be refined, but the concept will remain the same. If concepts did not remain the same it would be impossible to communicate to one another or build on previous knowledge. When discussing something with another person if either of the discussants possesses concepts that can change then each discussant may be referring to the contents of a different file folder. This fact has important implications for the accumulation of knowledge. If one learns something new about a concept, they insert the new information into the existing file folder; they do not begin a new file folder with the same label (definition) on it or else they would have several file folders with the same label (definition) but with different contents. Therefore, the label and contents of the folder may change, but the concept remains the same. Putting it another way: after only seeing a few tables a person

has a good grasp of the concept *table*. Would the concept *table* change after a hundred more encounters with different tables, no matter how far they deviate from the norm? It is tempting to say yes, but actually, the answer is no. The definition of the concept might grow, but the concept table would never change. Thought depends largely on the stability of concepts. Without conceptual stability the mind would quickly fill up with redundant information.

Knowledge as Hierarchical. A hierarchy is a collection of persons, things, or concepts arranged in a logical sequence in which one person, thing, or concept depends on its relationship with another to give meaning to the whole. See Figure 2 (p. 234). This view of knowledge is also controversial among subjectivists. Subjectivists generally hold that assigning knowledge to a hierarchy where one fact logically precedes and depends on another is an arbitrary or at least human-centered way to arrange knowledge. In reality, the hierarchy of knowledge has no metaphysical existence, they argue. Objectivists also believe that knowledge has no hierarchical *metaphysical* existence—this would be the intrinsicist view—but they do believe that knowledge has a hierarchical *epistemological* existence.[29]

As it has already been argued, knowledge is attained by a *human* method that includes the volitional adherence to reality, reason, and the formation of concepts. Reality and the rules of valid reasoning (logic) are not human-made, although the choice to obey this is a choice. Concept formation is also a choice. This does not mean as subjectivists believe that hierarchies of knowledge are subjective. If one adheres to reality and reason, then one's knowledge is objective. If two people possess the same body of knowledge and organize them in two different ways, the better hierarchy of the two can be determined objectively by adhering to the facts of reality and reason. If the objectivist view of knowledge as hierarchy is rejected, as it has been by many subjectivist

educators, then anyone's hierarchy would be as logical as another. This is extreme relativism and is logically and practically untenable. If knowledge is not hierarchical then one could study algebra in the first grade and basic mathematics in high school. Clearly this inverted hierarchy is ridiculous, since basic mathematics logically precedes algebra. Should teachers begin

lessons with the most abstract knowledge or with more concrete knowledge and move up the conceptual latter? When someone does not understand another person because they are being too abstract, they say, 'Can you give me an example?' The example serves as the concrete existent to which the abstract language refers, making understanding possible. What lies at the heart of these examples is the epistemological existence of hierarchical knowledge.

Hierarchical knowledge should be made explicit at every step of the learning process because it is one of the most basic principles of learning. Without hierarchical knowledge a student will never fully grasp what he or she is studying. Consider the concept *culture* as an example. *Culture* is a highly abstract concept. Understanding it depends on first understanding middle level concepts such as *art, science*, *religion*, *education*, etc. Understanding these middle level concepts depends on understanding the lower level concepts that they subsume such as *person, plant, family, money, school*, etc., and so on down to the most basic concept. These concepts are separated from one another by their distance from the perceptual level. The further from the concrete we move, the higher up the conceptual latter we climb. To teach culture in first grade would not make sense to a first grader because they have not grasped all of the concepts that *culture* subsumes.

The hierarchy of knowledge mirrors the history of ideas too. The advancements in knowledge in the twenty-first century could not have happened in 2000 B.C. and vice

versa. Society needed basic discoveries to occur before the advanced ones. Such is the nature of learning. Only when the student grasps the basic can he or she move on to the intermediate, and only when the intermediate is grasped can he or she move on to the advanced level.

CONCLUSION. Neither the intrinsicist or progressive method of epistemology is valid. The intrinsicist view holds either that one can know reality by reason apart from the senses, the senses apart from reality, or by revelation, intuition, or some other mystical means. The subjectivist view holds that the group decides what tentatively qualifies as a solution to an immediate problem. The solution nor the standard by which to judge the solution has any metaphysical or epistemological existence. The objectivist view is that man is the only conceptual animal. Concepts are his means of reducing the immeasurable mass of particulars in the universe into units that he can understand. This is the highest level of understanding. It is anti-intrinsicist because it does not believe that concepts exist as concretes or in the objects of perception. It is anti-subjectivist because it believes that the knowledge or concept that it forms is based on reality not the opinions of a group.

Each of these epistemological views implies an educational consequent. The intrinsicist view is flawed because it tells the student to be rational and objective but true knowledge can only come from anti-rational and anti-objective means. The subjectivist view is also flawed because it tells the student his knowledge is determined not by his individual choice to adhere to reason and reality but by his race, gender, learning style, class, genes, etc. The objectivist view tells the student he can have confidence in himself as an individual—if he rejects mysticism and his group—to apply reason to reality and think on the conceptual level.

Chapter Two Notes

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Chapter Three: Axiology

AXIOLOGY DEFINED. In this chapter I will show how axiology impacts education, describe the different *ethical* and *aesthetical* beliefs of both intrinsicist and subjectivist philosophies, and compare them against the objectivist view.

Whereas metaphysics and epistemology tell and describe to man what *is*, axiology prescribes to man what he *ought* to do. Axiology is the Greek word for the study of values. Values generally are of two types: what one *does* value and what one *should* value. The difference between the two is essentially the difference between subjectivist and intrinsicist axiology. The former regards values as anything an individual or a community deems worthy of valuing or useful, whereas the latter believes that values are absolute and exist independently of human creation. The objectivist view, by contrast, holds values that are determined by what reason dictates. In this sense, values do not exist apart from a human consciousness like the intrinsicist view, but neither are values subjective or relative to individuals or groups who select and reject them with respect to usefulness.

Axiology asks the questions: What is a value? Where do values come from? How do we justify our values? How do we know what is valuable? What is the relationship between values and knowledge? What kind of values exist? Can it be demonstrated that one value is better than anther? Who benefits from values?[1]

Axiology is usually divided into two areas: *ethics* and *aesthetics*. *Ethics* is concerned with the behavior that one should exhibit or hold as best. Aristotle believed that ethics is the *theory* of behavior, whereas morals is the *practice* of behavior. *Aesthetics* is concerned with value judgments about what is beautiful or what one ought to value as beautiful.

Although, ethics and aesthetics are two different branches of philosophy, they intersect one another. For example, ethical values are often concretized in art (aesthetic values). Any Rand's novel *Anthem* is a work of fiction that concretizes the values of egoism, so the two values—literature and egoism—are acting in one. Many may agree that literature is a value, but within that group of literature admirers not everyone may agree that egoism is a value. Some may not read *Anthem*, specifically because it glorifies egoism. Instead they may choose a work of fiction that glorifies altruism.

AXIOLOGY AND EDUCATION. Since it is impossible for education not to imply some kind of value either implicitly or explicitly, axiology's relationship to education is significant Indeed, education is itself a value and I would argue is the most important determiner of success in education, more than one's metaphysical or epistemological beliefs and practices. Those individuals and cultures that value education usually are successful in school, whereas those that do not value education usually are not successful.

Values can be both implicit and explicit. For example, a teacher who makes no conscious attempt to teach values in his course actually implies values in many ways. If a teacher uses cooperative learning groups as his primary teaching practice, one might infer that he either values the outcome of cooperative learning or holds that the group is to be valued over the individual. Progressive educators often refer to the values implicit in education as the 'hidden curriculum'.

Values can be explicitly part of the curriculum as well. For example, many middle and high school literature teachers often teach a *hero* unit or an *individualism* unit in which one long work and a few short works are read to illustrate the value to be learned. Ayn Rand's *Anthem* is a common text selected for individualism units. These are only two examples, however. *Diversity*, *tolerance*, *democracy*, and *honesty* are also common value units that are taught in American primary and secondary schools.

One can probably conclude now just how important values are to education. If a teacher is not cognizant of the values he is promoting he can encourage the wrong values and consequently harm the development of impressionable youngsters. Just as the choice of education is a choice of metaphysical and epistemological doctrines, so is education a choice of axiological doctrine.

INTRINSICIST AXIOLOGY. Idealism. Each of the three main intrinsicist axiologies—idealism, realism, and neo-Thomism—are consistent with their metaphysical and epistemological doctrines described in the previous two chapters. They all hold that values exist in some way independently of the valuer and that he must discover them by some method. Idealists hold that man can know the right and wrong values of ethics and aesthetics. The sources of these values are outside the individual and awareness of them is achieved through cognitive and affective means. These values are standards that convey the underlying structure and order of the universe and, therefore, are absolute, unchanging and universal.[2] For example, Herman Horne describes the idealist view of values in the following way:

> Idealism holds that knowledge is man thinking the thoughts and purposes of this eternal and spiritual reality as they are embodied in our world of facts. What is beauty? Beauty is the problem of aesthetics, and idealism says that the beauty of nature which man enjoys and the beauty of art which man produces is the perfection of the infinite whole of reality expressing itself in finite forms. And what is goodness? Goodness is the problem of ethics, and idealism holds that the goodness of man's individual and social life is the conformity of the human will with the moral administration of the universe.[3]

It is not clear what idealism's view of aesthetics is. Plato distrusted poetry because he believed it did not represent the truth as philosophy does. Plato also distrusted writing and speeches because both mediums were non-dialectical and thus only pretensions of truth. Plato also valued dialectic because it enabled all truth claims to be countered by an interlocuter. Yet Plato wrote many dialogues in which the characters

used poetic analogies to explain abstract concepts. Evidently Plato would allow poetry into his beloved republic but would censor its authors to make sure it represented the truth as evaluated by philosophers.

Realism. Classical or Aristotelian realism holds that reality is the source of values in that one must first look to nature, to objects in existence, to develop a system of values. A natural order exists in reality and man must discover it.[4] John Wild says in *Introduction to Realist Philosophy*:

> Men are, as a matter of fact, rational beings, capable of learning from experience. They will soon detect a liar and distrust him. Hence it is easy to see that universal lying would bring forth universal distrust and render rational communication, and hence human life, impossible.[5]

The realist meaning of aesthetics holds that art should represent reality (*mimesis*), to make something that represents reality. Art or *techne* means to make something in Greek. One may manipulate the work of art to initiate a response in the audience, but one must not distort reality. Recall that to Aristotle everything has form and matter. Art, therefore, is realizing some form in some matter.

Both idealism (Plato) and realism (Aristotle) hold that values exist outside one's self and that one must discover them in some way. Yet the two philosophies differ with respect to where the values reside. Idealism holds that one comes to know absolute values by engaging abstract concepts through pure rationality, whereas realism holds that one comes to know values by first examining concrete particulars through sense perception and abstracting through reason and intuition their essential value or purpose.

Aristotelian realism is the closest in meaning to objectivism. The two are the same in that to form a concept one first looks to several particulars in existence and then abstracts from them the concept that retains all of the particular characteristics but omits each particular's specific measurements. The difference is that Rand holds that the

concept is formed by a human consciousness, whereas Aristotle holds that the concept already existed and a human consciousness is needed to discover it through rationality and intuition.

Neo-Thomism. A third intrinsicist view of values is the one developed by St. Thomas Aquinas. Neo-Thomism is essentially the combination of Catholicism and Aristotelianism.[6] Since Christianity has probably influenced Western education more than any other philosophy, neo-Thomism may be the most influential theory of values in education. William McGlucken describes it in the following way:

> There are certain human acts which are of their very nature good and deserving of praise, and therefore independent of all human law; other actions are of their very nature, that is, intrinsically, bad and deserving of blame. The scholastic holds that there is a norm to determine the good act from the bad…Scholastic philosophy teaches that there is such a yardstick, such as norm of morality, one eminently usable; namely, man's rational nature taken in its entirety…What does reason teach us about man's nature? First, that it is composite, made up of body and soul. Second, that man's nature is social by its very essence…Third, it is contingent, that is, not independent, not responsible for its own being and existence, but dependent on its Creator, God…Therefore, assisting one's neighbor, playing the good Samaritan, supporting one's children, and obeying parents are things good in themselves because they are in conformity with man's social nature. On the other hand, dishonesty, lying, stealing, and murder are intrinsically wrong because they run counter to man's social nature…Granted that it may be hard in certain circumstances to determine what is lying, what is dishonesty, the fact remains that in the scholastic system lying and dishonesty are evil things.[7]

Greise points out that the neo-Thomistic view of aesthetics is noticeably absent, indicating that traditional education places less stress on the arts than on academic subjects. Nevertheless, one may infer what would be aesthetically valuable to a neo-Thomist. Since neo-Thomism's is a combination of Christianity and Aristotelianism, art would probably have to represent reality—reality as understood by a Christian. That is, there is the reality of the 'here and now' and the reality of the 'spirit'. Therefore, art would probably in some way represent the values prescribed by the Ten Commandments

as well as other aspects, ideas, passages, and events in the bible and the history of Christianity.

INTRINSICIST VALUES. Intrinsicist values go under the more familiar title of 'traditional values'. Probably the most common Christian traditional value is *eternal life in heaven*. The non-Christian value or secular traditional value would probably be *happiness* or *life*.

Values imply something to be gained and kept. *Virtues* are that which one does to attain the value. Some Christian traditional virtues include the *Ten Commandments*, which are especially relevant today, since many courthouses and capital buildings are fighting the courts to keep them on their grounds, even though some argue that their presence violates separation of church and state laws.

Two other Christian virtues are the 'Love Your Neighbor' law and 'The Golden Rule'. Jesus held that one should love his neighbor has he loves himself if he wants to enter heaven. He also believed that you should do unto others as you would have them do unto you. These teachings are essentially the Christian version of *altruism*.

Many Christians who respect the teachings of the Ten Commandments also hold that the abortion of unborn fetuses or mercy killings of patients is a violation of the sixth commandment, *thou shall not kill*. The right to life is a right stated in the constitution, but traditionalists typically see it as a value for religious reasons. However, it should be mentioned that there are many non-Christians who are 'pro-life' and against 'assisted suicide' for secular reasons.

Another traditional virtue that does not necessarily have a religious meaning is *patriotism*. Patriotism is most often associated with conservatives and traditionalists who believe that patriotism should be inculcated into our society, especially at a time when

most either take their country for granted or actively criticize it. Some traditionalists argue that the *Pledge of Allegiance* should be recited in school.

Of course, there are many more traditional values and virtues such as *honesty* and *justice* that will not be described here but that do impact the curriculum. Traditionalists often encourage *competition* and *independence* as well, some argue at the expense of *cooperation* and *inter-dependence*, which are progressive virtues.

INTRINSICIST AXIOLOGY AND EDUCATION. The values described above all impact schooling in some way. Virtually every high school has its students do a research project on an issue of the students choosing. Usually the topics are selected from a list, on which euthanasia is often found. Euthanasia is also used as a standard topic to teach debate and argumentation. The recent Terry Schiavo case was almost certainly discussed in schools around the country. Another topic of debate and argumentation that is relevant to traditional values is the death penalty. Patriotism was probably a topic of debate and argumentation after the twin towers were bombed by terrorists on September 11, 2001 and during the current Iraqi War.

It is not clear if teachers take a side on these issues or merely present the facts and let the students decide. Indeed, it is on this point that many disagree. Should teachers remain neutral about values and virtues that are clearly good to keep? Many would argue that although some values and virtues are seemingly good to keep, man lacks an objective way to justify them as absolutes, so one should remain neutral especially with respect to children who cannot rationally decide for themselves what to believe.

Finally, aesthetics is noticeably absent from the intrinsicist axiological impact in education. This is probably the result of intrinsicists believing the arts plays a secondary role in school, which is designed to improve the intellect and morality of the child. This is not to say that intrinsicists and traditionalists do not advocate the arts. Indeed,

probably most do and take serious measures to educate their child in a musical instrument or artistic endeavor.

SUBJECTIVIST AXIOLOGY. Existentialism. Many subjectivist theories of axiology exist but only two will be discussed here: *existentialism* and *pragmatism.* Jean–Paul Sartre is one of existentialism's founders. Sartre's axiology can be summarized by the statement, *existence precedes essence*. The term 'essence' refers to Aristotle's (classical realism's) belief that everything has an essence and that man discovers this essence by abstracting it from several particulars through a process of thought and intuition. This method of abstraction is similar to objectivism's concept formation, with two exceptions. First, Aristotle believed the essences existed in the objects of perception. Second, he also believed that abstracting the essence included a mystical form of intuition. Objectivism, by contrast, holds that essences do not exist as concretes and that essences are actually concepts that are created by a human consciousness based on the identity of the object of perception. Therefore, Sartre was addressing Aristotle when he said that an existentialist creates his own essence.

> What is meant here by the saying that existence precedes essence? It means, first of all, that man exists, turns up, appears on the scene, and only afterwards defines himself. If man, and the existentialist sees him, is indefinable, it is because at first he is nothing. Only afterwards will he be something and he himself will have made what he will be.[8]

Existentialism is a *subjectivist* axiology because the values one holds are based on the subject as opposed to the object. Existentialists hold that man has the ability to choose whatever he wants to be, not just in the practical sense of getting a job, for example, but in the metaphysical sense of what his essence is. This belief extends into his axiology as well. Existentialists hold that values are chosen by the individual and have no independent existence of their own. One's value is no better than another's value. The dilemma between facts and values for an existentialist is that the dilemma

was created so it can be uncreated as well. Within a doctrine of complete freedom and responsibility for actions and beliefs, one has absolute power.

Pragmatism. *Pragmatism* is similar to existentialism. It holds that values do not exist apart from human creation as idealists, realists, and neo-Thomists believe. However, existentialism and pragmatism differ in that while existentialist values are *subjective* to the individual, pragmatic values are *relative* to a context. The former's values are constructed entirely in relation to the subject. The latter is formed in relation to the object, but only relative to the context of the object. One philosopher of education, Samuel Shermis, holds that this difference is significant and constitutes a middle ground between the theories of Plato, Aristotle, and Aquinas on the one hand and existentialism on the other.[9]

Pragmatist axiology says that what men value can never be understood apart from any context. If men in a given context find honesty useful, but in another they do not, this is perfectly acceptable since in both contexts presumably he is acting in a rational way. Dewey was an advocate of the scientific method and democracy, so he held as long as men act according to the method of science and democracy to solve the problems of a given context, their values are validated. The dilemma between *facts and values* is also a false dilemma to Dewey because he believed both were developed via the scientific method and both yielded results that are not absolute but viable in a given context as long as they satisfy the members of the community performing the inquiry.

SUBJECTIVIST VALUES. Neither existentialism or pragmatism hold specific values because to do so would contradict their theories. Nevertheless, subjectivist philosophers and educators seem to hold some values as absolute For example, in the chapter on epistemology Richard Rorty, a neo-pragmatist, said the following:

> The second meaning of "rational" is, in fact, available. In this sense, the word means something like "sane" or "reasonable" rather than "methodical." It names a set of *moral virtues*: *tolerance, respect for the opinion of those around one, willingness to listen, reliance on persuasion rather than force*. These are the virtues which members of a civilized society must possess if the society is to endure. In this sense of "rational," the world means something more like "civilized" than like "methodical."[10]

Moreover, existentialist axiology implies that *individualism* and *free will* are values while pragmatist axiology implies that *science* and *democracy* are values. Further, with respect to education the following values are often emphasized: *diversity, tolerance*, *social justice*, *equity*, *environmentalism*, *democracy*, *reflection, cooperation, community*, and *altruism*.

SUBJECTIVIST AXIOLOGY AND EDUCATION. Subjectivist educators generally hold as their foundational axiological view that values are subjective to an individual or group or relative to a context. But, they argue, this does not lead one to believe in anarchy, nihilism or a valueless society. Rather, subjectivists hold that values emerge out of experience. The educational implications for such a belief is that instruction must place students in experiences so they can construct the values that solve problems in a given context.

Another value actively promoted in education today is *social justice*. It is argued that because of the current crises in education, in which some students receive the education that addresses their needs and some students do not, the pragmatic solution is insure that everyone receives the education that addresses their needs. Corollaries of this value are *diversity* and *tolerance*. One cannot successfully institute social justice without valuing diversity and having tolerance for those who are different from oneself or the mainstream. Institutions of higher learning typically have committees appointed to insuring that students receive an education that teaches them about several different

cultures and as well as programs that admit minority students and hire minority professors.

OBJECTIVIST AXIOLOGY. Ethics. Objectivist ethics asked three questions that are interrelated: For what end should man live? By what fundamental principle should he act in order to achieve this end? Who should profit from his actions? The answers to each of these questions are the *value*, *virtue*, and *beneficiary* of the objectivist ethical code. The ultimate value is *life*, the primary virtue is *rationality*, and the particular beneficiary is *oneself*.[11]

Another false dilemma in the history of man is the relationship between facts and values. The dilemma is the inability to reconcile the following two seemingly incompatible truths: while man can identify facts indisputably, he cannot identify values indisputably. The result of this false dilemma yields two equally flawed consequences. Either one must posit an absolutist theory of values, which necessarily means invoking some kind of obscurantism or mysticism or one must posit a relativist theory in which anything that one values is a value. Objectivism rejects both of these viewpoints. It argues that one can have objective facts and values and the two are derived from the same source and method: reality and reason. In short, reason applied to facts determines what values everyone should hold.[12]

A common criticism of subjectivism and intrinsicism by objectivist thinkers is that the two philosophies frequently violate the hierarchy of knowledge or the relationship between a primary and secondary principle. With respect to axiology, the situation is no different. Subjectivism and intrinsicism ask the question, 'What values should man have?' Objectivists hold that another question logically precedes that one that if asked changes the tangent of thought in ethics in a new and more rational direction. The first question to ask is, 'Does man *need* values at all and *why*?' The

primary question lays the foundation, the premise upon which the rest of the value theory rests.

The primary question to ask is, 'Does man need values at all and why?' This question presupposes that one knows what the definition of *value* is, so one must first define the meaning of value. A value is that which one acts to gain and keep. This definition presupposes that a value is one out of many that a person may choose, so values imply a choice. Rand sees this point as fundamental. It implies that values are inapplicable where one has no choice in acquiring them. If a value is something that one acts to gain and keep, one cannot act to gain something if he either does not have a choice in the matter or if the value is irrelevant to him. For example, man chooses to gain knowledge of the law of gravitation, but man cannot choose the law of gravitation. Knowledge of the law of gravitation is an example of a value to gain and keep because one will not automatically acquire it without choosing to and acting to get it. But the existence of gravity is not a value because whether one acts or not he will still be subject to it.[13] Therefore, the answer to the question, 'Does man need values and why?' is yes. The reason why is that a being whose actions are not automatically chosen for him needs a guide when faced with alternatives. Values or morals are that guide.

Rand now can ask the first question of objectivist ethics, 'For what end should man live?' The answer is *life* because it is the first choice of values that man must make. All other choices logically fall after this one. If one values *money*, for example, this value cannot exist without first valuing *life*. To illustrate her point, Rand argues that a robot does not choose life. It will run regardless of whether or not he chooses to run. Therefore, a robot has no need of a value system—a code of behavior that prescribes what one ought to do. He literally can do whatever he wants because it will have no bearing on the most fundamental alternative: life or death. He does not need to value

food, money, clothes, shelter, companionship, or knowledge. Whether or not the robot chooses these things has no bearing on its life because it has no choice to live or die.[14] However, if the robot were a man, everything would change because logically prior to any value is always the ultimate question: should I live or die? If a person chooses life, then a whole other set of values logically related to this fundamental question must be asked.

Now the second question can be asked, 'By what fundamental principle should one act in order to achieve [life]?' The answer is *reason*. It is man's basic tool of survival. A *virtue* is the primary principle by which one attains their values. Reason, therefore, is the *primary* virtue of objectivist ethics. No other virtue precedes it. Rather, all other virtues are corollaries of it.

Virtues. ***Independence.*** *Reason* is a broad abstraction, however. There are many more specific virtues that are derived from reason. One is *independence*. Ayn Rand defines independence as, 'one's acceptance of the responsibility of forming one's own judgments and of living by the work of one's own mind…'[15] If man lived on an island, he would have to do everything by himself as a total independent. The same principle applies to men in a society. Men must rely only on themselves to acquire everything they want. This does not mean that by reading a book one is stealing the ideas created from another. Presumably someone who is now charging a fee to those who want to read his ideas wrote the book. Those individuals who work to buy the book are not dependents of the author because they paid the negotiated price for the book. They *earned* the book just as a castaway on an island must earn the shelter that keeps him safe.

Integrity. Another virtue that is a corollary of reason is *integrity*. Rand defines integrity as, 'loyalty to one's value system or rational principles.'[16] Integrity, as the name implies, means integration. Integrity is the integration of one's beliefs and one's actions.

A professor who believes one thing but writes and publishes another betrays his beliefs and thus has no integrity. But a professor who, with the risk of losing promotion or a job, writes and publishes his beliefs anyway maintains integrity.

Honesty. *Honesty* is another virtue that is a corollary to the primary virtue of reason. Rand defines honesty as, 'the refusal to fake reality or to pretend that facts are other than they are.'[17] Critics of objectivist ethics usually posit a challenge such as the following to the virtue of honesty: say a criminal invades someone's home and the victim must lie to save his life. The objectivist response would be that virtues are the principles by which one attains their values and that the primary value of man is life. Honesty is only a corollary of reason. Therefore, reason *precedes* honesty. One is honest if it is reasonable to be so. If the victim lies to the criminal to protect his life, one is not betraying honesty; they are being reasonable because they are attaining their highest value: life. If life is what one acts to gain and keep and reason is the virtue by which one gains it, then lying to the criminal is absolutely remaining true to the value of life and the virtue of reason because to do otherwise would be certain death.

Justice. Another virtue that is a corollary of reason is *justice*. Rand defines justice as, 'the virtue of judging men's character and conduct objectively and of acting accordingly, granting to each man that which he deserves.'[18] A person who negotiates with a business owner a specific wage for specific services is entitled by virtue of justice to attain this wage when the services that were negotiated are rendered. Justice does not entitle someone to have something that has not been earned or agreed to by all relevant parties involved. Under this principle virtually all social programs are unjust because they grant to people that which they have not earned.

Objectivism holds several other virtues such as ***productiveness***, ***pride***, and the ***non-initiation of physical force***, but they will not be discussed at length here to allow more discussion of the virtues most relevant to education.

Selfishness. The final question to ask is, 'Who should profit from his actions?' The answer is *oneself*. This aspect of the objectivist moral code is called *egoism* or the virtue of *selfishness*. The virtue of selfishness needs validation since many regard it as inherently evil. Its philosophic opposite *altruism* is far more acceptable in mainstream society to the point that most do not question it at all. The proper denotation of selfish is, 'acting in one's interest'. The fact that selfishness implies acting to preserve one's interest, one's life, is enough validation. The definition of selfish, which can be found in any standard dictionary, does not connote the negative image most associate with it: an irrational brat acting on impulsive whims at the expense of others. Yet is it precisely this image that is conveyed to the world when the word selfish is used.

