Maria Montessori's Philosophy

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Following the Child

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Acknowledgments

CPP2 As I write these acknowledgments, my oldest child is graduating from high school, and these acknowledgments are a perfect place to thank him, for being born and for giving me the occasion to consider in a more intimate way what children can contribute to the study of philosophy. Indirectly, he also prompted me to read Montessori for the first time, as the two of us took long walks in the rain together, him dozing in my infant carrier and me thinking dreaming up a course (and a life of parenting) focused on how to both respect and cultivate the autonomy of a child, from birth through adulthood. It was for that purpose that I first started researching Montessori. Ultimately, this book is the fruit of those long walks in the rain carrying the son I'm now about to see off to college.

CPP3 This book is also the fruit of the boldness of several editors who were willing to take a chance on a monograph about a woman most people did not think of as a philosopher. After several editors with whom I had standing relationships declined the project, urging me to return to Kant, I reached out to Peter Momtchiloff at Oxford, who submitted the proposal to reviewers. At that time, more than ten years ago, he was not yet convinced that there would be a philosophical readership for the book, but one of the anonymous reviewers he solicited suggested that I "dig into the philosophical terrain that bringing Montessori into contemporary debates opens up." That led me down the path that ultimately brought this book into being, but first that path depended on yet another editor. Colleen Coalter at Bloomsbury Academic helped me write the books—first on epistemology and then on moral philosophy—that would bring Montessori into contemporary philosophical debates. These provided a springboard for the philosophical readership that finally made it reasonable for Oxford to take up the book you are now reading. Further thanks go to Henry Clarke, who took over this project after Peter's retirement from Oxford, and to my copy-editor Rachel Cooper, who helped me avoid some embarrassing mistakes.

CPP4 The philosophical world has changed in other ways that make this book timely. I thank all of those who have been involved in rethinking and expanding the philosophical canon over the past twenty years, including well-known figures like Lisa Shapiro of the Extending New Narratives project (newnarrativesinphilosophy.net) or Peter Adamson of The History of Philosophy Without Any Gaps (historyofphilosophy.net); behind-the-scenes editors like Michael Beaney at the *British Journal of the History of Philosophy*; and countless scholars doing hard and often unrewarded work on marginalized figures in philosophy. This book can be

published because we are living in an era of increased openness to excellent philosophy that has been ignored, openness that arose only with much labor.

CPP5 This book also depended upon various other kinds of support. My academic home for many years has been Whitman College, a place that provides students who continue to inspire me and resources to pursue research that interests me, all without forcing me into narrow intellectual boxes that might have prevented exploration of someone like Montessori.

CPP6 In 2021, a National Endowment for the Humanities for the Research Fellowship (FEL-273130-21) allowed me to take a furlough, during which I was able to make significant progress that contributed to this book.

CPP7 In the Spring semester of 2023, I had the privilege of teaching a seminar on Montessori's philosophy for the Montessori Studies doctoral students at the University of Wisconsin (River Falls). This seminar provided a context for presenting many of the claims in this book to an amazing group of experienced Montessori educators. Many thanks to Bridgette, Donna, K. T., India, Karen, Meghan, Naoko, Natalie, and Stephanie for invaluable feedback on the manuscript. Some of these names show up in footnotes throughout this book, but all helped make it better. Thanks to Kateri Carver, who directs the program, for inviting me to teach this class.

CPP8 Countless others have contributed to this book. The folks at Three Tree Montessori School in Burien, Washington, will always define for me what Montessori education looks like. Joke Verheul at the archives of the Association Montessori Internationale gave access to works I might otherwise have missed, for correcting various misstatements throughout the book, and for unending support for my work on Montessori over the years. Erica Moretti and Laura Di Paolo gave invaluable feedback on various stages of this manuscript, and Sylwia Wilczewska gave helpful comments on Chapter 8.

CPP9 Much of this book draws from ideas presented or published elsewhere. I thank publishers for permission to reuse material, and I thank editors, peer reviewers, and audiences who have engaged with and improved this material. Chapter 3 is based on an article initially published as "Maria Montessori's Metaphysics of Life" in the *European Journal of Philosophy* 26 (2018): 991–1011. Chapter 5 condenses an argument made in detail in *Intellectual Agency and Virtue Epistemology: A Montessori Perspective* (Bloomsbury Academic, 2020). Chapter 6 condenses an argument made in *Maria Montessori's Moral Philosophy* (Bloomsbury Academic, 2022), which was based on an article published in the *Journal of the American Philosophical Association* 7 (2021): 1–22. Material from Chapter 7 was initially presented at a Jubilee Center Conference at the University of Birmingham in July 2018; and material from Chapter 11 was presented at a Faculty Forum at Whitman College in October 2023 and at the annual conference of the American Montessori Society in Orlando in March 2024.

CPP10 I cannot close without thanking my parents, and my children. Without ever reading Montessori, my parents prepared an environment within which my siblings and I could develop in freedom. This book, like all my work, is the fruit of their parenting. As I indicated at the beginning of these acknowledgments, my journey into scholarship on Montessori was conjoined with my journey into parenting. While I cannot say that I have always given them either the environment they need or the freedom they deserve, my children—Zechariah, Phoebe, and Cyrus—have rewarded me with joy, love, generosity, and wisdom. They've also been amazingly patient with a dad who was sometimes a little too focused on his books.

Note on Case Studies Used in the Text

CPP12 Maria Montessori's philosophy was based on her observations of children and the observations reported to her by teachers with whom she worked. She avoided hypotheticals and thought experiments, instead grounding her views on the actual experiences of children in conditions of freedom. Within this book, I use some of Montessori's own case studies, but I have also made use of beautiful and moving narrative descriptions of the lives of infants, toddlers, and preschoolers provided to me by K. T. Korngold, Director of the Montessori Children's Center in West Harrison, New York. These stories of children in a Montessori environment helped me ground this book in real experiences revealed by real children, rather than merely texts by Montessori or my own a priori theorizing and imagined thought experiments. In that way, the book participates, albeit in a small way, in the sort of pedagogical naturalism that Montessori advocates as the best way of doing philosophy. These stories are shared with names altered to preserve privacy and with the permission of Korngold and the children's families. Korngold reserves copyright in all of the text ascribed to her.

C1

1

Introduction: Pedagogy, Psychology, Philosophy

C1P1 "The human mind is . . . philosophical."

C1P2 —Maria Montessori, *From Childhood to Adolescence* (12: 55)

C1P3 Maria Montessori is a philosopher worth taking seriously. As the rest of this chapter, and ultimately this book, will show, she developed an exploratory pedagogical naturalism that enriches the vague naturalisms that have become philosophical orthodoxy today, while also offering a distinctive solution to recent empirical criticisms of the narrow reliance on "intuitions" in contemporary philosophy.[1] In a context where philosophers are increasingly attentive to issues of marginalization and oppression, Montessori not only represents a marginalized perspective but also highlights the widespread soft oppression of children that is still ignored in much contemporary moral and political philosophy. She offers specific contributions to a range of contemporary philosophical problems and positions. Her broadly teleological account of nature addresses concerns about how consciousness and meaning can emerge in a material universe (see Chapters 3 and 4; cf. Flanagan 2007; Nagel 2012). Her treatment of cognition as essentially embodied grows from her metaphysics and has implications for her epistemology (and, later, moral philosophy; see Chapters 4–6). Her pragmatist-empiricist epistemology, grounded in her pedagogical naturalism, provides an important way of thinking about epistemology with particularly important implications for contemporary virtue epistemology (see Chapter 5). Her moral philosophy provides a compelling substantive theory that combines a broadly Nietzschean perfectionism with universal respect for others (as in Kant) and a post-individualist conception of social solidarity (Chapter 6). Throughout her moral philosophy, Montessori also develops a compelling account of sub-rational and pre-reflective agency that offers an important alternative to contemporary theories of agency. Her philosophy of art emphasizes how beauty, agency, and attentiveness to reality function together in an aesthetics that renews a focus on the art of everyday life (Chapter 7); and her philosophy of religion draws from her broader philosophy to elucidate the nature of religious experience (Chapter 8). Her politics provides a prescient anticipation

[1] Regarding naturalism, see Papineau 2007; regarding empirical critiques of intuitions, see Weinberg, Nichols, and Stich 2001; Appiah 2008; Knobe 2008.

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of contemporary struggles with technology and a bold prescription for a cosmopolitan politics that puts the child at the center of both political unity and technological progress (Chapters 10 and 11). In sum, as the editors of *Education and Peace* rightly note, "once a firm basis for her theories had been established through practical experience, [Montessori's] thoughts as an educator *and a philosopher* ranged further and unveiled new perspectives that seem broader and broader as time goes by" (10: vii, emphasis added).

C1P4 Montessori has been largely overlooked among academic philosophers. Recently, however, more and more philosophers recognize the need to attend to voices traditionally marginalized from the philosophical canon. Interest in early modern women philosophers and non-Western philosophy has blossomed. Within subfields such as virtue epistemology, there has been a broadening of philosophical perspective, a call to "admit that questions of most significance to epistemology in the askeptical periods have been neglected" (Zagzebski 2001: 236). Throughout various philosophical fields, there is increasing awareness that new perspectives, especially of those with marginalized identities, can enrich philosophical discourse. In some respects, Montessori fits the model of other marginalized voices in philosophy. She is a woman who did not hold an academic position in philosophy but who wrote extensively on philosophical themes, albeit often in genres that were not standard for academic philosophy (cf. Shapiro 2016). In other ways, defending Montessori's importance is more difficult than similar efforts on behalf of philosophers like Hannah Arendt, Margaret Cavendish, or Anton Amo. As an Italian, she was outside mainstream philosophical developments in Europe in her time. As an advocate for children and particularly for taking seriously children's perspectives in philosophical theorizing, she suffers both the marginalization typical for women and the even more profound marginalization of children's voices in philosophy (cf. Gopnik 2009: 3–6). Moreover, Montessori did not write in direct relation to widely accepted male members of the canon. Like Freud, she developed her philosophy primarily for advancing her views of how to transform humanity for the better. She set up her own training courses and promoted her philosophy among those to whom she taught her pedagogical method. Her published books engaged with philosophical movements of her day but were directed toward laying out her own philosophical vision. Whereas one can find Cavendish and Anne Conway directly relevant to canonical (male) philosophers like Descartes or Leibniz, there is no natural "hook" for highlighting Montessori's relevance to those primarily focused on the traditional canon.[2]

C1P5 At the same time, Montessori's relative isolation from the philosophical canon provides a valuable opportunity to study a marginalized figure's philosophy on its own terms. Precisely because she will not be studied simply for the sake of

[2] The closest would be James or Bergson.

better engaging with this or that male philosopher, she can further the process of taking women philosophers seriously in their own right. Like Freud, moreover, she brings methodologies and ideas that allow for new ways of thinking about what philosophy *is* and how it should be practiced. Moreover, because she takes children seriously, she provides a historical context for thinking about how we philosophers might responsibly integrate these and other marginalized voices into our discipline.

C1S1

1.1 Montessori's Story

C1P6 Montessori's first book was translated into English in 1912 and given the title *The Montessori Method* (Montessori [1909] 1912), a title eventually changed, in later English translations of later Italian editions, to *The Discovery of the Child*. The change in title reflects Montessori's own sense of the origin of her philosophical and pedagogical theories. Her original Italian title, *Il Metodo della Pedagogia Scientifica applicato all'educazione infantile nelle Case dei Bambini*, translates more literally as *The Method of Scientific Pedagogy Applied to Children's Education in the Children's House*, a title with no special reference to Montessori herself. Even in the Italian edition, Montessori eventually changed the name to *La Scoperta del Bambino* (*The Discovery of the Child*), a title that better reflects that she did "more"—and other—"than the creation of a new method of education" (2: ix). Over the course of her life, Montessori wrote countless books and articles with implications not only for education but for a full range of human problems. Throughout all of these writings, she foregrounds "the discovery of the child," both in that she sees her primary work as the explication of her own discovery that children have a different nature than heretofore described, and, equally importantly, in that she presents her work as the elucidation of a set of discoveries *of*—that is, by—children.

C1P7 Among the most important stories Montessori tells is one about her first encounter with the phenomenon that would come to define both her pedagogical method and her philosophical emphasis on agency and work as constitutive of human life. She describes the actions of a 3-year-old girl, not named by Montessori, who I will call Sofia:

C1P8

> I was making my first essays in applying the principles and part of the material I had used for many years previously in the education of deficient children, to the normal children of the San Lorenzo quarter in Rome, when I happened to notice a little girl of about three years old deeply absorbed in a set of solid insets, removing the wooden cylinders from their respective holes and replacing them. The expression on the child's face was one of such concentrated attention that it seemed to me an extraordinary manifestation; up to this time none of the

children had ever shown such fixity of interest in an object; and my belief in the characteristic instability of attention in young children, who flit incessantly from one thing to another, made me peculiarly alive to the phenomenon.

C1P9 I watched the child intently without disturbing her at first, and began to count how many times she repeated the exercise; then, seeing that she was continuing for a long time, I picked up the little armchair in which she was seated, and placed chair and child upon the table; the little creature hastily caught up her case of insets, laid it across the arms of her chair, and gathering the cylinders into her lap, set to work again. Then I called upon all the children to sing; they sang, but the little girl continued undisturbed, repeating her exercise even after the short song had come to an end. I counted forty-four repetitions; when at last she ceased, it was quite independently of any surrounding stimuli which might have distracted her, and she looked round with a satisfied air, almost as if awaking from a refreshing nap. (9: 51; see too 22: 106–107)

C1P10 As in many of Montessori's stories, this story exemplifies careful observation, surprise, further investigation, and philosophical insight. Montessori did not expect to find a child with such concentrated attention. Sofia caught her eye precisely as an "extraordinary manifestation" to which she was particularly "alive" because of how it conflicted with her antecedent belief. Montessori was attuned, however, to look for evidence of health, flourishing, and development in children, and she was struck by this manifestation in part because of the vibrant display of a new degree of agency in the life of the child. From this first "apparition" which "spr[a]ng forth and struck the mind," Montessori turned to a "second phase, the study of the conditions in which the new phenomenon shows itself" (22: 100–101). She developed teaching materials to allow for and sustain the sort of "concentrated attention" Sofia exhibited, and gradually this sort of active engagement "became common among the children . . . in connection with certain external conditions" (9: 52).

C1P11 Montessori did not begin her life by studying the lives of children.[3] She was born in 1870, to an upper-middle-class family in Chiaravalle in Northern Italy. At the time, the natural career for a woman of her position would have been teaching, but Montessori reportedly told her parents that she would be "anything but a teacher" (Standing 1984: 23) and instead enrolled in the Regio Istituto Tecnico Leonardo da Vinci, where she studied math and engineering. Against continued protests from her family and some difficulty with the school's administrators, she enrolled in the University of Rome as a medical student

[3] Four different but excellent biographies of her life: Kramer 1976; Standing 1984; Foschi 2012; De Stefano [2020] 2022. The *Association Montessori Internationale* has a biographical timeline at https://montessori-ami.org/resource-library/facts/timeline-maria-montessoris-life (accessed October 10, 2023).

