This article examines Maria Montessori's ideas on education and young children with specific reference to: (1) the nature of the child; (2) the religious dimension of her ideas; (3) other philosophical ideas which support Montessori's approach to educating young children; (4) cognitive development in young children; and (5) the moral dimension of education. (PCB)
Introduction

Of those here, I am surely the least qualified to speak of Montessori education as applied in American schools and communities. Although keenly interested in these applications, my own experience does not include them. I have observed Montessori Schools in operation; a member of my family teaches in one, the agency which I direct is engaged in accrediting a number of them, and I am a friend and supporter of Montessori education. But there it ends.

Educational philosophy is my field, and one of the things done by persons in that field is paint portraits. Of course, we don't deal with the physical countenance of our subjects. Those kinds of portraits are done by other kinds of artists who work with real paints and pigments. The "pigments" used for intellectual portraits are philosophical traditions, and any portrait that results from this is of the "intellectual countenance" of our subject. Our art is creating caricatures of thought, using the "pigments" derived from traditions in western philosophy from Plato to Heidigger.

There is a rich array of colors available for this. A great cascade of thought has poured through the past two and one half millennia of western experience. It consists of many colorful ideas by equally colorful people.

Why is a philosophical portrait of Maria Montessori of interest? For philosophers, she is just now passing the first major test of relevance; namely, she is beginning to stand vertically through time. She left us in 1954 with a half dozen major discourses, a number of devoted followers, and vivid memories of successful schools. While living, she attracted the commentary of leading educators from all parts of the world. There are others of similar attainment who left us about the same time; but after three decades, they are forgotten. Maria Montessori is not forgotten.

On the contrary, her works are more widely read now than in her lifetime. She still has a devoted following; but even more importantly, she now has a growing number of adherents who are committed to the basic dispositions of her thought. As to memories of her, they are being replaced by bibliographies; some sympathetic, others objective. These events are sure and certain signs that she now stands vertically in time. Unlike the many of us confined to our own brief horizontal intervals, it is becoming obvious she now lives for the generations to come.

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They will study her, discuss her, and as memories of her physical presence continue to fade, intellectual portraits rendered of her thoughts will become more vivid and varied, more interesting and needed, and more numerous. These will be produced by the art of philosophers who paint from a palette made of the philosophical traditions of the western world.

Background

Those who portray a physical likeness begin with prominent features and then move to background. Intellectual portraits are developed in reverse because intellectual features usually emerge from background. Montessori's background starts in Greece. Like so many other great western minds, her origins are in Stagira, a remote village nestled in a water carved crevice high above the northern Aegean. From here, more than two thousand years ago, the young Aristotle, son of a physician, closely observed his father's ministrations in the Court of Phillip of Macedon. As a boy, he lived in nature and from his father and uncle learned how to observe it. These impressions were so profound that even twenty years of tutelage by Plato in the Academy of Athens could not bring Aristotle to Platonize like others of the Platonic circle (although in some respects he Platonized equally as well).

Aristotle later taught the western world that it could begin the knowing process with what came into the senses. He also taught that the world (and all in it) moves in obedience to natural principles, that all living things are driven by their own internal purpose, and without natural movement that purpose is thwarted. Aristotle's principle of entelechy is prominent in the background Montessori brings to the design of her method. From the Greek: entos (within) telos (purpose) echo (I have) we are invited to contemplate the entelechy (purpose) of the child. In English we might translate this term by saying: "everything has its own business".

In Italian, Montessori frequently says the business of a child is to become a man. As the principle of act is paramount in Aristotle, the principle of movement is also paramount in Montessori; movement is the child's way of becoming what he is becoming. To thwart a child's movement is to thwart his entelechy.

It is understandable that Montessori is never free of her Aristotelian background. Her own early education was Italian Catholic. The philosophy of Italian Catholic schools in those times was preeminently Thomistic. Thomas Aquinas, originator of that philosophy, was devoted to Aristotle, and to this day the Stagirite continues to reside in every Thomistic classroom.

But Montessori goes well beyond Aristotle in many ways. As a modern physician, her science is certainly not Aristotelian. For Aristotle logic is science. Information gained from the senses is merely data to use in forming premises, developing syllogisms, and forming inferences. Aristotle, therefore, has no need of laboratories or of experimental methods; he reasons his way to scientific truth; and, by so doing, he keeps western science bottled up in logic for more than eighteen hundred years.