Critics of objectivism invariably invoke a false alternative in their argument against self-interest. Either one must sacrifice himself to others (altruism) or in the quest for self-interest one must deprives others of their self-interest. Somehow the critics do not realize that it is possible to act in one's interest without depriving others of theirs. This is why Ayn Rand often refers to self-interest as *rational* self-interest. The virtue of selfishness means only that one act in their self-interest without depriving another of their right to self-interest. If two people seek the same thing, then the dispute should be resolved rationally, by agreeing to a negotiation both parties consider fair, not by physical force, the primary tool of irrational societies and brutes.

When Rand says *life* is the ultimate value, she literally means that any violation of this value's virtues such as *reason*, *independence*, *integrity*, *honesty*, *justice*, *productiveness*, *pride*, and the *initiation of physical force* will result in the long run in the

end of one's life. Rand does not believe that there is some mystical or spiritual justice or natural law or karma that will exact justice if these virtues are violated. She means that no man or society of men can violate these virtues for long without destroying themselves. Therefore, the virtue of selfishness is extremely important for a person to hold if he values his life. The same is true for a society of individuals. The society will not survive if it rids itself of the virtue of selfishness because to do so means sacrificing one's life.

The philosophic opposite of egoism is *altruism*. Altruism necessitates that one must sacrifice his life for another. It should be noted that giving to a friend or family member because you *want* to and can afford it is not altruism. Altruism means the *duty* to sacrifice oneself to the interests of others.

It is ironic that critics of self-interest believe that this entails the abdication of rights because it is altruism that abdicates rights. An example of this is the welfare system. It is a law of most societies that everyone must pay taxes that support a certain portion of the population. This tax was not requested by anyone or given willfully be anyone. It was literally stolen—based on the virtue of altruism—as a right of one to take from another. Rand holds that such a value on any level can only lead to self-annihilation. Once society has committed themselves to altruism, they have necessarily committed themselves to the destruction of individual rights. Once individual rights are lost, the choice of life that is essential for a value code is also lost. Man then becomes a drone with no need to exact the virtues of *reason, justice, productiveness* that attain life because the state of one's life remains the same whether one practices them or not. Therefore, man has no need for a code of values at all. By this stage society is a variant of statism like socialism, communism, and fascism—or the Soviet Union, Cuba, and Nazi Germany.

Altruism is the basis of public education and therefore the cause of all of public education's problems. If the virtue of altruism were removed from public education then the problem would also be removed.

Capitalism. Rand regards capitalism as the economic system that is the most consistent with objectivist ethics. It allows men to trade with one another freely to each other's interest. The fact that some people earn more than others is the simple fact that some are more productive than others, not the altruist's contention that someone cheated another or earned by the labor of someone else. That fact that a single business owner is richer than a dozen of his employees does not mean he earned the wealth unethically. His employees contracted—that is, volitionally chose—to perform certain services for certain wages. The employees can at any time quit working if the business owner does not pay them what they are worth, what is just. This is why the free market is the must just system of economics and ethics. Everyone gets what he deserves.

Aesthetics. Ayn Rand defines art as, 'the selective re-creation of reality according to an artist's metaphysical value-judgments.'[19] She explains what this means in the following passage:

> By a selective re-creation, art isolates and integrates those aspects of reality which represent man's fundamental view of himself and existence. Out of the countless number of concretes…an artist isolates the things which he regards as metaphysically essential and integrates them into a single new concrete that represents an embodied abstraction.
>
> For instance, consider two statues of man: one as a Greek god, the other as a deformed medieval monstrosity. Both are metaphysical estimates of man; both are projections of the artist's view of man's nature; both are concretized representations of the philosophy of their respective cultures.
>
> Art is the concretization of metaphysics. *Art brings man's concepts to the perceptual level of his consciousness and allows him to grasp them directly, as if they were percepts*.[20]

Art has two aspects: its *subject* and *style*. The *subject* represents the artist's *metaphysical* beliefs, whereas the *style* represents his *epistemological* beliefs. The one expresses what things he values in existence, the other expresses how he comes to know what he values, his view of man's consciousness. Rand comments on the *subject* of an artist:

> The choice of subject declares what aspects of existence the artist regards as important…He may choose to present heroic figures, as exponents of man's nature—or he may choose statistical composites of the average, the undistinguished, the mediocre—or he may choose sprawling specimens of depravity. He may present the triumph of heroes in fact or in spirit (Victor Hugo), or their struggle (Michelanglo), or their defeat (Shakespeare). He may present the folks next door: next door to palaces (Tolstoy), or to drugstores (Sinclair Lewis), or to kitchens (Vermeer), or to sewers (Zola). He may present monsters as objects of moral denunciation (Dostoevsky) or as objects of terror (Goya)…[21]

Next Rand comments on the *style* of an artist:

> An artist's style is the product of his own psycho-epistemology—and, by implication, a projection of his view of man's consciousness, of its efficacy or impotence, of its proper method and level of functioning.
>
> …[A] man whose normal mental state is a state of full focus, will create and respond to a style of radiant clarity and ruthless precision—a style that projects sharp outlines, cleanliness, purpose, an intransient commitment to full awareness and clear-cut identity—a level of awareness appropriate to a an universe where A is A…
>
> A man who is moved by the fog of his feelings and spends most of his time out of focus will create and respond to a style of blurred, "mysterious" murk, where outlines dissolve and entities flow into one another, where words connote anything and denote nothing, where colors float without objects and objects float without weight—a level of awareness where A can be any non-A one chooses…[22]

One can see from these passages just how important aesthetics is, for what one chooses to value in art expresses what one believes regarding the entire spectrum of his philosophy. Fully aware of this fact, Rand was extremely critical of artistic expression in her time for what it communicated. Her general assessment of art was the same as her

general assessment of any society or culture that she believed possessed a flawed philosophy. Most societies display the false alternative between subjectivist and intrinsicist philosophy in their art. Either man cannot discover knowledge and can only deal with problems in the immediate sense as what works (subjectivism) or man must passively receive knowledge in some cryptic or mystical way (intrinsicism). In one view, man is ignorant; in the other he is ignorant. The only difference is one is secular and one is not. Rand regarded this as a false alternative. She desired art that glorified man and his advancement by his ability to independently know reality through reason and to develop a long-range system of values.

Rand regarded art as absolutely essential to a rational consciousness as the above passage indicates. Since man's means of thought is conceptual, man would need art to concretize his abstract beliefs where no concrete examples of it existed. Rand was a *romantic* artist in that she expressed what ought to be as against subjectivist art which is *naturalistic* because it conveys an absence of 'ought' in its message.

Objectivist Axiology and Education. Objectivist education would utilize its axiology by educating teachers in the method of appropriately teaching values. It would teach them that teachers convey value-judgments implicitly in their teaching and curricular choices. Once the teacher is aware that most every pedagogical choice implies some kind of value, a teacher can use this fact to his advantage instead of against it. For one, a teacher can instill the objectivist virtues of *independence*, *integrity*, *honesty*, *justice*, *productiveness*, *pride*, *the non-initiation of physical force*, and *capitalism* in value-units in literature and history, either alone in each of these two subjects or together in an interdisciplinary unit. Values would not be taught in a separate course, however, and advocacy by the teacher would not be in the form of indoctrination. Rather, the teacher would teach what these values and virtues are to the students in developmentally

appropriate ways so that the student first understands them in a concrete and later in an abstract way what the values and virtues are.

CONCLUSION. Axiology is extremely important to education because whether one attempts to teach values are not, they will teach values consciously or unconsciously, explicitly or implicitly. Even subjectivist educators who claim that they do not advocate a system of values or an objective method of attaining them still hold many values in school such as altruism over self-interest, cooperation over competition, the group over the individual, inter-dependence over independence, pluralism over monism, tolerance over justice, environmentalism over humanism, pacifism over self-defense, to name only a few. Objectivists would teach the inversion of these values because the inversion inherently protects individual rights. Subjectivists and intrinsicists diminish those rights little by little everyday. Indeed, there is no difference between subjectivist educators and intrinsicist educators because they are both guilty of indoctrinating their students with a set of values that are chosen via tradition or pragmatic concerns. Neither the values and virtues nor the methods of attaining and justifying them are rational. It is beyond the scope of this paper to argue comprehensively against all of the subjectivist and intrinsicist values and virtues described, but objectivism would warn that most of them do not in the long-term lead to the preservation of the individual; they are altruistic at their core and thus collectivistic and can only lead to certain destruction. Based on this evaluation of subjectivist and intrinscist values in education, it is absolutely essential that education reject both of them for the rational objectivist axiology.

Chapter Three Notes

1. S. Samuel Shermis, *Philosophic Foundations of Education* (New York: American Book Company, 1967), 116.

2. Arnold A. Griese, *Your Philosophy of Education: What Is It?* (Santa Monica, CA: Goodyear Publishing Company, 1981), 235.

3. Herman H. Horne, "An Idealistic Philosophy of Education," in *Philosophies of Education, 41st Yearbook*, NSSE, edited by Nelson B. Henry (Chicago: University of Chicago Press, 1942), 140.

4. Greise, *Your Philosophy*, 237.

5. John Wild, *Introduction to Realist Philosophy* (New York: Harper, 1948), 6.

6. Shermis, *Philosophic Foundations*, 124.

7. William McGucken, "The Philosophy of Catholic Education," in *Philosophies of Education, 41st Yearbook, NSSE*, edited by Nelson B. Henry (Chicago: University of Chicago Press, 1942), 254-255.

8. Shermis, *Philosophic Foundations*, 134.

9. *Ibid*., 144.

10. Richard Rorty, "Dismantling Truth: Solidarity Versus Objectivity" in *The Theory of Knowledge: Classical and Contemporary Readings, 3rd Edition*, edited by Louis P. Pojman (Australia: Wadsworth, 2003), 591.

11. Leonard Peikoff, *Objectivism: The Philosophy of Ayn Rand* (New York: Meridian, 1993), 206.

12. *Ibid*., 207.

13. *Ibid*., 208.

14. *Ibid*., 209.

15. *Ibid*., 251.

16. *Ibid*., 259.

17. *Ibid*., 267.

18. *Ibid*., 276.

19. Ayn Rand, *The Romantic Manifesto: A Philosophy of Literature, Revised Edition* (New York: Signet, 1975), 19.

20. *Ibid*., 20.

21. *Ibid*., 40.

22. *Ibid*., 40-41.

SECTION II: EDUCATION

Chapter Four: Purposes

PURPOSES DEFINED. In this chapter I will define what the purposes of education are, describe the different conceptions of educational purposes as formed by traditionalists and progressives, and show how objectivism differs fundamentally from both. I will show that the six main purposes of education—knowledge, thinking, socialization, individuation, morality, and the current social justice—are all flawed. These purposes are flawed because they do not go to the essence of man. Man's primary essence is his ability to form concepts. Nothing precedes it, not creativity or emotions. It is his only means of survival and advancement whether he is alone on a desert island or a CEO of company in an advanced scientific society. Therefore, conceptual development is the proper purpose of education.

Despite the purposes of education being regarded as a dry subject, I hold that it probably is the most important topic of the educational enterprise. Without a goal, aim, or purpose for one's actions, one will go nowhere in particular. Indeed, the concept of education implies purpose. The purposes of education are also important because when society perceives a flaw in its midst, society typically uses education to remedy the ill. Hence, social purposes parallel educational purposes. If society perceives that its work force is under skilled in writing, educators will likely increase writing instruction in their curriculum. If society perceives that its members are intolerant of others, educators will likely increase the virtue of tolerance in their curriculum. Robert Zais says,

> …[S]ocieties tend to produce curricula that are consonant with their philosophies, cultures, notions about the nature of man, and theories about how people learn. Aims, goals, and objectives—collectively—as a component of curriculum, are particularly sensitive to the these

> fundamental forces, since desired curricular outcomes not only influence the very shape of the curriculum, but provide direction and focus for the entire educational program.[1]

Unfortunately, virtually every interest group possesses an opinion about what society needs and thus what the purpose of education should be. For sheer economic and logistical reasons, though, the purposes of education must be limited in some way to only the most important. Traditionalists and progressives have not applied this principle as their guide. Traditionalists tend to hold knowledge and morals as the purpose of education, whereas progressives tend to hold thinking and social justice as the purpose. Objectivists reject that the purposes of education should parallel society's problems. Education should always be the development of the essence of man: his conceptual ability.

THE TRADITIONAL PURPOSE OF EDUCATION. Historical and Political Influences. ***The Colonial Period.*** Prior to the twentieth century, the purposes of education were what this dissertation has characterized as *traditional*. Traditional conceptions of education possess a philosophic base in intrinsicism, which has been thoroughly described in the previous three chapters. In the next three chapters, I will be referring to the traditional theories of education that emanate from the intrinsicist base.

Early European colonists in the seventeenth and eighteenth centuries brought to America the educational system that they were familiar with, the *dual-track* system that segregated the lower from the upper classes. The lower classes learned reading, writing, arithmetic, and received religious indoctrination in primary schools. The upper classes attended Latin grammar schools in which students learned Latin and Greek languages and literature in preparation for a college education. Most students were male. Education was not compulsory or supported by taxes.[2]

Schools in Massachusetts and other parts of New England were colonized by Puritans who possessed a theocratic government. Consequently, schools in this area were also theocratic. Children were regarded as inherently 'depraved' so policy and schooling included laws and practices that counteracted such behavior. In 1647, for example, the Massachusetts General Court passed the 'Old Deluder Satan' Act, which required every town of fifty or more families to provide a reading and writing teacher.[3] The Puritans feared that Satan deluded ignorant people into depraved behavior, so a proper education of reading the bible was prescribed to combat his influence. Hence, in addition to segregating society, a primary purpose of traditional education was religious preparation of the soul. Basic subjects like reading and writing were a means to learning the bible, which was in turn a means of moral and spiritual growth and salvation.

The Early National Period. As colonial America moved closer to the American Revolution of 1776, the same social and intellectual causes that led to American's independence also surfaced in the educational theory of the time. Segregation of classes, religion, and morals influenced education less and intellectual development for *all* began to be a major purpose of education. Politically, the constitution left education to the individual states, so more diversity and independence within education surfaced. Nevertheless, education at this time pushed for a distinctly American identity that differentiated it from Great Britain.

Benjamin Franklin founded an academy and changed the British-influenced curriculum to English grammar, composition, rhetoric, and public speaking instead of Latin and Greek languages. Franklin also emphasized the practical in school. Subjects like math were studied to understand surveying, bookkeeping, and engineering, for example. Thomas Jefferson initiated the, 'Bill for the More General Diffusion of Knowledge', in 1779 in which he argued that a democratic society depends on an

educated citizenship overseen by the government and funded by taxes. Jefferson's bill was initiated to solve the problem of the growing education and economic gap between the lower and upper classes. Finally, Daniel Webster who was a lawyer, schoolmaster, politician, and writer advocated that America find her own language, one distinct from Great Britain, to help build national character, unity, and identity.[4]

Eventually, the *common school* came about as the effect of these men's and society's ideas about education. The common school took hold between 1820 and 1850. Its purpose was to provide a basic education for everyone, regardless of class. Horace Mann was a staunch supporter of the common school movement and he argued for its support effectively, earning a national audience and influencing policy around the nation.

Thus another purpose of traditional education emerged from these historical events. Whereas in the colonial period, education typically preserved the social, economic, and educational distinction among the classes by providing the dual-track system and moral and spiritual training, during the early national period, America took steps to erase the distinctions among the classes by educating all classes in the same curriculum: the nation's cultural language and knowledge.

Philosophical Influences. ***Essentialism.*** The groundwork was laid for a full *intrinsicist* philosophy of education in America: *religious*, *essentialist*, and *perennialist*. The *religionists* were rooted in the colonists, especially the Puritans. The *essentialists* were rooted in part by Benjamin Franklin, Thomas Jefferson, and Daniel Webster and the educational theory that emerged around the American Revolution. Around the turn of the century, *essentialism* reached its peak and experienced a waxing and waning of popularity throughout the twentieth century until the present.

Essentialism's principle supporter was William Bagley (1874-1946). *Essentialism* is a theory of education that is also rooted in the philosophies of *Platonic*

idealism and *Aristotelian realism*. It holds that 'things' have an essence that exists apart from human conception or construction. Humans must discover this essence. Knowledge and education, therefore, are the result of discovering the essences of things. Essentialist educators argue that education must include a fixed curriculum of cultural knowledge that must be assimilated by all citizens for common communication and understanding. George Knight identifies three principles of essentialism: (1) the school's first task is to teach basic knowledge; (2) learning is hard work and requires discipline; (3) the teacher is the locus of classroom authority.[5]

In 1894, a teacher's union called the National Education Association (NEA) formed the Committee of Ten on Secondary School Studies, which reconstructed the secondary curriculum in accordance with the essentialist intellectual Zeitgeist of the time. The high school would be organized around nine subject areas: Latin, Greek, English, modern languages like French and German, mathematics, physics, astronomy, and chemistry, natural history (e.g., biology, botany, zoology, and physiology), history, civil government, and political economy, and geography, geology, and meteorology.[6]

The essentialist movement declined around the 1920's and 30's with the advent of progressive education, but would later resurface in the 1950's with the launch of Sputnik (1957). Sputnik caused national concern over America's apparent waning intellectual superiority. Naturally society blamed the educational system for America's failure to put a man into space before the Russians. Consequently essentialism, which emphasizes rigor, reemerged from the ashes in another back-to-basics movement. The reemergence of essentialism during the 50's and 60's, however, was only partially successful as a movement during this time because the progressive civil rights movement exerted its influence on the curriculum as well. The traditional influence on education re-emerged during the 1980's when the government formed the National Commission on Excellence

in Education (1983). The committee issued an evaluation of American education entitled *A Nation at Risk.* The following is an excerpt of *A Nation at Risk* that illustrates the traditionalist influence on American schooling:

> We report to the American people that while we can take justifiable pride in what our schools and colleges have historically accomplished and contributed to the United States and the well-being of its people, the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and as a people.[7]

A Nation at Risk became a fulcrum for instituting more traditional educational ideals into the curriculum of public schools. In 1987, for example, E.D. Hirsch, Jr. published the successful *Cultural Literacy: What Every American Needs to Know*, in which he argues that to be literature one needs to know the cultural knowledge of the dominant society. Although Hirsch's argument uses scientific data and research on schema theory to support his claims, public education has remained mostly unchanged by its presence. His theory of cultural literacy has mostly been implemented in private and parochial schools. Finally, on January 8. 2002, President George W. Bush signed into law the *No Child Left Behind* Act (NCLB), which demands schools test students several times throughout their education over basic skills. Progressive educators have generally detested NCLB because of what it implies for the purposes, instruction, and curriculum of education as well as for what it implies for society as a whole.

Perennialism. *Perennialism* is rooted in the philosophy of *Aristotelian realism* and *Neo-Thomism* and therefore is similar to essentialism. Like essentialism, it holds that things have an essence apart from human conception and its method of knowing them is mystical. However, the two are different theories of education. Perennialism argues that the beginning of knowledge is sensory experience, whereas essentialism is more suspicious of empiricism as hands-on activities in school. Essentialism also is concerned

with passing on the national culture from one generation to the next. In this sense, essentialism focuses on knowledge that is relative to a time and place. Perennialism, on the other hand, holds that time and place is irrelevant. True knowledge is universally true across all cultures. Another difference between the two is that perennialsim, like progressive education, de-emphasizes the large amounts of discrete bits of information to be learned in favor of conceptual and meaningful knowledge. Finally, whereas essentialism localizes authority in the teacher, perennialism prefers Socratic dialogue between student and teacher. The educational purposes of perennialism are: (1) a school's purpose is to develop a student's rational faculty; (2) education should be everywhere the same for all people; and (3) a school's curriculum should prepare one for life, not a real-life situation, and thus should be general and liberal, not specific and vocational.[8]

Perennialism emerged around the time one of its principle advocates, Robert Maynard Hutchins, was hired as president of the University of Chicago in 1929. His philosophy was a reaction to the pragmatist and progressive movement in education led by John Dewey. Mortimer Adler was another advocate of perennialism. He wrote *The Paideia Proposal* (1982) and *The Paideia Program* (1984), which specifies the purposes, instructional practices, and curriculum of the philosophy of perennialism.[9] Together, Hutchins and Adler developed the *Great Books of the Western World* (1952), which are a collection of the great works and ideas of literature, philosophy, history, and science from Homer to Freud.[10] Hutchins and Adler believed that the growing tide of pragmatic and progressive education was harmful because it trained a person for expedient concerns that were concrete bound rather than for universal thinking that was conceptual and that developed one's rational faculty. Progressive educators distrusted a set curriculum as anti-democratic because it tended to imply that reality was fixed and dominated by white

European males. The perennialists believed the *Great Books of the Western World* would insure democracy because without this knowledge people would be left out of the great conversation and thus reduced to second-class status socially, economically, and educationally.

THE PROGRESSIVE PURPOSE OF EDUCATION. Historical and Political Influences. In 1918, approximately a generation after the Committee of Ten's report, the NEA created the Commission on the Reorganization of Secondary Education. The bulletin that resulted from its formation, entitled *Cardinal Principles of Secondary Education*, marked the rise of progressive education in America. The purposes of education that the bulletin advocated differed fundamentally from the essentialist purposes of education that preceded it and the perennialist purposes of education that followed it. It advocated seven goals of secondary education, which included *intellectual development* as well as education of *health*, *family*, *vocation*, *civics*, *use of leisure time*, and *ethics*.[11] Thus one of the main differences between traditional and progressive philosophies of education is that the former believes education should develop the intellect, while the latter believes education should develop the whole person.

Philosophical Influences. *Pragmatism*. *Progressive* education is rooted in *pragmatism.* Pragmatism sees reality as always changing, complex, and plural. Idealism and realism, by contrast, sees reality as stable and universal. Pragmatists see knowledge as what results from problem-solving in a real-life situation. Logic and reason are only tools that men use to interact with the environment to know it. Since reality is always in flux, man cannot have absolute tools. He must use what is useful, expedient, or viable in any given situation to solve the problem at hand. The only constant is inconstancy. John Dewey believed that the scientific method is man's best tool of problem solving. The results of the scientific method are not accepted undemocratically. Indeed, democracy is

a literal metaphor for what Dewey envisioned as a utopian way to construct reality. Everything is negotiated through democratic means.

Such a philosophy implies that the purpose of education is to instill *thinking skills* in students that they can apply across all school subjects or real-life situations. But since there are no absolutes and reality and knowledge are always in flux, the curriculum is to be constructed by the learners, who use the scientific method to come up with answers that are socially negotiated.

These are two fundamental principles of progressivism: *thinking skills* and *democracy*. Progressive education also rejects authoritarian teachers, book-based instruction, passive memorization of factual information, the isolation of schools from social reality, and the using of physical or psychological coercion to manage classrooms. Progressive educators believe that the child should be free to develop naturally, that interest, stimulated by direct experience, is the best stimulus for learning, that the teacher should be a resource person and a guide to learning activities, that there should be close cooperation between the school and home, and that the school should be a laboratory for pedagogical reform.[12]

Critical Theory. *Critical theory* is a progressive educational theory with direct roots in *Marxism* as well as *social reconstructionism*. Marxism holds that society and the means of production are controlled by the middle classes or the *bourgeoisie* and that the laboring class must wrestle control from them to form a communistic state in which property is owned collectively by everyone. Marx argued that society, especially capitalistic societies, instilled an unjust class structure among its citizens. Social institutions, like schools, perpetuate this class division. Society must look for active ways of reforming society to be more socially just.

These ideas resonated with advocates of the civil rights movement during the 1960's in America as well as advocates of other movements such as environmentalism, feminism, the gay and lesbian counterculture, and the anti-war crusades. Each of these movements identified with Marx's contention that the powerful control not only the means of production, but knowledge and truth as well. The powerful can shape the way a person thinks, what he knows, and what he does. This process reinforces the powerful's interest at the non-powerful's expense.

Critical theorists apply these same ideas to schooling, arguing that schools should be reformed to counter the segregating of society into the haves and have-nots. Henry Giroux and Peter Mclaren, two of the leading Marxist and critical theorist educators today, write in *Critical Pedagogy and the Cultural Struggle*,

> [T]he [neoconservative] agenda has…launched a dangerous attack on some of the most fundamental aspects of democratic public life. What has been valorized…is not the issue of reclaiming public schools as agencies of social justice or critical democracy, but a view of schooling that disdains the democratic implications of pluralism, rejects a notion of learning, which regards excellence and equity as mutually constitutive, and argues for a return to the old transmission model of learning.[13]

Critical theory's main purposes of education are: (1) to fight for genuine school reform that will give teachers power over the conditions of teaching and learning; (2) to engage in collaborative research with other teachers to reconceptualize curriculum and instruction; (3) to study the culturally diverse people in the communities whose children the schools educate; (4) to organize community centers for collaborative action with community members; (5) to engage in critical dialogues with students about the realities of American politics, economics, and culture; (6) to redistribute power in schools between teachers and administrators; and (7) to involve schools in attempts to solve society's major problems, such as drug abuse, teenage pregnancy, illiteracy, malnutrition, and inadequate health care.[14]

The Six Purposes of Education. ***Knowledge.*** What these traditional and progressive purposes of education amount to is the six main purposes of education: *knowledge, thinking, morals, individuation, socialization,* and *social justice*. The first one is that *education is essentially the communication of factual knowledge*.[15] The principle behind this theory is that men have acquired vast amounts of information about the human race and the universe over scores of years, so it is the function of education to transmit this knowledge to the child in an organized and systematic way. This theory is generally accepted as the traditional conception of education. If man acquires knowledge, then he will be able to think, be moral, be an individual, and be socialized. Knowledge, it is argued, is primary, not secondary. And knowledge includes facts but it also includes principles.

Thinking. The second one is that *education is the development of thinking or problem solving ability*. Within this scheme, education would downplay the importance of content. The amount or kind of knowledge is irrelevant. Thinking is the primary of education. If one develops one's thinking capability, then he can be assured of success. Success lies in thinking well, not in acquiring the right knowledge, which no one knows anyway. An advocate of this method is John Dewey. Its roots are in pragmatism as well as other progressive educational theories like constructivism. Dewey, in particular, believed that one should learn how to problem-solve across all contexts. That is, he advocated applying the scientific method to life experiences, whatever they may be. Learning ready-made knowledge does not equip the youngster for life in context because ready-made knowledge is information out of context.

Morals. The third theory is that *education is the moral development of the child.* Within this educational system a child is taught morals, character, and values. However, educationists who label themselves moral educators typically disagree about what morals

are the right morals. For example, Peikoff mentions that medieval religionists have one view about what morality is, whereas, Adolf Hitler had another view. Yet both were moralist educators. One of the principles behind morals education is that man is born amoral and with proper training he can acquire the proper morals, which will guide him through life properly. It is not important that he acquire knowledge, socialization, individuality, or the ability to think prior to developing a sound moral character. Indeed, these other aims of education may corrupt one's moral character and prevent it from ever reaching its potential. Therefore, morality is the primary purpose of education. Both traditionalists and progressives are moral educators.