(after a brief detour because she did not have the requisite knowledge of Greek and Latin to begin medical school directly). On graduation, as she became one of the first women doctors in Italy, she began work at a hospital connected with the university, started a surgical residency, and began to be more prominent in public life, representing Italy at the Internazionaler Kongres für Frauenwerke und Frauenbestrebungen, a major women's rights conference in Berlin. In 1899, she was appointed to a faculty position at the University of Rome, teaching "Pedagogical Anthropology," and in 1900, she became codirector of a new "Orthophrenic School," where she conducted research in psychiatry alongside Giuseppe Montesano (her lover and the father of her child). There, her medical training took a turn toward pedagogy, as she came to see the challenges faced by children in the Orthophrenic School as "more . . . educational than medical" (2: 21). At the same time, her involvement in progressive political movements and feminist causes led her to speak out against poor conditions for Italian children more generally.

C1P12 In 1907, Montessori was approached by a set of progressive philanthropists and real estate developers who were renovating working-class housing tenements and proposed that each housing complex include a so-called "Casa dei Bambini," a "Children's House" that would provide education and childcare for children of working parents living in the apartments. Montessori was offered—and accepted—a position as director of the Children's House in San Lorenzo. It was that "Casa" that provided the model classroom to which, as she put it in the title of her first book, "scientific pedagogy" was "applied." It was in that classroom that Montessori saw Sofia's prolonged attention to her work.

C1P13 Montessori's experiences with children, and the insights she drew from those experiences, did not end in San Lorenzo. Over several decades, she created and oversaw classrooms, educational materials, and the training of teachers in pedagogical methods. Over that same period, she refined these classrooms, materials, and methods based on observations—by herself and teachers she had trained—of how children responded to being given freedom in conditions conducive to its exercise. By 1910, she retired from private medical practice, and by 1916, left her teaching position at the University of Rome, in order to devote herself entirely to developing and teaching her pedagogical philosophy. After her first International Training Course in 1913, which was attended by teachers from every continent except Antarctica, she began offering such courses in many countries and took the first of multiple trips to the United States. In 1916, she moved to Barcelona, where she established a Montessori school and training center. Barcelona "remain[ed] her home until the coup in 1936 that brings Franco to power."[4] Shortly after Mussolini assumed power in Italy, Montessori's son Mario reached out to him,

[4] https://montessori-ami.org/resource-library/facts/timeline-maria-montessoris-life.

asking "How is it possible that the Montessori method is so well known abroad and rejected in Italy?," and, after some investigation, Mussolini established the Opera Nationale Montessori, ostensibly to spread the Montessori method throughout Italy through "specific courses and schools under the direct control of Maria Montessori" (Foschi and Cicciola 2019: 135). Montessori worked with the fascist regime in Italy in order to spread her method, but by 1933 she finally came to see the situation as "intolerable" (Foschi and Cicciola 2019: 138). Even while being under constant surveillance by fascists, Montessori actively worked on broader international efforts, including international training courses in multiple countries, peace advocacy, and the establishment of the Association Montessori Internationale (AMI), first headquartered in Berlin. In 1936, she left Barcelona for London and then Amsterdam, which had become AMI headquarters when Hitler rose to power in Germany. In 1939, she went to India to teach a three-month training course, but when the British government began putting Italian nationals (including Montessori's son) into internment camps during the Second World War, Montessori "was at first confined to the compound of the Theosophical Society, and then allowed to leave Aydar to spend summer months in . . . Kodaikanal" (Kramer 1976: 344; see too Giovetti 2009). She finally returned to Europe at the end of the war in 1945, offering training programs in London and Italy, and then again in India, Sri Lanka, and Pakistan. By the time of her death in 1952, she had offered scores of lecture tours and international training courses and had lived for extended periods of time in Italy, Spain, India, and the Netherlands.

C1P14

One episode from near the end of her life illustrates Montessori's ongoing attention to children and what she could learn from them. In 1942, at the age of 72, while living in Kodaikanal, in Tamil Nadu in India, she established a small school for children in the area, at first for preschool children and then—as parents saw her success with them—for older children. She was not able to teach the children herself, but she worked closely with a local teacher she had trained, Lena Wikramaratne, who, "every night . . . would go to Dr. Montessori and tell her what happened that day with the children" (Kahn and Wikramaratne 2013: 87). Even under what was a sort of house arrest, Montessori is reported as saying that she "wanted to try things out. I've got to work with children to see this actually happening. I want to see the spontaneous activity. I wanted to see it happening" (Kahn and Wikramaratne 2013: 86). Over the course of two years, Montessori—together with Wikramaratne and Montessori's son Mario—refined her elementary materials through attention to how they were received by children (see Kahn and Wikramaratne 2013: 86–88). The observations of Sofia by the young doctor Montessori were only the beginning of a life of careful attention and observation of children "not only in almost every nation that shares our Western heritage, but also among many other widely divergent ethnic groups: American Indians, Africans, Siamese, Javanese, [and] Laplanders" (10: 15).

C1S2

1.2 Montessori the Philosopher

C1P15 The short biography I laid out in Section 1.1 left out an important episode in Montessori's life. When she left her academic position at the University of Rome to devote herself to the promotion of her pedagogy, she saw herself as a philosopher and recognized the importance of philosophy for her transformative project. In 1903, she petitioned to be admitted to the University of Rome as a student of philosophy, starting as a third-year graduate student despite not having the classical diploma that was technically a prerequisite for admission (De Stefano [2020] 2022: 73; see too Matellicani 2007: 86–95). As she explained, "wishing to undertake the study of normal[5] pedagogy and of the principles upon which it is based, I registered as a student of philosophy at the University" (Montessori [1909] 1912: 33, 2: 23). At the University of Rome, Montessori continued to work on empirical disciplines like anthropology and psychology, but she also dove into the history of philosophy and traditional philosophical courses like moral philosophy. As I argue throughout this book, the turn to philosophy at the turning point of her career marked the beginning of an approach to philosophy that takes pedagogy not only as a proper subject of philosophical interest but as a method by which to think about other philosophical problems.

C1P16 While a student of philosophy, Montessori worked with philosophers such as Giacomo Barzelloti (for history of philosophy); Pietro Ragnisco (moral philosophy); Luigi Credaro (pedagogy); and one of the most important Italian philosophers of the early twentieth century, the Hegelian Antonio Labriola (see Babini et al. 2000: 59; Matellicani 2007; Trabalzini 2011: 39).[6] As a trained and practicing scientist, Montessori often found herself between the armchair speculations of her young classmates and her own desire to develop a philosophy that would be both analytically and empirically grounded. While studying philosophy as a student, she also taught a course in pedagogical anthropology, in which she "demonstrated her scientific competence by referring philosophy students to advanced scientific research that seemed to open up new biological and thereby pedagogical perspectives" (Babini and Lama 2000: 132). Sheila Radice, who discussed this period in her life with Montessori, reported that

C1P17

> In those days, she has told me, she saw the "two camps" very plainly—the professors of the humanities sneering at science; and the scientists laughing at the philosophers, and she thought to herself that some day the teacher would come who would unite these two opposed interpretations of life into one. (Radice 1920: 3)

[5] The term "normal" here distinguishes this pedagogy from the medicalized approach to children she had engaged in as codirector of the Orthophrenic School.

[6] I give more details on these early influences in Chapter 2.

C1P18 The notion of a teacher that would unite philosophy and science was Montessori's ultimate vision of how best both to teach and to philosophize (see Section 1.5). In order to make that vision a reality, she needed the philosophical background that would enable her to enrich her emerging insights about pedagogy and psychology with philosophical depth and rigor.

C1P19 This philosophical foundation bore fruit as Montessori continued her development as teacher-scientist-philosopher. In the *Secret of Childhood* (written in 1936), Montessori explains the range of implications she takes her work with children to have:

C1P20 > Today it is impossible to go deeply into any branch of . . . philosophy . . . without taking account of the contribution brought by knowledge of child life . . . [T]he study of the child . . . may have an infinitely wider influence, extending to all human questions. In the mind of the child we may perhaps find . . . an unknown quantity, the discovery of which might enable the adult to solve his individual and social problems. (22: 1)

C1P21 Throughout her later years, Montessori regularly rejected the notion that she was merely developing a method of education. In an interview shortly after she arrived in India, she said, "This is not a pedagogical method, but a method of life and culture" (see Giovetti 2009: 99). She described her work with children as having expansive scope: "Through the study of children, I have investigated human nature at its origin, both in the East and in the West, and although I have been carrying out this work for forty years, childhood still seems to me an inexhaustible source of revelations" (quoted in Giovetti 2009: 115, 127). Montessori saw herself as a humanist in the broadest sense, someone who could draw from the study of children to illuminate all of the important questions of human life.

C1P22 Some have suggested that Montessori's philosophical interest came only late in her life (e.g. 10: vii; De Stefano [2020] 2022: 285), but her turn to philosophy took place at least as early as when she first shifted from medicine to pedagogy. Her first book describes the teachers she wants to train as those who go beyond "mere 'mechanical skill'" and want to reach "philosophic syntheses of pure thought" based on revelations from the child (1912: 9). When Montessori observed Sofia's work with cylinder blocks, she not only saw the value of a particular educational material, and she did not merely develop a rubric for measuring the length of attention in early childhood. She also began a process of observation and reflection that would lead her to see how Sofia's activity manifests forms of epistemic agency and character that would prove fundamental for Montessori's epistemology and moral theory.[7]

[7] While Montessori's interest in philosophy was present throughout her life, the specific nature of that interest shifted throughout her life and her works. A historical study of Montessori philosophy,

C1P23 Unsurprisingly, Montessori made a point, already in 1913, of meeting with Henri Bergson during a brief trip to Paris (see Giovetti 2009: 73), and she later explicitly related her ideas to his (see 1: 75, 6: 12; cf. Hunt 1912). Her 1913 London lectures reference many philosophers, including well-known figures like Aquinas (18: 226), Rousseau (18: 74, 174), and especially William James (18: 92, 183–189), and also lesser-known figures such as G. F. Herbart, an early neo-Kantian and proponent of empirical psychology and scientific pedagogy (18: 10), and Roberto Ardigò, arguably the founder of Italian positivism (18: 153–155). In those lectures, moreover, she insists, as she will throughout her life, that "I did not wish to originate a method of education"; instead she records a "history of liberty," a set of observations about human nature and human potential rooted in careful attention to children's development in conditions of freedom. She concludes the opening lecture of her 1913 London course by referring to her work as making the way for a "Science of Humanity."

C1P24 > Whoever is with [the free children] feels that really all this happens as a natural fact of life. We . . . have a vision of a better humanity . . . and then we perceive that, if the Science of Humanity comes into being, this army of children will not only carry humanity forward on the road of progress as we today believe they will . . . ; humanity, besides advancing [in expected ways], will moreover begin to climb higher, raising itself above these limits within which we with suffering are seeking to go forward . . . These children will have grasped the banner of freedom, which is the banner of peace, and which is power and the promise of the future. (18: 14)

C1P25 These words are an inspiring start to a series of lectures and practical trainings in educating children in conditions of freedom. For the purpose of this book, however, they also mark a clear and early statement of Montessori's awareness of the philosophical importance of her work. She does not offer merely a method of education, but a way of allowing children to teach adults what ideals humans should aspire toward and what potentials humans have. Hers is not primarily a philosophy of education, but a defense of a new way of doing philosophy, at once scientific and spiritual, through attending to the lives and insights of developing children. This book presents that philosophy, a philosophy born from Montessori's careful observations of children's spontaneous activity in environments that she shaped in order to provide for free activity while meeting the developmental needs that children manifested through that activity.

tracing changes in her philosophical views over time, would reward study. For excellent historically attuned investigations of particular texts or topics, see, for example, Trabalzini 2003 and Moretti 2022. For the purposes of this book, however, I use Montessori's corpus as a whole to elucidate an overall Montessorian philosophical approach.

C1S3

1.3 Positivism, Naturalism, and Following the Child

C1P26

Montessori began her career as a physician with specialization in mental illness and what we might today call developmental psychology, and even when she developed in philosophical directions, she remained committed to the importance of grounding philosophical claims in scientific investigation of actual conditions of human life. In one of her earliest works, Montessori approvingly describes her mentor Sergi as one who "substitute[d] . . . the human individual taken from actual life, in place of . . . abstract philosophical ideas" (Montessori [1910] 1913: 10). Describing her own work later, she explains that "The contribution I have made . . . tends . . . to specify by means of revelations *due to experiment*, the form of liberty in internal development" (9: 53, emphasis shifted). For Montessori, empirical study *of children* is particularly important for philosophy: "it is impossible to study any branch of . . . philosophy . . . without taking into account the contributions gained from the study of child life" (22: 7). In describing the general importance of scientific inquiry, she highlights that while "other men of science . . . always remain extraneous to the object of their study . . . the object of the schoolmaster is man himself; the psychical manifestations of children evoke something more than *interest in the phenomenon*; he obtains from them the revelation of himself" (9: 102–103; see too 15: 69–73). Serious observation and psychological investigation of the developing life of the child provides philosophical insight into the human condition.

C1P27

Given her emphasis on scientific study as constitutive of philosophical reflection, Montessori is frequently described as a "positivist" (Fresco 2018: 143–147). "Positivism" was a dominant philosophical view in Italy while she was studying there, and it exercised a profound influence on her thought throughout her life. This positivism is not the strict logical positivism of the Vienna school (cf. Passmore 1967; Friedman 1999), but it went beyond vague "naturalism" understood merely as the claim "that science is a possible route . . . to important truths about the 'human spirit'" (Papineau 2020: 1). Roberto Ardigò, who Montessori described as a "great philosopher" (Montessori 18: 153) and who was one of the founders of Italian positivism, described well the positivism within which Montessori was steeped:

C1P28

> First of all the positivist is precisely a philosopher who wants to be independent of any metaphysical system built *a priori* . . . He says to himself, I will only know where the truth is when I discover it through the infallible method of observation and analysis. (Ardigò 1882: 44, quoted in Fresco 2018: 143–144).

C1P29

Positivists saw empirical science as an alternative to a priori theorizing. In a variety of philosophical fields, particularly those relating to the human condition, positivists sought to develop philosophical positions through and in the light of scientific observation.

C1P30 Montessori embraced this positivist-naturalist philosophical approach. The title of her first book describes it as a method of "Scientific Pedagogy," and the introduction to that book explains that she will offer a start toward establishing "a science which, by the aid of the positive and experimental sciences that have renewed the thought of the nineteenth century, must emerge from the mist and clouds that have surrounded it" (Montessori [1909] 1912: 2). In her next book, *Pedagogical Anthropology*, she purports to offer "a method that systematizes the positive study of the pupil for pedagogic purposes and with a view to establishing philosophic principles of education" (Montessori [1910] 1913: vii). An important letter from 1917, in which Montessori tries to convince Catholic authorities that the positivist tone of her writings does not imply anti-Catholic teachings, shows how deeply she has absorbed the general positive atmosphere of her education:

C1P31 > If some word, some expression may make one believe the contrary, it is a personal error of mine, an error of exposition owing to the scientific language in which I was educated and trained. (I studied in the most acute era of materialism; my mind was shaped by the doctrines of Darwin. I studied physiology with the famous materialist Moleschott.) That scientific language is like my mother tongue, and some involuntary accents of it are still with me. (From a letter to Padre Pietro Tacchi Venturi, September 23, 1917, in Montessori 2018: 42; translation from De Stefano [2020] 2022: 222)[8]

C1P32 Montessori turned to philosophy after a long education in engineering, science, medicine, and emerging sciences of psychology and anthropology. She embraced and internalized a positivist naturalism that saw observation and scientific investigation as necessary for fruitful philosophical reflection, and she took that perspective into her philosophical method.