*Translated: I have purpose within.
The science of Montessori is that of Bacon, Newton, Galileo and other European natural realists who are confident the rules of the natural world do not necessarily correspond to the logical propensities of the human mind. They trust only careful and systematic observation. Logic is a source for hypotheses, never of conclusions. Montessori is deeply influenced by the methods of physicians Itard and Seguin. Her early scientific life is inspired by Darwinian insights, Freudian speculations, behaviorist psychology, and the idea that retardation is an educational problem, not a genetic or medical problem; and she is borne along by a notion of a "science of education". She builds the corpus of her knowledge by variations of the case study method and does not venture a proposition until she can objectively verify its occurrence.

She uses forms of Aristotelian logic mainly to explain, never to know; only to discuss what she already knows. She uses logic to persuade not to learn. Both her deductions and inductions are interspersed by anecdotes; and, by strict criteria, they are often fallacious, sometimes outrageously so. The uses of induction found in some of her discourses could have a logician biting on his nails. But Montessori is simply persuading, and, in persuasion, it is often just as effective to sound logical as to be logical. She is a passionate educator, on fire with new ideas. She is influencing, raising commitments, responding to questions, and building enthusiasm.

The Absorbent Mind

Montessori's approach to reality is clearly that of natural realism. It is consistent with lines laid out by John Locke, Rousseau, and others of the European enlightenment. In this there is nothing remarkable. Educators Froebel and Pestalozzi, and later Rudolph Steiner, extended these theories into education and Montessori can be included in this company. But it is wrong to paint her as an offspring of anyone.

It is wrong because the child for Montessori is not just one natural being among others. For her the child is a very special and highly particular natural being. Of all the writers of my acquaintance only two, Rousseau and Rudolph Steiner, approach Montessori's awe of the child. Perhaps this is because she observed children more closely than any of them. For her the difference between children and other young beings presented a paradox which, in turn, becomes a basis for her lines of inquiry.

The young child is a creature with special powers (or sensitivities) unlike any found elsewhere in nature. The interval of life when they are at work is brief and decisive. While it lasts, the child appears literally to absorb its environment. Philosophers do not like terms such as the absorbent mind because they are analogs, but, as it becomes clear what she is trying to describe, it is difficult to see how she could call it anything else. Montessori has no doubt that this interval of absorbency is the most critical in the child's educational development and probably the most critical in all human development.

Because the child "absorbs" the environment, those responsible for its education have reason to be careful about what the environment is and what goes on within it. Steiner is almost equally reverent about the young child's early powers, but his educational thought moves in other directions. Rousseau seems to have
the same insight but wants the child to be free and in direct involvement with nature.

However, Montessori, always with an eye to cognitive development, would provide a prepared environment that includes carefully selected and designed didactical materials and exercises. The absorbent mind and the prepared environment appear to this reader as the foundations of Montessori's educational thought. These notions in combination form something that is both original, remarkable, and of philosophical merit. For painters of intellectual portraits, it is a color that appears on our palettes for the first time.

Montessori schools seeking Middle States accreditation must write for themselves and for our Association a philosophy of Montessori education that guides their work. It is difficult to imagine how such a philosophy could be complete if it fails to deal with how the school views the attributes of the absorbent mind and the characteristics of the prepared environment.

**Religious Dimension**

Despite her generally implied and oft stated criticism of the educational practices of her time, Dr. Montessori does not speak critically of church authorities or, for that matter, of governmental authorities that sponsor the schools. Records available to me reveal her as a lifelong Catholic who loved the Church, participated in its sacraments, and respected its teachings. Unlike others of the naturalistic tradition, notably Rousseau, she makes no ecclesiastical enemies. Her aim is improvement, even reform, but not revolution.

But the religious dimension of an intellectual portrait must go well beyond personal religiosity or mode of personal piety. We must ask: What does Montessori think about God? If she is a private person, a question of this kind is impertinent, but Montessori now belongs to the ages and continues educating children to become men and woman. In one way or another, all humans are religious beings, and one can not deal with their full development without facing the issue of homo religioso.

I believe Montessori would agree. During the intervals of special sensitivity associated with the absorbent mind, she asserts the child has a special sensitivity for spiritual development. Indeed, she refers to the child as a spiritual embryo in a state of high receptivity to spiritual stimulation and development. Like other aspects of development, those that occur during this interval may be irreversible.

Dr. Montessori speaks of psychic development. Here, translation may be giving problems. The word psyche as it falls to us in English generally relates to the soul. In fact, Montessori mentions the soul at various points in her discourse. At the same time, she makes it clear that the soul does not include innate knowledge, nor can we implicate her in "the ghost in the machine" mythology. This takes her entirely out of the Platonic conception and away from the tradition with which the term psyche is most commonly associated.
So what does she mean by the psyche? And what does she mean by psychic development? Her discourses provide no direct response. She is a religious being, but she speaks mainly through her science, and science does not warrant knowledge that can not be verified by objective observation.