Individuation. The fourth one is that *education is the fostering of a child's individuality*. An education system like this one must allow the child to express himself in whatever means he chooses—obviously, as long as he does not harm himself or others. What is important is that the child be allowed to interact with the environment and construct his own meaning or knowledge about it, rather than absorb ready-made information at face value. Indeed, child psychologists like Jean Piaget and Lev Vygotsky as well as contemporary constructivist educators believe that learning is active and constructive. A student cannot learn unless he constructs his own meaning about what he is experiencing by physically manipulating it. A natural consequence of this theory is that the child will become independent. He will be able to problem solve in any situation. This theory is also connected to education for thinking because in both it is expected that the learner construct reality and knowledge.

Socialization. The fifth theory is that *education is a means of socialization*. Under this theory, students would learn in groups as much as possible because children learn best in groups. Moreover, everything a person does is influenced by their social context. One's social context determines what identity a person has, the choices they

make, and how successful they are.. A corollary function of socialization is that a student learns democratic values. That is, a student under this philosophy would learn that reality and knowledge are negotiable, not absolute. Whatever the group decides on is what reality and knowledge are. Individual concerns are secondary. They may arise, but they must be put to a vote, to whatever the group decides. This theory combines John Dewey's pragmatism and the more current constructivism, especially the Lev Vygotsky wing of constructivism, and critical theory. It is also a kind of morals education.

Social Justice. The sixth purpose is that *education is a means of social justice*. Education as social justice says that education must not be equal; it must be equitable. Each person represents a group that is entitled to different treatment because they require and need different things that are endemic to their culture. Education then must meet the needs of its students, which are multiple and diverse.

THE OBJECTIVIST PURPOSE OF EDUCATION. Education Defined. Objectivist education rejects all of these purposes of education because they are not primary to man's most important attribute, his ability to form concepts. Before expanding on education as concept formation, it is necessary to posit a definition of what education is. Objectivism defines education as the following:

> *Systematic instruction of the young to develop in them the powers necessary for mature life* (emphasis added).
>
> [Systematic refers to education that is] deliberate, organized, and long-range. It is a process of years that takes place in steps or stages aimed at a definite result. Education does not signify haphazard short-range snippets of data.'[16]

'Systematic instruction' and 'education' are really synonyms. That is, education implies systemization, whatever philosophy one ascribes to or whatever culture one is raised in. If one allows a person to grow unfettered or encumbered by guidance from without, that

person is not educated. Even a self-taught person must *systematize* his learning before calling it education.

Education, properly defined, is also comprehensive and general. Education is not learning specific skills. Education is about bringing out the central human capacity that we all possess but will not develop naturally without systematic, deliberate aid by a professional who knows what he is doing, what he specifically wants to achieve in the child. Leonard Peikoff says:

> Education goes to the essence of the child. If you take a typing course and become a proficient typist, that is not an education. It may be part of one. And here we can give a parallel between ethics and etiquette. An etiquette course gives you concretes: how to hold a fork and how to hold a knife; and it has a very circumscribed application to, let us say, dining etiquette, to eating dinner. An ethics course gives you advice and principles on how to live your entire life across the board in every situation. It's concerned with the fundamentals that shape your whole existence. Now education in that sense is a parallel to ethics not to etiquette.[17]

Education as Concept Formation. Concepts are the essence of a child, even though he is not fully able to form them as an adult can. He will eventually form them—if properly taught in school—and when he does it will be what separates him from others not taught by the conceptual method. Rand points out the importance of thinking conceptually:

> Now ask yourself: if you are not interested in abstract ideas, why do you (and all men) feel compelled to use them? The fact is that abstract ideas are conceptual integrations which subsume an incalculable number of concretes—and that without abstract ideas you would not be able to deal with concrete, particular, real-life problems. You would be in the position of a newborn infant, to whom every object is a unique, unprecedented phenomenon. The difference between his mental state and yours lies in the number of conceptual integrations your mind has performed.
>
> You have no choice about the necessity to integrate your observations, your experiences, your knowledge into abstract ideas, i.e.,

> into principles. Your only choice is whether these principles are true or false, whether they represent your conscious rational conventions—or a grab-bag of notions snatched at random, whose sources, validity, contexts and consequences you do not know, notions which, more often than not, you would drop like a hot potato if you knew.[18]

This statement, which was taken from a speech given about the significance of philosophy, can be applied without any modification to education. Indeed, it is exactly the essence of what education is. All teachers want one thing from their students: conceptual understanding. A student who only knows existence on a perceptual level leads a confusing unenlightened life. He is unable to watch several news broadcasts and abstract from all of them the principle they all share. Every event is different and unique and consequently life has no structure, order, or meaning. He sees one broadcast about how education is failing and that congress is asking for more money to cure the problem and another broadcast about banning smoking in local bars and does not see that the two broadcasts are reporting about two situations that are the same in principle.

A non-conceptual teacher is one that has all of his students 'construct' their own method of solving a math problem but never shows them that they all did the same thing in principle. A non-conceptual teacher is one that encourages self-expression in writing but never tells the student how to write or that despite everyone's different style, fundamentally, they are all doing the same thing. A non-conceptual teacher teaches history not as events caused by principles but as random events with different interpretations depending on the historian. A non-conceptual teacher teaches science as values rather than as facts.

The Difference Between Primary and Secondary Principles: A Critique of the Five Purposes of Education. None of the above purposes of education were conceived using the conceptual method. They—including the traditional purposes—were conceived using the pragmatic method. Education saw an immediate problem and

devised an expedient solution. The conceptual method would have used principles to solve the problem. One of the reasons why these purposes are flawed is that traditional and progressive educators confuse *primaries* and *secondaries*. They often take what should be a secondary principle—one that is dependent on a primary principle—and put it in the place of a primary. A primary principle is a principle that cannot be reduced further. This inversion of the primary-secondary hierarchy will always have negative consequences. Ironically, it often results in negating the secondary principle.

Rand gives an example as to why it is important to not mistake primaries for secondary consequences and vice versa. She argues that some have justified capitalism because it helps the poor. This argument, Rand says, has disastrous consequences although capitalism does help the poor. If one makes helping the poor the primary justification for capitalism, it implies that, 'helping the poor is the standard of virtue…and if [helping the poor] is your standard of virtue then you have adopted…altruist morality as your ruling code and if this is your ruling code you have committed yourself to collectivism and that wipes out capitalism'.[19]

This inversion is the product of pragmatic thinking, which says that all situations are unique, that society must deal with each problem at the practical (i.e., non-conceptual) level using whatever means that will work. This pragmatic method can only lead to short-range solutions. *Affirmative Action* is one example. To counteract racism in society, progressive educators institute a racist policy. If racism is defined as treatment based on race, then *Affirmative Action* is a racist policy. Long-range solutions, by contrast, are always concept and principle oriented. They look past the immediate problem and ask what do all of these problems have in common. It solves the problem on the principle level and thus ends the problem forever. *Affirmative Action* would be replaced with the policy of admitting students who have fulfilled the admission criteria.

Each of the above six purposes of education is *not* a primary, so consider what happens when an acceptable secondary principle becomes a primary. First, consider *socialization*. The fundamental principle of socialization is that one is part of a group. Individualism is regarded as morally evil and ineffective with respect to learning. All learning is done in groups, no matter what the subject matter or context. If a student does not learn in a group he cannot learn. Most literature on Lev Vygotsky's research and theories of education extrapolated from his research make this conclusion. Moreover, walk into any classroom, especially at the elementary level and one is likely to see no individual seating. Cooperative learning is the primary learning tool, so students are never allowed a chance to do anything alone for long.

What are the detriments of such a theory? For one, most responsible and advanced students do most of the work while the least responsible and advanced students often are off-task or not participating in substantive ways. Another criticism is that cooperative learning is only appropriate when the project calls for more than one participant, yet cooperative learning is often used for activities that are better suited for individuals. Additionally, some bright students disagree with the group because the group is wrong, yet they must stifle their opinions for the sake of maintaining solidarity within the group. The result is that the individual must forego his ambitions for a later individual assignment or perhaps never if there are no individual assignments. It seems an almost intuitive truth that when one reflects on the efficacy of group learning one never reports it being the magical learning experience as advocates of the theory characterize it.

It seems that cooperative learning is emphasized more because it mirrors a social ideal rather than for its ability to obtain in learning experiments or logic. The ideal is that if one learns to place his or her values second to the group's values, we will achieve a

utopian society. However, the problem with this ideal is that when placed as a *primary* it leads to collectivism, statism, communism, socialism, or fascism. And under these regimes learning is impossible. Whenever the individual is forsaken for the group, no learning can be possible for long. What happens if the individual disagrees with the group? The group puts it to a vote and if the vote does not coincide with the individual's opinion, then the individual is wrong. Copernicus and Galileo are examples of such a situation. These individuals disagreed with the group. Indeed, their ideas were sacrilege. Galileo's ideas led to his house arrest. Yet both Copernicus and Galileo were right.

Pragmatists and constructivists who advocate learning in groups also argue that one is learning democratic values. Pure democracy is not desirable, either. A pure democracy is tyranny of the group. Clearly, this is not what a utopian society is. Rather, a democracy in conjunction with a constitution that protects individual rights is the preferable ideal. And so it should be in schools. Group learning may be desirable in certain situations, but as an absolute it is nothing more the death of the individual.

To be sure, learning is social in at least one aspect. Using Copernicus and Galileo as examples, they built on the knowledge of past individuals. In this sense, learning is social. Moreover, people can learn by watching others, their peers, their teacher, etc. Objectivism only objects to the massive emphasis that is placed on cooperative or collaborative learning and the careless or extreme way it is applied. More will be said on this in the chapter on instruction, but for now, it must be said that individual learning is primary to group learning.

One may interpret this objectivist view of socialization as pro-individualism, which it is. However, objectivists do not conceptualize individualism the same way most educationists do. Recall that education as *individuation* means that the child must be allowed to express himself, to be active, and to create knowledge. This is not

individualism because this can only lead to what objectivists call 'whim-worship'. Constructivist educators, for example, advocate construction of knowledge, regardless of whether the construction is right or wrong with respect to reality. This is absolutely the opposite of individualism. It is really subjectivism. Peikoff explains how education for individualism leads to whim-worship and how whim-worship leads to subjectivism:

> [Whim-worship is] individuality preceding knowledge, cognition, thought, reason. As a primary, it has to lead only to disaster. It really leads not to individualism. It leads to pseudo-individualism because once the child is not being guided by reason, he's being guided by emotion. That means he loses his actual independence, which is his own judgment and ends up accepting other people's value judgments and he becomes a complete neurotic dependent…It has just as disastrous consequences as the socializing theory because it is two different forms of undermining student's minds.[20]

Morals are also not a primary. Morality is a secondary consequence of a rational mind that possesses knowledge. When morality precedes knowledge and thought it is merely dogma. One cannot build a moral code unless he or she can first think and has knowledge. Once again, educationists have inverted what is an absolute hierarchy. Objectivists hold that knowledge and thinking precedes morality. The inversion of this hierarchy should be a clue as to why the inversion was invoked in the first place. The answer is that it stemmed from an irrational motivation. Morality education by the church was usually invoked to make its subjects behave a certain way that was acceptable to the church elders. Thought and knowledge actually obstructs this aim. If one can think and has knowledge, then one can reject what authorities prescribe whenever the authorities are illogical or wrong. It is the same reason slaves were not allowed to be educated.

This leaves *knowledge* and *thinking*, the two main theories of education, each respectively represented by the traditionalists and progressives alike. The 'education is the transmission of knowledge theory' holds that the student must obtain as much data

about reality as possible, especially general liberal knowledge, the kind mostly associated with classical learning. Within this scheme, thinking or the method of acquiring knowledge is secondary, incidental, or non-existent. Students should passively retain knowledge by rote memorization if need be and the knowledge must be about Western culture. The 'education is thinking theory' holds just the opposite view, that knowledge is secondary, incidental, or irrelevant. The method of acquiring knowledge should be the focus. Whatever emerges from the thinking process is what knowledge is. In this sense, knowledge is constructed. The curriculum emerges from the process of learning. Knowledge or content does not exist prior to learning. It comes into existence only after thinking.

Objectivism does not consider these two theories as alternatives between which one can choose. That is, one cannot divide or separate knowledge and thinking. They each imply the other. One cannot think without thinking about something. Likewise, there is no knowledge without first thinking to acquire it. Leonard Peikoff explains the relationship between content and method or between curriculum and instruction in the following way: 'To train in method, in my opinion, is nothing else but to present content in a certain way.'[21] Thinking is the organizing of one's field of data according to logical relationships. The net result of such an organization is one's knowledge. This connects to what was discussed in first two chapters on *metaphysics* and *epistemology*. Advocates of the knowledge theory of education promote learning about reality. Advocates of the thinking theory of education promote learning how to reason. These two camps debate over whether or not the student should study *reality* or *reason*. Said this way, it should be clear what a false alternative this is. As Peikoff emphatically states, 'Either of them alone gets you no where.'[22] Objectivism is the only proper theory of education because the essence of both objectivism and education, properly defined, is knowledge about

reality validated by some method. Neither of the above theories of education—traditionalism or progressivism—do this.

The final and current purpose of education is *education for social justice*. In essence, thus purpose amounts to something like the following: public education serves students with a wide range of differences. In order for schools to be successful—to be socially just and equitable—they must meet the needs of all of its students. The argument also says that the reason that there is a gap in education between Anglo and Asian American students and African and Mexican Americans is that education only serves the needs of the former two. If education served the needs of the latter two as well, the gap would close, and all students would succeed. The term 'need' refers to the specific cultural ways of learning, knowing, valuing, and behaving that a student possesses and that impact his success in school. If a teacher does not account for these cultural features in his instruction, then the student will surely suffer. My thesis is that the progressive purpose of education as social justice or equity is flawed and if all students want to be successful, it should be rejected as a purpose of education. On the contrary, all students will succeed in school *if* they actively overcome their differences and use reason, reality, and concept formation as their standards of knowledge.

The social justice argument is premised on a several assumptions. For one, progressive educators argue that it is a right of every individual person to receive an equitable education. By 'equitable' progressives mean an education that serves the individual difference of the student. Two, education has always served Anglo and Asian American students well. But education has not always served African and Mexican American students as well. Three, the reason progressives give for this disparity is that the former two cultures possess a concept of education that fits neatly into the traditional concept of education in which students sit quietly at their desks and obey the authority of

the teacher as well as the cognitive abilities that are consistent with traditional education, i.e., mathematical and linguistic ability. If students do not fit neatly into this model, then they will not succeed in school. Four, indeed, it is the Anglo and Asian cultures that created this educational paradigm, so naturally members of their culture will thrive within it, whereas other cultures will not. Five, no culture is better than another. Six, the only reason that one culture dominates is largely accidental or because of abuse by one culture of another in the form of imperialism, colonization, slavery, war, institutionalized racism, etc. Seven, the re-distribution of wealth is the most just way to solve the problem of the education gap.

All seven of these assumptions are flawed in some way. Consider the first one: every individual has a right to an education. There is no basis from which to argue that individuals have the right to anything except the right to freedom, which I define as the right to pursue what one values as long as that pursuit does not intrude on the rights of others. This is the only right man has and is the only right he should have. Any other right, necessarily becomes a *content* of the right and thus deprives some one else of their right to freedom. When someone adds content to the right such as the right to an education, one is necessarily permitting one person to intrude on another person's rights without their permission. Man only has the right to *pursue* an education. He does not have the right *to* an education. An education entails the labor, knowledge, and money of a teacher or some other person who is providing the education, like a principal or a tax-payer. When one receives a tax-supported education, one is in essence *stealing* the labor, knowledge, money—in essence the rights and property—of a teacher, a principal, or a taxpayer.

If education was socially just it would be privatized. There would be no compulsory education, no department of education, and no tax-supported education of

any kind. Schools would exist in the free market. Visionaries would create the school that is commensurate with their philosophy of education and students would choose the schools that are commensurate with their philosophy of education. Currently, there is no choice. All schools maintain the same philosophy, one that is largely determined by progressive or traditional educators, depending on what time in history we refer to. Currently a progressive philosophy of education is the most dominant, although traditional philosophy still impacts education in the form of *NCLB*. The point of which to be aware is that education ought to be freely chosen by the individual, not imposed upon one by someone else. In a free country individuals choose the religion they practice, the spouse they marry, the clothes they wear, the cars they drive, the job they want, the subject they major in at college. Education, however, is not chosen. The reason is justified by 'social justice' as defined by progressive educators.

Consider the second assumption: education has always served Anglo and Asian American students well, but education has not always served African and Mexican American students well. This assumption is historically correct in that African and Mexican Americans were and still are discriminated against in this country. Indeed, African Americans were enslaved and legally prevented from educating themselves for fear that they would realize the injustice of their situation and rebel. Moreover, education was segregated until the 1950's. *Brown vs. The Board of Education* was decided on the point that *different* education necessarily entails *unequal* education.

However, I am currently referring to post-slavery, post-segregation America. I contend that there is no significant difference between the education in the suburbs and education in the inner city. I contend that if one were to exchange the student body of a school in a suburban affluent neighborhood with the student body of a school in an inner-city impoverished neighborhood, the same educational gap would exist. Indeed, one

could spend *more* money, hire *better* teachers, implement *after-school* programs, have a *multi-cultural* curriculum, teach to all the *differences* of every child, and there would still be an education gap. Experience bears this out. Busing is one example of the fact that regardless of the education, the same students who are unsuccessful in a so-called 'failing school' will continue to be unsuccessful in a so-called 'passing school'—unless we address the real cause of their academic problems.

One can easily observe this phenomena by tracking schools that once possessed no or a small percentage of free or reduced lunch students and that a few years later possess a majority of free or reduced lunched students. In these schools, the funding is the same as it was prior to the increase in free or reduced lunch plans. The teachers are the same. The principals are the same. The instruction and the curriculum are the same. The students are different and thus the performance is different. I recently discussed this phenomenon with a principal who opened his school approximately twenty years ago with a population that had 10% free or reduced lunch students. Now that number has risen to 46%. The majority of the students in the school are African and Mexican American. The Anglo Americans once numbered 80%. Now they are at 30%. I asked him what his number one problem was and he answered that the students are not socialized for school life. They cannot behave in a classroom. They do not respect their teachers and consequently no learning gets done.

The principal obviously was frustrated with how to solve the problem. He was planning to attend a conference at a school in the Houston area that has had success with similar populations that this principal was now facing. The school he was planning to attend possesses three different curriculums: the first one is only reading, writing, and arithmetic, the second one is the same as the first plus basic history and science, the third one is a 'typical' education that the 'average' student receives. The students are placed in

the curriculum that best corresponds to their ability and they progress to the next curriculum when they have reached an acceptable level of mastery. The students do not have lockers. They wear uniforms and are greeted with metal detectors before entering school every day. The students are not taught in a way that 'caters to their needs'. The principal that I interviewed who was going to observe this school was worried that he did not have enough money to institute all of these programs at his school. So since the population of his school changed, he needed *more* money than what the typical suburban school needs. He planned to tell the teachers that next year they would have to spend time after school providing tutoring free of charge to increase the performance of the students.[23]

It must be stated that although I mention an educational gap between Anglo and Asian Americans and African and Mexican Americans, in no way is this gap attributable to race, class, or anything but the value the individual places on education. All students regardless of the superficial differences that some educators believe are important need one thing to be successful in school: to *understand*, *value*, and *choose* education. More will be said on this in the motivation section of the chapter on instruction. Students fail or succeed on the individual, community, state, federal, and world level according to this standard alone. Students do not fail or succeed because they are black or white or because they are concrete or abstract learners. Students fail because they either value education or they do not. Individuals and cultures that value education succeed in school. Individuals and cultures that do not value education do not succeed in school. It is extremely destructive to argue that there are different conceptions of education for each culture and that each one's conception is valid and that schools should include all conceptions in their instructional and curriculum design.

This argument is the third assumption of the 'education as social justice' position: the education gap between Anglo and Asian Americans and African and Mexican Americans exists because the former two cultures possess a concept of education that fits neatly into the traditional concept of education, whereas the latter two cultures do not. This third assumption implies the fourth, fifth, and sixth assumptions which are: it is the Anglo and Asian two cultures that created this educational paradigm, so naturally members of their culture will thrive within it whereas others will not; no culture is better than another; and the only reason that one culture dominates is largely accidental or because of abuse by one culture of another in the form of imperialism, colonization, slavery, war, institutionalized racism, etc.

The flaw in the third and fourth assumptions is that they imply that education is a construction, that education is what one or a community decides it is. Hopefully, the chapter on metaphysics and epistemology argued successfully against this belief. But to review, education is not a construction. If reason and reality are one's guide, as they properly should be, then the proper definition of education is conceptual development. Any other kind of definition of education is invalid. It is incorrect to argue that some cultures are perceptual and, therefore, they need a perceptual education. There is no such thing as a perceptual education. If there is such a thing as a perceptual culture, then they are also in the *pre-conceptual* stage of development and thus they are in a *pre-educational* stage of development. Their education is largely confined to day-to-day survival needs, not conceptual understanding. Education is literally a floating abstraction to them as unreal as one of Plato's *forms*.

The fact that a pre-conceptual society cannot fully understand and value education does not mean that educators should not engage students on the perceptual level. Educators absolutely have to engage the perceptual level for students to understand the

content. Objectivists use the perceptual to ground the conceptual in reality, in sense perception. Since objectivists believe everything in some way is related to reality, education necessarily implies connecting what one learns to reality. However, this does not mean that instruction resides entirely at the perceptual level as some educators believe. These educators fallaciously believe that some cultures like African and Mexican Americans are perceptual, therefore, their education should be perceptual. I argue that although their cultures may *historically* be pre-scientific, members of their culture, should they understand, value, and choose education can and will successfully educate themselves in a conceptual way. Thousands of examples exist everyday and their numbers are rising. However, their success is attributable not to their insistence that they are perceptual learners but to their agreement conscious or unconscious in the belief that conceptual understanding is the key to success in anything, especially education.

There is a greater context for the importance of concept formation and it has to do with the fifth assumption: no culture is better than another. This claim implies that cultural success is a construct, that there is no objective standard to judge a culture. I claim that this is not true either. Conceptual thinking—or the lack of it—is what causes human societies to succeed or fail. This is the same principle as that of education. Just as education is not a construct, neither is success where human societies are concerned a construct. It is objectively evident that societies that survive and thrive are those that adhere to reality, use reason, and are conceptual. Incidentally, these same societies also are scientific, technologically advanced, industrious, and encourage free trade. Any and all societies—including white America—that reject reason, reality, and concepts will eventually self-destruct, and I specifically identity far right religionists and far left collectivists as examples of anti-conceptual cultures within America that could lead to its down fall.

The assumptions of 'education as social justice' are false because they hinge on a deeper false assumption: relativity. This is why the previous chapters on philosophy are so important. The issues within education are philosophical in nature. The argument that all cultures are equally valid in their beliefs about education is flawed because it is premised on a view of relative metaphysics and epistemology, which has already been shown to be flawed. Be that as it may, compare the concept of education among the different cultures around the world. What pattern is apparent? Is the cause of the different degrees of cultural success due to the differences of race, class, or gender? Or are the different degrees of success related to the culture's relationship to conceptual thinking? I contend that the conceptual purpose of education is the best purpose because education is by definition conceptual. Cultures that are not oriented around the conceptual—and all cultures were at some time not conceptual—are less oriented around education and thus cannot fully understand, value, and thus choose education. The conceptual life is foreign to them, so naturally the educational life is foreign. The educational gap is actually the sound of perception clashing with conception.

Therefore, it is essential that all cultures move toward conceptualization. The current movement in education to respect differences in order to make everyone successful is the move toward perceptualization. Objectivism would also argue that differences must be overcome to be successful. One must look past their gender, race, class, even their education if it has been flawed, their parents, the media, politicians, religious leaders, everything that could influence objective reasoning if they want to be successful, if they want the truth. Today's educators do just the opposite and thus are marching their students and society to self-destruction. The progressive view argues one will be successful if one adheres to their differences. Progressives argue that if one wants the truth, they must cling to their race, gender, age, geography, nationality, etc. to find it.

For an objectivist, the only place for identification of demographic differences in education—after content has been grounded in the experiences of the student—is to eliminate it from obstructing the student's objectivity.

The final assumption is that the re-distribution of wealth is the only means of attaining social justice. This argument is a direct consequence of the virtue of *altruism*, which was introduced in the last chapter axiology. Altruism is a flawed virtue. It is defined as the selfless interest in the welfare of others. Its philosophic opposite is selfishness, which is defined as concern for one's own interest. The term selfish has been made a pejorative by contemporary cultural. It actually was made a pejorative by ancient culture, especially Christian culture. The bible continuously describes the virtuous man as one who is selfless, one who gives everything he owns to the poor. Indeed, Jesus actually argues that one should help his enemies most, that this is the mark of a truly holy person. Jesus himself did the most unselfish act; he died for the sins of others. Notice that he did not die for the excellence of others. He died for the failures of others.

The main challenge against altruism is that no argument exists that justifies *not* acting out of self-interest. It was Adam Smith who wrote about the principle of self-interest in *The Wealth of Nations*, which was one of the foundational texts of capitalism. He argued that self-interest is what drives the free market system, which if left alone is the most just system for mankind. Those who do not act out of self-interest upset the balance of the free market at their expense and the expense of the one they attempt to help.[24]

In a free market a person will do what is necessary to achieve what he wants. The government exists only to insure that individual rights are not violated, that one person's interests are not sacrificed to another (*altruism*). In order to achieve what one wants one must trade and negotiate with others who are acting out of their own interest as well.

Therefore, one provides a service or product for those willing to pay for it in the form of money. If the service or product is in great need or demand, the producer raises the cost of the service or product because it costs more to produce it. Another merchant recognizes that this businessman is making money and has no competition, so he opens another business to compete with him, which drives the price of the service or product down. The same principle applies to the laborer who must sell his labor to make a living. When his labor is in demand, he can charge more for his labor. When his labor is not in demand he must charge a lesser fee or change jobs or educate himself in a service that is in demand. One sees people changing jobs to fit the market all of the time. For example, prior to the explosion of jobs in the technology industry, there were other industries that were thriving but now are in decline. The government often attempts to soften the blow to these companies, but they should not because the companies are only responding to reality, what the people desire and need most.

Altruists argue that when a person loses his job, he deserves compassion in the form of financial assistance. The notion goes something like 'if we help him he will get back on his feet'. Although the altruists are earnest and well-meaning, in actuality they are paying the unemployed a wage for doing nothing or for losing a job. This act of giving is actually a form of business in which the altruist pays the unemployed a wage for losing work. Actually any social welfare program is a kind of dysfunctional business venture. The altruists are part of the market when the give money to unemployed people. When the unemployed accept free money, they are only responding to the forces of the market too as any other laborer, only they are using their non-skill as trade.