C1P33 Montessori is not alone in suggesting that philosophers turn to science, and to psychology in particular, as a necessary part of doing serious philosophical work. Even beyond her Italian contemporaries, the general turn to psychology as an important source for philosophy has become mainstream in philosophy. Shortly after Montessori's death, another important twentieth-century philosopher, Elizabeth Anscombe, published "Modern Moral Philosophy," in which she argued that "it is not profitable for us at present to do moral philosophy; that should be laid aside . . . until we have an adequate philosophy of psychology" (Anscombe 1958: 1). Just a few years later, W. V. O. Quine's "Two Dogmas of Empiricism" argued that "ontological questions . . . are on a par with questions of natural science," a claim he developed further in "Epistemology Naturalized," where he made explicit that "epistemology . . . simply falls into place as a chapter of psychology and hence of natural science. It studies a natural phenomenon, viz., a physical human subject"

[8] Regarding Montessori's Catholicism, see Chapters 2 and 8.

(Quine 1951: 43, 1969: 82). Today, the notion that philosophy may be merely a subset of natural science, or that at least it must closely attend to empirical sciences, is often called "naturalism," and "the great majority of contemporary philosophers would happily accept" at least some form of naturalism (Papineau 2020: 1).

C1P34 This philosophical shift toward empirical psychology as a primary route to philosophical truth marks a departure from one major trend in philosophy from at least René Descartes through the eighteenth century. On Descartes's view, all empirical sciences are open to doubt until their philosophical foundation is secure. Thus, Descartes's most well-known text is entitled *Meditations on First Philosophy*, and its meditations consist of a priori philosophical theorizing, not empirical research. In the preface to his later *Principles of Philosophy*, Descartes uses a metaphor of a tree to explain the relationship between philosophy and other forms of knowledge:

C1P35 > The whole of philosophy is like a tree. The roots are metaphysics, the trunk is physics, and the branches emerging from the trunk are all the other sciences, which may be reduced to three principal ones, namely medicine, mechanics, and morals. (IVB: 14–15/1: 186)

C1P36 On this account, philosophy is a distinctive way of investigating the world, which precedes and grounds more specific sciences. We might—and Descartes's successors did—distinguish between a "rational psychology" that would be part of philosophy and would establish such things as the existence and nature of the soul, and an "empirical psychology" that would investigate mental life as an object in the world, such as through studies of the brain or human behavior. The sort of empirical psychology that Montessori, Anscombe, and Quine endorse as prior to philosophical investigation would, on Descartes's view, deal only with fruit of a tree already rooted in philosophy as an autonomous discipline. For Descartes, we do philosophy independent of particular sciences in order to establish the proper framework for carrying out those sciences, and then we conduct science within that philosophically justified framework.

C1P37 Anscombe, Quine, and Montessori all reject this Cartesian model of the relationship between philosophy and empirical psychology. For all three, there can be no philosophizing prior to careful consideration of empirical features of human psychology. This science-informed, "naturalist" approach to philosophy is widespread today. Within moral philosophy, for example, naturalist approaches would include efforts like that of John Doris to use situationist studies in social psychology to critique virtue ethics and thereby show how "doing better in psychology can help people do better in ethics" (Doris 2002: ix), but they would also include efforts like that of Philippa Foot to do ethics by engaging in "evaluations of human will and action" that "share a conceptual structure with evaluations of characteristics . . . of other living things" (Foot 2001: 1). Major strands of epistemology follow

Quine's example of turning to science for insight into human knowing, and naturalism pervades philosophy of mind.

C1P38 Within contemporary philosophy, we might distinguish among naturalist approaches along at least two axes. First, we might distinguish those who see empirical findings as foundational for philosophical inquiry (such as Foot) from those who merely take them to function as constraints or influences on philosophical claims (such as Doris). Second, we can distinguish between naturalists in terms of the degree to which they defer to others for empirical research. On the one side, there are what I will call "deferential" naturalists (e.g. Doris or Quine), who accept widespread current scientific theories and seek to conform philosophical theories to those theories. On the other side, there are those I will call "experimental" or "exploratory" naturalists; these philosophically inclined psychologists and experiment-inclined philosophers conduct original empirical research in order to solve philosophical problems. Joshua Greene, for example, has developed neurological studies of people thinking through trolley problems, and researchers like Knobe, Nichols, and Appiah have conducted studies in "experimental philosophy" that show how so-called philosophical intuitions vary based on background and circumstances.[9] Experimental philosophers not only advocate the naturalist position that empirical science has an important role in philosophical research; they do philosophical research in part *by* doing empirical research.

C1P39 Like present-day philosophical naturalists, Montessori is deeply committed to experimental method in—or even as—philosophy. Alongside other experimental naturalists, she conducts original research of her own in order to solve the philosophical problems that arise for her. To an even greater extent than most experimental naturalists today, however, she is non-deferential to the extant empirical psychology of her day. Montessori had a wide range of reasons for doing philosophy through empirical research, including her empiricism; her conception of ethical respect as requiring openness to learning from others' lived experiences; her investment in feminist, socialist, and pro-child liberatory projects that required overturning established orthodoxies which limited particular groups of people; and even metaphysical views that emphasize an open-ended teleological orientation intrinsic to life. Her lack of deference arises partly for historical and biographical reasons. When Montessori began her career, psychology did not exist as a discipline distinct from philosophy or medicine. Wilhelm Wundt, often described as the "father of empirical psychology," who opened his first laboratory in "psychology" in 1879, received his doctorate in medicine and opened his laboratory as a professor of philosophy (Boring [1942] 1950: 317; Ben-David and Collins 1966: 462; Kim 2022). William James, too, began his career at Harvard as a professor of vertebrate anatomy but established the program in psychology and

[9] One study, for instance, showed that intuitions about the classic Gettier problem in epistemology differ considerably among people from different groups (Weinberg, Nichols, and Stich 2001).

wrote his *Principles of Psychology* while officially a member of the department of philosophy. During the 1890s and early 1900s, Montessori conducted original research in psychology under the rubrics of medicine, psychiatry, "orthophrenics," and philosophy; and alongside thinkers like Binet and Montesano, she was on the ground floor of establishing psychology as a discipline (see Cimino and Foschi 2012). When Montessori was getting her start as a philosopher, there was simply not much empirical psychology to be deferential to. Moreover, having moved into philosophy *from* the natural sciences, she was—like, say, Joshua Greene today (e.g. Greene 2014)—an established experimentalist before she was a philosopher, and she continued to practice philosophy *as* an experimentalist. For all of these reasons, Montessori sought to develop an experimental-naturalist philosophical methodology, albeit one that would differ from the scientific practice of many of her contemporaries.[10]

C1S4

1.4 The Promise and Perils of Experimental Psychology

C1P40

Montessori was a naturalist who saw empirical human science as necessary for philosophical investigation of the human condition, but she was also critical of the empirical psychology of her day and sought a new approach to human sciences that could better support genuine philosophical insights.[11] Among her earliest publications are critiques of Lombroso's anthropology (e.g. Montessori 1903); and in lectures in 1913, she emphasized that "I am not convinced of the value of psychological examinations taught by the modern dictates" (18: 44; cf. Bobbio 2021). In her first published book ([1909] 1912), she "started with a view in which Wundt concurs; namely, that child psychology does not exist" (Montessori [1909] 1912: 72), and the revised edition of this work in 1948 retains this passage and adds that "others had more or less confused child studies with education" (2: 41; cf. Trabalzini 2000). In *The Secret of Childhood* (1936), she insisted that "child psychology is . . . something that must be *radically revised*," partly because "[t]he child has a psychic [that is, psychological] life of which the delicate manifestations pass unperceived . . . [so only] the outward aspect he thus presents has been considered in the study of child psychology" (22: 91). The physiological anthropology and psychological behaviorism dominant in the first part of the twentieth century were important foci of her critiques. In addition, while noting the confluence of her

[10] Even while developing her own naturalist philosophical methodology, Montessori differed from many present-day naturalists (and many positivists of her own day) with respect to certain metaphysical commitments often associated with naturalism. In particular, contemporary philosophical naturalists, but not Montessori, often combine methodological commitments to the use of natural science in philosophy with a "reject[ion] of supernatural entities" (Papinaeu 2020: 1). On Montessori's philosophy of religion, see Chapter 8.

[11] This section draws heavily from Frierson 2015a.

interest in inner life with Freud's psychoanalysis, she is equally critical of Freud, whose "theories have proved inadequate" (22: 4–5; cf. Foschi 2012: 129). For Montessori, the child "must be observed rather than analysed, but observed from a psychic standpoint . . . [T]his approach will lead us away from psycho-analytic theories and technique into a new field of observation of the child in his social existence" (22: 6). Even the philosophers and scientists who most influenced her—James, De Sanctis, and Sergi—were subject to specific and pointed critiques.[12]

C1P41 Montessori's own scientific credentials, the relative infancy of experimental psychology, and her feminist resistance to the widespread use of science to justify patriarchy were among the reasons she preferred original research over deference to established findings within empirical psychology. In addition, however, four related philosophical objections to widespread approaches to experimental human sciences recur throughout Montessori's writings, all of which are relevant not only to the late nineteenth and early twentieth centuries, but also to many forms of psychology on which philosophers rely today. She faults most experimental psychology for being too disengaged from practice, too focused on instantaneous characteristics rather than development, and too adherent to scientific models from physics and chemistry. These three criticisms are subsidiary to a fundamental objection, that environmentally induced dysfunction is treated as a "normal" condition.[13] The failure to recognize what really constitutes normalcy, particularly in children, is both the effect and the reinforcing cause of a failure on the part of scientists to be properly observant, so Montessori's critiques of experimental psychology give rise to a new ideal of the teacher-scientist who can create the conditions for children to express their normal tendencies, can properly observe these tendencies as they emerge, and can appreciate and articulate the philosophical significance of those tendencies.

C1P42 Montessori's first criticism of much empirical psychology is that too many psychologists are too disengaged from what they study. She resists oft-touted scientific concepts of "objectivity" that take it to preclude interest and passion.[14] She specifically objects to the tendency among psychologists of her day—and ours—to conduct research merely to learn this or that new fact or to validate this or that theory. Insisting that "the *soul of the scientist* is entirely possessed by a passionate interest in what he sees" (9: 99; see too 18: 185, 9: 172; compare James 1890: 402), Montessori proposes a sense of objectivity intrinsically tied to practice:

C1P43

> They called the study of children "scientific education," even though the school itself remained unaffected by such studies. The new type of education, which

[12] See 9: 116–117 regarding James; Montessori [1909] 1912: 173 and 9: 83–84 regarding De Sanctis, Binet, and Simon; and Montessori 1899 and 1903 regarding Sergi.

[13] For similar critiques throughout late nineteenth- and twentieth-century Italy, especially those of Basaglia toward mental asylums, see Babini 2009, 2013.

[14] Cf. Kuhn 1977, Lauden 1984; Longino 1990; and Daston and Galison 2007.

> I hoped to introduce, was, on the contrary, based on objective research which, it was hoped, would "transform the school" and act immediately upon the pupils, inspiring them with new life. As long as "science" limited itself to the attaining of further knowledge about children, without attempting to rescue them from the many evils which this same science had discovered in the schools . . . no real claim could be made for any such thing as "scientific education" (2: 41)

C1P44 Experimental psychologists, she complains, "have usually sought to get from their experiments some contribution to psychology, or anthropology, rather than to attempt to organize their work and their results toward the formation of the long-sought Scientific Pedagogy" (Montessori [1909] 1912: 4, 2: 3; see too 18: 7). One dimension of this criticism is ethical; Montessori's commitments to progressive liberal ideals (see especially Foschi 2012) and her conception of "social medicine . . . as an instrument for revolutionary change" (Babini 2000: 61–62) fuel her ethical critiques of the practice of psychology. An equally important dimension is properly epistemic; empirical psychologists who lack genuine interest will fail to see new phenomena and fail to see old phenomena in new (more accurate) ways. Like "the physician," so too the scientist "should love not only the science, but the creature before him" (see De Giorgi 2013: 11).

C1P45 Partly related to the lack of sustained interest in the children that they study, Montessori identifies a second problem with much developmental psychology of her day, namely a tendency to base theories of human potentials on isolated snapshots of psychological characteristics at particular moments:

C1P46 > The study of the child cannot be accomplished by an "instantaneous" process; his characteristics can only be illustrated cinematographically . . . [T]he psychologist of today behaves somewhat like the child who catches a butterfly in flight, observes it for a second and then lets it fly away again . . . (9: 83, 96; see too 2: 8–9)

C1P47 Without some sense of background conditions and changes over time, one cannot appropriately theorize about the nature and causes of phenomena one observes. Particularly for young children, "We cannot choose a random moment in life to give us a perfect understanding of the child's personality" because "[t]he life of the child is nothing but rapid transformation and it is precisely this that is important" (18: 62). Montessori's critique of the "arbitrary and superficial tests such as those [I.Q. tests] of Binet and Simon" illustrates this concern:

C1P48 > A series of formulæ, such as the Binet-Simon tests, can neither measure anything, nor give even an approximate idea of intellectual levels of intelligence according to age; as to the children who respond, whence is their response derived? How far is this due to the intrinsic activity of the individual, and how far to the action of

> environment? And if the portion due to environment be ignored, who can determine what intrinsic psychical value should be given to the response? (9: 83)

C1P49 On similar grounds, she critiques her former mentor, Sante De Sanctis, whose intelligence tests have been aptly described as "photographing a difference in the level of mental capacity" (Cicciola et al. 2014: 229):

C1P50

> [I]n the mental *tests* which are used in France, or in a series of tests which De Sanctis has established for the *diagnosis* of the intellectual status . . . the factor of *culture* is forgotten, and by this I mean *sensory culture*. (Montessori [1909] 1912: 173–174)

C1P51 By basing judgments on experiments that are isolated from (or precede) attempts at pedagogical intervention, psychologists fail to capture the most important facts about children's mental capacities. Insofar as empirical psychologists focus on isolated experiments, often in laboratory conditions, of randomly selected subjects, they are unable to answer the most important questions about how to explain the data they collect (cf. Frierson 2021c).

C1P52 The tendency to take isolated snapshots of human beings is related to a third criticism, namely that "experimental psychology" tends to "adopt . . . more or less the standard of laboratories of *physics*" (9: 95; see too 18: 7). Just as physicists and chemists embark on controlled experiments in the laboratory, so too psychologists treat human subjects as so many physical or chemical systems ready to be subjected to controlled study. Cimino and Foschi rightly note how "the conquests of [physical] science and technology favored the expansion of positivist thought . . . empirical and experimental method [would] be applied not only to nature but also to human beings," such that "philosophers and scientists with a positivist orientation asked themselves whether and in what way it would be possible to study mental phenomena with the experimental and quantitative methods typical of the natural sciences" (Cimino and Foschi 2012: 310, 319). While physics and chemistry deal with entities whose causal laws are general, fixed, and universal, psychology deals with *living* beings that must be studied as individuals. In an important early essay, Montessori argues against "the Lombrosian theory," which posited that "intelligence, the moral sense, the psyche, and all that makes us human individuals can be reduced to external forms," insisting instead that we must "study the individual to distinguish. . . and adopt educational methods appropriate to each" (Montessori 1903: 329; see Foschi 2012: 34). More generally,

C1P53

> In gathering the separate data, it may be said that we have learned how to *spell*, but not yet how to read and interpret the sense. The reading must be accomplished with broad, sweeping glances, and must enable us to penetrate in thought into the

> very synthesis of life. And it is the simple truth that *life* manifests itself through the living individual, and in no other way. (Montessori [1910] 1913: 27)

C1P54 One key symptom of the problem with psychology modeled on physics is a definition of key psychological concepts in terms of simple measurements disconnected from the phenomena that really matter. Montessori details, for instance, how experimental psychologists develop clever tests of "attention" that fail to provide insight into *true* attention:[15]

C1P55

> the teacher gives the child a page to read [and] is armed with a chronometer which marks the hundredth part of a second [and] . . . say[s] to the child " . . . mark out all the A's which you find" . . . and she marks the time . . . and counts how many mistakes the child has made . . . The means of research are very exact but the thing being studied escapes the measurements and you can easily understand that while the child is crossing out the A's, he is neither able to develop his attention nor is he learning. (15: 140)

C1P56 Scientists develop very precise means for collecting data that are irrelevant for philosophically significant issues such as the nature of human flourishing, and the collection of the data itself inhibits rather than fosters human development.