But these questions are not wholly unanswered. Her love of nature, her reverence for its ways, the joy she reveals in observing its workings, her full and unqualified acceptance of its consequences tell us a great deal of what she regards as sacred. She writes as one who believes each child has its own spark of divine fire waiting to be fueled. Thus, the divine is within the child and surrounds the child and the divine within the child is more open to the divine that surrounds it than any other time in life. We can infer she thinks of the psyche as a yearning of the divine that is within to merge with the divine that surrounds. Unlike in Plato, the psyche is an active quality, involved in time, and more active in childhood than after. The psyche is the inner person that loves and loves to be loved.

Furthermore, even as a physician and scientist, she seems to regard the experience of the teacher in fostering the psychic development of the child as holy. She certainly does not speak of it in the same way she would of selling shoes, mending garments, or growing corn. From this we must gauge Montessori as not only having religious ideas (implicit as they may be) but also as a profoundly religious person.

What are her general ideas about the divine? In her discourses, she often quotes from the gospels, but the passages are usually those that open religious possibilities rather than define religious positions. The notion that we are immersed in an unseen multi dimensional reality, of which the three dimensional reality that appears in our senses is a mere reflection, has been around a long time. I estimate her religious position to be somewhere between the Christian humanism of Erasmus and the Promethean humanism of Schiller and Goethe. She is probably closer to the latter than the former. The God-in-and-through-nature position emerged in the thought of European and American intellectuals late in the Eighteenth Century and it enjoyed a continuing vogue through the Nineteenth and well into the Twentieth. (Panentheism: a doctrine that God includes the world as part, but not the whole of His nature.) As a Christian and a natural scientist, it would not be surprising if this approach to ultimate reality would be as heartening for her as it is for other Christian intellectuals. As Schiller said:

I find Christianity virtually contains the first elements of what is highest and noblest...No sufficient emphasis has been placed upon what this religion can be to a beautiful mind, or rather what a beautiful mind can make of it...

Let me add, as far as this portrait has gone, Maria Montessori has a beautiful mind.

We anticipate the Montessori schools that seek accreditation by The Middle States Association will express their beliefs about the psychic development of students in their philosophy of education.
For many who philosophize about education, freedom, order, discipline, and liberty are abstract nouns with a logical meaning. They are given specified academic content, and students are tested for this knowledge. Students achieve realization of these qualities in their lives through cognitive understandings and affective experience. In other words, we teach young people to be free by teaching a definition of freedom and inducing them to accept freedom as a value.

The American pragmatists who rose to eminence at the time Montessori methods were introduced in America viewed order, discipline, freedom, and liberty as social aims and political goals. The many who followed the lead of John Dewey were inclined to socialize learning. William Heard Kilpatrick, in particular, became an eloquent critic of Montessori and his disparaging remarks about Montessori methods were widely accepted and contributed to an unfortunate delay in the development of Montessori education in the United States.

The pragmatists tended to view any education that turned the student inward for knowledge to be in conflict with the basic theme of American society. In the early Nineteenth Century, we were a nation of immigrants and our schools were the "melting pots". The key to their success was the socialization of school experience. Through group activity, students discovered the bases for order, freedom, discipline, and liberty.

The pragmatists were also concerned about learning activities that limited what students were permitted to do with their hypotheses. For them the Montessori educational environment had too much pre structure. The pragmatists did not perceive the Montessori student as free because for them freedom is manifested by imaginative interaction and not by methodological engagement.

The disagreement between Montessori and the American pragmatists is a flat out difference in philosophy. For Montessori freedom, order, discipline, and liberty are natural drives that seek specific form within each individual. Her methods enable the student to discover those internal forms. The early Nineteenth Century American pragmatists saw order, freedom, discipline, and liberty then as social values. There could be no compromise; there was no compromise. Montessori, we are told, returned to Europe and Montessori education in America subsided until its revival after the Second World War.

Then where in western philosophy do we find a line of thought that is consistent with Montessori on order, freedom, discipline, and liberty? Aristotle and Aquinas would teach them as "habits". John Locke offers a similar approach. Rousseau would rely on encounters with nature. He would keep institutions at a distance and bring the child to them only as the child needs them.