Consider a homeless person as an example. In the free market, the homeless person, like anyone else, weighs his options. Knowing that he requires very little money to maintain the lifestyle that he desires, he sells his services to those willing to pay for

them. His services are meager and most do not want his services because essentially he is not selling anything. Indeed, he literally is not selling anything. He is standing on a corner and asking for money. But altruists—unaware that he is literally selling something—give money under the aegis of pure sacrifice and thereby pay a wage to him. Therefore, homelessness becomes a job. If no one gave money to a homeless person, then he would be pushed out of the homeless business into another line of work. He may have to get a real job. Some argue that he may turn to crime. But the fear of crime should not be a reason to give money to the homeless or else one is paying the homeless not to steal, which makes not-stealing a job too. The only thing that will end homelessness is to not pay the homeless for their work. This is the principle of the free market.

The same principle applies to welfare or any social program including education. Indeed, public education is the welfare program of educational institutions. No matter what a student does in school, whether he completes his assignments, brings weapons to class, sleeps, refuse to show up, he is still paid. He is not paid a wage, but he is paid in the sense that he gets a free education for doing nothing. Notice how this will upset the balance of a functioning free market in the same way that giving to a homeless person upsets the balance. Giving to the homeless actually increases homelessness, just as allowing students who do not complete assignments to remain in school actually increases the number of students not completing assignments.

In a free market, everyone acts in his own interest. As long as there is no interference from the government, this brings out the best in people. When the controls are placed on the free market, people—still acting in their own interest—are less inclined to bring out their best. A student in a public school, no matter how poor his behavior or that he refuses to complete assignments is still allowed to attend school. He literally is

forced to go to school because of compulsory laws. What motivation would this student have to behave or complete assignments? He would have none because the consequence is the same whether he turns in zeros or 100's. The school will still pass him and allow him to attend. The homeless situation is the same as education in principle. Why should someone look for a job when one can get paid to do nothing? One thing is certain: if the free market is not allowed to run its course then people will never be motivated to do their best. People always act out of self-interest, but when people attempt to control the free market, people's best does not come out.

Rejecting altruism will increase the quality of education because rejecting altruism necessarily entails privatization. Privatization entails a free market and a free market entails self-interest. Self-interest, in a private education system, means students will behave and do their homework because if they do not then they would be sacrificing their money, which is something they would never do because that would be acting against their self-interest.

I do not believe that financial hardship of private education will prevent poor students from attending school any more than it does at the college level. The free market will take care of it at the primary and secondary level as it does at the college level. People will go into the business of lending money to finance an education for those willing to borrow it and pay it back later when they get a job that is a result of their education.

The philosophic opposite of private education is public education. Public education means everyone attends school, regardless of the value they place on education. Placing students in school who do not value it will only undermine education, the school, and the classroom. Since the philosophy that guides contemporary education is one that sees the student's knowledge as correct, education will always change to fit

the student's knowledge rather than change the student to the right knowledge. When students do not learn, ironically the solution is to institute what caused the students not to learn in the first place, to teach to their needs, their cultural knowledge. Eventually education becomes worthless and thus longer to attain and thus more expensive.

Education as social justice means education becomes watered down and because it becomes watered down a student's education becomes worthless ironically further keeping him out of the mainstream. But the altruists, oblivious that their efforts are the real cause of the problem, use the same tactic again at the college level by instituting *affirmative action* to pad the gap in the knowledge of students that graduated without being fully educated. Then the same cycle repeats at the college level that occurred at the primary and secondary level. The only end to the vicious cycle is to make the purpose of education conceptual development.

CONCLUSION. The final definition of education is, '*The systematic training of the conceptual faculty of the young, by means of supplying it essentials, both its content and method*.'[25] The purpose of education should be to take a perceptual level child or adolescent and systematically develop him into a conceptual independently functioning adult. Or to use Piaget's terminology, to take an infant at the sensorimotor stage and progress him through the preoperational and concrete operational stage to the formal operational stage. This cannot happen by eliminating reality from the equation or the ability to conceptualize reality logically

The objectivist purpose of education is to develop one's conceptual ability. All other traditional and progressive purposes of education are either false dichotomies such as thinking vs. knowledge or violations of the primary-secondary hierarchy. It has been argued that when the primary-secondary hierarchy is violated corruption ensues. The violation generates a causal chain of events that ultimately lead to the improper

functioning of a school. In the case of ‘education as social justice’, for example, education becomes a flawed social program in the same way and for the same reasons that the welfare system is flawed. Education should always remain true to its primary purpose, which is concept formation. In an objectivist school there would be no behavior problems, in school suspension (ISS), failing grades, breakfast or lunch, nurses, counselors, or anything that connotes ‘social program’ as against ‘learning institution’. Students who understand, value, and willfully choose to attend the school would and those that do not would not attend. Choosing entails appropriate behavior for a classroom, completing all assignments, maintaining a minimum passing grade point average, and possibly a minimum skills and knowledge test. Finally, if educators object to the these suggestions for improvement of education they should remember that they can always develop their own ideal school—if one were free to choose their education.

Chapter Four Notes

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23. Jamin Carson. "Schools Transitioning from No or Low Free or Reduced Lunch Programs to High Free or Reduced Lunch Programs." April 25, 2005. The information referred to here was taken from an interview with a suburban middle school principal who is now seeing the demographics of his school and district change while the funding and education remains the same.

24. Robert L. Heilbroner, *The Worldly Philospohers: The Lives, Times, and Ideas of Great Economic Thinkers, 6th Edition* (New York, Touchstone, 1986), 55.

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Chapter Five: Instruction

LEARNING DEFINED. Learning is defined in two ways. *Behaviorism* defines learning as a difference in behavior caused by experience. *Cognitivism* defines learning as mental associations caused by experience.[1] In this chapter, I will describe the most common instructional practices that bring about the cognitive definition of learning in relation to the main types of instructional theories and practices: traditional and progressive. I will give each philosophy's theories and practices strengths and weaknesses, and then show how objectivist teachers would apply them.

Generally the two kinds of instruction—progressive and traditional—use practices that connote different images of the learner. The traditional conception of learning is the image of a student who is passive and receptive in relation to a content that is fixed and unchanged. Some of the practices that are associated with this view are *direct instruction*, *lecture*, *rote-learning*, and *memorization*. The progressive conception of learning is the image of a student who actively constructs the content. Some of the practices that are associated with this view are *cooperative learning groups* and *projects*. The objectivist conception of learning is the image of a student as the former of concepts in relation to a content that best facilitates this process. Objectivism sees all of the instructional practices of both traditionalists and progressives as effective, but it would use them for different reasons and in different ways. Objectivism, for example, holds that *direct instruction* is the *primary* teaching tool. From this base, a teacher may lecture, use memory or repetition, cooperative learning groups, and projects to enhance the learning acquired from the base.

TRADITIONAL INSTRUCTION: THE SUBJECT-CENTERED APPROACH. Traditional instruction and learning theory and practice implies a learner who is passive

and receptive and a content that is fixed. An educated student is one who has learned or memorized a great deal of knowledge and information primarily about Western culture. Historically, traditional educators lectured and used rote learning and memorization to accomplish this goal. In the past twenty years, E. D. Hirsh Jr. advocated the application of schema theory to support his theory of cultural literacy. Finally, direct instruction, although often associated with progressive educator, Madeline Hunter, is more of a traditional educational tool. *Lecture*, *rote-learning* and *memory, schema theory*, and *direct instruction* will be discussed as the main principles and practices of traditional instruction.

Lecture. Lecturing, or a form of it, is probably the most common method of teaching. For one, lecturing is an intuitive and convenient way to teach. If a person wants to transmit knowledge to another, he simply tells the other person what he wants him to know and the student listens intently or writes it down to aid memory of it. Lecturing probably evolved from some kind of direct instruction in pre-literate societies. In pre-literate societies in which the bulk of knowledge was associated with actions such as hunting and gathering the instructors simply told the their young what they wanted them to know in informal settings, say on a hunt. The children listened and mimicked the actions of the more capable adults. Their kind of knowledge was largely perceptual, concrete bound, and used for specific purposes. When human societies advanced to the agricultural stage and urban centers developed, knowledge became much more general and conceptual. More people attended school in need of large amounts of conceptual and abstract information. The lecture was the most efficient and effective form of distributing the information.[2]

Note-Taking. A corollary of the lecture is note-taking or what the student does while the teacher talks. Note-taking is typically an activity the teacher often assumes the

student knows how to do intuitively. After all, one is only copying down the important points of the lecture. But how does one know what the important points are or how they fit into the entire lecture? Students do not instinctively know how to take notes. A teacher must teach note-taking explicitly as he would any other thinking skill. Note-taking is the ability to pick out the principles and concepts of a speech or lecture, summarize them, and provide concrete referents to illustrate what they mean. This is an extremely difficult task for a graduate student, let alone a kindergartener. Therefore, note-taking must be taught early and often.

Rote-Learning and Memorization. Rote-learning and memorization is a product of the Ancient and Middle Ages.[3] Ancient Greece was an oral society because not everyone was literate and writing implements, paper, and especially publishing was expensive or inaccessible in some way. Contemporary thinkers write their thoughts down electronically or on paper, but prior to the wide spread ease of writing and publishing, knowledge was memorized and communicated orally.

Today memorization is a pejorative among educators. Any educator who advocates the use of memory in his students is considered non-progressive. Educators today do not see memory and creativity as connected. Indeed, memory connotes the opposite of creativity. This was not the view of the ancients or medievalists. Mary Carruthers argues in, *The Book of Memory*, that the dichotomy between memory and creativity is flawed. She gives two examples of geniuses, one from the twentieth-century, Albert Einstein, and one from the thirteenth-century, Thomas Aquinas. She relates a description of each genius written by their close confidants. In each passage, both geniuses are praised for the same qualities of thought. Yet during Einstein's time, he was an icon of creativity. He had the ability to see old problems in new ways, a characteristic

of progressive education. And in Aquinas' time, he was revered for his extraordinary memory, a characteristic of traditional education.

Carruthers challenges her readers to consider that although these two men were separated by gulfs of time and culture, they both possessed the same fundamental qualities of mind. Therefore, one must ask, if memory is a poor component of education, how could so many incredible minds have existed throughout time using it as the principle method of instruction? Aquinas is only one mind. Consider that Socrates, Plato, Aristotle, and everyone through Shakespeare and into the beginning of the progressive era was a product of rote learning and memorization.

Schema Theory. *Schema theory* is the theory that humans possess hierarchies of knowledge or concepts called schemes. It is essentially the same theory as the objectivist view of hierarchy of knowledge described in chapter two. The term *scheme* was first introduced by Jean Piaget, a constructivist researcher. The theory is that people possess a hierarchy of knowledge about a concept. See Figure 2 (p. 234). For example, the concept *animal* possesses an entire hierarchy of knowledge or concepts that one must know before they can meaningfully understand *animal*. A child's first experience with *animal* is the family dog, Spot. He eventually learns that there are many dogs and that his dog is only one unit of the concept *dog*. Then he learns that *dog* is only one unit of a higher concept *canine*. Slowly he works his way up the conceptual latter to *animal*. The point is that one must not simply memorize discreet facts that are unconnected to other facts. One must learn the interrelationship of knowledge, how it fits into what one already knows and what one wants to know.

Schema theory is not necessarily a conservative, traditional, or intrinsicist theory of learning. Progressive educators and researchers advocate it as well. Objectivism considers it a primary of learning. It is placed under with the traditional theories of

learning because neo-essentialist, E. D. Hirsch Jr., uses it to back up his theory of cultural literacy. He argues that learning cultural knowledge will aid literacy because when one reads a passage they invariably encounter words, phrases, inferences that imply a whole other body of cultural knowledge the reader may or may not already possess. Those students that struggle in reading are those who have not assimilated the cultural knowledge. When they read a passage they in a sense see blanks on the page where words that refer to cultural knowledge are. The more cultural knowledge one has the more sophisticated one's schema or hierarchy of knowledge.[4] Compare a scheme with gaps in it with a scientist's and one will see how important schema theory is to learning. A scheme with gaps in it is the scheme of a student without cultural knowledge.

Prior Knowledge. A corollary of schema theory is the theory of *prior knowledge*.[5] Prior knowledge says that one learns new knowledge best if it connects in some way to older knowledge. Using Figure 2 as an example, in order to teach a child what a canine is one should first begin with something the child already knows like his dog, *Spot*. Then one can move up the conceptual ladder little by little until *canine* is reached. The new knowledge, *canine*, is connected to the old (prior) knowledge, *Spot*. Although I use children in this example, the principle applies to all ages.

Prior knowledge theory also ties into Piaget's stages of development in which one must teach to a student only what is developmentally appropriate because the student is only capable of certain types understanding at certain stages.[6] Looking at a hierarchy of knowledge like Figure 2, one can see that it is progressively more abstract the higher one climbs. Learning should reflect this progression. One should move from the concrete to the abstract, especially when learning new material.

One can see that the higher concepts depend on knowing the lower concepts first. After experiencing his dog *Spot* a child then may experience several other dogs in his

neighborhood before forming the concept *dog*. Later he will realize that there are categories of dogs like *Collies*, *Scotties*, *Great Danes*, etc. Logically these concepts precede the concept *dog*, but one does not need to learn the *name* of the category before learning the concept *dog*. In fact, the opposite is true. One must learn dog before the *kind* of dog. All that is required to learn the concept *dog* is two or more dogs. Learning the *kinds* is important, however, in that it allows people the ability to think and communicate in a more sophisticated and specialized way.

Direct Instruction. Another so-called traditional instructional practice is direct instruction. *Direct instruction* is a goal-oriented method of delivering subject matter in a systematic way to students.[7] Direct instruction can be divided into a few main steps. The first step of a teacher is to *orient* a student to the new material. This includes appealing to a student's *prior knowledge* and *motivating* him by appealing to what he knows, values, and interests him. Next, a teacher must explicitly state what the *goal* of the lesson is. Then the teacher *instructs the student directly*, without the student raising a hand or talking or interacting in any way with other students or the teacher. At most the student may take notes. The teacher then has the *student practice* what the teacher modeled. For example, a teacher may work several math problems on the chalkboard or the over-head projector. While he is working the problem he 'thinks out loud' the processes that are occurring in his mind that correspond to what he is doing. Good teachers simplify the method of solving the problem into a few easy steps that will guide the student in a variety of similar problems. When the student practices the teacher's method, he tries to repeat the same process in exactly the same way. The teacher notes the student's difficulties and makes adjustments as necessary, answering questions, doing another problem, etc. When the teacher concludes that the students are ready, he has them

practice independently. Finally, he closes the lesson with some kind of assessment to objectively identify the quality and quantity of learning.

Many progressive educators use direct instruction as well. Madeline Hunter is probably the most well known advocate of it. She advocated the use of mastery learning, which is a progressive conception, but she also advocated a systematic way of teaching directly to a student who follows what the teacher does, which is more often a characteristic of traditional teaching.[8]

It should also be noted that direct instruction and lecturing are really the same thing only with different content. In both, the teacher is leading the lesson and distributing the information. However, direct instruction is most often used for skills such as reading, writing, math, and sometimes, science, whereas, a lecture is used for literature, history, and science. Actually, the lecture can fit into a direct instruction model. That is, when a teacher gives a lecture, he may do it as part of the input stage of the direct instruction, after motivating the student and orienting them to their prior knowledge and before the independent practice stage where the students may write an essay or do some other activity that builds on the lecture.

CRITIQUE OF TRADITIONAL INSTRUCTION. Lecture. The advantages of lecturing are that, in the hands of a skilled presenter, the content can be arranged logically and in a way that is interesting and meaningful to the student. The control is solely in the hands of the teacher who knows the conceptual hierarchy of his subject and how to impart it in a way that is understandable to a novice. This is why hiring teachers who have expert knowledge of their subject is essential to an objectivist conception of education. Only an expert in history can effectively arrange his subject into principles. An elementary teacher without expert knowledge of history may be unable to arrange the data into a hierarchy of knowledge. This is pedagogically important since the young

children learn the more perceptual and concrete knowledge of history before the more conceptual and abstract knowledge.

The disadvantages of lecturing are that it is difficult and many if not most instructors are not good at it, making the lecture boring or incomprehensible to the student. Furthermore, even in the hands of a skilled lecturer, students do not always exhibit any long range learning from the process. The reason, it is argued, is that the students never 'interact' in any meaningful way with the content. Thus the content is useless and meaningless to the student and little learning takes place. This claim is the progressive argument, which says learners must be physically active to learn.

Rote-Learning and Memorization. One advantage of rote-learning and memory is that a teacher can know exactly what the students are learning. Another advantage is that a teacher can be sure that the students have learned something, whereas progressive instruction does not always yield an exact indication of what the student has learned. For example, it is almost a cliché that students today are criticized for not knowing their times tables. The likely reason students are incapable of doing them is that education does not use rote-learning and memorization. A BBC article reported that research revealed that students who learned their times tables 'by heart' were faster and more accurate at doing them than students who used 'fingers and blocks'. Hence the reason many adults who received a more traditional education that used rote-learning and memory claim to have learned their times tables better than their children.[9]

On the other hand, students who have been required to do large amounts of memory work usually do not express joy at having done so or that they even learned a great deal. One example of this is reported in William James' *Talks to Teachers on Psychology*. He noted that when a geography class was asked, 'Suppose you should dig a hole in the ground, hundreds of feet deep, how should you find it at the bottom—warmer

or colder than on top?' No one replied, but when the teacher asked, 'In what condition is the interior of the globe?' many students knew the answer.[10] Obviously the students had memorized the answer but did not understand it. This contrast between rote memorization and meaningful learning is the contrast that progressive educators want to emphasize. What good is memorizing information if one does not understand it? Progressives argue then the learning should always be meaningful. One should be able to apply the knowledge in more than one situation.

Schema Theory and Prior Knowledge. The advantage of schema theory is that teachers have a conceptual guide for arranging content. Without a guide, teachers must follow the textbook, which may or may not reflect the hierarchical nature of knowledge. Now teachers can arrange the content of their lessons to begin with the student's perceptual level (prior knowledge) and end with the more conceptual knowledge of the content.

The argument against schema theory is usually made by progressive educators who claim that hierarchies of anything are purely human constructs, and thus not metaphysically or epistemologically necessary or absolute across all contexts and cultures. The term hierarchy implies rigidity and non-freedom, something that is antithetical to learning, which should be flexible and free.

Direct Instruction. An advantage of direct instruction is that the expert has control of the class. The lesson is in the hands of an effective teacher who knows the hierarchy of his subject thoroughly and thus knows exactly how to teach something, in what order, at what pace, and in what way to achieve the best end—which is both memorized knowledge and a conceptual understanding of it. However, this kind of specific goal cannot be achieved by allowing students to get into groups and discuss the problem. The result of the learning in this way will be varied, vague, unclear,

ambiguous, gray. Despite the progressive value for these adjectives, they should be avoided where learning is concerned.

The criticism against direct instruction is that the student in the beginning of the lesson is relatively passive. He does not interact with the environment in any way. He simply accepts uncritically what the teacher, the authority, tells him. Moreover, the lesson does not account for individual differences. What if a student has another way of solving the problem that the teacher is not advocating but that is more comfortable to him and still effective? Finally, direct instruction does not fit with the metaphysical assumption of constructivism, which is that we all construct reality. Direct instruction implies that there is one reality, the teacher's or the mainstream's, which necessarily excludes any student who thinks otherwise. Constructivists have students construct the method.

PROGRESSIVE INSTRUCTION: THE STUDENT-CENTERED APPROACH. Progressive instruction is a reaction to much of the traditional forms of educating described above, especially the lecture and rote-learning and memorization method as well as the conception of the learner as passive and non-constructive. Educators like Jean-Jacques Rousseau, Johann Heinrich Pestalozzi, Johann Friedrich Herbart, Friedrich Wilhelm Froebel, John Dewey, Jean Piaget, Maria Montessouri, and Lev Vygotsky were all progressive thinkers, researchers, and educators who reacted to the traditional practices of the schools in their time. They collectively sought a more student-centered conception of learning in which the child physically interacted with the environment and constructed his or her own knowledge out of the interaction. They believed that education should be more about the whole child, as well, not just his rational ability and not just the amount of knowledge he can remember. Education should develop the innate or the individually and socially constructed abilities of the child instead of imposing upon

him contrived and fixed abilities from without. Traditional education, progressives claim, either assumes one kind of learner or attempts to turn everyone into one kind of learner. Schooling should also be more social in that it should resemble a democratic community in microcosm, where learners are cooperative and collaborative rather than individualistic and competitive.

Diversity. ***Multiculturalism.*** The primary learning principle of progressive education is *diversity* (*multicultural instruction*). Progressive educators emphasize that people differ in countless ways: performance level, learning rate, learning style, ethnicity, culture, social class, home language, gender, and so on. Therefore, if schooling is to be successful it must account for these differences in some way.[11] Traditional education implies one kind of student. Consequently if a student is not that kind, then the student typically is not successful in school. Worse, he or she may be labeled 'learning disabled' or 'unintelligent' and thus directly or indirectly prevented from advancing in society. It is necessary then to completely reform school and society by persuading people that one way is not the only way. There are multiple ways to *be*, which can all be valid and equally successful if given a chance—if *tolerance* and *diversity* are a society's principle values.

The theory of diversity is grounded in the metaphysical and epistemological belief that reality is subjective and relative to the perceiver. If this belief is true, as subjectivists believe, then the traditional curriculum is teaching only one kind of reality. It is neglecting the other realities. Education should teach all of the realities of every culture or group with no bias toward any other but with only an understanding of each.

Cognitive Pluralism. Another form of diversity is cognitive pluralism, the theory that all people and groups think and learn in significantly different ways. It is argued that if education taught to all kinds of students then all students will be successful. There are

several theories of cognitive pluralism. Robert Sternberg, for example, believes there are three forms of intellectual ability: intelligence, wisdom, and creativity.[12] J. P. Guilford posits 180 types of intelligence: six types of mental operations (e.g., thinking, memory, and creativity) times five types of content (e.g., visual, auditory, and verbal) times six types of products (e.g., relations and implications).[13] And Howard Gardner believes there are at least nine different kinds of intelligence: mathematical, linguistic, musical, spatial, kinesthetic, interpersonal and intrapersonal, naturalist, and existentialist.[14] The main point to grasp is that, 'Teachers must avoid thinking about children as smart or not smart, since there are many ways to be smart.'[15]

Construction of Knowledge. Robert Slavin acknowledges the impact that constructivism has had on educational psychology: 'A revolution is taking place in educational psychology. This revolution goes by many names, but the name that is most frequently used is constructivist theories of learning.'[16] The essence of constructivist theory of learning is that humans must transform the external environment to truly know it meaningfully. Ready-made knowledge, the kind that is typically taught in a traditional textbook-based classroom, is rejected for a classroom that works with real problems developed by the students themselves. The curriculum, in this sense, emerges out of the construction of the student's interaction with the environment.

Top-Down Processing. Traditional theories of education are bottom-up. Students are exposed to knowledge in sequential order based on its logical structure within a hierarchy. For example, a teacher first teaches how to multiply and then gives the students a complex problem to solve that requires multiplication in it. Constructivism maintains the opposite direction is more effective and cognitively true. Students are given a problem or they construct a problem of their own and then in the process of working out the problem are forced to learn to multiply as a means to an end. In this

sense, learning is more authentic because the students have to learn to multiply for a real situation. Multiplication, therefore, is a means to and end, not an end in itself, as in the traditional conception.

Cooperative Learning. Another corollary of constructivism is cooperative learning or the theory that learning must be social to be successful. The theory is based on the research conclusions of Lev Vygotsky who posits that students learn best when they can observe each other and discuss the problem at hand. In the process of discussing a problem that requires multiplication, for example, the solution—that is, that multiplication is needed to solve the problem—will emerge from disagreement and resolution inherent in discussion. In this sense, again, leaning is more reflective of real life, which is not solitary and monologic, but social and dialogic.

Moreover, cooperative learning accomplishes the democratic ideal of pragmatism and Marxism, which envisions a world that is more communal and cooperative instead of individualistic and competitive. Using the cooperative model teaches values and abilities needed for a world that is self-destructing because it cannot abide differences. By interacting in a group, one is forced to deal with positions that differ from one's own and learn that one's view is not the only view.

CRITIQUE OF PROGRESSIVE INSTRUCTION. Diversity, Multiculturalism, and Cognitive Pluralism. The problem with the theory of *diversity* is the same the problem as the theory of *social justice*, therefore, a criticism of the former would be the same as a criticism of the latter. In the previous chapter on the purposes of education, it was argued that education as social justice is flawed. It is flawed because it assumes that every culture's conception of education, learning, knowledge, reality, etc. is equally valid to everyone else's. Hopefully, it was shown that this simply is untrue. It was shown in the metaphysics chapter that one reality exists and that we can know this reality. It was

shown in the epistemology chapter that this reality can only be known by reason applied to sense experience. Therefore, in this chapter is follows that conceptions of instruction—just like all knowledge—are also accepted or rejected based on the standards of reason and reality. The concept of diversity implies just the opposite. For pragmatists, the standard of accepting or rejecting something as true is if it satisfies the majority in a community as a solution to a problem. Yet there is no evidence that the concept of diversity has satisfied the majority. It is not a result of reason applied to reality—the objectivist method. And it is not a result of tested experiments that have satisfied all involved—the pragmatist method. Indeed, it could be argued that the concept of diversity is *not* solving the problems of education.

Objectivism holds that teaching to one's culture does not necessitate changing education; it eliminates education. Consider the research done with Native Americans. Vera John-Steiner, Larry Smith, and Fredrick Erickson worked with Native American children and concluded that instruction was successful when it accounted for the children's 'primary learning' patterns, which included learning outside of the classroom setting, making social control indirect, and de-emphasizing competition.[17] What the researchers do not emphasize in their findings is that changing the manner in which the learning takes place to match that of the culture necessitates changing the nature of the content. 'Learning outside of the classroom' implies a perceptual education. Since objectivists deny that a perception-oriented education is an education, it follows that changing instruction to match one's culture—at least in this instance—can lead to the elimination of education. Remember that for an objectivist education must be conceptual. An education that teaches specific skills, for example, is not an education although many may still call it an education.

The characteristics of Native Americans that are described as incommensurate with American society are normal reactions of any pre-literate society living in an advanced society. It would be only natural for them to behave in ways that are incommensurate with the concept of education, because the concept of education is itself incommensurate with their society. One cannot simply say that they have a concept of education that, although different, is equal to an advanced civilization any more than one can say a child has a conception of reality that is equal to that of an adult's conception. In short, education in America implies the widest context of scientific study on the planet. As such, any society that is pre-scientific, pre-literate, pre-conceptual is necessarily pre-educational—if education is defined the objectivist way.