C1P57 These critiques—of insufficiently passionate interest, narrow time-horizons of study, and overly mechanistic attitudes toward psychology—are all subsidiary to Montessori's fundamental objection to the experimental psychology of her day, namely, that it fails to see humans' potential when that potential is not being adequately realized. Experimental psychology as generally practiced ends up being a study of children only in abnormal, deviant forms that permeate modern societies due to poor conditions in which children are placed, rather than discovery of what they can and should be. As Valera Babini has aptly put it,

C1P58

> Because of her professional experience . . . Maria Montessori understood . . . that the physical limitation of personal freedom . . . is destined to produce . . . mental constraints that stifle the free development of the personality. (Babini 2013: 18)

C1P59 Montessori compares experimental psychology's study of children who are "repressed in the spontaneous expression of their personality till they are almost like dead beings" to an attempt to discern the nature of butterflies by their behavior when "mounted by means of pins, their outspread wings motionless" (Montessori [1909] 1912: 14, 2: 8–9). That is,

[15] Here Montessori critiques not only Lombroso but also some of her own early work, when she was most under the influence of mentors like Sergi, DeSanctis, and Montesano (see Chapter 2, Section 2.3).

C1P60 Child psychology could not of itself have discovered the natural characteristics and the consequent psychological laws that govern a child's development because of the abnormal conditions existing in the schools. These made the students adopt an attitude of weariness or self-defense instead of enabling them to give expression to the creative energies that naturally belonged to them. (2: 41)

C1P61 Any experimental psychology that studies children whose potential has been thwarted through psychologically unhealthy conditions will define human nature in terms of its stunted development and thereby misconstrue what is possible—and what is good—for human beings as such.

C1P62 In contrast to these norms prevailing within experimental psychology (then and now), Montessori's research, which initially began with children in extreme conditions of environmental degradation and distress, led to astonishing results through her impassioned concern for the children and consequent manipulation of their environment and cultivation of their capacities through a sustained program of sensory and motor education. When she observed Sofia's intense, focused attention (Section 1.1; see 9: 51), she experienced her own awakening to new human possibilities:

C1P63 It is impossible to observe something that is not known, and it is not possible for anyone all at once, by a vague intuition, to imagine that a child may have two natures and to say, "Now I will try to prove it by experiment." Anything new must emerge, so to speak, by its own energies; it must spring forth and strike the mind, evoked by what we call chance. Often there is no one more incredulous than the person to whom this happens; he rejects the new fact just like everyone else . . . A new phenomenon is an initial discovery of facts, previously unknown and therefore unsuspected. (22: 100–101)

C1P64 Montessori's "discovery" of this different nature was, by her own account, largely accidental. Because she discovered something no one was even looking for, it was not susceptible to ready study within paradigms of psychology that take the abnormal but typical nature of children as *the* nature of children. As she refined the environment of the school to meet the needs of children, and particularly to provide them with occasions for freely chosen work, she found a consistent pattern of what she called "normalization," a sort of "child conversion" that is really "a psychological recovery, a return to *normal conditions*" (22: 133–134). These normal conditions consistently elicited a radically different character from that typically observed in children accustomed to the inhibition, repression, and punishment typical of most schools (and homes):

C1P65 Observing the features that disappear with normalization, we find to our surprise that these embrace nearly the whole of what are considered characteristics of

> childhood . . . Even the features that have been scientifically studied as proper to childhood, such as imitation, curiosity, inconstancy, instability of attention, disappear. And this means that the nature of the child, as hitherto known, is a mere semblance masking an original and normal nature. (22: 135)

C1P66 The story of Sofia, with which I started this chapter, is just such a case of normalization, where a child's instability of attention vanishes when provided with freedom in an environment rich with materials to meet her psychological needs. Montessori's life was filled with observations, and similar sorts of observations have continued for more than a hundred years in thousands of Montessori schools worldwide. For just one other example, consider a story of a 4-year-old girl, shared with me by a Montessori teacher-trainer and Director of the Montessori Children's Center in New York:

C1P67 Ryder is working on writing her letters. She has taken the basket of children's nametags and is copying the letters of each name across the page, one name at a time, one letter at time. She is practicing writing from left to right. She is working slowly, carefully sounding out each letter, and then writing them on the lined paper, one by one. There are 14 children in the class. There are 14 nametags in the basket.

C1P68 She sits quietly and does her work. All around her, the other children are asleep on their cots. Classical piano music softly plays in the background. Ryder is concentrating, carefully shaping her letters, as she whispers the sound of each letter sound of her friends' names, making her way through the basket of nametags, one by one.

C1P69 At last, she gets to the final name, Yael. She slowly makes the sounds of each letter and writes the letter across the lined paper. Over forty-five minutes have passed, and now she has completed the entire pile of names. She has finished the work. She looks up at the Guide, Ms. Helena. She pauses, and then she smiles. She puts her head down, and slowly begins to sound out Ms. Helena's name:

C1P70 "Huh," she says; she writes "h" "u"

C1P71 "L-ay," she says; she writes "l" "a"

C1P72 "Uh," she says: she writes "u"

C1P73 Then she sounds what she has written: "hu-l-ay-uh."

C1P74 She shakes her head, "No." Something is missing.

C1P75 "Hu-lay-uh," she says again, sounding out what is on the paper. Then she shakes her head back and forth, "No." Something is not right.

C1P76 Then, she looks up, and over again across the room, at Ms. Helena. A big smile slowly grows across her face.

C1P77 She looks down at her paper and adds the letter "n."

C1P78 "N-uh." She sounds out.

C1P79 "Hu-lay-n-uh," she says.

C1P80 Her face is beaming.

C1P81 She had just sounded out and written her first word, phonetically. All by herself.[16]

C1P82 Like the story of Sofia, this story illustrates the remarkable patience and persistence of a young child expressing her agency through concentrated work on a task of her own choosing. Beyond crucial pedagogical principles, it illustrates many features of Montessori's moral philosophy (such as the role of normative self-governance in agency), epistemology (such as the role of interest in guiding attention), and philosophy of mind (such as the centrality of embodiment for cognition).

C1P83 For the purposes of this section, however, the main point is simply that communities such as these, and moments such as these, are susceptible of observation by loving and attentive teachers, within a context of shared community, in ways that would be hard to replicate in psychological laboratories disconnected from pedagogical practice. As we will see in Chapter 5, Montessori's epistemology emphasizes the centrality of self-directed intellectual activity responsive to one's interests; there is no reason to think that Ryder would behave with this degree of persistence or this kind of self-corrected attention outside of a context in which she is given the freedom to attend to materials when and for what reasons she chooses. Researchers who collate mere statistical regularities from instantaneous snapshots of children as they happen to be when they come in to the lab (or the testing center) will not make the kinds of observations and adjustments that unleash the potential Montessori found in the children in her schools, a potential of children to exhibit their full nature and thereby to illuminate central problems of human life.[17]

C1P84 As with Sofia, moreover, children exhibit, for attentive and caring observers, phenomena that open new vistas for investigation. In the *Secret of Childhood*, Montessori writes about how "one day I thought of giving a rather humorous lesson on how you blow your nose":

C1P85 > After having imitated various ways of using a handkerchief for this purpose, I ended by showing how it can be done discreetly, so as to make as little noise as possible, slipping out the handkerchief so that the action remains more or less hidden. The children listened and watched with the keenest attention, and did not laugh, and I wondered to myself what could be the reason. But hardly

[16] This story, along with others ascribed to K. T. Korngold in this book, was shared by K. T. Korngold in private correspondence and written in connection with her doctoral work at the University of Wisconsin-River Falls. Children's names have been changed. All stories are used with parental consent and © K. T. Korngold.

[17] For other reasons why Montessori's observations were "officially relegated to oblivion [and] did not succeed in attracting the interest of modern psychology" (3: 32), see Montessori 2007–: v. 3 (but compare Cohen 1969; Kramer 1976)

> had I finished when there came a burst of applause . . . Then indeed I was utterly amazed . . . It occurred to me that perhaps I had touched on a sensitive spot in the social life of this little world. The question I had treated was one that children associate with a kind of continual humiliation, a permanent derision; they are always being scolded about blowing their noses. Everyone shouts at them, everyone insults them (they are habitually referred to as "snot-nose" . . .), and, in the end, especially in schools, handkerchiefs are pinned visibly to their overalls . . . like a stigma and badge of shame. Yet no one had ever taught them without attacking him or her directly how they ought to blow their noses. (22: 113)

C1P86 Montessori intended this lesson as a humorous exercise, but it opened to her a recognition of the importance of personal manners for individuals' sense of dignity, and it deepened her appreciation for the embodied dimensions of moral life.[18]

C1P87 In a similar way, children in conditions of freedom manifest new insights about a wide range of philosophical issues, through living and learning in ways that express human potentials and ideals. Consider another example from the Montessori Children's Center.

C1P88 At the end of March, we had a farewell ceremony in our Early Childhood Meadow classroom for Millie, whose family was moving. Millie has been with MCC since she was three months old. The ceremony was familiar to the children present. Ms. Helena, the head teacher, started the ceremony by calling the children to circle by playing her ukulele. Once the children had all come together and arranged themselves on their spot of tape on the rug, she reminded them of why they were there: to "say farewell to our friend Millie who is moving."

C1P89 "What song do we sing when a friend leaves MCC?" Ms. Helena asked. "The graduation song," the children said in unison. "Are we ready to sing?" "Yes!" said the children, again, in unison, and then they all said, "Uno, Dos, Tres" and began to sing the "Montessori Early Childhood Graduation Song," using hand motions to illustrate the words "curious," "caring," "strong," and "kind."

C1P90 "Thank you," Ms. Helena said, "that was beautiful; take a seated bow!" And each child, at their seat on the tape on the rug, bent forward to take a seated bow while Millie's mother, auntie, and grandma clapped.

C1P91 Ms. Helena rolled out a little beige rug in the middle of the circle and placed on it a large white vase holding an assortment of purple, green, white, and yellow flowers and then placed a small, empty, purple vase next to it. "Now," said Ms. Helena, "Who will start our ceremony?" Helena asked, "Who would like to choose a flower and give Millie a wish?"

C1P92 The hands shot up! "Evan," she said. Evan moved to the center of the circle, chose a purple flower, and stood in front of Millie as he said, "Millie, I hope we

[18] These issues are discussed in more detail in Frierson 2022: 175–199.

have a playdate, and I will miss working on the big chain work with you." Millie and Evan hugged. He then put the flower into the purple vase, and returned to his place on the rug. Next came Ryder. "Millie, I will miss playing with you on the playground. Come visit me!" They hugged. Ryder put her green flower into the purple vase and returned to her seat. One by one, the children raised their hands. Ms. Helena called on them, they chose a flower and gave Millie a wish, and Millie hugged them. They placed their flowers in the little purple vase and returned to their place at the circle. The little purple vase was filling up with a beautiful arrangement of flowers, purple, green, yellow, and white, all carefully and thoughtfully selected by the children.

C1P93 Amelia had been sitting on my lap. She raised her hand. Ms. Helena said, "Amelia, would you like to give Millie a wish?" Amelia nodded. There was a pause, and then abruptly, she lunged forward and, with one sudden movement, swatted the purple vase with the back of her hand so that the vase toppled over, and the flowers scattered about onto the rug. There was an audible gasp from Millie's mother, auntie, and grandma, but the children and teachers were silent. As if by clockwork, Ms. Helena bent forward to right the vase; I reached forward and brought Amelia back to my lap, and then, three children, Ryder, Evan, and Kieran, moved into the circle to gather the broken leaves and petals from the mat, which Ms. Helena quickly swept into her palm and put behind her. Then, Ms. Nancy came from the kitchen area, on the opposite side of the room, and whispered, "Amelia, would you like to go outside for a bit to run?" Amelia nodded yes, and Ms. Nancy extended her hand to Amelia, which she took, and then they walked away, leaving the classroom to run off her energy outside.

C1P94 The three children calmly returned to their places. Ms. Helena said, "Who would like a turn?" And as if nothing had happened, Eden raised her hand, came forward, chose her yellow flower, and said to Millie, "I will miss doing the One-Hundred Board with you." They hugged, she returned to her spot; the ceremony continued.

C1P95 The children's synergy and solidarity were palpable—it felt as if a radiant circle of light connected them and as if they were all illuminated by a humming energy that flowed through each of the children, linking each to another in the circle of trust and joy that they had mutually created. It was a feeling of being in community with others, as when a choir is singing together, or when dancers are moving in synchronicity, or when you are in fellowship, in congregation, reciting a beloved prayer.

C1P96 The feeling of the energy field, that sense of connection that bound them together, was not broken by Amelia's action. Her choice to turn over the vase was ignored by the children and the teachers, and although they took steps to right the situation, it was not corrected with her directly . . . It was as if the children understood that Amelia had not yet developed to the place where they are, as if they felt, "We are not going to let her offense sully the beauty and meaning of this goodbye

to our friend Millie, which is more important to all of us than Amelia's inability to participate, because she is not yet ready." Because of the mixed age grouping, an essential element in high-fidelity Montessori programs, the children are accustomed to understanding that some children can do things that other children cannot yet do—some walk before others, some read before others, some can write their name before others, some can do the One-Hundred Board before others, some can hold a pencil before others, and so on—and rather than create competition, disdain, or reprimand, the Montessori environment supports compassion and patience for the other child to develop on their own timetable without receiving judgment or blame.

C1P97 The children have a different understanding of justice and where to focus their attention than that which might have occurred in response to Amelia's action in a traditional school setting . . . These Montessori children were undeterred in their desire to create a meaningful and moving experience for their friend, Millie, on her last day in their community. The self-control, shared agency, solidarity, and sheer beauty of this moment illustrates what a Montessori infant program can help create in the lives and future for those who have been Montessori infants and those who live and work with them (Korngold 2024).

C1P98 This story illustrates many fundamental features of Montessori's philosophy, including children's capacity for attention, mutual respect, and social solidarity; the ways that children in conditions of freedom develop approaches to justice and social life that often differ considerably from common philosophical treatments of those concepts; the crucial role that adults can play in creating and preserving an environment within which children are free to express their natures; and so on. Most importantly in the present chapter, however, it illustrates a methodological point, namely, the role that pedagogy can play in philosophical research. Montessori herself, and tens of thousands of Montessori-trained teachers over the past hundred years, have created contexts within which children reveal new philosophical insights about the human condition. Studying her philosophy invites us to think of what philosophy could be if it adopted an exploratory pedagogical method for addressing philosophical problems, a method that assumes that children in conditions of freedom can disclose better ways of being human and that takes insights gathered from the observation of children as bases for new approaches in epistemology, ethics, and other philosophical fields.