Some existentialists would partially agree with Montessori. Many existentialists hold life has no meaning apart from the projects we choose and they would nod in agreement with Montessori's assertion that these things are discovered through work of some kind. But they would also insist these qualities would be unreal unless endowed with reality by the personal choice of the "existential being". Montessori does not give personal choice this level of credence. Furthermore, for her, existential choice comes too late in life. Her discourses on order, freedom, discipline, and liberty remind this reader of
Schiller's *Letters on the Aesthetic Development of Man*. Schiller first isolates the sense drive and form drive from one another. However, apart neither is complete. Sensation seeks its form and form seeks its content. When they are joined by the child's movements, they become the play drive, and the resulting experience is aesthetic. The activation of the play drive creates a new burst of energy, it takes on a life of its own, and the experience of the play drive can be described as joy. Because it is joy, it is also pedagogical. It teaches.

To me, Montessori seems to say her methods do this, or something like this. By the union of sensation and form through a designed sequence that corresponds to the child's developmental drives, the child experiences the joy of discovery. Thus the child discovers his own freedom, his own order, his own discipline, and his own liberty. They do not necessarily have an academic meaning, but they have a personal meaning which is reflected in the natural tendencies and dispositions of the maturing child.

We hope schools seeking our accreditation will find the means to express how they approach this in their philosophy of education. Clearly stated beliefs are vital to a complete accreditation protocol.

**The Moral Dimension**

Philosophers tend to divide moral propositions into two groups, normative ethics and metaethics. Normative ethics is a study of the rules developed within a culture on questions of right and wrong, good and bad. Often they are enshrined in our institutions, mainly those having to do with jurisprudence. In every culture, and especially one like ours, there are subgroups with their own ethical codes. Professional groups, other working groups, even underground groups have rules of conduct. Within every culture there are educational arrangements for these rules to be taught to those who must know them, there are systems of reward and punishment, and there are public exercises (holidays, parades, festivals, etc.) to renew the values essential if normative regulations are to be accepted and obeyed.

Most schools must deal with normative ethics. Parents and the public expect schools to help foster the patterns of conduct by which we live together in harmony and maximize the returns from social interaction. No one expects moral neutrality from an elementary or secondary school. These institutions are expected to support the moral codes that prevail.

The Montessori discourses reveal no aversion to normative ethics, but unlike many other forms of education, I find Montessori education more concerned with the second group of ethical propositions commonly referred to as metaethics. When the word meta appears as a prefix, it is understood to mean "beyond". These propositions relate to the ultimate source of good, and they transcend the regulations that emerge in all cultures.

In her discussions about the moral development of very young children, Montessori seems again to rely on nature. The natural drives are toward the good. The basic human disposition is toward the good. The human wants to enter
into harmonious relationships with all of the artifacts of environment, all things in nature including all other human beings. The intervention of rule defined morality (or normative ethics) may suppress the natural moral development of children and suppress the moral drives which nature builds into all humans.

We have no problems associating this view with long-standing philosophical beliefs. It is in accord with the pre-Socratic Ionians. St. Augustine speaks of the "inner teacher" (whom he called Christ), but the philosopher who gives this axiological tradition its most definitive expression is Immanuel Kant, a Scottish pietist who lived his life in Konigsberg on the Baltic. In his Critique of Practical Reason, Kant provides the most rigorous expression of this position known in philosophy as "The Categorical Imperative":

Act so the maxim of your will shall ever hold good as a principle of universal legislation.

In laymen's terms, the individual can always judge the good. He validates his judgment in that he can, in conscience, make his moral acts into laws that should guide all who are in similar circumstances.

Kant's proposition rests on the maxim that the only thing in man that can possibly be good is a good will. Montessori seems to feel that children come to this world through nature and, therefore, are endowed with a good will. As in other matters, she wants the child free to seek the various forms through which the good will is expressed.

It follows that if moral development moves along these lines, as the child matures there is a promise of a culture where fewer and fewer rules are needed and peace among humans becomes an overriding value.

The American transcendentalist, Thoreau, who was among the many who took Kant's moral propositions to heart and adopted them as theme for his literary efforts, indicated that a government that governs least governs best. Thoreau's dream is of a race made up of persons who are self-regulating. I find this dream implied by the arguments Maria Montessori offers in behalf of her methods of working with children.

Montessori's view on morality should be expanded upon by any Montessori school that seeks to be recognized as such. Certainly it is anticipated of Montessori schools seeking regional accreditation through The Middle States Association.