It must be reiterated that the objectivist view is not a racist doctrine because it says there is one correct concept of education. Indeed, the objectivist view is anti-racist because it firmly believes that reason and reality are the standards of truth, not power, race, or culture. Moreover, the sooner the objectivist view of instruction is adopted the sooner more minorities will advance. However, their advancement will not be in the way that most progressives desire it. Education cannot and should not be all things to all people. Education ought to define itself as what reason and reality dictate and then allow society to choose it or not. If they do not—and some certainly will not—their choice must be respected, even if it is the incorrect choice. Some believe that because many minority societies do not value education, they will abandon education if given the choice, which will only further impede their progress. This will be true for some, but one must realize that in a free society, one is also free not to advance. All education should do is be what it should be—which is conceptual development—not change to fit everyone's conception of it. This only undermines education and the people acquiring it.

Cognitive Pluralism is flawed for the exact same reasons that *diversity* and *multicultural instruction* are flawed. The theory posits that a person's thinking is so different that teachers must identify each student's unique way of learning to be successful. Progressives mistakenly focus on differences at the expense of similarities, ignorant of the fact that it is the similarities among men and women that are primary to the differences. To be sure, everyone is a unique individual. However, at the level of instruction, one is engaging the *human* intelligence, not Tom, Jane, and Mike's intelligence or Black, Hispanic, or white intelligence or music, physical, and spatial intelligence. To a teacher there is only human intelligence, conceptual thinking.

Not only are the different intelligences developed by Sternberg, Guilford, and Gardner listed above not equally primary, theorists of cognitive pluralism do not understand the relationship among the different faculties that they posit and why one is better than another. The 'intelligences' that Gardner and Elliot Eisner (artistic intelligence) posit are largely defined by *perception*, not conception. Gardner and Eisner confuse perception and conception rather than distinguish between them and show how together they work in complimentary ways—albeit with conception taking the primary role.

Gardner, for example, suggests that such a high ability to create music suggest that musicians think differently than non-musicians. What Gardner is doing is taking a secondary ability (forming concepts using the language of music) and a mode of perception (sound and touch) and making them primaries. In this example, we see the basic flaw of education emerge again, replacing primaries with secondaries. Musical concepts not primaries because they are limited in the concepts they can form. Compare all the concepts that one can think about with *language* and *math* as against all the concepts one can think about with *art* and *music*. There is no comparison. Language and

math far surpass the concepts formed by art and music. This is the reason why education has focused more on the 'linguistic' and 'mathematical' intelligences than the 'artistic' and 'musical' intelligences. Although language and math are the primaries of learning, they are actually not concepts or thought themselves, however. They are only the *symbols* of concepts and thought. This is one reason why Gardner should rename the term 'intelligence' because it is a misnomer. Language and math as *symbol systems* facilitate thinking about concepts easier than music, athletics, and spatial ability can.

Constructivism, Top-Down Processing, and Cooperative Learning. The metaphysical and epistemological flaws of constructivism have been addressed in the previous chapters, so I will only address *top-down processing* and *cooperative learning* here since they represent the basic practices of constructivist teachers. Objectivism does not object to top-down processing if one has already learned the material from the bottom up. As will be argued, a teacher should always have students move from the simple to the complex and back again. Or one should move from the concrete to the abstract and back again. Or one should move from practice to theory and back again to instill deep understanding in the student. However, it does not make sense to ask a student to solve a complex task that requires knowledge of simple tasks first that he does not know how to do any more than it makes sense for a teacher to expect students to solve algebra problems before learning to count. Indeed, ironically, top-down processing actually contradicts the constructivist belief that learning should in some way be grounded in the reality of the student. If one is presented a problem that necessitates tasks he does not know, then the new material is 'knowledge-out-of-context'.

Another problem with the top-down processing model is that it can lead to confusion in the student. Typically when a teacher begins a math lesson by examining a problem on the board he asks the students to solve the problem using any strategy they

can imagine or create. Then the teacher asks the students to describe their strategy. The teacher almost never corrects the students, even if their answer was wrong or their method was flawed. The teacher, rather, attempts to understand the logic that the students used and comfort them as to why their method did not achieve the results that it should. In the interchange, the students are more confused than ever about math. They are taught that the right answer or method is not as important as thinking.

Another flaw is that the teacher never points out the principles that underlie each of the so-called 'different' strategies. In fact, the different strategies are not different on the conceptual level at all. They are only different on the perceptual level. That is, a student may solve a math problem using words, numbers, or symbols. He may use a different order of addition, subtraction, multiplication, and division. One thing is certain: he must use the same *principle* operations to get the right answer. This point, however, is never mentioned to the student. Indeed, pointing out similarities and principles is anti-constructivistic because principles and similarities imply absolutes, something that constructivists deny.[18]

Objectivists advocate giving the students one method to solve problems that history, experience, and reason have proven to work best. Having students 'construct' solutions when they can barely count is like having each new generation reinvent all the knowledge that has already been discovered and made obsolete. The result of this practice is that the students would barely reach the invention of fire by the time they are adults. We live in an advanced civilization with more knowledge than we can impart in a lifetime, let alone ten years of inadequate education. Therefore, teachers must go straight to the most important knowledge. Waiting for students to 'invent' the right knowledge will take too long. And it is unnecessary. The only reason for allowing students to 'construct' knowledge is to ground the content in reality. Beyond that purpose, it should

not be used. Progressive educators use it as a way of life, as a primary. In fact, students are not literally constructing knowledge anyway, as was argued in the epistemology chapter. Active learning is effective because it grounds conceptual knowledge in the experiences of the student, not because the student creates reality. From that base, teachers should move onto symbolic abstract thinking as soon as the student is able.

Objectivists would also use cooperative learning only *if* the learning situation called for it. In contemporary classrooms, seating is almost universally arranged into groups. This is another example of replacing a primary with a secondary. Learning primarily is an individual process. To be sure, the knowledge we have to today is the product of individuals in a society or community of thinkers and without this arrangement our knowledge would not have been spread so fast. But these discoveries were not invented *cooperatively* or *collectively* in groups as students are arranged in progressive classrooms. Rather, individuals built on the knowledge of others that went before them. So the social analogy that progressives use is flawed in this respect.

Objectivists would first teach students as individuals. Then once deep knowledge was attained and the students had a product, such as an essay or a well-defined and supported opinion, a teacher might have the students engage in a debate so they can practice logical argumentation and be exposed to what their peers believe. However, cooperative learning groups are not used in this manner. The entire class is usually arranged into learning groups for everything, which limits the quantity and quality of learning the individual student can attain.

Moreover, cooperative learning prevents the learning of content that is best accomplished individually. For example, how can one read in a group as well as one can read alone? The same goes for writing and math. Why would discussing a math problem with three or four other students who do not know how to do the problem be more

effective than a student working along and asking for help from the teacher or an advanced tutor? Additionally, attaining the facts of history, literature, and science would also seem more difficult when in a group. A group tacitly implies discussion. Discussion implies that the students have some knowledge. Therefore, group discussion implies one has already learned something individually. One might argue that a teacher could place several students with no knowledge in a group, give them a task, and together they would have to work out their ignorance by learning in the process. Nevertheless, this scenario still implies individual learning at some point. Whenever the student is truly in a cooperative learning mode he is discussing or thinking but he is not actively attending to content in the way he would if he were *individually* reading, writing, solving math problems, or listening to a lecture. Finally, there does not seem to be a logical argument or scientific research that justifies the extent to which is used in public education.

OBJECTIVIST INSTRUCTION. Introduction. Objectivist instruction uses both the traditional and progressive instructional theories and practices described above, but it either differs in how it conceptualizes the theories and practices or it would implement the theories and practices in different ways and for different reasons. It holds that *lecturing*, for example, is an effective means of teaching, but that it must be done correctly, in the correct amount, and at the correct time. Traditional educators typically over-use it. *Rote learning* and *memorization* is also not a pejorative. Both are absolutely necessary to learning. *Schema theory* is probably the single most important theory of learning, traditional or progressive, that objectivism advocates. It is essentially objectivist epistemology and as such needs no refinement. The only problem with its implementation is that schools, traditional and progressive, use it for the wrong reasons (i.e., cultural literacy) or do not use it at all (e.g., constructivism). *Direct instruction* is the primary form of objectivist instruction. It forms the foundation because only in it can

a teacher control what and how something is learned, which is critical to learning, despite the progressive belief that the student must construct knowledge. This does not mean that direct instruction is always used. It is only the *primary* of instruction.

Objectivism would even use the theories and practices of progressivism, albeit in different ways. For example, although objectivists believe that people are different, they believe that *diversity* is not a primary of education. An objectivist teacher would use students' differences to design lessons because one must first engage the student within their context. This principle is not the principle of diversity, however. It is the principle of Piaget's stages of development, schema theory, and prior knowledge.

There are other limits to the principle of diversity. A student that is neurotic, learning disabled, hopelessly behind, or a behavior problem would not be thrust into a mainstream classroom. The student would either be prevented from attending school or placed with other students with his problem and with teachers professionally prepared to deal with students of this kind. This differs dramatically from the progressive belief that *differences* are the only absolute. Progressives argue that there is no norm. The students with problems, I described above, are not abnormal. They are just different but are still entitled to an education that addresses their needs.

Objectivism would also use *top-down processing*, but usually only after *bottom-up processing* was achieved. The reason is that top-down processing assumes one has already learned the bottom. Objectivism, however, admits that once the top is reached, a student, to have full understanding, must be able to analyze his knowledge into its parts or move from the conceptual to the particular, from the abstract to the concrete, from theory to practice, from the top to the bottom. Objectivism sees the bottom-up focus of constructivism as only half-right.

Constructivist teachers also design excellent lessons that elicit discussion, creativity, and problem solving, but their attention to fundamental and basic knowledge and skills is poor. Their students can solve-problems holistically, but they lack understanding of the parts and how they fit into the whole. I liken it to a musician who is taught to play a song, but who is never taught fundamentals. Not knowing the fundamental parts of a whole is an anti-conceptual education.

Finally, *cooperative learning* would also be used but not as a primary as it is in constructivist classrooms. Cooperative learning is a secondary activity that should be used sparingly when the learning calls for it—once the parts are well understood.

The Objectivist Lesson. ***Anticipatory Set.*** The objectivist's primary teaching tool is direct instruction based on the Madeline Hunter model described above. It involves five main steps: *anticipatory set*, *input*, *guided practice*, *independent practice*, and *assessment*. The first step is the *anticipatory set*, in which the teacher grounds the abstract content in a concrete particular of which the student is familiar. Since objectivist epistemology holds that all knowledge begins at the sensory level, instruction should also begin at the sensory level. However, objectivism does not believe that the perceptual level is the final goal. Concepts are the final goal, so instruction begins at the sensory level and ends at the conceptual level. Consider *schema theory* in which a *hierarchy of knowledge* is arranged. See Figure 2. At the top of the hierarchy is the most conceptual item, *animals*. At the bottom is the most perceptual item, *Spot*. The two are related by a network of other concepts that move progressively up the hierarchy of knowledge from the concrete to the abstract. Therefore, if a teacher is going to teach *animals* in biology, he would need to at some point make a reference to the actual animals in the lives of his students. Perhaps the students have a pet or a dog. By first grounding the content in the student's life one is building on prior knowledge, arranging the content in logical ways,

and teaching to the student's cognitive level. Addressing all of these principles results in motivation for the student who can see how this information is connected to his real life and therefore of value to him.

Any activity that is concrete bound and that is relevant to the lives of the students will accomplish this task. For example, in teaching *probability*, students could go to the front of the class to flip a coin and guess the probability of the coin landing on heads. Or the student could pull a red marble out of a bag of five white marbles and guess what the probability of selecting a red marble would be. A teacher teaching critical reading skills might have his students examine a painting in groups and have them discuss what message the painting is communicating. The students would have to support their claims by citing details of the painting as evidence of the message they inferred from the painting. The teacher could then point out how reading is similar in principle to examining a painting. Or if a painting is not relevant to the lives of the students, the teacher could use a clothing ad from an magazine that the students read. However, it is important to note that *only* using the examples from the student's lives is irresponsible. A teacher must move onto higher-level content and not simply remain in the world of the student. A clothing ad is adequate to *introduce* principles of rhetoric, but the teacher must move onto something like Martin Luther King's 'Letter from a Birmingham Jail' or Abraham Lincoln's 'Gettysburg Address' to teach principles of rhetoric the conceptual way. The content is absolutely critical to a conceptual education. The content to be chosen must be selected for its metaphysical, epistemological, and axiological meaning. A clothing ad, despite what post-modernists believe, is not equal to the classics. The classics express a view of man and reality that is far more dignified, sophisticated, and conceptual than a clothing add or a rap song. See the objectivist view of aesthetics in the axiology chapter for how art is objective.

Input. The second step in an objectivist lesson is to *input* content or *directly instruct* the students about the content to be learned. After the concept is introduced in the *anticipatory set*, the students are sufficiently motivated to begin the learning. At this stage of the lesson, the teacher tells the students the objective of the lesson or the content or concept to be learned. Teachers should keep the objectives to a minimum. One is ideal. Including several objectives in one lesson will confuse the learner and not lead to deep learning. During direction instruction, the teacher talks and the students listen. The teacher does not ask for questions. This seems very anti-progressive. In the direct instruction of progressive teachers, students are encouraged to ask questions. No question or opinion of the student, no matter how ill-timed or irrelevant, is passed over. Objectivists hold just the opposite view. There is no reason to believe that students will be harmed psychologically or will not learn if they have to suspend talking or questioning until the teacher has completed his delivery. Indeed, teachers are interrupted so often by students, that the information is delivered in a fractured way and students are so pre-occupied with considering their own thinking or questions, they do not hear the teacher. However, the teacher should also not exceed the patience and attention span of the students. Input that lasts more than the audience can endure is ineffective.

In teaching math, a teacher would do several problems on the board while the students copy what the teacher does. As the teacher solves the problem, he thinks out loud the processes occurring in his mind. The teacher reduces the method to be taught to one strategy that is the easiest to understand and the most effective to use. He does several problems repeating each step with care and deliberateness doing only easy problems at this stage.

Once the teacher has performed a number of problems and repeated the method the students are to use, the students are allowed to ask questions. If at this time the

students do not understand the content because it is too advanced the teacher must revert to the next level down from where the students cognitively are and repeat the direct instruction on a easier level. He may need to go back to the activity at the beginning that was perceptual bound and begin there. At all times, he must adhere to Piaget's *stages of development* by engaging the students at their level of cognitive ability. Likewise, if the material is too easy, he should move ahead more quickly.

Guided Practice. After assessing the level of understanding, the students practice solving problems with the teacher doing it with them, walking them through it, asking and answering questions. The teacher should keep the examples simple and straight-forward. He should not introduce problems that are ambiguous or that will likely give the student problems. In fact, the problems should always be easier than what they can handle. This principle opposes the theory of the *zone of proximal development* developed by Lev Vygotsky, which says that learning activities should be at the level that a student cannot do by himself but could do with the assistance of others.[19] This principle is only used when the students are ready to move to the next level.

Also during this phase of the lesson, students are not working in groups or arranged at tables. Indeed, at the primary and secondary level seating should be primarily individualistic and aimed directly at the front of the classroom, especially during direct instruction of writing, reading, math, science, or any subject that requires the student to learn a carefully constructed method or process or to listen intently to the teacher during lecture. Too many elementary teachers bring students to the carpet to sit uncomfortably on the floor with their paper and pencil in their laps, while the teacher teaches what will in fact be the foundation of all of the student's future learning, say a method of solving math problems or how to write an effective thesis sentence. The nature of the content to be learned should always dictate the physical posture of the student. Silent reading may

be done on the floor, but learning how to solve math problems should be done at a desk. Likewise, group seating is also ineffective if done in the wrong learning situation. Group seating results in many students aimed not at the teacher but at the back of the room. Yet the students are required to learn math on a deep level within this seating arrangement. Once the students have done several problems, the teacher can then move onto a more difficult level and begin the process anew. The teacher might add a step to the method he initially taught or he might introduce problems greater in difficulty.

Independent Practice. Students will then be given homework or *several* problems to do in class as a kind of tutorial. Although repetition, rote-learning, and memorization are typically avoided in contemporary classrooms, it is absolutely essential for deep mastery learning. Unless a student repeats what he has been taught several times, he will not learn it. Any class that does not include it as a staple of learning is deficient.

Assessment. The final stage of the lesson cycle is the assessment. After the students have done several examples either in the classroom or at home, their understanding is ready to be assessed. The primary form of assessment should be writing for *all* subjects because only it can measure meaningful learning. Multiple-choice tests should be avoided unless a teacher has too many students to grade the assessment in a timely manner—the likely situation in public schools.

The structure of the assessment should take the following form: the teacher should first assess work with a fairly inconsequential grade such as a homework or in-class assignment that is only worth a daily grade. The assessment should include only the same type of problems that the students practiced. Anything different will surely result in performances that do not match the learning. A common fault of teachers is assessing the students over something different than what was taught, either in terms of different

content or different degree of difficulty. Do not expect the students to do one thing in guided and independent practice and another on the assessment. Increase the difficulty of the assessment only as you increase the difficulty of the concept to be taught.

Once the assessment is completed, the teacher reviews the assessment with the class as an opportunity to enhance learning. Indeed, the review of the assessment should be another lesson. The teacher should point out the fundamental concepts and principles to be learned using the assessment as the example. The lesson that follows the review should be a neat logical transition from what was learned to what will be learned next. The cycle begins anew with the teacher going back to the *anticipatory set* in which motivation is established and prior knowledge is connected to the new knowledge.

Lecture. *Lectures* can be the primary method of instruction in a history and literature course or any course that does not teach a method but that must teach large amounts of conceptual knowledge. However, I would modify the traditional lecture exhibited on the college level to fit into the direct instruction format described above. For example, during the *input* stage of the direct instruction lesson format described above, teachers input content as a way to teach a method like math or writing. In a *lecture*, the teacher would substitute the input in direct instruction for a lecture, but the anticipatory set, guided practice, independent practice, and assessment would all remain the same in principle.

Cooperative Learning. Cooperative learning should never be the primary instructional tool. However, it may by the primary for a day. That is, a teacher's lesson may include a group project that takes the entire class period. This is not using the cooperative lesson as a primary as long as a teacher uses it sparingly. Too many teachers, however, use cooperative learning groups every day as a way of life. The students have reading groups, writing groups, discussion groups, thinking groups, project groups,

experiment groups, and their default seating arrangement is in groups. In constructivist classes, for example, the teacher performs the anticipatory set as described above and may do a very small direct instructional session, but then the students get into groups and go from there during the guided and independent practice. The result is that students only learn broad, holistic abilities but never much fundamental or factual knowledge. An example of this can be seen in classrooms that use a great deal of cooperative learning. The students will appear to actively engage in the content, but when asked to do simple arithmetic or to give them some factual knowledge about history or science they cannot. Students seem to have moved from one extreme to the other, from receptacles of knowledge but with no practical ability to practicing students who have no knowledge to apply. The result is no knowledge in both because thinking can never be separated from knowledge.

OBJECTIVIST PRINCIPLES OF LEARNING. Motivation. The objectivist lesson is conducted on the foundation of the following three principles of learning: *motivation*, *integration*, and *structure*. The first is *motivation*. Motivation is an internal process that activates, guides, and maintains behavior over time. It is an absolute pre-requisite to learning.[20] Motivation itself also implies pre-requisites: *understanding*, *values*, *freedom*, and *volition*. In order to be motivated, one must, understand what they are doing, value it, and be free to choose it. If any of these prerequisites are not fulfilled, learning will not take place.

Motivation is a corollary of the principles of values discussed in the axiology chapter and is applicable to the critiques against altruism and social justice. Much of what will be said in the next section will overlap what was said in previous sections and chapters. It is important to reiterate it here again to show how *teaching* is directly affected by the socio-political implications of public education.

Socio-Political Context. Motivation is almost always discussed purely in the classroom context, but actually one cannot achieve motivation in the classroom unless it is achieved in the student's wider existence before he ever enters a classroom. Unfortunately, teachers can do little to affect this context of a student. A teacher may be extremely effective at designing lessons that should under ordinary circumstances appeal to what motivates a student. However, if the student is not motivated to attend school—that is, before he reaches the classroom—motivating the student in the classroom will be more difficult and impossible in some situations. Therefore, in instances like these, schools and teachers should not be held responsible for the failures of students.

The first pre-requisite of motivation is *understanding*. If a person for whatever reason does not fully understand the concept of education, he will never fully succeed in school. What I mean by understand is that a student must possess the same understanding of education as the teacher. Currently, many students do not understand the concept of education in this sense. Many students grow up in families that do not possess a dictionary, a pen, paper, desks, books, or parents who read, write, and have educations. Students raised in families like these will be more difficult to motivate because they may not understand what education is. At best, their parents may see school as a place in which their child will enter as a blank slate and leave educated, oblivious to the fact that the home learning before entering kindergarten is where education begins. Nevertheless, a student in these conditions can learn what education is and if he does he may be motivated and thus will learn. A student is not determined by his family of origin.

However, understanding is not enough to be motivated. One must *value* education as well. A student may understand education and subsequently reject it as useless, boring, or different from his culture. America currently is dominated by a

conceptual culture. Education and schooling is a product of a conceptual culture. American society is driven by scientific knowledge and industry, which are both consequences of a conceptual culture. However, many non-dominant cultures in America have been historically non-conceptual. Therefore, understandably they might not value education as much as the majority population. They might have been raised in a culture that encounters and values the perceptual and concrete more than the conceptual and abstract. Thus education seems foreign and unreal to them. They do not see that conceptual understanding is what makes countries wealthy, advanced, and their quality of life greater. Therefore, they shy away from education or reject it outright.

This disjunction is probably the main reason education has failed to educate Latino and African-American cultures less successfully than white, Asian, and Indian cultures. It is argued by some that the former cultures are historically less conceptual in nature, whereas the latter are more conceptual. This is a legitimate problem in education as well as society at large. What our country has is two systems of thought attending one kind of school. Progressive educators believe the solution is to operate as if there are many definitions of education—perceptual and conceptual. Progressive educators argue that these culture's ways of learning are as valid as the 'Western' way. Objectivists reject this attitude as inherently racist. Cultures and individuals *choose* their values. One does not think a certain way because of where they were born or the color of their skin or the traditions they experienced growing up. These factors can influence their thinking, but they do not determine them. Traditionalists believe one system should be chosen to bind the cultures together in a common belief system. Objectivists reject this reason as well, arguing that a common culture is not a primary purpose of education.

The only way to solve the problem is for education to be a true *laissez faire* system in which all cultures can choose the educational system that matches their values,

even if their values and conceptions of education are wrong. This does not mean that objectivists believe perceptual cultures are no better or worse than a conceptual culture as progressives do. On the contrary, it firmly knows the conceptual cultures thrive and they hope that all cultures will conclude the same. On the other hand, objectivists regard it as indoctrination to force any educational system, objectivist or otherwise, onto a culture that does not understand it or value it.

A *laissez faire* system of education implies the third pre-requisite of motivation: *freedom*. Freedom implies the fourth pre-requisite: *volition*. A person must be *free* to *choose*. If he is not free, he cannot choose, and if he cannot choose, he cannot be motivated. Man is a volitional animal. Therefore, he chooses everything that he does, including whether or not to think, or be rational, or adhere to reality, and certainly whether or not to learn something. Our current educational system is compulsory. Students do not choose to attend school. Therefore, *no* students—including the most successful—can be completely motivated under such a system.

The ideal educational system would be one in which several different schools were created by independent thinkers with their own vision of education: subjectivist, intrinscist, and objectivist alike. Individuals, families, and cultures would choose what they believe fits with their values and beliefs. Currently, there is not only no choice of whether or not to attend school, there is not even a choice of what philosophy of education one can have. Subjectivists and traditionalists fight over the curriculum, inputting bits and pieces of theories and practices from their philosophy but never able to fully control the system entirely. The result is a grab bag of learning activities with no structured relationship to one another. Consider the growing trend of constructivism in instructional practice alongside the growing trend of standardized testing. These two concepts of education, one progressive, one traditional, are incommensurate

philosophically. Yet they exist within the same system, in the same school, and in the same classroom. No wonder students are confused.

The justification for such incompetent educational organization is that a sub-standard education is better than no education. If education were privatized, it is argued, then the poor would be the first to suffer. Therefore, the argument goes, it is better to sacrifice the majority and excellent education, so that the poor can receive a sub-standard education instead of no education.

This reason is invalid. It violates a number of principles that are actually subjectivist in nature, the principle of motivation being the most obvious and critical. If it is a principle that one absolutely must be motivated to learn, then how can advocates of motivation theory also advocate compulsory education? One cannot do so and be consistent within their system of educational beliefs. It is a direct contradiction to hold both theories.

Classroom Context. Once the political implications of motivation are settled, the teacher still has the task of motivating students within his classroom. Peikoff describes why motivation in the classroom is so important:

> Motivation is a presupposition of a student having an active mind. He will have an eager interest in his subject, a curiosity, a desire to know only because he sees a value in doing so. If you just shove the material at the student as a duty, and say 'Learn this,' he will just wander off at the first obscurity or dry spot. An active mind has to be a motivated mind.
>
> Motivation is also a precondition of a reality-oriented approach. You cannot be reality-oriented if you're not motivated. Knowledge is not an end in itself. It is a means to deal with reality. In other words, with actual concretes in the student's life. [Motivation] consists in essence of pointing to the concretes in reality that the child will be dealing with and showing how he can deal with them better if he learns what you are teaching. That's the only way you can anchor a whole subject from the outset in facts. You make every subject part of dealing with reality as against, 'I just learned this stuff because somebody told me to.'[21]

Progressive educators would probably agree with this statement, with the exception of the part that motivation is tacitly connected to reality. It is connected to a child's reality, progressives would argue, but that may or may not be connected to actual reality. But what is the practical difference between progressivism and objectivism with respect to this distinction? The consequence of holding the above understanding of motivation without holding that motivation is tacitly connected to reality is to *un-motivate* the child, to undermine his entire learning and everything that he knows, to literally give him a reason for *not* going to school. For example, if you motivate a child by relating what you are teaching to him to his real life experiences, but then tell him that his knowledge about those experiences is only true for him but not true in actual reality, why would he even need to go to school? He would not need to acquire formal schooling if his knowledge has no real connection to reality. Like I said in the first chapter on reality, the constructivist educational theory—because it is anti-reality based—can only lead to a non-educational theory.

Integration. The second major principle of objectivist learning and instruction is *integration*. Peikoff says of integration:

> Integration is the process of connecting or relating data. It means presenting information to the child not as discrete separate items, but as parts of a whole. The technical definition of integration is making a whole out of parts…[T]his is the essential process of human cognition.[22]

When a human consciousness takes in disintegrated sensory stimuli, it integrates it automatically into perceptual wholes. At this stage, the process of integration is automatic. However, the move from perception to conception is not automatic. It is volitional and takes practice, hence the reason we have schools and teachers to guide us in this practice. A teacher is in principle always helping the student integrate his field of awareness into concepts and concepts into principles and principles into axioms.