C1S5 ## 1.5 Pedagogical Naturalism: Science, Education, and Philosophy

C1S6 ### 1.5.1 A New Scientific Pedagogy

C1P99 Montessori's criticisms of the empirical human sciences of her day were not arguments in favor of a priori philosophical theorizing. Rather, she advocated

sustained observation of human beings in natural conditions over long periods of time and in a wide range of cultural contexts. These observations would be carried out by individuals who care about the scientific theories that can be supported by what they observe, and also about philosophical insights that can come from such observation, but most of all who care about—and in fact love—the human beings they are working with. In order to observe human beings uncorrupted by oppressive and distorting social structures, these observations should begin in infancy. Montessorian human sciences, and the naturalist philosophical theories that would come from them, have to be based on observations of children. In her early *Pedagogical Anthropology*, Montessori describes her method as a "pedagogical anthropology," which, "like all the other branches of anthropology, studies man from the naturalistic point of view" (Montessori [1910] 1913: 34). Because of the breadth of her philosophical project and the relative narrowness of "anthropology" today, I refer to her methodology—by which we address philosophical questions through careful attention to the actions, reactions, feelings, choices, perceptions, and expressions of children—as "exploratory pedagogical naturalism."[19] The notion of naturalism highlights how Montessori aims to infuse philosophy with insight from natural sciences, and brings her into conversation with contemporary philosophical naturalisms. That this naturalism is pedagogical drives home the centrality of the child, and also Montessori's commitment to pedagogy as the science with the most to offer philosophy. That it is exploratory highlights the degree to which open-minded observation is central to the approach. Moreover, the sort of pedagogy Montessori envisions is itself "naturalist" in two important senses, first in that it conceives of itself as a sort of natural science, and second in that it emphasizes creating a classroom free from distortions that inhibit the natural development of the child.

C1P100 Montessori's loving, exploratory observations of young children reoriented her conception of human possibilities and inspired pedagogical-philosophical research for the rest of her life. Just as in any science,

C1P101

> When it is the case of proving the existence of a new fact, it must be proved that it exists . . . that is, it must be isolated. Then comes a second phase, the study of the conditions in which the new phenomenon shows itself, so that we may reproduce and perpetuate it. Only when this fundamental problem has been solved, is it possible to study the phenomenon; it is then that research begins, and finding new things on the new path, investigators may make further genuine discoveries. (22: 101)

[19] Pope Leo XI, in his papal encyclical *Rappresentanti in Terra*, critiques a "pedagogic naturalism" that some have taken to refer to Montessori's philosophy of education. While my concept of pedagogical naturalism has some affinity with the positions Leo XI criticizes, I use the term in my own technical sense. In Chapter 8, I discuss how what I call Montessori's pedagogical naturalism relates to what Leo XI calls pedagogic naturalism.

C1P102 After her initial discoveries—and a long period of confirming what she observed—Montessori turned to further stages of research, studying environmental conditions for promoting the sort of flourishing she saw in Sofia and then carefully observing what "new things" can be learned from children who develop in these improved conditions, eventually taking her to properly philosophical insights into the human condition.

C1P103

> To trace the guiding instincts in man is one of the most important subjects of research today . . . Their study is only possible in the normalized child, who lives in freedom in an environment fitted to the needs of his development. (22: 185)

C1P104 Rather than forms of experimental psychology that "put humans in a laboratory and torture them with instruments," Montessori proposes that we "study humans in their natural state" (18: 8). Given that human beings are social and cultural, however, this natural state can involve neither neglect nor any sort of primitivism. Rather, the natural state requires "giv[ing children] the best conditions of life" and then "leav[ing] them alone" (18: 8). In that sense, "all places where humans live free in the best living conditions become laboratories of experimental psychology," though "the place which is best adapted to real scientific research is undoubtedly the school" (18: 9). Schools provide controlled contexts within which children, including "the youngest,"[20] can develop and be observed by caring teachers, and thereby the "laws relative to the psychic development of humans are . . . discovered" (18: 9). The stories of Ryder and Millie (end of Section 1.4) provide excellent

[20] Korngold describes, for instance, the case of a "four-month-old" named Tyler:

> Tyler is being held by Ms. Teresa, as she rocks in the rocker, he is drinking from a bottle with eight ounces of breastmilk. This is his second day in our program. He is relaxed and comfortable in her arms. His fingers are lightly furled, his arms are gently at his side. He is suckling the bottle, using the force of his mouth and tongue. He sucks and sucks, squeezing the nipple of the bottle with the powerful suction he creates within his cheeks. It is hard work, but he continues. After 4 ounces, he breaks eye contract, releases the suction from his mouth, and, by using his tongue, pushes the bottle away from him. Just like that, he demonstrates his choice to stop drinking.
>
> Ms. Teresa says, "Oh, Tyler, you don't want any more to drink?" She offers a burp. "Would you like a burp?" She turns him gently, over her shoulder, and gives him a pat, pat, pat. He has an enormous and satisfying burp! She brings him back down slowly, once again, to be cradled in her arms. She rocks.
>
> Then Tyler offers Teresa a smile, by which she understands him to mean that he is communicating he wants to continue eating. She offers the tip of the nipple of the bottle to his lip, waiting for him to express his desire by making a motion to receive the nipple. He opens his mouth, leans his head forward, and using the strength of his own neck he begins to suckle. Yes, he has agreed, he wants more milk! He sucks and sucks. After two ounces his eyes droop and his breathing slows. He begins to fall asleep. While he is sleeping, he continues to suck. He finishes the last two ounces of his milk while sleeping. Once he finishes the milk, Teresa gently carries him over to the sleeping area, where she puts him down on the low bed, covering him gently with his blanket. He is fully satisfied and he sleeps quietly and peacefully for two hours (Korngold 2024).

examples of just such situations, where children reveal aspects of attentive work or new conceptions of how to create just and caring communities.

C1P105

> The norm in Italian pedagogical positivism [was] . . . a primary (and primitive) scientific pedagogy that looks at the paradigm of science—understood abstractly—as its epistemological foundation. With Montessori, on the other hand, there was an almost opposite operation: empirical scientific research directly and rigorously conducted, required a pedagogical foundation. (De Giorgi 2013: 10)

C1P106 Montessori sums up the fruit of this pedagogical naturalism as the specification "by means of revelations due to experiment, the form of liberty in internal development" (9: 53). Her pedagogical naturalism is ultimately also a philosophy of freedom.

C1S7

1.5.2 A New Naturalist Philosophy

C1P107 Montessori aims to create not merely a new pedagogy but a new approach to the human sciences, one that avoids the problems laid out in Section 1.4. Moreover, as already noted in Sections 1.2–1.3, Montessori is not merely a pedagogue or psychologist, but a philosopher. In that context, her improved pedagogical science is a form of pedagogical-naturalist philosophy:

C1P108

> in teaching the student, the teacher and the child, as subject of his study, have the same essence . . . In teaching the student, the teacher really sees himself brought back in the phenomena which he is observing, in the life he is studying. Teachers really develop a personal interest seeing human life at its source, at its beginning . . . The study of a teacher is like a study of the Soul. (15: 72–73)

C1P109 In describing her teacher-scientists, Montessori explains that when "the scientist is at the height of his achievement . . . science will receive from him not only new revelations of nature, but philosophic syntheses of pure thought" (Montessori [1909] 1912: 9). These revelatory syntheses require that we "awaken in the mind and heart of the educator an interest in natural phenomena to such an extent that . . . he shall understand the anxious and expectant attitude of one who has prepared an experiment and who awaits a revelation from it" (1912: 9). Consistent with recent developments in anthropology that propose, for example, versions of anthropology or ethnography as philosophy (e.g. Vivieros de Castro 2014), Montessori orients what we might call a philosophical ethnography of the child through the awakening by the "teacher and the scientist" to what she calls an "Apostolic spirit," which is not merely "the spirit of study about the child but the child . . .

becomes a teacher full of lessons to us" (15: 73). Through the study of free children in conditions conducive to normal development, we can come to see the central problems of humanity in new ways.

C1P110 One of the more important examples of Montessori's pedagogical naturalism at work comes in her moral theory. Within contemporary moral philosophy, appeal to various moral intuitions or perceptions is widespread, whether in the form of those who directly describe themselves as "intuitionists" (see Audi 1996; Stratton-Lake 2002, 2020), or in more general approaches involving a "reflective equilibrium" whereby moral theories are confirmed or criticized for being consonant or inconsistent with various intuitions, or in theories (such as utilitarianism) which proceed from some fundamental value (happiness or pleasure) taken to be obviously worth pursuing. Montessori, too, appeals to something like moral intuitions, though given her empiricism (see Chapter 5), she describes these more specifically in terms of a "moral sense." This sense is "to a great extent the sense of sympathy with our fellows," but also includes a "the sentiment of justice" and "feeling[s] of joy, of peace and tranquility" on the one hand or "remorse and . . . lack of peace and inner joy" on the other (9: 242, 18: 261). She explains,

C1P111 > a "voice of conscience" . . . teaches us from within to distinguish the two things: good confers serenity, which is order; enthusiasm, which is strength; evil is signaled as an anguish which is at times unbearable: remorse, which is not only darkness and disorder, but fever, a malady of the soul. (9: 251)

C1P112 In the abstract, this appeal to moral sense may not seem particularly empiricist, or naturalist, or pedagogical. People make moral distinctions by means of a moral sense, an *inner* sense that consists of affective responses to situations, and this sense is "natural" in that Montessori takes it to respond to empirically given features of situations, but not pedagogically naturalist in any distinctive sense.

C1P113 However, Montessori repeatedly emphasizes not only that the moral sense requires cultivation and exercise, but also that most adults have developed under conditions that distort and corrupt our moral sense. Thus, for example, Montessori repeatedly discusses the corruption that takes place when "prizes and punishments . . . misled [children] into an unconscious acceptance of injustice" (9: 232–238) or when "esteem" is used to teach that "the good are those who are quiet and motionless; the naughty those who talk and move" (9: 227). More subtly, we might consider how educational regimes that encourage extrinsic motivation support broadly utilitarian and consequentialist moral theories, or how authoritarian rule-based class environments might encourage deontological approaches. For moral philosophy, Montessori's pedagogical naturalism proposes that one who wants to develop a moral theory from reflection on *natural* human moral sense should allow free children in an environment conducive to moral life to "reveal to us the phases through which social life must pass in the course of its natural

unfolding" (1: 212). In order to do moral philosophy well, we "need to be acutely aware to respect all the inner acts of children's sentiment" (18: 264). Rather than projecting our concepts of good and bad onto children, we must provide occasions for the exercise of children's moral sense and carefully observe and analyze what children reveal.

C1P114 Montessori is an experimental naturalist (Section 1.3), so her philosophical approach does not focus on merely examining what the latest psychological theories say about children's moral sense. Rather, she does philosophy through active engagement with classroom teacher-scientists and the children under their care. Within her pedagogical-naturalist moral philosophy, moral sensations ground moral distinctions and moral philosophy, but only when these sensations are well cultivated and uncorrupted, which happens only in well-designed classrooms. Such classrooms must be conducive to children's freedom. Given the extreme power difference between adults and children, it is relatively easy to corrupt or stifle independent moral decision-making. Instead, Montessori insists, "To know how to keep this inner sensibility alight and to refine it, this is our principal task" (18: 263; cf. 18: 260–261, 12: 5–6, 12–13, 17: 204). Like all senses, moreover, the moral sense requires exercise and application. Montessori classrooms thus provide social spaces with opportunities for self-cultivation but also for conflict and cooperation, solidarity and social friction.

C1P115

> There is only one specimen of each object, and if a piece is in use when another child wants it, the latter—if he is normalized[21]—will wait for it to be released. Important social qualities derive from this. The child comes to see that he must respect the work of others, not because someone has said that he must, but because this is a reality that he meets in his daily experience. There is only one between many children, so there is nothing for it but to wait . . . We cannot teach this kind of morality to children of three, but experience can. (1: 202–203)

C1P116 Just as the materials in Montessori environments provide opportunities for children to attend to particular qualities of external senses in deliberate, graded, and ordered ways, so too they focus on creating conditions for moral perception. Thus, there are a limited number of materials of each type and a large number of students, so that students are faced with competing desires for materials and must learn to recognize appropriate and inappropriate ways of handling scarce resources in a carefully delimited context. They regularly face opportunities for cooperative work but also for potential conflict, both of which prompt moral consciousness. "The stimuli of the environment are not only the objects, but also the persons" (9: 242). Throughout daily life, children's abilities to recognize morally salient features of

[21] "Normalization" is a technical term that refers to the state of a free child in an environment conducive to independent activity (see Section 1.4, xxx).

situations and to appropriately sense good and bad responses to those situations depend upon capacities for moral perception, which capacities increase—like all senses—through "exercise" (17: 237). Millie's story, described at the end of Section 1.4, represents the fruit of a classroom within which children regularly exercise practices of mutual respect, justice, compassion, and discernment, so that when an immature child engages in behavior that could disrupt an important ceremony of farewell, they know precisely how to respond to actualize all of the goods available to each child present in the context.

C1P117

Like all classroom materials, the social environment should be developed through an iterative process that involves careful attention to what attracts children to the work of moral perception. Montessori's "lesson on how you blow your nose," which held students' rapt attention and drew their applause (22: 113), highlighted for her the importance of providing what came to be called "lessons in grace and courtesy," that is, step-by-step directions for helping children conform to norms of their cultural and social life. More generally, Montessori's experimental method gives rise to a circle of moral refinement, as classrooms are made in ways conducive to human flourishing, and then concepts of that flourishing change in the light of children's reactions to healthy environments, and then environments are changed to make them more conducive to this better notion of flourishing, and so on. Many moral philosophers engage in some form of Rawlsian "reflective equilibrium," where we construct moral principles theoretically and "see if the principles . . . match our considered convictions of justice or extend them in an acceptable way" and then "go . . . back and forth" until we get "principles which match our considered judgments duly pruned and adjusted" (Rawls 1971: 19–20). Whereas Rawlsian reflective equilibrium takes place through armchair speculation based on intuitions about imagined cases, Montessorian equilibrium arises as a practicing educator or caregiver begins with a particular conception of what a thriving or healthy psyche would be, constructs an environment conducive to this thriving, and then modifies and develops her concepts of human thriving in the context of actual observations of and work with children: "What we must look for is that in many places, in as many places as possible, the progress of the method will tell us how much and how the child can still instruct us with his revelations" (Montessori 1930: 37). Over the fifty years of her life, Montessori looked for these revelations, and both her pedagogy and her philosophy have been put in practice in tens of thousands of schools in every part of the world. Through this pedagogical approach to naturalism, philosophy, practical pedagogy, and developmental psychology all unite in a seamless process of what Montessori calls "following the child" (22: 166).

C2

2

Influences on Montessori's Philosophical Thought

C2P1 Montessori's pedagogical naturalism was the central fountain from which flowed the philosophical ideas she developed through a lifetime of respectful attention to children. As she made her turn toward work with children, she also made academic study of philosophy a priority in order to situate insights she gained from children in the context of mainstream philosophical ideas of her time. She studied the history of philosophy and specifically prior philosophers of education. She studied under prominent philosophers at the University of Rome, and with faculty in emerging fields of psychology and anthropology; throughout her career, she also continued to draw on her biological and medical background. Montessori was also influenced throughout her career by the many people she met and places she visited. She highlights this influence when discussing insights gained from children; as an astute observer, she no doubt absorbed much of the aesthetic and cultural milieus within which she lived and worked, milieus that ranged from Rome to the Spanish countryside to India and the Americas.