Cognitive Development and Other Support

Montessori educators are well aware of the support her methods have from Locke, Rousseau, Pestalozzi, Froebel, and Steiner. They also can take satisfaction from the more recent findings of Piaget. All of them in one way or another indicate that children have special powers, and argue that cognitive development during the interval of special sensitivity is not very well understood or appreciated by educators and parents. All of them are with her in asserting that we need to be more careful with children than we are, careful in the sense that they are special people and not just love objects or prize possessions to be shown off in exercises of parental vanity. They also join her in asserting
that children are not to be jammed into normative comparisons wherein cognitive gains are valued only by social and academic norms. Each child has its own nature and the teacher is a trained discoverer of that nature and a trained director (tress) who will direct the child through those experiences that will utilize the drives that exist within that nature.

The values of Montessori's approach to cognitive development are a key part of the written philosophy of any Montessori school.

Summary and Critique

The propositions I have brought from the literature of philosophy in support of the pedagogy of Maria Montessori are but a few waves over a profound depth. There is much more support available then can be presented within the plan of this paper. What I have attempted in the foregoing is to confirm that virtually everything she has had to say about education is consistent with widely respected propositions written by philosophers who reached their conclusions by traveling an entirely different route. Most Montessorians know this, but even in their knowing they can be pleased to have it reaffirmed by an independent confirmation such as offered here.

On the absorbent mind and the prepared environment, Montessori appears to be pretty much on her own. Other writers allude to the special powers of the child but do not characterize it in this way. Scientists and philosophers while accepting these concepts for what they are may be uncomfortable leaving them in this condition. The reason is simple; they describe what is going on but don't explain why.

Even after her exhaustive observations, Montessori seems to say it is a mystery, something that lies deep within secrets of nature yet to be revealed. As I said, she appears to be in awe of the child. It is impressive to find one who has spent as much time with children as she obviously did to be in awe of them. I am certainly impressed.

But we will want to know more, and that brings me to offer comment on her science. Her powers of observation and her tenacity are also impressive. However, modern critics would argue that her findings are not warrantable on the basis of the experiments she reports. Consider if she were a pharmacologist and her methods were a new drug which she would be presenting to the Food and Drug Administration for public use. If she would report to that authority that her product was validated by an extended series of case studies in which she was principal investigator, the best she could hope for is assignment to an independent agency for wider testing and independent confirmation.

In her discourses, Montessori occasionally slips into Freudian categories. This is understandable because in her prime the "subconscious" was a good way of referring to some of the things that go on within, but today that comes out as something of a liability only because of a growing body of opinion that Freud went much too far with much too little.
Nor does Montessori's science warrant claims to the discovery of natural principles. There is nothing in her assertions that have the inevitability of (say) the laws of inertia and gravity or the rules of chemical bonding or plant morphology. She has given us a number of tenable propositions that have been tested in practice and validated by satisfactory outcomes. This enables us to say she may have found for us a better way of doing what we want to do, but her findings do not justify claims of discovery of principle.

Indeed, those who contend that she established natural principles may be among those who consider her work as finished. They may see nothing more to do. They see no need for further investigations; and they see no need to introduce variations in her methods.

To those who hold this position I remind that even Newton's rules concerning gravity (which are still useful) have been revised by Einstein's relativity, and before he left us he prophesied that when his work becomes fully understood, it will be further revised.

There is never really an end to these things. We all stand on the shoulders of those who came before. Just as Montessori declares indebtedness to Itard and Seguin, so also are modern mathematicians working on quantum mechanics indebted to their remote ancestors in the caves of central Europe contemplating their fingers in a struggle to count from one to ten.

I predict that within the next two decades the world of education will fully discover its debt to Maria Montessori. She is no will-of-the-wisp with a packaged program suitable for the pursuit of federal grants. She is an imaginative and rigorous student of child development who produced a number of original ideas and had both the enterprise and pragmatic courage to put them to work.

Her gift to us is a new and higher platform on which to stand. The platform includes a much deeper appreciation and understanding of the child and a more profound commitment to early childhood education. The platform has three sides: research, teaching, and persuasion. Montessori did her research. As her findings began to develop, she applied them in teaching. As the results of her teaching became clear, she began persuasion. Had she been an investigator only, all we would have of her are footnotes. Had she been a teacher only, we would have no new insight. Had she been a persuader only, we would have nothing but eloquence. Without Montessori the investigator, Montessori the teacher, and Montessori the persuader, we would not have the platform. But we have it, and today I thank you for inviting me to share it.

The American Montessori Society is one of several dedicated to her legacy. Her portrait reveals her as a splendid example for all, and she deserves our best efforts.