Integration is the mind's basic function to reduce what it experiences into units that have something in common. In psychological terms, this is a feature of *memory*. In philosophical terms, it is called the *Crow Epistemology*. The *Crow Epistemology* refers to a crow's inability to distinguish numbers of a group that are higher than three. It has been proven that when crows see several things that exceed the amount of three they can only conceive of the things as 'more than three'. Therefore, the crow's unit economy consists of one, two, three, and more than three. Humans can distinguish between five and nine, on average seven. Any attempt to give a human more than approximately seven units will only result in overload. Yet humans can deal with this overload by breaking the information into fewer parts. Thus if humans receive stimuli that exceeds seven units, they typically break the mass of units into seven or fewer parts. For example, it is easier to remember 5127919306 as (512) 791-9306.

Peikoff discusses how this feature of the human mind was present in early Greek philosophy, especially with Thales and Socrates. Thales attempted to discover the one substance of matter that was present in all matter. Socrates would also give several examples of *justice* and then asked what is the one thing the examples of justice have in common? Socrates wanted to find a definition for everything. To do this, one must reduce all the examples of something to its most elemental characteristic.

Objectivist instruction is nothing more than applying concept formation to a learning situation. A teacher would never say, 'Here is a book. Read it and I will test you on it in a week'. A teacher must break down the information into logical units that will later form an *integrated* whole. Progressive educators such as constructivists place the child in interesting learning activities that have him interacting with actual concretes that make for good referents to the concepts he will form later. However, because they believe the child constructs knowledge they resist guiding this process or telling the

student what he should be grasping. They say that it is for him to decide. The objectivist would not allow any integration or organization of data to occur randomly, only that which corresponds to reality. Parenting and teaching *must* be directive. Peikoff sums it up the following way:

> The number one thing in your mind once you motivate [the student] is you should always look for, detect, point out, and stress common denominators, connections, unifying abstractions, general principles. Don't let your material sprawl into dissociated facts. Keep tying it together. Keep taking an overview. Keep pointing out, 'This is what binds it together, this is the one, forget the many now, this is the one that ties the many together.' In other words, keep reducing the units. That is the essence of the conceptual method that the child needs to learn.[23]

Progressives differ on this point in two ways, one, because they never directly teach to the child and two, because they never emphasize the one, only the many. In a constructivist classroom, one is not likely to see a teacher at the front of the classroom writing on the overhead or chalkboard while students are in their seats copying or listening. Direct instruction is not learning to them. However, what I have noted in my observations of classroom teachers is that at some point direct instruction is absolutely necessary. All the best teachers do it. Not everything can be learned by placing students into groups and letting them construct knowledge. That is one aspect of learning, but it is not sufficient for complete education.

This refusal to directly teach stems from a deeper metaphysical belief that sees reality as plural. To directly teach means the teacher has objective knowledge of reality. Progressives are skeptics. They do not believe one can have objective knowledge and directly teaching presupposes one has knowledge. This is why it is important to have the proper belief system regarding reality. Once one rejects objective reality, teachers can no longer directly teach—an absolute where instruction is concerned.

Integration implies direct instruction, for students will not automatically notice the underlying principle among several particulars. Peikoff says,

> …[T]ry to find the common denominator on whatever level, and I stress whatever level. It does not have to be a profound philosophic principle. They won't even understand profound philosophic principles unless they get it on very trivial material at the outset. For instance, if you're teaching reading and you come across two words you're teaching that both seem funny. And one is spelled c-o-m-b and one is t-o-m-b. I would consider it poor teaching if you did not point out [that both have a silent 'b'].[24]

What is wrong with education today is that it stresses the differences and denigrates the similarities. The progressive purpose of education is social justice, which denotes diversity. The progressive instructional method is cognitive plurality, which denotes diversity. The progressive curriculum is multi-culturalism, which denotes diversity. Diversity-worship is inherently anti-conceptual since thinking absolutely requires one to find the similarities among particulars. Finding similarities is in essence what forming a concept is. Man could not form a concept unless he recognized that all of the particular examples of what he was observing share the same characteristics minus their measurements.

Integration applies to practice in the following way. Peikoff notes that phonics is the preferred method to teach reading, as against the 'look-say' method, because it teaches a few principles, which in turn allow the reader to read everything, whereas the 'look-say' method is a series of disconnected experiences with no fundamental connection among them. The latter is the pragmatic version. Nevertheless, the whole-language approach should be used, but only as a secondary support for the primary phonics method. The two methods should not be mixed as if they are some middle ground between traditional and progressive instruction. Rather, there is a certain hierarchy that needs to be followed. All teaching should have a foundation on which

other less foundational but related concepts and principles apply. The phonic vs. whole-language method is just such an example. Phonics lays that foundation upon which effective whole-language instruction can be applied.

Peikoff also notes how teaching several causes of the Civil War, which is the pluralistic method, is incorrect, and that one should teach that there were a few *principle* reasons why the Civil War occurred. All subjects should be taught as if they are geometries, where one cannot change one theorem without changing the entire structure of the whole.[25] History is not comprised of deductive theorems, but nevertheless, history does have an inner structure in which the events are causal and interrelated. Therefore, it should be taught, not as a disconnected mass of events but as a whole with interrelated parts where if one part is removed then the whole is simultaneously altered. Consider the founding of the United States. It is no accident that capitalism is the primary economic theory of the country when one considers the principles the country was founded on—that the constitution protects one's right to property. Consider the rise and fall of the Nazi Party. It is also no accident that the Nazi's came to power because of certain philosophical beliefs in their culture. Consider the philosophy of objectivism. If one accepts all of the philosophy but rejects one aspect of it like egoism, for example, then the whole must be rejected because the student has failed to see that if he rejects egoism then he is rejecting reason and if he rejects reason he rejects reality and so on. Whatever one belief a person has, there are an unforeseen amount of further beliefs implied by that one belief.

Disintegration. A corollary of integration is disintegration or from the whole to parts. As was said early, moving from part to whole—integration—is the primary method of learning. However, the compliment to this is disintegration, moving from the whole to the parts. Or from the concept to the particular. Or from the one to the many.

Or top-down processing. Disintegration means one is building the connections in another direction. If one can only think abstractly but can never apply this abstraction in a concrete way, they are not educated. One must be able to connect theory with practice. The two are conjoined, not separate realms that have their own laws.

Peikoff says:

> Education is a shuttle…You go from concretes to abstractions and then turn around and come back to new concretes. And you must always do the one and then correct it with the other…If I were educating in this course…I would come back another period and say, 'Integration…what would an example of it be? Can you concretize [it]?' And if all you could give me back was the examples I gave you…that means you don't [understand it]. You [understand it] as a word. You don't [understand it] as an actual integration of concretes.
>
> You have to bring a child in a sense to the point where his mind is always dissatisfied. Whenever his mind is dealing with concretes, he feels the urge to abstract and unite it into some kind of integration or principle. And whenever he is dealing with abstract principles, he feels the urge to break it up and apply it to concretes.[26]

Obviously, it would be anti-educational to focus only on similarities. The emphasis that is placed on similarities is justified because it is the primary of concept formation because it must be overly stated to counteract the diversity fetish in education today. Finding differences is important. In fact, similarities implies differences. How else would a person be able to differentiate between a chair and a table without recognizing differences? But concept formation is tacitly connected to finding similarities among particulars and eliminating measurements so, therefore, similarities and not differences holds a higher level of status within education.

Structure. Peikoff defines thinking and learning in the following way: 'Thinking consists of integrating data, for a specific purpose, in a specific sequence.'[27] Each of the three phrases in this passage corresponds to the three principles of teaching thinking or

learning: *integration*, *motivation*, and *structure*. Structure is the third and final principle: 'in a specific sequence'. Peikoff says of structure:

> Any process of thinking or teaching has to proceed step by step. It should be like a good movie or a good novel. It's got to have a beginning, a middle, and an end. It has to start with something that the students can grasp by itself, something that doesn't require in their minds still another explanation, something that is self-intelligible to these particular students. And that is the equivalent of an axiom in cognition…and then you as the presenter have to build on this, follow it step by step, and culminate in some final point, conclusion, or ending.[28]

The hierarchy of knowledge in a given subject is what determines the structure of how it is taught. All subjects and higher-level concepts have a definite structure. Before one would teach the concept furniture, one would first teach the concept chair, then table, etc. Only after the student grasps these middle level concepts, is he then ready to be taught the concept furniture, a higher-level concept. Consider another example, that of writing a paragraph. One should not teach students how to write a paragraph before teaching them to first write a well-constructed sentence. And a teacher should not teach one to write a sentence without first teaching them what the parts of speech are. Consider math, in which it is logically appropriate to teach arithmetic before algebra.

Progressive educators typically take the opposite view. They argue that one should let students explore their writing style and after they have experienced particulars ask them what they believe their style is. This method is motivated by a desire to not preempt the student's creation of the world. The traditional methodology, it is argued, presents the world as fixed and unchangeable, which implies that the student has no say in what *is*. The progressive method of writing allows the student to write and out of the process of writing a teacher can go back and then point to what the child has done and teach words, sentences, and paragraphs as what emerges out of a whole. Objectivists reject this view because it does not reveal the hierarchical nature of writing. Moreover, it

assumes that one can understand higher-level concepts prior to understanding the middle and lower level concepts that precede it. This is the principle flaw in using top-down processing as a primary.

Teaching by a structurally sound method is teaching logic in practice. Logic is taught anytime the teacher moves logically from one concept to another. If the teacher skips over a concept to another more difficult one, the students will immediately be lost because will not see the *logical* connection between the two. The same principle applies in writing. If I take one sentence out of this paragraph, it would render the sentences before and after it confusing if not intelligible and that would in turn affect the understanding of the entire paragraph. This is another example of *schema theory*.

Peikoff warns that defining the structure of a subject is one of the most difficult tasks of a teacher because a teacher has already learned the subject and has a concept of it as a whole. Therefore, to teach the parts of the whole a teacher must consciously analyze the whole into its principle parts, which requires time and thought. It will not be immediately obvious to a teacher what one should teach first, second, and third. In a sense, 'Teaching is the transfer of a cognitive whole, from one mind to another, by means of transforming it for a while into a temporal succession.'[29]

In preparing to teach a lesson, a teacher might first list at random chunks of knowledge about a subject onto paper and then organize the chunks into a meaningful structure. For example, an English teacher who wants to logically structure the content of his subject would list poetry, novels, fiction, non-fiction, drama, short-stories, epics, writing, persuasive, informative, and descriptive writing, grammar, spelling, vocabulary, and so on. Then he would logically structure these chunks of knowledge into a meaningful whole. Then each of the chunks would have to be further reduced into a meaningful pattern the student can understand.

A teacher also needs to consider his audience's background. Depending on the knowledge of the students a teacher might not begin with the logical beginning of a subject. For example, with respect to teaching English, epic poetry is historically one of the first genres of literature. However, the typical student is not familiar with the antiquated language, form, and content of epic poetry, so beginning with the *Odyssey* might be too advanced for average students. Rather, short stories could be used instead because they encapsulate the same structural and plot themes as epic poetry but in a more familiar language, on a more familiar subject matter, and with more familiar characters. Epic poetry would need to be segued into only after specific knowledge, maturity, interest, etc. had been generated in the student.

It is not sufficient for only the teacher to be aware of the structure of the content. The students must be aware of this structure. Peikoff points out that transitions must be smooth so as the reader does not notice the abruptness of the change in topic. However, in teaching, Peikoff contrasts, transitions must be explicit as possible so that there is no doubt in the student's mind that a new but related point is about to be presented that will add on to the previous point.[30]

In presenting the structure, a teacher may do the deductive-inductive approach. The deductive approach is to move from broad principles to particulars. The inductive approach is to move from particulars to principles. Or a teacher may begin with causes and move to effects or vice versa. Or a teacher may structure the content chronologically like in history. Or perhaps there is no logical first place to start. The structure is dependent, like knowledge, on the context: the nature of the subject matter and the students.

At each stage of the structure, the conclusions must be accepted by the student with confidence. If the student does not accept what has been taught, then it is the

responsibility of the teacher to re-teach. The goal of the teacher is for the student to be comfortable with what he has learned. If he does not understand it or if he doubts what has been taught is true then the teacher failed to explain it properly.

CONCLUSION. Objectivist instruction includes the practices of both traditional and progressive philosophies, but it would arrange these practices in a more purposeful way that brings about conceptual understanding in the mind of the student. Like the purposes of education, traditional and progressive educators either create false dichotomies or violate the primary-secondary hierarchy in their instructional practices. Traditional instruction typically favors rote learning of factual information, which does not lead to deep understanding. Progressive instruction, by contrast, typically focuses on thinking skills, the construction of knowledge, and cooperative learning, but rejects a logically structured curriculum the students must learn. Objectivist instruction does neither because it recognizes that thinking and knowledge can never be separated. It arranges content into a logical hierarchy that moves from the reality of the student (perception) to the destination of learning (conception). It would accomplish this goal with direct instruction as the primary teaching tool. Only with direct instruction can content by arranged logically to fit the cognitive abilities of the student, can the method the student uses to solve a problem or write an essay be monitored carefully, and can the concepts the students form be addressed. Finally, the individual, not the group, is the primary of learning. The individual should never be sacrificed for the group, or the group for the individual.

Chapter Five Notes

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2. Gilbert Highet, *The Art of Teaching* (New York: Vintage Books, 1958), 160.

3. Mary Carruthers, *The Book of Memory: A Study of Medieval Culture* (Cambridge: Cambridge University Press, 1990).

4. E. D. Hirsh Jr., *Cultural Knowledge: What Every American Needs to Know* (New York: Vintage Books, 1988), 33-69.

5. For a more in depth description of Prior Knowledge see Jeanne Ellis Ormrod, *Human Learning, 3rd Edition* (Upper Saddle River, NJ: Merrill, 1999), 221-225.

6. For a more in depth description of Jean Piaget's Stage of Development see Robert E. Slavin, *Educational Psychology: Theory and Practice, 5th Edition* (Boston: Allyn and Bacon, 1997), 34-43.

7. *Ibid*., 231.

8. For a more in-depth description of the Madeline Hunter style of Direct Instruction see Madeline Hunter, "Hunter Lesson Design Helps Achieve the Goals of Science Instruction," in *Educational Leadership*, 48 (4), 79-81.

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10. William James, *Talks to Teachers on Psychology: And to Students on Some of Life's Ideas (*New York: Holt, 1912), 150.

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13. J. P. Guilford, "Some Changes in the Structure-of-Intellect Model," in *Educational and Psychological Measurement*, 48, 1-4.

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17. Vera John-Steiner and Larry Smith, "The Educational Promise of Cultural Pluralism," prepared for the *National Conference on Urban Education*, St. Louis, 1978); Fredrick Erickson, *Qualitative Methods in Research in Research on Teaching* (East Lansing, Mich.: Institute for Research on Teaching, 1985), 55.

18. Jamin Carson. "Observations of Student-Teachers Using Constructivist Methods" May 12, 2005. The information referred to here was taken from observations of student-teachers during their student-teacher semesters at a research one university in the southwest region of the United States between the months of September 2004 and May 2005. Observations were conducted over a nine-month period across approximately twenty-three student-teachers on average of about nine to fifteen observations each for a total of about one hundred and eighty-seven observations. This data has not been published yet.

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20. *Ibid*., 245.

21. Leonard Peikoff, *The Philosophy of Education, CD Lecture Series*, (Irvine, CA: The Ayn Rand Institute, 1985), 3.1.8:40. (3rd CD, 1st Track, 8 minutes and 40 seconds into the first track).

22 *Ibid*., 3.3.9:10.

23. *Ibid*., 3.4.3:22.

24. *Ibid*., 3.4.7:09.

25. *Ibid*., 4.1.2:46.

26. *Ibid*., 4.2.2:01.

27. *Ibid*., 5.1.0:24.

28. *Ibid*., 5.1.50.

29. *Ibid*., 5.2.6:29.

30. *Ibid*., 6.1.0:15.

Chapter Six: Curriculum

CURRICULUM DEFINED. One of the most popular textbooks in the foundations of education characterizes curriculum the same way that it is characterized in this dissertation:

> The various types of curriculum organization in American schools can be viewed from two perspectives. One emphasizes the subject to be taught; the other emphasizes the student. In the first case, the curriculum is seen as a body of content, or subject matter, that leads to certain achievements, outcomes or products. The second approach defines curriculum in terms of the needs and attitudes of the student; the concern is with process—in other words, with the climate of the classroom or school.
>
> Actually, the two views represent the extremes of a continuum, and most practitioners (and researchers) rely on some curriculum blend within this continuum. Few schools employ pure subject-centered (cognitive) or pure student-centered (psychological) approaches in the teaching-learning process.[1]

These two views of curriculum stem from a more primary question in the field of education: what knowledge is most worth learning? There have been two basic answers to this question. The traditional view is that Western culture is the most important knowledge to learn. The progressive view is that curriculum emerges from the construction of knowledge. Objectivism differs fundamentally from these two views. It holds that curriculum is that knowledge that facilitates conceptual development and understanding. In this chapter, I will argue that both of these views—traditional and progressive—are flawed in some way. I will also argue that simply combining the two views as needed is also flawed, since doing so entails contradictory principles and practices. The preferred definition of curriculum is the objectivist one, which defines the curriculum as the content of learning experiences that aids conceptual formation and understanding.

THE TRADITIONAL CURRICULUM: THE SUBJECT-CENTERED APPROACH.

Essentialism. Essentialism, as a theory of curriculum says that essential knowledge is the proper curriculum. The term 'essential' denotes Platonic, Aristotelian, and Thomistic beliefs: what is essential exists objectively in the universe. By studying essential knowledge students will study subjects that are inherently rigorous and thus facilitative of intellectual growth. However, essentialism emphasizes knowledge of one's culture. That is, it holds that students, in order to be sufficiently educated, must learn the essential, fundamental, or basic knowledge of the culture in which they live. The subjects that accomplish this task are reading, writing, and arithmetic on the primary level and English, history, science, mathematics, and foreign language at the high school level.

Probably the most comprehensive essentialist curriculum theory is *cultural literacy* developed by E. D. Hirsch, Jr. Hirsch posits that literacy entails more than the decoding of words on a page. Decoding also entails knowledge. Yet reading has historically been conceptualized as a purely thinking process independent of the content of thought or knowledge. Hirsch insists that reading entails both process and knowledge. Those who struggle to read lack knowledge, not necessarily the ability to read. Therefore, Hirsch argues for students to be literate, schools must emphasize content as much as thinking. He says:

> We Americans have long accepted literacy as a paramount aim of schooling, but only recently have some of us who have done research in the field begun to realize that literacy is far more than a skill and that it requires large amounts of specific information.[2]

Hirsch's argument philosophically opposes the progressive conception of curriculum as process. His view is similar to the objectivist view that thinking and knowledge entail one another. To separate the two is to fallaciously dichotomize them.

Hirsch use the research on *schema theory* to back up his argument on cultural literarcy. Schema theory is also consistent with the objectivist view of the hierarchical nature of knowledge. See chapter two. It holds that human knowledge is arranged into a hierarchy or scheme. See Figure 2 (p. 234). Some people's schemes are highly developed and others are not. When a student takes a test or reads a passage, each word or set of words on the page corresponds to a concept within his scheme. When a student encounters a word or set of words for which he has no scheme, he sees a virtual blank where the word should be. His understanding of the passage is affected accordingly. Hirsch gives examples of children who read passages that contain information about spiders and how some of students who read the passage have knowledge of spiders whereas others do not. The findings concluded that it was the students' knowledge of the spiders and not their reading ability that determined their understanding of the text.[3]

The findings of schema theory have significant implications for education. They indicate that education and not innate ability is the determiner of IQ and success in school. This finding should persuade progressive educators to ease their suspicion of subject-centered curriculums. Second, the research indicates that the education is tacitly related to literarcy. Hirsch reasons that if knowledge determines one's literacy, then without knowledge one will not be literate. However, the knowledge that readers encounter is largely that of industrialized Western societies, so education must inculcate this knowledge into its students for them to be literate.

Perennialism. Perennialism, as a theory of curriculum, has at its purpose the development of a student's rational ability. essentialism, it holds that to be educated one must learn fundamental knowledge. However, whereas essentialism sees this knowledge as specific to one's culture, perennialism sees this knowledge as universal and timeless.

Therefore, one would not study the knowledge of one's culture, one would study knowledge that is relevant to all cultures.

Perennialists like Robert Maynard Hutchins and Mortimer Adler developed a curriculum called the *Great Books of the Western World* that includes all of the ideas and works of literature from the Western world from Homer through Freud. The curricula of perennialism and essentialism are the same in that both are dominated by knowledge and works from the Western world. They are different in that perennnialism includes more classical works and attention to philosophy, whereas essentialism includes more knowledge from the current century and more attention to science than philosophy. The perennialist curriculum also is designed primarily for college curricula. St. John's in Annapolis, Maryland and Santa Fe, New Mexico possess a curriculum that is strictly the *Great Books of the Western World*.[4]

Hutchins uses logical deduction or a syllogism to support his theory that all people in all cultures should study *The Great Books*: 'Education implies teaching. Teaching implies knowledge. Knowledge implies truth. The truth is everywhere the same'.[1] Another point of Hutchins' theory is that education should be the learning of general knowledge that is conceptual in nature. Specific knowledge that prepares one for a job is not an education. Therefore, education from Kindergarten through college would include no vocational training.

Standardized Testing. Standardized testing refers to criterion-referenced tests administered regularly and systematically to assess student performance against predetermined standards, e.g., the *Texas Assessment of Knowledge and Skills* (*TAKS*) test. Traditional educators generally favor standardized testing as a means of measuring the quantity and quality of students' learning, identifying the weaknesses and strengths of students ability, and holding educators accountable. *No Child Left Behind* (*NCLB*) is a

federal law that demands that federally supported schools test their students regularly to measure their learning against predetermined standards. Each year schools must test their students in two or more of the following subjects: reading, English-Language Arts, writing, mathematics, science, and social studies. Schools in which a specified percentage of their students do not pass the test are denied federal funding and labeled a 'failing school'. Failing schools are then placed on probation during which time the student's performance must improve.

Testing appeals to the traditional educator's desire for objective measures of assessment in education. Traditional educators argue that while standardized testing is not a perfect indicator of a student's knowledge or learning, it is one of the few ways to determine what a student knows or has learned. The alternative is to not use them or to use non-objective measures, which traditionalists do not regard as an option. Moreover, traditionalists argue that the tests are reasonable because they measure *minimum* basic skills and knowledge.

CRITIQUE OF THE TRADITIONAL CURRICULUM. Essentialism. Progressive critiques of cultural literacy theory are likely motivated by the perceived racist connotations in the theory. Progressive educators argue that cultural literacy implies that non-Western societies are inferior. Why should Western man not learn non-Western cultures instead or in addition to Western culture, some ask?

Hirsch would likely argue that the knowledge to be learned has less to do with who discovered it than how many people use it. One must think about the theory of cultural literacy the same way one thinks about standardized language. In order to understand another person one must be able to speak their language. The standard language in America is English, therefore, to communicate effectively one must be able to speak English. Hirsch applies the same principle to knowledge. Along with a

standardized language comes a standardized body of knowledge. It is at least as important as reading and speaking the language. Without the knowledge one is illiterate.

The objectivist response to cultural literacy is that it does not use schema theory to its fullest potential. If it did, it would result in an objectivist curriculum. Hirsch uses schema theory to support the argument that one must know the dominant culture as much as much as the dominant language to understand and communicate with one another. Hirsch limits his argument by only emphasizing the need to know the dominant culture because the dominant culture is not always correct. Communication is important, so it follows that the dominant knowledge and language would need to be known, but more important than communication is if the knowledge is true or not. The dominant knowledge is superceded by the right knowledge. Fortunately, in this situation the dominant knowledge to which Hirsch refers is also true given the widest context of mankind. However, as a principle, Hirsch needs to modify this aspect of his theory.

Consider how Hirsch's theory would play out: In Japan, one would learn Japanese culture. In France, one would learn French culture. In Iraq, one would learn Iraqi culture. Ironically, this view is actually progressive in that it is supported by appeals to social epistemology. It holds that one must never abandon their culture, gender, race, nationality, etc. in the search for truth; one must embrace it and be as culturally-centristic as possible.

It is not exactly clear if this meaning is the whole meaning Hirsch is conveying or only a partial meaning. When Hirsch says one must learn the knowledge of one's culture he must mean a body of knowledge that is the right one to learn because it is right, not because of how many people are using it. This is the objectivist view. Objectivists argue that to learn the knowledge of Western cultures is not an indictment on non-Western cultures as it is an identification of the knowledge that is most important to know, no

matter what one's culture is. An objectivist would argue that many Anglo middle class American school children who struggle to read struggle for the same reason as lower class African and Mexican Americans do. They have not acquired the most important knowledge to be literate or to form concepts. The knowledge that Hirsch is identifying is color-blind. It is the right knowledge to learn because it is the right knowledge not because the person who discovered it is of Anglo European descent or because it is used most often in our society. If the knowledge was discovered by minority populations it would still be the most important knowledge to learn. And if only a minority of the population used it in language, it would still be the most important knowledge to learn. But it is not clear that Hirsch means this. He seems to imply that one must learn the *dominant* cultural knowledge because it is dominant, not because it is right. Objectivism would disagree with this. Knowledge that is right is independent of anyone's opinion about it.

Another flaw of Hirsch that also connects him with the progressive camp is that his reason for developing the theory is social justice. The only difference between cultural literacy theory and progressive theories of curriculum lies in that Hirsch favors the learning of *one* body of knowledge as against *several*. However, he still supports public education as a means of equalizing the classes.

Perennialism. The perennialist theory of curriculum is probably the closest to the objectivist view. However, there are aspects of perennialism that differentiate it from objectivism as well. In short, objectivism improves the perennialist theory of curriculum. Objectivism and perennialism both agree that education means learning general conceptual knowledge that one applies to his life. Recall the analogous relationship between ethics and etiquette in the purposes chapter. However, objectivism would not

study only *The Great Books*. It would include works from all cultures that enhance one's conceptual development.

Objectivism would also modify Hutchins notorious 'truth is everywhere the same' syllogism. Since Hutchins falls into the perennialist camp, his belief that 'truth is everywhere the same' may refer to the intrinsicist metaphysical beliefs described in chapter two, in which the essence of things exist in the things themselves or in some heavenly realm. If Hutchins is referring to this view of truth, then his theory is flawed on this count as well. As was argued in the chapter on metaphysics, reality is only understood by reason applied to sense experience.