C2P2 No single chapter, or even single book, could do justice to the range of influences on Montessori's thought. In this chapter, I focus specifically on influences that were prominent during her early formation as a philosopher, and I emphasize figures she mentions in her work. There is a danger in any such tracing of intellectual influence. Because of the context in which Montessori was educated, most of those who can most clearly be identified as influential on her thinking are the sorts of figures that make it into canonical histories, even if some—such as Labriola or Sergi—are not in any traditional canon of Anglophone philosophy. Mentioning these particular influences can understate the influence of many other influences that are harder to identify or elucidate, such as the many Sisters of the Franciscan Convent on the Via Giusti, or influences that affected her thought later in life, such as the many Indian influences on her thought as she was writing her famous *Absorbent Mind*, influences that would include not only intellectuals like Rabindranath Tagore or Rukmini Devi but also countless others that she interacted with daily for many years. Most dangerously, as I emphasize again in Section 2.9, any tracing of philosophical influences can occlude Montessori's essential philosophical method, one that attends to children in ways that allow her to challenge her own inherited presuppositions and formulate new philosophical insights. Nonetheless, Montessori did not study children in a vacuum, and she herself specifically sought

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an education that would orient her observations in a broader philosophical tradition. Thus, while I cannot discuss every relevant figure[1] and do not do justice even to those presented here, this chapter introduces many of the most important early intellectual influences on Montessori's philosophical thought.

C2S1

2.1 Religious Influences

C2P3

Montessori grew up in an Italy where Catholicism was still a dominant influence, but the Pope lost control of the city of Rome to Italy's secular government in the same year that Montessori was born, and throughout the culture, secular ideas were growing in significance. Even within Catholicism, there was a strong "modernizing" strand. Italian socialism, in both a more radical revolutionary form and a subdued liberal political movement, was an important political force. Montessori herself was baptized as a Roman Catholic on April 3, 1870, just a few days after she was born. Her early experiments with education included work with Catholic religious sisters in a convent on the Via Giusti in Rome and an extensive sojourn in Catalonia running a Catholic school. At the same time, her educational philosophy was controversial within Catholic circles and many—including Montessori herself—interpreted Pope Pius IX's condemnation of "pedagogic naturalism" in *Divini Illius Magistri* (*On Christian Education*) as a reference to Montessori's principles. Moreover, Montessori typically expounded her views in ways that did not make explicit mention of God or Christian or Catholic concepts in particular, and she proudly pointed out the appeal of her philosophy to "people with ideas and sentiments so different or even so contradictory—as for example . . . Catholics, Jews, and Buddhists" (Montessori [1929] 1965: 4). In explaining the naturalist way in which she articulates her ideas, she emphasizes, "I studied in the most acute era of materialism . . . scientific language is like my mother tongue" (Montessori [1917] 2018: 42). Even with respect to religion, Catholicism was not the only influence on her thinking. Among other things, she had a connection with "theosophy," the philosophy propounded by Helena Blavatsky and supported by, among others, William James (see Section 2.5). Particularly during her sojourn in India, when she stayed with George Arundale and Rukmini Devi at Aydar, she found allies and influences among theosophists.

[1] For example, Montessori draws explicit connections between her thought and that of both Freud and Bergson (1: 75n); especially in the case of Bergson, the influence seems to have come relatively late in her intellectual development, though cf. Hunt 1912 for an early discussion of Montessori in relation to Bergson. Others, such as Dante, Ellen Key, Franco Basaglia, or Lev Vygotsky, have been fruitfully discussed in connection with Montessori (see Feez 2007; Babini 2009, 2013; Pironi 2010; Albani 2022). Many other influences, including Devi, DeSanctis, and Schopenhauer, to name just a few, would deserve yet further study.

C2P4 In Chapter 8, I take up Montessori's relationship with Catholicism and theosophy in more detail in connection with her philosophy of religion. Here, it's important simply to note that, like most European and American philosophers of the nineteenth and early twentieth centuries, Montessori grew up in a world saturated with Christianity and Christian concepts, but also one filled with modernizing and pluralist tendencies even among the most religious. In her case, religious concepts were specifically inflected through the lens of a Catholicism that Montessori never rejected. Even as she embraces naturalism in her efforts to use scientific methods and empirical study to solve important philosophical problems, she never rejects the existence of God or the value of Christian religious life.

C2S2

2.2 Historical Philosophers of Education

C2P5 One of the primary claims of this book is that Montessori is a pedagogical philosopher rather than merely a philosopher of pedagogy, that is, that she inhabits a teacher's loving attention to children as a philosophical methodology for providing insights into the human condition, rather than doing armchair philosophy about how to educate. In that context, this chapter primarily focuses on influences on her philosophical thought more broadly rather than specifically on her philosophy of education. Nonetheless, there is no denying that Montessori's philosophy as a whole was influenced by the history of philosophical pedagogy, and especially what has come to be seen as "progressive" pedagogy, a history in which she is rightly recognized as a major figure. This section thus briefly highlights five earlier philosophers of education who had important influences on Montessori's thought: Johann Amos Comenius, Jean Jacques Rousseau, Johann Heinrich Pestalozzi, Friedrich Frobel, and G. F. Herbart.

C2S3

2.2.1 Comenius

C2P6 Johann Amos Comenius (1592–1670) is most famous for his *Orbis Sensualium Pictus*, a work Montessori mentions in *From Childhood to Adolescence* as a revolutionary innovation in the history of pedagogy (see 12: 16). In this "little book," published in 1658, Comenius purports to give "a brief of the whole world, and a whole language: full of Pictures, Nomenclatures, and Descriptions of things" (Comenius [1658] 1887: xiv). The book begins (after a short preface) with a series of words adjoined to pictures, much like pictorial dictionaries one might find for children today. Simple pictures of a crow or mouse or snake are followed by more complex visual assemblages organized around themes like "the fruits of the earth," in which are depicted and labeled specific things such as flowers, hay, mushrooms, and minerals (Comenius [1658] 1887: 14).

C2P7 Comenius promoted many themes that are also important within Montessori's philosophy. As his *Orbis Pictus* makes clear, he endorses a broadly empiricist epistemology, according to which "there is nothing in the understanding, which was not before in the sense," and, like Montessori, Comenius sees senses as essentially educable rather than purely passive: "to exercise the senses well about the right perceiving the differences of things, will be to lay the grounds for all wisdom" (Comenius [1658] 1887: xiv). Comenius also emphasized the importance of creating materials that would be naturally attractive to students.

C2P8 > [the *Orbis Pictus*] may (I hope) serve . . . to entice witty children to it, that they may not conceive a torment to be in the school, but dainty fare . . . [And] this same little Book will serve to stir up the Attention . . . whence . . . children being won hereunto . . . may be furnished with the knowledge of the prime things that are in the world, by sport and merry pastime. (Comenius [1658] 1887: xiv–xvi)

C2P9 While developing a pedagogy that could be enjoyable and interesting for children, Comenius also endorsed universal education and promoted a holistic (even broadly pragmatist) approach within which teaching "will be *true*, if nothing be taught but such as is beneficial to one's life" (Comenius [1658] 1887: xiii).

C2P10 Alongside these similarities, Comenius's approach differed from Montessori's in important respects. Most importantly, unlike Montessori, he retains a view of children as essentially in need of top-down teaching from adults with more understanding, and even of correction; Comenius's textbooks encapsulate adult knowledge that children must acquire, for "*instruction is the means to expel Rudeness*" (Comenius [1658] 1887: xiii). Relatedly, Montessori notes that for all of his originality, Comenius nonetheless focused on children learning within the narrow confines of classrooms. Although he sees older children as less sensorial and more capable of abstraction than young ones, he does not emphasize the importance of older children leaving the schoolhouse to enter the world. Thus, Montessori rightly notes that "we hope . . . to revise the idea of Comenius by bringing the world itself [rather than just pictures] to children" (12: 17).

C2S4 ### 2.2.2 Rousseau

C2P11 Jean-Jacques Rousseau (1712–1778) is best known today for his political theory, especially in his *The Social Contract*, where he lays out a model of a just political structure based on separation of powers acting to promote the "general will" of a political community. The famous opening line of this work—"Man is born free, and he is everywhere in chains" (Rousseau [1762] 1997: 43)—already shows an impulse resonant with Montessori's philosophy, which emphasizes freedom and how social structures inhibit each person's natural freedom. *The Social Contract* follows

an equally important work, the *Discourse on the Origin and Basis of Inequality Among Men*, in which Rousseau describes human beings in what he calls the "state of nature," a condition in which people have "neither foresight nor curiosity" and are "given over to the single feeling of their own present existence" (Rousseau [1755] 1992: 27). In that *Discourse*, Rousseau describes how socialization brings comparison, competition, and conflict among human beings, but also increased reflection, personal love, and moral virtues: "this is what, through centuries of giving rise to his enlightenment and his errors, his vices and his virtues, eventually makes [the human being] a tyrant over himself and nature" (Rousseau [1755] 1992: 26). While some—"in the style of my adversaries"—have read the work as encouraging people to "return to live in the forests with bears," Rousseau insists that there must be a way for human beings to combine some degree of the freedom and self-sufficiency of the state of nature with the enlightenment, self-control, and virtue of the social condition (Rousseau [1755] 1992: 80). *The Social Contract* reflects Rousseau's political way of threading that needle, by setting up a society wherein people can submit to the general will in a way that lets them nonetheless be autonomous.

C2P12 In the same year that Rousseau published *The Social Contract*, he wrote another book—*Emile, or On Education*—in which he assumed that society was *not* going to have the ideal structure of his *Social Contract* and in which he envisions how one might raise a child to combine the best of the state of nature with the virtues of the civil condition. As he describes the question of that book, "what will a man raised uniquely for himself become for others?" (Rousseau [1762] 1979: 41). *Emile* became a landmark of so-called progressive pedagogy, which takes the freedom and independence of students as paramount and gives children agency over their own education. Moreover, like Montessori, Rousseau in *Emile* suggests a sort of pedagogical naturalism. Though fictional, *Emile* presents ideals of human life and even metaphysics as imagined fruit of one reflecting on the world in something like the innocent condition of children. Rousseauian emphases on the goodness of nature, the centrality of freedom and independence for human flourishing, and the development of morality as an extension and abstraction of pre-reflective love all show up in Montessori's own philosophical views. Relatedly, many of Rousseau's particular pedagogical ideas reappear in Montessori's philosophy of education. Like her, Rousseau insists on leaving his pupil free to act in accordance with his own desires and choices. Both recognize four distinct periods in development, roughly corresponding to the ages of 0–6, 7–12, 12–18, and adulthood. Both emphasize sensory education and learning through bodily movement. Rousseau even points out the importance of what Montessori would call the "prepared environment," noting that teachers should make use of their control over the environment to facilitate the development of their pupils.

C2P13 At the same time, there are important differences between Rousseau's philosophy and Montessori's. Some of these are pedagogically important but

philosophically minor, such as Rousseau's diatribes against teaching children to read in contrast to Montessori's carefully scaffolded pedagogy that often has children reading and writing at the age of 4 or 5. Others are more philosophically significant. Montessori's feminism led her to a pedagogy that emphasizes self-direction, freedom, and intellectual excellence equally for boys and girls, while Rousseau's sexist distinction between liberatory education for young boys and an oppressive education for girls famously brought him the vicious condemnation of none other than Mary Wollstonecraft (see Wollstonecraft [1792] 1994: 150–166). Rousseau's emphasis on "natural" education also contributed to a broader glorification of the natural world as a pedagogical space, whereas Montessori's emphasis on the prepared environment led her to highly constructed and artificial pedagogical spaces, especially for young children.[2] Relatedly, Rousseau has a generally pessimistic attitude toward cultural and technological progress, while Montessori sees progress in culture, science, and technology as part of humans' "cosmic task" (17: 91, and see Chapter 11). Through working with children, Montessori also came to find that children seek work that can be done *well*, and thus desire clear and specific instructions about how to use materials. Whereas Rousseau insists that adults should "command [the child] nothing" (Rousseau [1762] 1979: 91), Montessori provides the child with freedom in part through teachers "presenting the material to him [and] showing him how to use it," even to the degree that she should "prevent him from continuing" if "material is being used in a way that will not attain its goal" (2: 165). Perhaps most importantly, while both see a certain sort of comparative self-love—where one wants to be better than others (what Rousseau calls "*amour propre*")—as a fundamental problem for human beings, Rousseau sees humans as naturally solitary (see Rousseau [1954] 1992: 34) and aims to isolate his pupil from others for as long as possible, while Montessori sees human beings as naturally social and seeks to put children in social situations from the earliest ages so that they can develop healthy forms of social interaction (and teach us those forms of social interaction).

C2P14 Montessori sums up her own relationship with Rousseau through a comment in her first book, where she credits Rousseau with having "led" teachers who "have laid down fantastic principles with respect to a child's freedom" (2: 9). Here the ambivalent "fantastic" is not primarily a term of praise but rather a condemnation of these principles as mere fantasy. Montessori adds that these Rousseauian "aspirations for children's freedom" are "vague" (It: *vaghe*, translated as "confused" in 2: 9). Montessori fits solidly within a line of philosophers of education, including Comenius but especially Rousseau, who emphasized children's liberty.

[2] This difference sparks one of Dewey's most pointed critiques of Montessori. Dewey, more in line with Rousseau in this respect, describes the "Montessori house" as one wherein a "fear of raw material is shown" in "materials which have already been subjected to the perfecting work of mind" (Dewey 1916: 197).

Unlike Rousseau, however, she did not develop her philosophy through a work of speculative fiction. Instead, she concretized broadly Rousseauian principles and revised them in the light of revelations by children themselves. Through her pedagogical naturalism, she made Rousseau's principles realistic and his aspirations precise.[3]

C2S5

2.2.3 Pestalozzi and Froebel

C2P15 After Rousseau, Pestalozzi (1746–1827) and Froebel (1782–1852) are the two most commonly discussed predecessors of Montessori's philosophy of education. Pestalozzi was a Swiss educator heavily influenced by Rousseau (to the point that he named his son Jean-Jacques). For most of his life, Pestalozzi was not particularly successful; his writings were poorly received or misunderstood, and his business ventures failed. Over the course of his life, however, as he sought to put the basic impulses behind Rousseau's pedagogy into practice, he developed an educational method admired throughout Europe, to the point that when Wilhelm von Humbolt was given responsibility for overhauling Prussia's educational system after the defeat of Napoleon, he "sent many aspiring teachers to Pestalozzi's last and most successful school a Yverdon" so that "after being trained by Pestalozzi and his assistants, these young men . . . returned to Prussia to revise the Volksschule curriculum" (Elkind 2015: 72). The central contribution of Pestalozzi to the history of pedagogy revolves less around any particular philosophical ideas than simply in his successful putting into practice of a broadly Rousseauian vision for education. He gave students freedom and they "were taught to use their own eyes and hands and minds" (Silber 1960: 207). Heinrich Morf, in a detailed study of Pestalozzi's pedagogy, summarizes its main principles:

C2P16 1. Sense-impression is the foundation of instruction.
C2P17 2. Language must be connected with sense-impression.
C2P18 3. The time for learning is not the time for judgment and criticism.
C2P19 4. In each branch, instruction must begin with the simplest elements, and proceed gradually by following the child's development; that is, by a series of steps which are psychologically connected.
C2P20 5. A pause must be made at each stage of the instruction sufficiently long for the child to get the new matter thoroughly into his grasp and under his control.
C2P21 6. Teaching must follow the path of development, and not that of dogmatic exposition.
C2P22 7. The individuality of the pupil must be sacred for the teacher.

[3] For a more detailed discussion of Montessori and Rousseau, see O'Donnell 2007 and L'Ecuyer 2020.

C2P23 8. The chief aim of elementary instruction is not to furnish the child with knowledge and talents, but to develop and increase the powers of his mind.

C2P24 9. To knowledge must be joined power; to what is known, the ability to turn it to account.

C2P25 10. The relations between master and pupil, especially so far as discipline is concerned, must be established and regulated by love. (Quoted in Guimps 1890: 241)

C2P26 Several of the themes of this pedagogical approach recur in Montessori's pedagogy, including empiricism, the emphasis on developmentally appropriate pedagogy over dogmatism, the respect for individuality and the cultivation of the whole child, and the centrality of love within the teacher-child relationship. Pestalozzi also "devised a number of teaching tools" such as "movable letters that could be rearranged into many different configurations" (Elkind 2015: 79), a sort of material pedagogical culture that Froebel, and then Montessori, would expand considerably. Unsurprisingly, then, Montessori generally brings up Pestalozzi as an important early predecessor, with relatively little criticism of him in her works. *The Discovery of the Child*, for example, notes that "In Switzerland, Pestalozzi became the father of a new effective system of education" (2: 24).[4]

C2P27 Friedrich Froebel is best known as the inventor of the "kindergarten"—both the German term and the basic concept of a school focused on holistic development of young children through free play. Froebel studied under Pestalozzi for three years during his early formation as a teacher, and he imbibed many of the basic principles of Pestalozzi's pedagogy, such as a focus on freedom and self-activity and the value of concrete materials oriented toward pedagogical goals (cf. Froebel [1826] 1907: 7–12, 285–288, [1861] 1895). Froebel focused on early childhood, particularly from ages 4 to 6. As he sought a guiding principle for pedagogy of children at this age, he eventually—reportedly from observing children with a ball (see Elkind 2015: 97)—came to center his method on "materials that, with their use, [could enable] the child [to] progressively acquire a coherent sense of self as an individual but also as one with humankind, nature, and the universe" (Elkind 2015: 97). As Froebel puts it,

C2P28 > It is the destiny and life-work of all things to unfold their essence . . . Education consists in leading man, as a thinking, intelligent being, growing into self-consciousness, to a pure and unsullied, conscious and free representation of the inner law of Divine Unity, and in teaching him ways and means thereto. (Froebel [1826] 1907: 2)

[4] For discussion of Pestalozzi in the various editions of this work, see Trabalzini 2003.

C2P29 For the purpose of helping children develop as free-thinking beings, Froebel created a sequence of what he called "gifts," which develop in a progressive sequence (for instance, from a soft ball to a sphere to a cube and then to building blocks) and which teach both basic mathematical concepts and relations, such as cubes that give the child "experiences of straight lines of different lengths," and also more profound metaphysical principles, such that the development from a "simple . . . ball" to a "cube . . . which to the uniformity of the sphere opposes the manifoldness of its faces" is supposed to show the child "his own nature" as a "unity in particularity and in manifoldness" (Froebel [1861] 1895: 202, 201).

C2P30 Montessori could, and probably did, draw much not only from Froebel's specific materials but also from the broader orientation of his "*science of education*" as part of "*the science of life*" (Froebel [1826] 1907: 3). Her discussions of Froebel, however, generally focus on the limitations of his approach. This criticisms are at least partly due to an early pedagogical rivalry between Montessori and the influential "Agazzi sisters" (Carolina and Rosa Agassi; for discussion, see Moretti 2021: 80–83). By 1914, Montessori's former professor and support Luigi Credaro (see Section 2.3), in his capacity of Minister of Education, "issued the Instructions intended to establish, in the existing kindergartens, the Froebel method revisited in light of the experience of the Agazzi Sisters" (Pironi 2021: 7). Whereas Montessori freely if vaguely endorsed Pestalozzi as a great pedagogue, it was important for her to distinguish herself from Froebel and the Agazzi sisters.

C2P31 Montessori's substantive critiques of Froebel relate to the role of the teacher, the passivity of the child, and the place of fantasy. Her use of educational materials, while superficially similar to Froebel's, has almost opposite purposes.[5] For Froebel, these materials—"gifts"—are simple objects designed to provoke imaginative reconstructions on the part of the child, from which the teacher can draw various lessons. As Montessori describes Froebel's method in practice: "A wooden brick is given to the child with the words, 'This is a horse'" (9: 192). By contrast, the Montessori teacher might give the child "Froebel's blocks and bricks," but then, "having called a child's attention to the shapes of the two solids, we had him feel them carefully with his eyes open . . . [and] gave him a brief description to keep his mind fixed on the details . . . [and] then told the child to place the blocks on the right and the bricks on the left" without looking at the objects (2: 122). There are three important differences between these methods.

C2P32 First, in the Froebel method the teacher remains a constant presence, and the *teacher* teaches using the materials as props; "it is not the child who 'imagines spontaneously' and works with his brains, for at the moment he is required to see that which the teacher suggests" (9: 192). For the material to educate, "it would demand the continual active operation of the teacher in providing information

[5] For a slightly different perspective on the difference with Froebel, see Bobbio 2021: 10.

and hastening to correct a child's every mistake until he had learned his lesson" (2: 159). By contrast, the Montessori teacher suggests features to attend to, but ultimately the work that the child does can be done without a teacher. The child observes and feels the objects, sorts them, and can correct himself based on a further visual inspection.

C2P33 Second and relatedly, Montessori's use of materials is *essentially* active on the part of the child. Materials are there for children to *use*, to work with, not merely to learn from as the teacher employs them.

C2P34 Third, Montessori materials are designed to isolate and highlight features of reality, rather than to inspire fantasy. Rather than learning about how a "horse" relates to a "stable," young children in a Montessori classroom will focus on the actual properties of the materials present to them. These exercises give children a clearer sensory awareness of the real properties of the real world, and then the vocabulary to describe those properties. By contrast, if we follow Froebel we "suppose that we are developing the imagination of children by making them accept fantastical things as realities," but Montessori argues that what we in fact develop are only the foundations of "credulity" (9: 193). For her, the fantasies that "many of Froebel's gifts and pastimes are intended to encourage" are "imperfect and unproductive images of reality" that serve only as half measures to compensate children who are "not allow[ed] to exercise any real activity" and whose "energies, since they have to work outside the scope assigned to them by nature, become deviated . . . and work in emptiness, vagueness, and chaos" (22: 137, 136). Instead, Montessori actively seeks to identify the natural interests and tendencies of children and provide an environment where those interests can be satisfied *in reality*.

C2P35 In a remark to Helena Lubienska de Lenval, one of her early collaborators, Montessori compared her pedagogy to Pestalozzi's and Froebel's: "Pestalozzi gave the children freedom without material; Froebel gave them material without freedom; I gave freedom with a material" (quoted in Scocchera 2000: xxxiv). Pestalozzi took huge steps beyond the merely fantastical and vague proposals Rousseau made about how to educate children. By founding a school and putting Rousseau into practice, he embarked on the same project that Montessori would carry out several decades later. But Pestalozzi lacked the scientific background and the concrete pedagogical materials to fully realize those ideals of freedom. Froebel helped fill that gap, in that Froebel's materials, particularly as they were taken up by Seguin and later pedagogues (see Section 2.2.6), were invaluable starting points for Montessori's concrete pedagogical experiments. By making use of those materials in ways that respected children's agency, and by refining them in the light of children's revelations about human development, Montessori developed a whole new approach to education, and ultimately the basis for a whole new way of analyzing, interpreting, and enhancing human life.

C2S6

2.2.4 Johann Friedrich Herbart

C2P36 J. F. Herbart (1776–1841) was a major force within European philosophy at the end of the nineteenth century, a significant influence on Montessori's professors of philosophy and pedagogy (especially Credaro and Labriola, see Section 2.3),[6] and the central philosophical influence on the *Revista Pedagogica*, one of the leading journals in the philosophy of education during Montessori's life. In his monograph on the pedagogical philosophy of Herbart, written shortly before Montessori began studying philosophy with him, Credaro wrote,

C2P37

> The place of honor, which Pestalozzi (1746–1827) holds in the popular school and the Froebel (1782–1852) in the kindergarten, should be assigned to Herbart (1776–1841) in secondary education. Here is the foundation of one pedagogical doctrine, which, while embracing the problem of education as a whole, has as its special object secondary school methodology and the moral education of the adolescent. (Credaro [1900] 1915: viii)

C2P38 To a considerably greater extent than either Pestalozzi or Froebel, Herbart was a *philosopher* of education rather than a mere pedagogue. He studied philosophy with Fichte at Jena, met Pestalozzi early in his academic career, and eventually became the second successor to Immanuel Kant's Chair in Königsberg (see Beiser 2014: 101–103, 130–131). Over time, he emerged as a leading voice of early neo-Kantian philosophy, helped develop "Psychology as Science" on a broadly Kantian foundation, and emerged as a—arguably even *the*—leading philosopher of education of mid-nineteenth-century Europe (see Beiser 2014; Kim 2015).

C2P39 Without getting into the details of Herbart's philosophy as a whole (for which see Kim 2015), three points are worth highlighting here. First, as an early developer of empirical psychological methodology, Herbart sought a science of psychology "analogous to physics," but within which experimentation and even observation are secondary to mathematization of "experience as processed through metaphysics" (Herbart 1840: 185, cited in Kim 2015). Montessori's own approach to psychology at times draws from Herbart's mathematical style of analysis,[7] but she

[6] Babini and Lama point out that "both Credaro and Labriolo studied the pedagogy of Herbart during those years" when Montessori was studying with them, and Herbart was seen as "proposing a scientific foundation for pedagogical knowledge . . . a foundation for positive [*positiva*] pedagogy [as] an autonomous discipline far from philosophical and scientific hypotheses" (Babini and Lama 2000: 132; see too Dal Pane 1935: 139; Drake 2003: 59–60; Matellicani 2007: 89–90, 216, 221–222; D'Archangeli 2021).

[7] Perhaps most importantly, her conception of motivation as involving a balance of impulse and inhibition (see 9: 128–132) is framed in ways reminiscent of Herbart's notion of the "inhibition sum" and "inhibition ratio" (see Herbart [1924] 1968: 140 and Kim 2015).

explicitly rejects the sort of reduction present in Herbart (and, later, in Wilhelm Wundt), which would attempt to recast human behavior on the model of physics (see Chapter 1).

C2P40 Second, and more closely linked with the philosophy of education, the core concept within Herbart's education is that of moral "character," defined as "the embodiment of the will" (Herbart 1896: 200). The concept of character is grounded—in Herbart and then too in Montessori—in "concentration" on the basis of "interest" (Herbart 1896: 123, see too Kim 2015). Character education is thus built from a pedagogical approach in which "the supreme command in education" is to "lead the children into a situation which they like and which invites them to be free" (translated and quoted in Ulrich 1954: 510). These concepts of character, concentration, interest, and freedom will become central to Montessori's overall philosophy.

C2P41 Finally, Herbart's overall philosophical project reflects a broadly neo-Kantian concern with reconciling natural scientific study with human freedom. D'Archangeli helpfully highlights the importance of this concern within Italian pedagogical circles:

C2P42

> At the beginning of the 20th century, in the Italian philosophical and pedagogical panorama, we see the formation of two "poles" or "blocks." The first, towards which the neo-Kantians and the positivists converge, is characterized by its overhaul of the Herbartist pedagogy with its structure based on ethics and psychology, and seeks to find a balance between the two major philosophical currents that compose it, aimed at affirming and consolidating: a) the epistemological superiority of the empirical and experimental sciences in the study of Man and Society; b) the freedom of man and the absoluteness of values. (D'Archangelie 2021: 1; for a very different perspective on a similar theme, see Drake 2003: 60)

C2P43 Herbart's philosophical approach, with its broadly Kantian backdrop, sought a psychological analysis of the nature of human mental life and a pedagogical developmental program for cultivating human freedom. By the time Montessori studied philosophy at the University of Rome, Herbart's "main spokesman" was her own professor, Luigi Credaro (D'Archangeli 2021: 1). As we will see, Montessori's philosophy wove together empirical psychology and human freedom, though she engaged in this work in a way that prioritized direct observation over metaphysical speculation, and that placed the child, rather than the (adult) philosopher, in the position of authority vis-à-vis the ideals to which humanity could and should aspire.

C2S7

2.2.5 Itard and Séguin

C2P44 While Montessori regularly mentions philosophers like Comenius, Rousseau, and Pestalozzi, the pedagogues she most emphatically praises, and whose pedagogical tradition she sees herself as directly furthering, are Jean Marc Gastard Itard (1774–1838) and Édouard Séguin (1812–1880). Montessori describes how, while enrolled as a student of philosophy, she "began a . . . thorough study of the works of Itard and Séguin," a study not merely academic but in the style of a "meditation," where she "translated into Italian and copied out with my own hand, the writings of these men, from beginning to end, making for myself books as the old Benedictines used to do before the diffusion of printing" (Montessori [1909] 1912: 41). In some ways, one might even see these pedagogues, more than any of the others in this chapter, as the reason that she took time to return to graduate school to study philosophy. In 1899, in preparation for her work at the orthophrenic school in Rome, she had visited Bicêtre—the hospital in Paris where Séguin developed his pedagogical principles—and she describes her "more thorough" study of his principles as arising when, "Having through actual experience justified my faith in Séguin's method, I withdrew from active work among deficients" (Montessori [1909] 1912: 41). This "withdrawal" into a more contemplative life consisted of Montessori's leaving psychiatric practice to enroll as a student of philosophy. Part of the reason she did so was to spend more time working through the ideas of these two figures. Thus Augusto Scocchera, in his introduction to Montessori's *Il Metodo*, writes,

C2P45

> It seems that the big three of education [Rousseau, Pestalozzi, Froebel] have not dispensed many gifts to Montessori, neither direct nor implied, and that her educational theory not only stands on its own two feet but stands on different ones from those for which these other pedagogues . . . argue . . . Her line of succession is quite different, and it is precisely one that goes from Itard to Séguin, possibly passing through Freud: a medical origin on the one hand and on the other biological interests ranging from Lamarck to Darwin, adapted by Montessori, with special links to the ethology of Fabre and De Vries' experimental genetics. (Scocchera 2000: xxxiv)

C2P46 Scocchera understates the importance of the history of pedagogy for Montessori's development, but he is correct that she owes much to the influence of these early psychologists (and also, as we will see in Sections 2.3.3 and 2.4, anthropologists and biologists).

C2P47 Jean Marc Gastard Itard worked as a military physician during the French Revolution and then at the National Institute for Deaf-Mutes, where he eventually became famous when assigned to care for the so-called "Wild Child of Aveynon,"

a boy found by hunters in the woods. Under Itard's education and care, he had some success in basic sensory education and very limited spoken and written literacy. Partly based on this experience, Itard rejects Rousseauian conceptions of "natural" man as inherently pre- or non-social, insisting that "man . . . would be, without the aid of civilization, one of the feeblest and least intelligent of animals," explicitly including under the concept of "civilization" all of those peoples who have been wrongly "regarded as not civilized at all, merely because they were not civilized in our particular manner" (Itard 1802: 3–4). Itard rejects "the prejudice of innate ideas" as well as various standard medical practices of his day (Itard 1802: 9) and instead emphasizes the centrality of careful observation, of just the sort Montessori would later do, which seeks to change the conditions of one's subject in order to optimize their flourishing, but changes those conditions based on observations of what engages the child. Itard, in this particular context, was developing the beginnings of what would become Montessori's pedagogical naturalism.