Another reason why Hutchins' syllogism is flawed is that pre-literate societies must be the initiators of their own enlightenment. A society that imposes education on another society that is ignorant of what education is or how it can improve their lives, will likely not be successful in education. A society must be motivated to learn. But for a society to be motivated it must understand, value, and freely choose their education as they would their religion, philosophy, or traditions. Education has the same effect on pre-literate cultures as missionary religion does. Education, like the religion, is only so much dogma they accept on faith but never fully understand. Therefore, although a conceptual education is the only proper education, and it is absolutely essential for survival, a pre-literate culture is not likely to adopt it until their culture is ready. A conceptual education is a byproduct of a scientific and industrialized society. Placing a conceptual education into a pre-literate society would be like placing an ibook into their society. It would be literally an anachronism or an aberration.

Another problem with Hutchins' theory is that it never fully accounts for how *The Great Books* would enhance one's reasoning ability. Simply reading *The Great Books* and then engaging in Socratic questioning is not likely to achieve specific ends or even

rational ability. To achieve rational development, a prescriptive theory and practice is needed. Hence the reason why Hirsch, Hutchins, and Adler are labeled traditionalists, all of them invoke the 'because it's always been done that way' argument. Tradition should never be a standard by which to judge a curricular item. Objectivism, by contrast, gives a specific description of how and why the curriculum can develop conceptual understanding.

Standardized Testing. There are at least three different criticism against standardized testing. The first one is that some educators, such as Alfie Kohn, do not believe standardized tests should be given at all or that any kind of assessment should be given.

The second argument against standardized testing has two aspects: a sociological and an epistemological one. First, the sociological aspect: a primary argument against standardized testing, particularly *NCLB*, is that it implies unjust expectations. *NCLB*, it is argued, expects educators to close the educational gap between two cultures with respect to the same curriculum. Critics of *NCLB* argue that this is unjust (inequitable) because culture and education are tacitly connected. Cultures who have historically not been educated will have a more difficult time meeting the minimum standards of a standardized test than cultures who historically have been educated. To hold two different cultures accountable to one universal standard is unjust. Cultures should be held accountable to tests of their own creation that are commensurate with their culture.

The epistemological aspect of this argument is that learning theory holds that a student can only learn material that is developmentally appropriate. Teachers who teach to the 'grade level' and not to the 'student's level' will immediately 'lose' the student who lacks the preparation to be at that grade. Whether or not he, his parents, or his previous teachers are responsible for his deficiency, it is a principle of learning—and

objectivist epistemology—that the teacher must engage the student on his developmental level to teach him effectively. This has significant implications for *NCLB* because students in the tenth grade take a tests for tenth graders yet they may cognitively only be on the third grade level. A student who reads on the third grade level who takes a test on the tenth grade level is a pointless as an undergraduate taking a test for graduate students.

A third argument does not fault standardized testing itself but criticizes the effects that it produces or the stakes attached to it. For example, consider the situation in the preceding paragraph in which one test is administered to several different cultures that historically may or may not have been educated but nevertheless are expected to perform at the same level. Schools that have more students from cultures that historically have not been educated will have a more difficult time than schools that do not. Therefore, the consequences placed on them will be unfairly greater than the consequences placed on other schools. This is exactly why some schools have brought lawsuits against *NCLB*.

The objectivist position with respect each of these positions follows: with respect to the first position stated above, standardized testing is absolutely needed to measure what students have learned. It is not damaging to student's psyche or their learning and it does not undermine the educational enterprise. A teacher must not teach to the test but a good teacher teaches students how to take tests, study, and evaluates the students using measurements that are valid. Valid is defined as the ability of an assessment tool to measure the concept that was taught. Objectivists value writing as the best assessment as against multiple-choice tests. Multiple-choice tests should only be given if writing assessment is not possible.

The objectivist position with respect to the sociological aspect of the second criticism above has already been addressed in different forms throughout this dissertation. Standardized tests measure basic skills and knowledge. The skills and knowledge

tested—as long as they are the result of objectivist epistemology—are not merely constructions of a group. All people that choose education should be expected to know it.

With respect to the epistemological aspect of the second criticism, objectivists would agree that it is impossible to teach someone above their developmental level. Therefore, it stands to reason that one cannot assess a student above their developmental level.

On the other hand, objectivists and progressives would disagree on what to do about this problem. Objectivists believe that students should be grouped by ability, given a curriculum commensurate with their ability, and given assessments commensurate with their ability. In kindergarten, when students first enter school and the teacher determines that some are already more advanced than others, education should not keep all of the students in the same classroom. Students at that time should be placed into classrooms with students with similar abilities, given a curriculum that matches their cognitive level, and given assessments on their level.

In many ways, schools, try as they might to avoid this process, find themselves dividing into *de facto* tracking systems comprised generally into three different levels: remedial, general, and honors. The objectivist curriculum would not differ among these three ability levels in *kind*. The curriculums would only differ with respect to *when* the content is taught. Students who come to school in kindergarten two or three years behind their peers, will be given a curriculum for their cognitive development, whereas their more advanced peers will be given the curriculum for their cognitive development. The reason behind this decision is not that the students who are behind are mentally incapable genetically or otherwise. On the contrary, they have not received the same education their peers did prior to entering school.

The progressive answer to the above problem is to not track students, which they regard as ineffective and cruel, but to make changes to education consistent with the culture of the student. That is, they argue that since all knowledge is relevant to a culture, education should be relevant to a culture. All students will be placed in the same classroom so that no culture is allowed to standout as superior to another and the teacher will address the cultural needs of each student.

There is also an altruistic corollary to the sociological criticism of standardized testing. The principle says that it is society's *duty* to help its most struggling members. Therefore, students will be placed into mixed-ability groups in their classes so that the advanced students will learn altruistic values and the less advanced students will learn from their peers and be part of the group instead of marginalized and stigmatized.

The progressive solution to the problem seems like a contradiction. If education must address the needs of each individual, would not education serve the needs of its students better by tracking them than by placing everyone into the same classroom? This would still maintain the plurality that progressives value and the needs of the students would be better met. The current situation in which all ability levels remain in the same classroom places the teacher in an impossible situation. Indeed, he must in either group by ability or teach to the middle. Grouping by ability in the same classroom is the same as the objectivist solution, only less effective since it still requires the teacher to design more than one lesson for each class. And teaching to the middle neglects the needs of the highest and lowest performing students in the class. Objectivists attribute the progressive solutions to the problem and their undesirable outcomes as a direct result of making social justice the purpose of education.

The objectivist stance with respect to the third criticism of standardized testing is also in agreement with progressivism. It is unfair for the government to penalize a school

for doing in essence the same thing that a so-called 'passing' school is doing. Clearly, the difference is due not to the educators' incompetence but to the inherent problems with the populations the educators are serving.

On the other hand, objectivists would argue that ironically, it is the progressive purpose of education—social justice—that resulted in *NCLB* so progressives have no one to thank but themselves for the current crises. As long as education is public, it will be controlled not by individuals intimately engaged with the education process, but by unseen bureaucrats with no intimate ties to the school or students they serve.

The only way to end standardized testing is to privatize education. Some students may be left behind, but education will improve as a result as will the students that choose it. Under this system schools that do not see a value in standardized testing could create schools that possess different conceptions of assessment. Schools could be designed that hold all of the progressive educational beliefs. Indeed, the likely result of a privatized system of education would be a more diverse view of education than we have now. Another contradiction of progressive education is the fact that public education is inherently non-diverse, whereas private education is inherently diverse. Private education would produce much more educational variety and choice than public education does now. Students could choose from progressive, traditional, objective, or any number of conceptions of education rather than suffer the current progressive variety mixed with attempts by the traditionalists to influence education from the outside by means of standardized testing and vouchers.

THE PROGRESSIVE CURRICULUM: THE STUDENT-CENTERED APPROACH. **Pragmatism.** The following passage describes the post-modernist view of curriculum, but it serves as an accurate description of progressive curriculum:

> Generally, postmodernists hold that the curriculum should not be viewed as discrete subjects and disciplines, but should include issues of power, history, personal and group identities, cultural politics, and social criticism leading to collective action. Rather than pretending that education has no connection with politics, postmodernists connect educational materials and processes (means) with the imperatives of a democratic community (ends). They envision a curriculum that is successful when it empowers people and transforms society, not when it maintains privileged economic and political interests. It is a curriculum that organizes itself from the inside out, so to speak—that is, from the concrete personal identities, histories, and ordinary experiences of students outward to the more abstract meanings of culture, history, and politics rather than the other way around. In this respect, postmodernists who follow this line of reasoning harken back to a central Deweyan concept of making the learner's experience the basic starting point.[6]

This fundamentally pragmatic view of the curriculum contains elements of *Social reconstructionism, Marxism, critical theory,* and *postmodernism*. When analyzed into types of curriculum, five emerge: *open curriculum, activity-centered curriculum, relevant curriculum, humanistic curriculum,* and *values curriculum*.[7]

Open Curriculum. 'Open curriculums' or 'free schools' are schools that are 'private or experimental institutions' constructed by parents and teachers who oppose the traditional conception of education in America. Teachers in these schools grant the students a great deal of freedom of choice with respect to curriculum. The curriculum or what a student wants to learn are the choices of the students rather than the teachers. These classrooms are often noisy and unstructured, but are not considered anti-educational. Paulo Freire, Henry Giroux, Ivan Illich, and Jonathon Kozol are a few of the progressive thinkers to establish such schools.[8]

Activity-Centered Curriculum. Activity Centered curriculums are associated with *constructivism* in that they hold that students learn best when they actively—mentally and physically—engage in activities that are real and relevant to their lives. Traditional curriculums present content to students without attaching or grounding it in

some way to the reality of the student's existence. Therefore, constructivists argue, the concept to be learned is a Platonic abstraction and thus not real. Curriculum, rather, emerges from constructivist learning experiences. Students cannot learn if they are given ready-made content to absorb. A teacher must allow the student to 'own', 'shape', or 'construct' the content in some way before he can learn it.

Relevant Curriculum. Relevant curriculums are associated with the philosophy of *Marxism* (critical theory) and the theory of *social reconstructionism.* Their primary purpose is social justice, in which the curriculum is an tool of social change. Educators such as Maxine Greene, Michael Apple, and Herbert Kliebard identify four principles of a *relevant curriculum:* (1) independent inquiry and projects, (2) topics that address pressing social issues such as environmental protection, drug addiction, urban problems, and cultural pluralism, (3) educational choice (i.e., of courses), and (4) extension of curriculum beyond the school.[9]

Humanistic Curriculum. Humanistic curriculums address the *affective* rather than the *cognitive* aspect of students. Believing that a human consciousness means more than pure cognition, humanistic educators choose curricula that emphasize the emotional and psychological growth of the student in an effort to 'actualize' him. Humanists do not specify what content should be taught, however. Rather, they stress that any curricula can address the affective in a student if the affective is the focus or a primary aspect of the lesson. Therefore, teachers must design lessons and units that organize curricula with respect to affective themes in literature, history, and science. A teacher would not simply address the rhetorical aspects of a work of literature, for example. He would also stress the emotional state of the characters and how their state relates to the reader's emotional state. More often than not though humanistic curriculums are not content driven. The affective is a function of the *purpose* of education and *instructional* philosophy of the

teacher. When a humanistic teacher instructs his students, he is sensitive to their affective state as much as or more than their cognitive state.

Values Curriculum. Another name for values curriculum is *character education*. One example of a values curriculum is *multicultural education* in which students are taught to value all cultures. Another example of a values curriculum is *democratic education* in which students are taught to be active in government by voting and being informed about current events. The main principle of a values curriculum is to not pre-package a set of values but to understand that there is never any right or wrong way to do things. Students within this curriculum are taught to be socially responsible adults.

CRITIQUE OF THE PROGRESSIVE CURRICULUM. Pragmatism. *Open Curriculum.* From on objectivist standpoint, the open curriculum is flawed because it places too much faith in the natural inclinations of young children. Young children are not ready to guide their learning without the knowledge of a trained teacher. Giving children a choice within their education is important, but as a primary it is counter productive. Complete choice is a secondary component where curriculum is concerned. Consequently, objectivism recommends giving choice to students who have already exhibited a great deal of knowledge.

Choice can be granted to *beginning* learners when the student's choices are approved by teachers. For example, students can be given a choice of books to read from a list, but only if all books on the list are chosen with the appropriate educational purpose in mind. If a teacher believes that his students are lacking knowledge of non-fictional works, should he allow the student not to read them simply because the student chooses not to? What if the student does not like reading at all or math, should the teacher in a free school also allow the student freedom to reject such fundamental skills? Progressives probably will argue that open curriculum's do not imply complete freedom,

just more freedom than traditional schools do. Even if this qualification was added to open curriculums, freedom is not a primary of curriculum theory and as such should not be the standard by which one chooses curricula.

Objectivists argue there is nothing wrong with imposing a curriculum on a student. Students are often incapable of understanding the greater implications of not receiving an education, so to give them choices that lead to their un-education is irresponsible and disastrous in the long-run. On the other hand, choices can be granted when the teacher deems it appropriate and necessary as means of furthering the educational objective.

Activity-centered Curriculum. Objectivists, like constructivists, agree that abstractions and concepts are formed by first referring to their sensory-perceptual equivalents. Otherwise, one is learning an abstraction with no relationship to reality. Objectivism is a reality-based education and, therefore, entails that all conceptual learning either begin in or refer to reality. However, constructivism is not a reality-based theory. It is the reality of the student-based theory, which means that whatever is real to the student is real and thus appropriate as curriculum. Objectivists would begin with the student's interest, the context of their reality, but students must eventually connect their reality to the wider reality from which the curriculum was formed. In this way, the student does not remain completely within his own limited realm. An example should illustrate. If one wants to teach students how to write a *thesis sentence*, one would not simply have the students begin writing a made-up thesis that are often pre-designed in a writing textbook. One would have the students ground their thesis in something about which they care. Teachers could prompt the young to write thesis sentences by asking them who they believe will win the *World Series* this year. The students would then construct a thesis sentence that gives their opinion. Later, when the teacher wants to

teach *supporting details*, he would again refer to the student's thesis about the *World Series* but this time have the students list facts that support the thesis sentence. Objectivism and constructivism probably both agree with this lesson design up to this point.

However, they differ with the next step. Since objectivists believe that sports are conceptually limited, teachers must not rely *only* on the interests of the students. Teachers should take the concept of writing a thesis sentence, which was learned by grounding it in something the students know (baseball), and apply it to curricula that is conceptual in nature, for example, a work of literature or an historical or scientific principle. The themes and principles within works of literature and events in history and science are not the things that are explicitly relevant to the average child, but they must be introduced at some point and learned thoroughly if the child is to develop his conceptual faculty. Constructivism, on the other hand, has no basis from which to argue that any reality is more important to learn than another. It must stay forever within the limited reality of the student, which is not significant to develop the conceptual faculty. It must be reiterated that conceptual development is the reason why curriculum is so important.

Another problem with activity-centered curricula is that writing a thesis often does not count as an 'activity'. It is thought of more as a traditional skill because 'activity' is typically regarded as a physically active project where students are standing up, moving around, discussing concepts with other students, making something. Very little writing or studying would be done because writing is solitary, quiet, and performed at a desk. The focus of an activity is more on the process than the product. Objectivists regard activities as appropriate learning tools, but again not as primaries. They are the secondary learning experiences done after a great deal of fundamental skills and

knowledge have been learned thoroughly, such as writing a thesis sentence. Unfortunately teachers are so overburdened with time constraints that 'activities' may never work their way into the curriculum if one must wait until the students have acquired the essential foundation of skills and knowledge. Even if one mixed an activity into a writing lesson, it would necessarily entail taking time away from actual writing, which only hurts writing and in turn hurts conceptual development. One must always ask how well an activity enhances the conceptual development of the student compared to say reading or writing. It is possible for teachers to be creative lesson designers but not necessarily effective at developing a student's conceptual faculty or simply making students habitual readers and writers. Objectivists would rather students become readers and writers than participate in creative and exciting lessons that yield conceptual development.

Relevant Curriculum. Relevant curriculums build on open and activity-centered curriculums just discussed by specifying the content of the open and activity-oriented learning. Relevant curriculum's purpose is *social justice,* so the same activities that occur in open and activity curriculums would occur in them too but with a specific activist orientation. Students would do activities that raise their and society's awareness about social problems like environmentalism, nuclear war, homelessness, and the holocaust.

Objectivism objects to the 'activist' orientation of relevant curriculums. Whether or not the content of the curriculum is a value that most can agree on such as the negative consequences of nuclear war, social activism is not a proper purpose of education. The purpose of studying the effects of nuclear war is to increase conceptual understanding of nuclear war, not dogmatically indoctrinate into the student that nuclear war is deadly or morally wrong. Moreover, the opinion with respect to the social issues is often not the

opinion of everyone in society or even a rational opinion and yet it is presented as an absolute to impressionable students.

Finally, relevant curriculums are not always relevant. Ironically, it is the progressive teachers who most insist on grounding curricula in the sense experience of students, but it is also the progressive teacher who presents highly conceptual social issues to young children before they have the sense experience to fully grasp them. This is an example of a teacher overriding basic learning principles for the sake of higher political causes. Nothing overrides the purpose of education, which is conceptual development, not even pressing social issues. If a teacher wants to teach a social issue that is highly conceptual, he must wait until the child is old enough to understand them or provide concrete experiences in which the concept can be grounded in. To not do this is also indoctrination or propaganda by the teacher.

Humanistic Curriculum. The attention and respect given to the affective in education is overdone and unwarranted. Please see the emotions and feelings section of the epistemology chapter for a full treatment of the objectivist view of emotions in education. Concern over making the student 'whole' or 'actualized' falls outside of the domain of education because the affective is not a purpose of education. A teacher should tap into emotions when emotions are directly involved in the content, for example, as a literature teacher would when discussing themes and character in a story. However, a teacher is not responsible or educated to be accountable for the emotional state of the learner. Nor is professional knowledge of the emotional state of the student necessary to be effective as a teacher. I argue that if a teacher needs to be trained in emotions to be a better teacher, then the students the teacher is serving are not emotionally stable enough to attend school and should seek help from a professional outside of education before

returning. Education presupposes some emotional stability in the student; it does not develop it.

Values Curriculum. Values should not be taught as a separate subject to primary and secondary students. However, since values are always taught whether one deliberately intends to or not, values should be explicitly *part* of the curriculum. The explicit way to teach values is to teach content that expresses an objective value such as independence, reason, integrity, honesty, egoism, and justice. For example, by teaching Ayn Rand's *Anthem*, students learn the value of egoism.

Objectivists approve of values curriculums so long as the students are old enough or conceptual advanced enough to understand values and virtues being taught. If the students are not advanced enough, then the values are indoctrination and propaganda as it is with any curriculum. Objectivists do not draw the traditional distinction between facts and values in which facts are only those things that can be empirically supported and values are merely opinion with no basis in reality. As was discussed in the axiology chapter, objectivist values are determined the same way all knowledge is: by applying reason to reality.

Progressives are not completely free of committing the same crime they accuse traditionalists of making: teaching values as if they are absolutes. For example, many progressive educators teach that *diversity* and *tolerance* are absolute values or that these values are 'what works' in the world's current situation where a plurality of different cultures vie for power. These values are sometimes taught without properly grounding them in the concrete and real experiences of the student. They may never be challenged by the teacher with counter arguments, but disseminated to the students as facts. In this respect, the progressive teacher violates his own principle of curriculum. They imply that

it is acceptable to present *diversity* and *tolerance* as absolutes, but it is not acceptable to present literature, history, science, and math as absolutes.

The implicit way to teach values is to ground the content in the interests of the students. A should not pick any interest of the student; he should only pick those interests the student possesses that are examples of a good value to hold. For example, a teacher, knowing that his students crave popularity, would not say if you learn this material you will be popular. Rather, he would build on the values that the students already hold that are reasonable.

Whatever a teacher or education implicitly or explicitly values will also be a form of values education to the student. This is why concept formation must be the primary purpose of education. If concept formation were the purpose of education it would be the primary value of education and thus the primary value of the students. Social justice is the purpose of contemporary education, so it is the implicit and explicit value education of the students as well. Social justice's primary learning activities like cooperative learning expresses the value of conforming to the group and that self-interest is evil. Objectivist teachers do not ascribe to these values, so they would be careful about what values they suggest implicitly in their actions, instructional methods, and curricular choices.

OBJECTIVIST CURRICULUM. Curriculum Defined. The definition of objectivist curriculum is any content that is essential to developing one's conceptual ability. One should think of a subject as a large, comprehensive scheme, that the student must learn to reach full conceptual ability. This scheme is not to be memorized but understood conceptually. Since concept formation is the standard by which one chooses curricula, the only subjects of a objectivist curriculum would include: reading and writing, mathematics, history, science, and literature. Science includes those concepts,

principles, and axioms of the physical world. History teaches the concepts and principles of mankind. Mathematics teaches the principles underlying the concept of measurement. Measurement is the language of many sciences, especially physics, which is the primary of all sciences. The concepts revealed through mathematics gives mankind a deeper understanding of existence. Literature is the only art form to be taught because it is the most comprehensive and it is the most conceptual of the arts. Art is the recreation of reality according to some artist's metaphysical values. Therefore, students can learn about an artist's creation of character, plot, theme and thus discover the artist's or a society's philosophy about these matters and discuss them for their truth or falseness in relation to what is or what the student believes. Writing and reading are included because they require one to think conceptually and allow one to organize one's concepts into principles. They also form the pathway into the other subjects.

The Three Principles of Objectivist Curriculum. The objectivist curriculum holds three principles: (1) curriculum is chosen based on its ability to develop conceptual understanding, (2) quality precedes quantity, and (3) some subjects are more important then others (hierarchy). The five subjects listed above are the consequences of the three principles of objectivist curriculum. The first principle is that the proper content of education is whatever content that is essential for developing the conceptual faculty. Some content is only peripherally important, whereas other content is indispensable. This will be the standard by which content or subjects will be accepted or rejected from the curriculum. It is important, for example, to learn a musical instrument and to be physically active. However, neither of these subjects is essential to developing one's conceptual faculty. Reading and writing, on the other hand, are so important that without them one's conceptual faculty would be stunted.

The principles of objectivist curriculum seem like the 'back-to the-basics' approach advocated by intrinsicists, traditionalists, conservatives, and religionists alike. However, traditionalists do not actually advocate an explicit method. Traditionalist tend to teach the basics because it is a tradition or because the content is the common knowledge of a culture or because the content is self-evidently excellent, timeless, and universal, whereas objectivists teach the basics because they are essential to developing one's conceptual faculty.

The second principle is that teachers must reduce knowledge to what can be retained in memory or understood on a deep level. One may think of this principle as 'quality over quantity'. Mankind has a mass of accumulated knowledge. Teachers cannot teach everything. They can only teach a fraction of the total, only a few essentials that will equip the student thereafter for life and for thought.[10] Recall the *crow epistemology* or any psychological research on memory. The evidence suggests a human consciousness can only remember between five and nine units at any one time or an average of about seven. Most schools have seven periods, but objectivism advocates further delimiting the curriculum to three to five with the notation that for learning to be meaningful it must be in depth and focused. Contemporary curriculums include language arts, math, history, science, foreign language, art, plus another elective and perhaps an extra-curricular activity. Notice that three important aspects of the curriculum are compressed into the language arts: reading, writing, and literature.

Today's educational system attempts to teach too much knowledge in no definite order. Education should structure itself like a good essay. A good essay typically makes only three to five points because any more would overwhelm the audience. The audience would not remember points one and two, while reading points five and six. They would have trouble grasping the whole, while simultaneously grasping a part, something that is

essential to learning. At most times students in the process of learning should have both an awareness of the part and how it fits or is going to fit into the whole.

Since a good curriculum is limited to three to five subjects, objectivism advocates only those that are essential to developing the conceptual ability of the student: reading, writing, mathematics, history, science, and literature. Also, each of these subjects must be further reduced into three to five parts. For example, a writing teacher should have approximately three to five principles to teach: writing, vocabulary, spelling, and grammar. Each of these sub-topics will be divided into its principle parts as well. For example, the writing process will only include three modes: persuasive, descriptive, and informative. The persuasive mode will include only three parts: writing a good thesis sentence, being logical, and writing supporting details.

The third principle to grasp is that not all subjects are as important as other ones. Objectivism rejects curricular egalitarianism. Contemporary schools, especially middle and high schools are adding more and more subjects for credit. Career Investigations, Science or Psuedo-Science, Patterns, Film, Dancing, Typing, Drivers Ed., Wood Shop, Metal Shop, are just some examples of one school's curriculum. Defenders of the comprehensive high school argue that many students are not going on to college so they should study something they will do after high school that prepares them for the 'real world', i.e., a job. Or some argue that the institutionalizing effects of systematic education consciously or unconsciously lower the self-esteem of some students because the academic subjects only remind them of their intellectual inadequacies. Objectivists see this argument as another form of cognitive pluralism. Objectivism rejects all of these arguments. It does not follow that a curriculum should be about something that a child wants to do. It does not follow that a curriculum should be about something that a child can do well. A proper curriculum is only that which develops the conceptual ability of

the student. Driver's education, although practical and of value, does not develop the conceptual faculty as much as reading does. Therefore, driver's education is not a concern of the school. It should be addressed by an outside agency, not academic education. A clear line should be drawn between those subjects that are absolutely necessary for thinking and those that are not. This criteria necessarily eliminates all vocational training and even some traditional core subjects such as foreign languages and the arts.

Subjects. Using *conceptuality* as the standard, the curriculum should only consist of five subjects: reading and writing, mathematics, science, history, and literature. These subjects have been chosen because they represent the largest and most essential domains of concepts. Vocational training, for example, is not an education because it is too concrete bound and does not facilitate one's conceptual understanding. Taking a typing course only teaches one a limited skill with no influence on how to think conceptually about the world. The basic subjects listed above, however, do just the opposite. Learning them gives one a conceptual understanding of existence, knowledge, man, and values across all concrete experiences of one's life. In essence, the basic subjects are like the practical applications of philosophy, the workshop in which one applies pure theory to practice or concepts and principles to concrete experiences.

Reading. The most important subject of the curriculum is reading. Reading is the most important subject because it is one's primary access to knowledge—concepts. Those who read more, learn and know more about everything. They are in a sense privy to a view of reality that is wider and more conceptual than a non-reader's view. A non-reader, by contrast sees reality in a more limited and perceptual way. The reader compared to the non-reader is like an adult compared to a child. The same comparison can be made between two cultures. It is simply not true that pre-literate cultures possess

a view of reality that is equally advanced to conceptual cultures, by whatever meaning of advanced one uses. And even within so-called advanced cultures that possess many literate people there are those who have a primitive viewpoint of reality, believing in pseudo-scientific knowledge like astrology or adhering to extreme fundamental viewpoints about God. To not read is to forever condemn oneself to the dark ages in which feelings are the guide to knowledge. However, as history can attest, even the ability to read does not ensure the highest level of conceptual understanding desirable.

Writing. Writing, therefore, is another essential subject of the curriculum. Writing, just like reading, is misunderstood in the educational system today. It should not be the property of one department. All subjects, including math, should require writing (and reading) and each writing grade should include two things: a grade for the content and a grade for written expression.[11] Writing is closely allied with thought in that one must organize in logical ways their ideas or opinions that correspond to realty. Writing is the translation of personal informal thought into public formal thought. The process of writing causes one to examine what he knows, how he knows it, and if it is true or not. In the course of writing, what was once thought to be true suddenly seems untrue when put to paper because writing down a proposition in explicit and clear terms gives one a concrete visual, as close as one can get, of the mind in the action of thinking.

Many of mankind's most brilliant minds are writers. Even scientists and mathematicians such as Einstein and Newton were writers. All professors in higher education regardless of the subject are writers. The reason is that the subjects in which they work are mostly conceptual, so their methods of thinking and forming concepts must facilitate conception-formation best. Yet some educators still treat writing as the providence of English teachers, creative fiction writers, or professionals. It should be a

tool of *all* teachers regardless of the subject and future career of the student because like reading it is the basic means of acquiring and forming concepts.

Good writing takes time to develop and time is something that schools do not have. One reason why they do not have time to teach writing properly is that it competes with other subjects. No other subject except reading perhaps should be considered primary to writing, no matter what the culture, ability, or likely career of the student. To do so only mis-serves the student because he will forever by stunted in an area of conceptual ability he must have to advance in life.

Writing can only be taught effectively with a ratio of about one teacher to fifty students. Any more and the teacher cannot grade work fast enough to teach it in a meaningful way. Yet demands are made on teachers to produce students that can write at a certain level. The *National Council of Teachers of English*, which was founded in approximately 1914, discussed in one of its early journals that the typical high school English teacher has an average of about one hundred and thirty students. The numbers have not changed in ninety years. Neither has the crisis in writing.

It is impossible to demand or expect students to write well under these circumstances. The only way to remedy the problem is to reduce the number of incidental courses and increase the number of writing teachers or decrease all the number of students per teacher so the teacher can teach writing effectively. This is one reason why students are staying in school longer and longer. The reason is the curriculum is diluted with unessential courses and content that colleges are beginning to refuse to give college credit to incoming freshman who placed out of basic writing courses because professors are shocked by the low quality of writing ability of freshman and sophomores.

Mathematics. Arithmetic and mathematics are also essential to one's conceptual development. As was pointed out in the concept formation section of the epistemology

chapter, math and concept formation involve the concept *unit*. Math is the science of unit measurement. Concepts are man's means of understanding reality by reducing it into a measurement he can grasp. Concepts then are essentially mathematical in nature. Math is also important because it is logical. What is logical is essentially that which corresponds to reality. Therefore, the argument that education has no logical basis in reality independent of culture is not true. Education is essentially concept formation. Concept formation is essentially unit measurement. Unit measurement is essentially mathematical. Mathematics is essentially logical. Logic is essentially reality. Therefore, education is essentially reality.

In fact, whereas reading and writing are the literary forms of forming concepts. Arithmetic and mathematics are the numeral form of forming concepts. Arithmetic represents the sensory and perceptual level, whereas algebra represents the conceptual level. Before a man can write something down, he must integrate the particulars of what he wants to say into a concept or principle. Then he writes his principle down as the first sentence of a paragraph or an essay and systematically explains his concept or principle by giving the perceptual—the particular—examples of it. Likewise, in math when one expresses an algebraic function, one must reduce it implicitly to its sensory-perceptual equivalent, arithmetic. This is why the basics are so important and why no argument undermining them has been successful. Mathematics is a language of thought with numbers and, therefore, makes thinking about concepts easier the better it is developed in the student's mind. An example of this is Newton's discovery of calculus. For centuries mathematicians were stumped by problems that seemed inexplicable until Newton discovered calculus. Calculus opened up the door to concepts that were foggy intuitions in the mind of scientists, engineers, and mathematicians. This is the importance of learning the proper symbol system that cognitive pluralists overlook. Math and language

make thinking about concepts more possible than the other modes, e.g., the multiple intelligences.

History. History is also essential to developing one's conceptual faculty. Peikoff defines history in this way:

> [History is the] study of man through his past actions. Now observe that at least half of all cognition is the study of man [as opposed to the physical world] in some aspect. That's the whole half that we call the humanities and the social sciences.
>
> Man has to study who he is in order to think properly. He must have some self-understanding, some grasp of the nature of man, otherwise he cannot choose actions, values, or live his life. In that sense, without some knowledge of himself, his faculty of consciousness would be cut off from directing his actions, which means he would be cut off from reality.[12]

History should be taught to young children for its inherent factual nature. Subjects that are inherently abstract such as political science, economics, philosophy, psychology, sociology, etc. should not be taught to young children because they are too abstract. The student does not have a particular example in his life to which the concepts correspond. This includes topics such as *freedom*, *democracy*, *capitalism*, etc. These topics and subjects can be introduced only once the student has accumulated factual knowledge about things he can understand and that are relevant to his world. The teaching of abstract concepts, whether it be capitalism or Marxism, is propaganda because the child is too young to make a reasoned decision about them. Reason requires reality, and at such a young age, the child has not experienced enough of reality to make a decision about choosing capitalism or Marxism. Some elementary schools have students as young as seven and eight year olds follow elections and read about what democrats and republicans are. These topics are far too abstract for the younger elementary students because they have not grasped enough facts about reality to form the concepts themselves. Therefore, the concepts are floating abstractions that are

memorized as true, not part of their lived experience. The same is true of nuclear war. Reconstructionists believe teachers should be political activists and teach social causes that are important to them including anti-nuclear war beliefs. However, to teach such beliefs to very young children who have no experience of the middle and lower level concepts that nuclear war subsumes is dogma and propaganda.

History should be taught in terms of principles. Ayn Rand majored in history in college and learned that in order to know how man should act, one must first know what is man's nature and what is not his nature. Rand learned that studying history teaches one the principles behind the events of history so as to better know the difference between acting in one's nature or acting because of some other reason, e.g., coercion. Peikoff says that:

> History is in effect the workshop for all the humanities and social sciences, including philosophy. It is the factual base. It gives us the spectrum of what has been done, what has been proved to be possible and impossible and thereafter you have a real basis to start to theorize…
>
> History, therefore, properly taught does not mean charts of names and dates…History has to be the study of principles. And it ultimately should reveal to the student the role of basic factors in shaping human life—the role of ideas and the effects of different ideas on different societies…You don't start off preaching that. You reach it inductively by giving him [the student] the data. But ideally what emerges at the end of a properly structured World History course across ten years is: There are certain fundamental ideas. They shape the political and cultural institutions of a society and that has certain practical consequences. Some societies smash up and some prosper.[13]

Induction is one way to teach history. Objectivism regards induction as the fundamental method of concept formation, especially where history is concerned. Induction is the inference of generalized conclusions from particular instances. Deduction is the opposite of induction. It is the particular conclusion drawn from universally held absolutes. Induction is more relevant to the study of history because by

studying all the events of history (the particulars) one abstracts from the events general principles (concepts) that shape our understanding of man. One can also think of induction in the same way as one would think of *integration* explained as one of the principles of learning in the last chapter on instruction.

The induction method of teaching history is to be differentiated from the traditional and progressive view. Generally the traditional view teaches a great deal of content but perhaps does not emphasize the principles behind the particulars. Generally the progressive view teaches that history is a construct by those who write it, literally a work of fiction. We can never know exactly what happened, so one can only study everyone's point of view and be willing to accept a contextual viewpoint of history. Objectivism differs from the traditional method because objectivism would teach that all particulars are merely examples of concepts. No particular event of history would be discussed apart from the concept that underlies it, just as one would not attempt to discuss the concept of metaphor for long without giving or showing students several examples of metaphors.

Objectivism also differs from the progressive approach to teaching history. The difference lies mainly in the two philosophy's different conception of contextuality. Objectivism says we can have contextual knowledge and then defines contextual to mean knowledge we know to be true *given other facts* even though the future acquisition of facts may change the current knowledge. Progressivism says we can have contextual knowledge and then defines contextual knowledge to mean relativism. Progressives argue that there are innumerable perceptions of history so it is impossible to say whose perception is correct. Objectivism argues that this position is false. Can it be proven that the civil war occurred, that there was a winner and a loser, and that there was a reason the war occurred and why it ended? The answer is yes.

Another problem with progressive treatments of history is the double standard of which they are guilty. Progressives at times argue a relativist position of history and at other times argue a revisionist position of history. These two positions are incompatible because the former assumes subjective knowledge, whereas the latter assumes objective knowledge. How can one argue that history is merely a fictional construct and at the same time argue that traditional conceptions of history that portray America positively are incorrect? Notice, for example, that radical right wing conspiracy theorists who hold that that the Holocaust never occurred cause progressives to react with incredulity, but this claim is essentially a revisionist position and therefore must be accepted according to the subjectivist position of history.

The difficultly in teaching history through the induction method lies in the task of forming the principles of history out of concrete examples. This is a difficult task for both student and teacher alike. Prior to teaching a lesson, the teacher must identify the similarities between the events in history he is about to teach with other events he has already taught or will teach. He must ask himself, how does this event connect with other events we have already studied or will study? What caused these events to occur? Was it the same thing or something different? A teacher who teaches events as discreet facts with no relationship to other events within a whole system does not understand history himself and will not generate understanding in the students either. An example of the conceptual teaching method would be the following essay question: Compare and contrast the Civil and Revolutionary War. Be sure to explain each of their causes, the ideas that influenced the causes, and their outcomes and implications for American society. Finally discuss any other events in history since those two wars occurred that share the same characteristics. By answering this question, the student must know that

events in history are not cold facts, but the result of ideas of men and that these ideas have the power to change the course of history for good or bad.

Recall also that learning is a shuttle. One begins with concretes and moves to abstractions, but once one reaches abstraction one must also move in the other direction toward concretes again. A properly educated student can do this effectively, for it is a good measurement of whether or not the student only memorized the content or understands it. An example of an essay question that moves from the conceptual to the particular is: Define the concept of individual rights. Describe several examples of the concept in history and discuss why each example is a good illustration of the principle. Finally, if relevant, discuss how the principle was mis-used, mis-defined, or perverted in any way.

Science. Science is another subject that is crucial to developing the conceptual faculty of man's mind. Peikoff says that:

> Mathematics teaches pure method. History gives the student the facts about man. Science gives him the facts about nature. So in effect… history does for consciousness, what science does for existence. Or you can look at it this way, history gives him the data for what will some day be *ethics* and *politics*. Science gives him the data for what will some day be *metaphysics*, the nature of reality…Both these aspects are necessary for a man's intellectual development. Man acts in nature. So he not only has to know man, he has to know nature. If he does not know something about reality, where he's acting, what he can expect of the world, what it demands and how to deal with it, he's necessarily helpless…You have to bring together the humanities and the sciences. It's a disastrous dichotomy to have the two of them confronting each other with hostility and suspicion. You have to integrate both. From science man has to find out in the form of concretes, that it's a lawful universe of cause and effect, that there are no miracles, and it is an intelligible world, that it's open to reason and understanding.[14]

Notice that Peikoff does not believe the primary purpose of teaching science is to teach the scientific method. This, however, is the progressive purpose of teaching science. John Dewey advocated the scientific method as not only the primary purpose of

teaching science but as the paradigm of thought to apply to all subjects and problems that we encounter. Peikoff believes that education is teaching thinking in general, not only scientific thinking. All subjects are or should be taught as if they are logical. Science is no more logical or rational than history or literature. As it was mentioned in the passage above, with respect to philosophy, history is the concretes for what will become the abstract principles of *ethics* and *politics*. Science provides the concretes for what will become the abstract principles of *metaphysics*. So how does *epistemology* fit into the formula? *Epistemology* should be taught in all subjects because, if properly taught, all subjects are logical. Science is just one example of logical thought.

Peikoff's viewpoint should comfort some pragmatists. Richard Rorty, for example, rejects the primacy of science because he believes that it fallaciously claims to have a superior method, whereas, the humanities, since it does not have a logical method, is not of equal importance. Yet rather than attempt to make the humanities more logical, Rorty rejects rationality all together and claims that the sciences are equally chaotic as the humanities or arts. Objectivism would never reject rationality in order to equal the status of science. Rather, it simply claims that using the method of logic, which all disciplines can do, brings about true knowledge. Science is only *an* example of logical thought not *the* example.

Objectivists would teach science in the same way as one would teach history. That is, induction is the primary teaching tool for both. Just as an objectivist history teacher presents several concrete particulars of history but only as several examples of a concept, so would an objectivist teacher teach science. He would present several concretes from nature and then teach the concept that subsumes them. For example, the following is a question for a very young elementary student: What do the following animals have in common and what category do those characteristics place them in? An

example of the same question moving from the conceptual to the particular would be: Define the term mammal and give five examples of it.

The objectivist method of teaching science is also different from the progressive method, which tends to teach processes as much as or more than content. That is, students are often placed in groups in which they conduct experiments like real scientists. These lessons, to be sure, are often creative and effective at teaching a process or introducing a complex concept in concrete form, and they can be fun. However, for all of their advantages, it seems as if they do not achieve the level of content knowledge the student must have to acquire a full conceptual understanding of science. The student becomes adept at the process of science and a few concepts of science but not the content of science. This is a general criticism of constructivistic practices. Because constructivism requires students to construct knowledge, the majority of a student's time is spent in active learning groups but little time is spent with the conceptual framework of science that necessarily includes a great deal more content than a learning group can appropriately abide.

That objectivism questions the amount of time and effort constructivists spend teaching one concept is not to suggest that education emphasize quantity over quality. However, the amount of time and effort that teachers and students are expending in learning groups is incommensurate with the amount of knowledge learned in them. The learning groups would work best as an introduction to a difficult concept or a clarification of a difficult concept, but once the introduction or clarification was achieved, the teacher must move one to the next higher concept in the hierarchy instead of remaining in groups on the concrete and perceptual level. This is another difference between objectivist and constructivist instruction. The former holds that all subjects have a conceptual hierarchy that a teacher and student must traverse from the bottom up and then again back down.

The latter holds that subjects do not have hierarchies apart from the child's construction of the subject. Therefore, if the student remains on the perceptual level of the so-called hierarchy, then that is his construction and he is right to do so.

Literature. The final subject of the curriculum is the only art that will be taught at school, literature. Literature is to be likened to World Literature, not to be confused with English, which falls under writing. Peikoff says:

> By literature I mean the sum total of literary art. Of fiction, whether we're talking about epics, novels, plays, poems…And I do not mean dominantly contemporary literature. I think a child should get to know across his education the significant or great works from representative eras and cultures from Greece to the present…[O]f course, this has to be taught according to the ability of the child to cope with the language. It has to be graded according to difficulty. If necessary via excerpts, simplified excerpts even in the earlier years with the teacher explaining the context…The child, by the mid-teens, should have familiarity with the high points from Homer to Ayn Rand. I believe that this kind of study of world literature is an invaluable supplement to the other subjects and invaluable training to the conceptual faculty. [L]iterature is a [fine] art. I remind you of the essential need of a conceptual being for art. Art is not a frill, but as Ayn Rand has shown a need of a conceptual being. Art if you remember is a concretization of philosophy. It's the form at which man holds philosophy in his consciousness and is actually influenced and guided by it. It's what keeps philosophy real. Philosophy is the theory, the abstractions. Art is the model builder, the engineer. And the difference is contained in the difference between an abstract lecture on rationality and independence and reading *The Fountainhead* and getting the image of Roark. What history is to *ethics* and *politics* and what science is to *metaphysics*, art is to *philosophy* as a whole. It's the data, the workshop, the concretes, the instances of philosophy in specific easily graspable terms. If history opens up the study of man and science opens up matter, art we can say opens up the universe as a total…Art is the ultimate integrator of the curriculum. I think, therefore, one art is essential as part of the curriculum…From an educational point of view, literature has one tremendous advantage, is that it is…the conceptual art. Its medium is concepts. So it is not only easier to teach for that reason, but you get the most out of it as a potential thinker. The other arts capture a view of life too, but they do it in perceptual terms, and therefore, they can give you only certain broad essentials. But literature can capture subtle details, variants, alternatives with a range and scope that is unique.[15]

Recall Ayn Rand's definition of art from chapter three on axiology. Art is the selective re-creation of reality according to some artist's metaphysical value-judgments. That means that whatever view of man or existence a person has, it will be expressed in his art. The implications for education of Rand's definition of art are important because art provides one more view into mankind in addition to history. In fact, art provides what history and science cannot or have not because art is often an expression of what *ought* to be, not what is. Indeed, it is the *ought* aspect of art, that appeals to Rand most. She holds that where man cannot put his beliefs into actions completely, art provides the one arena to concretize man's abstract ideas, beliefs, and desires. In other words, art is the concrete expression of one's philosophy:

> *Cognitive* abstractions are formed by the criterion of: what is *essential*? *Normative* abstractions are formed by the criterion of: what is *good*? *Esthetic* abstractions are formed by the criterion of: what is *important*?
>
> An artist does not fake reality—he *stylizes* it. He selects those aspects of existence which he regards as metaphysically significant—and by isolating and stressing them, by omitting the insignificant and accidental, he presents *his* view of existence. His selection constitutes his evaluation: everything included in a work of art—from theme to subject to brushstroke or adjective—requires metaphysical significance by the mere fact of being included, of being *important* enough to be included.[16]

Literature is the best art to accomplish the task of expressing one's philosophical views because compared to other art forms it is the most conceptual medium. The primary reason that literature is more conceptual than say painting or music is that literature is purely a literary art form, whereas painting and music are purely perceptual. Some might argue that drama and film are also literary and thus conceptual, but the difference between drama and film and a novel is that a novel is physically unlimited and it does not require the performance of actors to achieve its end. Language is probably the

most conceptual symbol system, even more than math, therefore, it deserves the high status within the curriculum.

The method of teaching literature is similar to the method used to teach history and science. A teacher should first begin with the context of the student before moving to the more conceptual works of fiction in order to ground the concepts in reality. One must not stay completely within the 'literacies' of the student, which are often less-conceptual than what literature courses normally teach.

THE EXTRA CURRICULUM. It should also be pointed out that foreign languages, art, music, sports, and electives are not part of the objectivist curriculum. The only way that they would be part of the curriculum is if the primary subjects were mastered to an extent that would justify a student taking on more than the primary subjects. Currently in education, the student is overloaded with too many subjects with only a superficial understanding of each. The objectivist program would reverse this model to reflect a curriculum with only a few subjects taught in a concentrated way to yield deep understanding in the student. Naturally even those educators who agree with objectivist education will probably resist eliminating the arts and sports from the curriculum arguing that they are essential to the cognitive development of a child. I would agree that the arts and sports are important, but they are not essential to concept formation. More importantly, they fall outside the responsibility of the school. It must be reiterated that implicit in the primary-secondary principle is the idea that education serves one purpose. At any time that purpose is obscured, the purpose suffers. Education can only do one thing well. Currently it is doing several things poorly. However, it can do one thing well if it eliminates secondary purposes and subjects. Finally, one must also remember that tax-payers who fund education want a return on their investment: to make children literate and knowledgeable. Yet they are told that education needs more money to

accomplish this goal. If the secondary purposes and subjects of education were eliminated, the schools would have the money to accomplish this goal.

CONCLUSION. The essentialist conceives the curriculum as a standard language that makes communication possible and unites a divided country. The perennialist curriculum develops the rational faculty and teaches universal truths. The progressive curriculum emerges out of the construction of the student or is an agent of social change. All of these curriculums are flawed to some degree. The essentialist curriculum is flawed because a curriculum should be more than a tool for communication and unification. The perennialist curriculum is probably the best in theory but it has never been described how a teacher would use it to develop the rational faculty of the student and since perennialism is a descendent of Aristotelian realism and neo-Thomism, its metaphysics and epistemology is necessarily mystical and therefore internally contradictory. Finally, the progressive curriculum is flawed because it either rejects knowledge of the Western world, which is the only true knowledge given the widest context of mankind, or it teaches multiculturalism, which is another form of knowledge-out-of-context. The most rational curriculum is the objectivist one because it sees the curriculum as all the concepts that the student must grasp to have deep understanding of mankind (social sciences and humanities) and the physical world (science). Moreover, the objectivist curriculum is an extension of instruction in that it is aarranged with the cognitive development of the student in mind. All subjects must be delivered to the student in perceptual concrete terms but moved up the conceptual latter to the higher level concepts.

Chapter Six Notes

1. Allan C. Ornstein and Daniel U. Levine, *Foundations of Education, 6th Edition* (Boston: Houghton Mifflin Company, 1997), 443.

2. E. D. Hirsch, Jr., *Cultural Literacy: What Every American Needs to Know* (New York: Vintage Books, 1988), 2.

3. *Ibid*., 47-48.

4. Myra Pollack Sadker and David Miller Sadker, *Teachers, Schools, and Society, Fourth Edition* (New York: The McGraw-Hill Companies, Inc., 1997), 420-423.

5. Robert Maynard Hutchins, *The Higher Learning in America* (New Haven: Yale University Press, 1936), 66.

6. Howard A. Ozmon and Samuel M. Craver, *Philosophical Foundations of Education, Seventh Edition* (Upper Saddle River, NJ: Merrill Prentice Hall, 2003), 351.

7. Ornstein and Levine, *Foundations*, 450.

8. *Ibid*.

9. *Ibid*., 451-452.

10. Leonard Peikoff, *The Philosophy of Education, CD Lecture Series*, (Irvine, CA: The Ayn Rand Institute, 1985), 6.2.2:04. (Sixth CD, 2nd Track, 2 minutes and 4 seconds into the second track).

11. *Ibid*., 7.1.9:40.

12. *Ibid*., 7.3.6:09.

13. *Ibid*., 7.4.0:13.

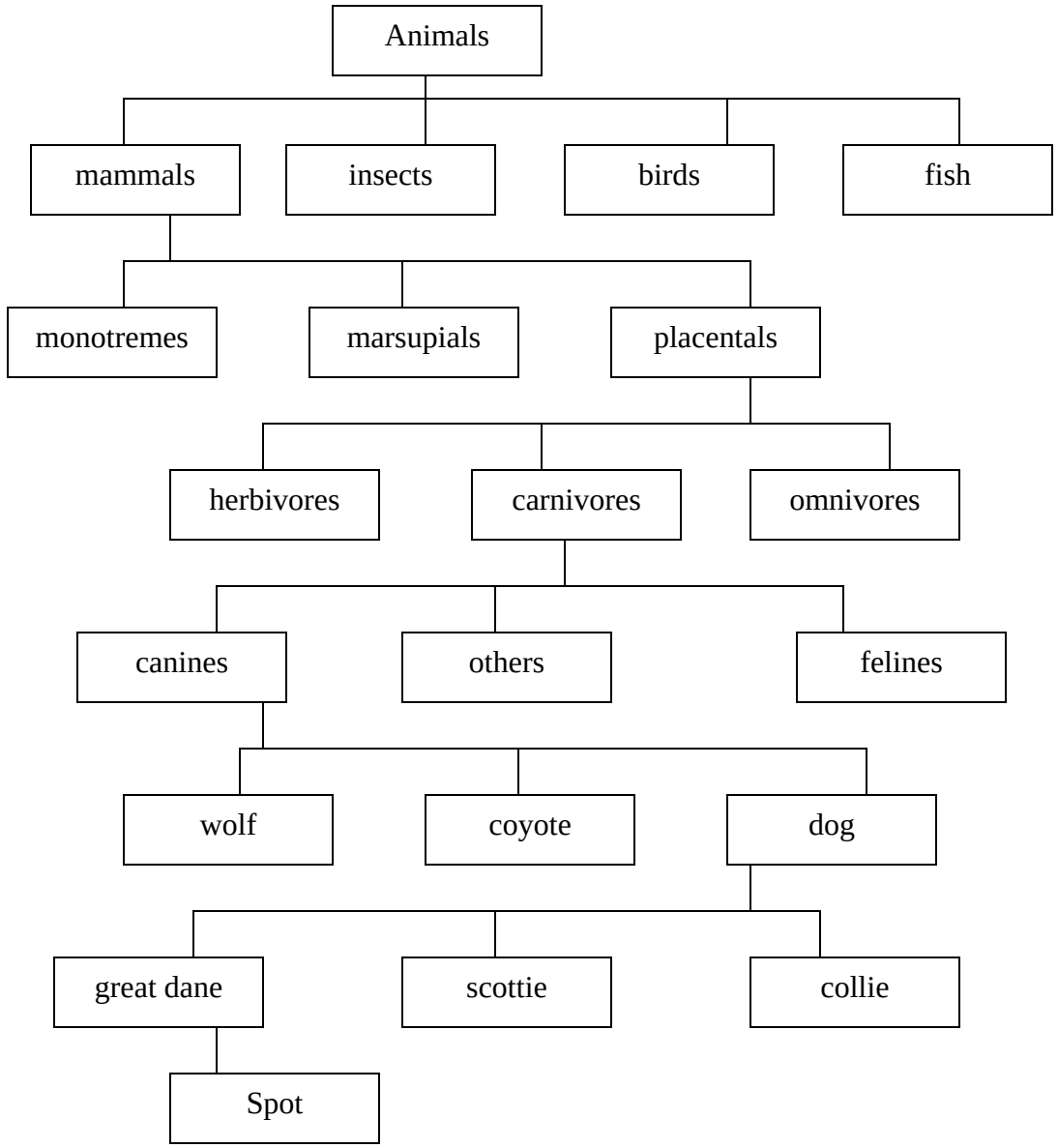
14. *Ibid*., 7.4.4:33.

15. *Ibid*., 8.1.1:32.

16. Ayn Rand, *The Romantic Manifesto: A Philosophy of Literature, Revised Edition* (New York: Signet, 1975), 36.

Figure 2

Hierarchy of Knowledge (Scheme) *Source:* Robert E. Slavin, *Educational Psychology: Theory and Practice, Fifth Edition* (Boston: Allyn and Bacon, 1997), 212.



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Vita

Jamin Patrick Carson was born February 27, 1970, the son of Joseph and Patricia Carson in Corpus Christi, Texas. After completing his secondary education at King High school in Corpus Christi in 1988, he enrolled in Sam Houston State University to pursue a pre-med degree. He transferred to The University of Texas at Austin two years later in 1990 to study English and received his B.A. in the spring of 1993. After his undergraduate period, he served as a graduate assistant coach for The University of Texas Athletics program for two years on a Darrell K. Royal Presidential Scholarship, during which time he also earned an alternative teaching certificate at Region XII Education Service Center. After his two-year assistantship, he began teaching seventh grade English at Westview Middle School in north Austin in the fall of 1995. After three years at Westview, he worked as a private tutor to Austin area students in need of reading, writing, and thinking skills. After a year as a private tutor, he enrolled in the Curriculum and Instruction Masters program at The University of Texas at Austin in 1998 and received his M.Ed. two years later. In the interim between his Masters and his Doctoral work one year later, Jamin taught ninth grade English for one year at Cinco Ranch High School in Katy, Texas, just outside of Houston, Texas. He entered the Curriculum Studies Doctoral program in the summer of 2002 and completed his degree in the summer of 2005.

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