C2P48 Montessori praises the "interesting and minute descriptions of educational efforts and experiences" in Itard's work, and describes those efforts as "practically the first attempts at experimental psychology," and she adds,

C2P49

> But the merit of having completed a genuine educational system for deficient children was due to Edward Séguin, first a teacher and then a physician. He took the experiences of Itard as his starting point, applying these methods, modifying and completing them during a period of ten years' experience with children taken from the insane asylums and placed in a little school in Rue Pigalle in Paris. (Montessori [1909] 1912: 34)

C2P50 Eduoard Séguin was a student of Itard's who extended Itard's pedagogical approach to deal with a wide range of intellectual disabilities. Séguin carefully designed pedagogical materials and techniques in order to introduce students to basic sensory and cognitive operations in a step-wise manner with an emphasis on active engagement.

C2P51 Montessori encountered Séguin's ideas when she was working with children suffering from mental illnesses and disabilities, seeking a way to enhance their quality of life. She found in him a confirmation of her own emerging sense that these problems were more pedagogical than medical. She quotes him as the source for an empiricist pedagogy that seeks "to lead the child from the education of the senses to ideas" (from Séguin, as quoted in Montessori [1909] 1912: 224). She credits Séguin with classic Montessorian pedagogical practices, such as the "three period lesson" and the emphasis on concrete "didactic materials" along with a careful method for presenting those materials (Montessori [1909] 1912: 177–178, 36). In defending her claims about pedagogy and human potential, she writes, in 1909, "my ten years of work may in a sense be considered as a summing up of the forty years of work done by Itard and Séguin" (Montessori [1909] 1912: 46).

C2P52 Montessori never saw her pedagogical naturalism as the work of a single person; she sought to train teachers who, like her, could carefully observe children and respond to their revelations through creating better and better environments for newly disclosed forms of human flourishing. In these early days, before she had trained cadres of teachers, she saw *herself* as part of a broader tradition of scientists responding attentively to the needs of children in their care. Foremost among these prior pedagogical naturalists were Itard and, especially, Séguin.

C2S8 ## 2.3 Professors at the University of Rome: Labriola, Credaro, Sergi

C2P53 In 1903, when Montessori enrolled at the University of Rome for graduate study in philosophy, the dominant faculty there were Luigi Credaro and Antonio Labriola.[8] Both made important contributions to the philosophy of education, though both—and especially Labriola—were impressive philosophers more generally. From these and other professors at the University of Rome, Montessori was exposed to a range of important philosophical texts, figures, and ideas (for details, see Matellicani 2007). In addition, Montessori engaged with psychologists, anthropologists, and others at the University of Rome, among whom Giuseppe Sergi was particularly influential.

C2S9 ### 2.3.1 Antonio Labriola

C2P54 Antonio Labriola (1843–1904) was the most popular philosophy professor at the University of Rome while Montessori studied there. Babini rightly suggests that she "in particular attend[ed] the lectures of Antonio Labriola, which had become a meeting point for progressives in the university" (Babini 2000: 59, see too Matellicani 2007: 214), though Matellicani is also likely correct that "Montessori knew Labriola [primarily] through the texts he wrote and the newspapers, since by the time of his courses in 1902–3, Labriola was not the same, having been consumed little by little by disease [throat cancer]" (Matellicani 2007: 217).[9] Labriola was a pivotal figure in the establishment of Italian Marxism in the early twentieth century. In the early 1860s, he studied Vico, Spinoza, and Hegel with Bertrando Spaventa in Naples. From 1877–1891, Labriola directed an institute focused on education and teacher training, which would have made him particularly

[8] She also took courses with faculty such as Giacomo Barzellotti (a neo-Kantian who taught history of philosophy and published on Kant, Schopenhauer, and Spencer, among others), and Luigi Ragnisco, who taught moral philosophy and published on Hegel and others (see Matellicani 2007: 217–218, 241, 244).

[9] Thanks to Laura Di Paolo for pushing me to clarify the nature of Montessori's engagement with Labriola.

interesting to Montessori, and during this period he engaged with and was significantly influenced by J. F. Herbart (see Section 2.2.5).

C2P55 During this time, Labriola also "discovered in Marx the fulfillment of Hegelianism" (Drake 2003: 61). He came from poverty, worked his way through school, and always "could only think about philosophy as a way of solving social problems" (Drake 2003: 57). The turn to Marx was a natural combination of Labriola's desire for concrete solutions to problems and a fervent interest in Hegel's philosophy: "the fact that he had passed through Hegel's philosophy of history mean that he could approach true Marxism, also imbued with classical German philosophy, decisively discarding all the positivistic corrections then so in vogue" (Catalano 1951: 303). As Anna Matellicani explains, Labriola articulated distinctions between historical materialism and metaphysical materialism that "helped to restore a correct image of Marx's thought and to initiate the new theoretical-political course of scientific socialism, of which Lenin and Gramsci were later protagonists" (Matellicani 2007: 244). Labriola rejected approaches to Marxism that downplayed the role of individual consciousness in historical change, developing what Roberto Dainotto calls a Marxist "new humanism" (Dainotto 2008: 266). In this connection, Labriola grounds Italian Marxism in the thought of Giambattista Vico, thereby making his Marxism both distinctively Italian and more focused on humanity and human culture/history than on economics as an abstract science (see Dainatto 2008). This turn to Vico is also a turn back to Hegel: "Labriola's new science of humanist communism . . . brings human thought back to a state of fundamental Hegelian freedom" (Dainatto 2008: 281).

C2P56 Labriola critically engaged with the scientific positivism (or naturalism) that was prominent within European philosophy and intellectual life more generally. While he "showed a concrete and effective [*fattivo*] interest in the development of experimental psychology" (Babini and Lama 2000: 132), this interest was combined with critique of how psychology was practiced. In a letter to Engels in 1891, he laments that "the young people know only the positivists, who for me are the representatives of idiocy in the bourgeois manner" (quoted in Drake 2003: 64). Labriola articulated a new sense of "science," to "put into question" "the monopoly of positivism on the word 'science'" and thereby define a "critical communism" as a "different kind of science" (Dainotto 2008: 272). In his explanation of this science in "In memoria del Manifesto dei Comunisti," he discusses a "scientific and meditative revelation," using language similar to that which Montessori uses to describe revelations by children. Just as Montessori rejects dogmatic philosophizing in favor of careful observation of children, so too Labriola insists upon revising Marxist ideals in the light of concrete attention to the lives of the proletariat (see Drake 2003: 69; Labriola 1895: 89).

C2P57 We can see signs of Labriola's Marxism in several aspects of Montessori's overall philosophy. Most prominently she—like Labriola—sought a distinctively human science with its own methodology, one attentive to the cultural-spiritual

dimensions of human progress and not merely its material conditions, and one that seeks new insight through careful attention to the lived experiences of the oppressed. Like Labriola (and Marx, and especially Hegel), Montessori was drawn to a teleological conception of history that informed her scientific picture of life.[10] Moreover, while many of her scientific contemporaries focused on present conditions and isolated empirical tests (see Chapter 1, Section 1.4), Montessori was attentive to world history as a development of and toward human freedom. She did not see present conditions as the end point of history but saw herself as involved in changing the psychological conditions in which human beings develop in order to move history forward in a new way. Montessori goes even further than Labriola in ultimately rejecting material and political solutions to social problems, insisting on the primacy of pedagogy for social change. During her time as a student of philosophy, Labriola exposed her to a vision of Marxism that saw nature and history as teleologically oriented toward expanding freedom, that treated philosophy as necessarily responsive to social problems, and that gave due weight to the lived experiences of the oppressed as necessary for philosophical insight. While she rejected his emphasis on political revolution, she echoed these features of Labriola's view throughout her life.

C2S10

2.3.2 Luigi Credaro

C2P58 Although Montessori sought out Labriola's lectures because of his general popularity and political activism, Labriola died in 1904, shortly after Montessori began studying philosophy. By contrast, not only did Montessori take courses with Luigi Credaro (1860–1939), but he remained an important mentor—and sometimes critic—for decades after their initial contact. In 1904, for example, just as she was finishing her philosophical studies, Credaro appointed her to teach Pedagogical Anthropology in the School of Pedagogy that he founded at the University of Rome (De Stefano [2020] 2022: 81).

C2P59 Credaro had been a student of Wilhelm Wundt (see Romano 2020: 204) and extensively studied the philosophy of J. F. Herbart (see D'Archangeli 2021). He was politically active, serving in parliament starting in 1895 and serving as Minister of Public Education from 1910–1914. During the early twentieth century, he was the leading voice for neo-Kantian and anti-Idealist approaches to the philosophy of education in Italy, and his *Rivisita Pedagogica* (*Pedagogical Review*), founded in 1908, which immediately became the leading venue for the spread of Herbart's philosophy of education (see Section 2.2.5), increasingly emphasized a pro-science,

[10] As we will see in Chapter 3, teleology turns out to be central to her overall metaphysics. For discussion of Hegel's influence on Montessori, see Gimbel and Emerson 2009.

broadly positivist "pluralism of ideas" (Guarnieri 1978: 74, quoted in Cives 2001: 199).[11]

C2P60 Especially in her early work, Montessori identifies Credaro as a particularly important promoter of the kind of pedagogical naturalism she seeks to embody:

C2P61 > the practical progress of the school demands a genuine *fusion* . . . as shall bring scientists directly into the important field of the school and at the same time raise teachers from the inferior intellectual level to which they are limited today. Toward this eminently practical ideal the University School of Pedagogy, founded in Italy by Credaro, is definitely working. It is the intention of this school to raise Pedagogy from the inferior position it has occupied as a secondary branch of philosophy, to the dignity of a definite science, which shall, as does Medicine, cover a broad and varied field of comparative study. (1912: 4–5)

C2P62 Montessori began her professional life within medicine, a practical discipline seen as co-equal with philosophy, law, and theology, but grounded—to a greater extent than any of those—in science. As she turned to pedagogy, she went to the graduate school of philosophy in part because that was where pedagogy in any form was located, but also because she sought to infuse into pedagogical philosophy the spirit of a scientist and to bring this pedagogical naturalism back into philosophy in order to shed light on the full range of human problems through the insights gleaned from careful observation of children. In that goal, Credaro was a central ally.

C2S11 ### 2.3.3 Guiseppe Sergi

C2P63 Even as Montessori returned to the University of Rome to study "philosophy," she never left her scientific and medical training behind. In her discussions of philosophers such as Credaro, she consistently emphasizes the role science plays in pedagogical philosophy, and while studying philosophy properly speaking, Montessori also studied psychology and anthropology, disciplines which were only just beginning to distinguish themselves from medicine and philosophy. Just as one must add the psychologists Itard and Séguin to philosophers like Rousseau and Froebel in discussing historical influences, so too in discussing her university professors, one must add to the philosophers Labriola and Credaro the anthropologist Guiseppe Sergi (and also colleagues such as Sante De Sanctis, Giuseppe Montesano, and others[12]).

[11] During the 1920s and 1930s, this journal had some pointed criticisms of Montessori's philosophy, but overall, Credaro was what I would call a balanced supporter of Montessori and her ideas.

[12] De Sanctis was another student of Sergi and worked closely with Montessori as teacher, mentor, collaborator, and coauthor (see De Sanctis and Montessori 1897 (I thank Laura Di Paolo for this reference)). He was an important early psychologist, developing I.Q. tests alongside Binet (see Cicciola et al. 2014), extensively working on attention (which would be an important theme for Montessori),

C2P64 Erica Moretti describes Sergi as Montessori's "mentor . . . while she was pursuing a degree in philosophy" (Moretti 2021: 32). Like Credaro, Sergi was both an intellectual influence on Montessori and a practical support in her efforts to advance her career. He supported her appointment as a professor of pedagogical anthropology in Credaro's school of pedagogy, and her course bears many imprints of Sergi's anthropological methodology, including features such as detailed "biographical charts" for cataloging physical, behavioral, and environmental features of each student. Sergi worked closely with Montessori in a relationship that Laura Di Paolo aptly describes as "mutually beneficial"[13] in that he promoted her within academic circles and taught her anthropological-observational techniques, while she provided him with anthropological information about female populations that it was hard for men to collect, such as in her anthropological measurements of women in the Lazio region and her studies of peasant women in the agro romano (see Montessori 1906; Morretti 2022: 18ff.). Montessori extensively praises Sergi in her *Pedagogical Anthropology* and credits the success of her first experiments with the Casa dei Bambini in San Lorenzo to "the warm support given it by the distinguished anthropologist, Giuseppe Sergi, who for more than thirty years had earnestly labored to spread among the teachers of Italy the principles of a new civilization based upon education" (Montessori [1909] 1912: 3).

C2P65 Beyond practical support and methodological tools, Sergi provided important philosophical perspectives to Montessori as she sought to integrate scientific expertise with her broadening philosophical and pedagogical interests.[14] Most importantly, Sergi provided a model of a naturalist philosophical perspective informed by observational anthropology. At the time, the term "anthropology" could range in scope from Immanuel Kant's suggestion that "we could reckon all of [philosophy] as anthropology" (Kant 1900: f., vol. 9, 25) to narrow phrenological studies of the physical features (especially skull sizes) of different human populations. Sergi affirmed Kant's capacious understanding of anthropology, claiming that anthropology is a "living science" or a "science of living things" with a "vast signification," referring to all that pertains to "human existence" and especially "the conditions of the human being in the environment" (Sergi 1884: 3, 4–5).[15] Even while capacious in scope, however, anthropology as Sergi describes it must have "scientific rigor" (Sergi 1884: 5). Sergi integrates the sciences in which

and helping to promote the work of William James (see Section 2.5) in Italy. For more on De Sanctis and his influence on Montessori, see Babini 2009: 73, 172, and Pesci 2022. For references to Italian work on De Sanctis, see Ceccarilli, Cimino, and Foschi 2010. Montesano was codirector of the Orthophrenic School with Montessori and a collaborator on a range of projects. They worked closely together during the years immediately following her medical study, and they had a love affair that led to the birth of Montessori's only son, Mario.

[13] Di Paolo, unpublished manuscript and private communication.
[14] For more details on the influence of Sergi on Montessori, see Pesci 2022.
[15] I thank Laura Di Paolo for sharing this source with me.

Montessori was steeped with the philosophical concerns she was beginning to explore; his own anthropologically based positivism models the pedagogical naturalism she would develop. Moreover, like Montessori, Sergi connects scientific philosophy with education, and connects scientific education with a broader social reform. Furio Pesci notes that "According to Sergi, the conclusions reached by experimental science justified a strong demand for social justice in several directions" (Pesci 2022: 22, citing Cicciola and Foschi 2017), and Montessori quotes Sergi's *Education and Instruction* early in her own first book on *Scientific Pedagogy*:

C2P66

> "To-day in the social world," said Sergi, "an imperative need makes itself felt—the reconstruction of educational methods; and he who fights for this cause, fights for human regeneration." In his pedagogical writings collected in a volume under the title of "*Educazione ed Istruzione*" . . . he gives a résumé of the lectures in which he encouraged this new movement, and says that he believes the way to this desired regeneration lies in a methodical study of the one to be educated, carried on under the guidance of pedagogical anthropology and of experimental psychology. (Montessori [1909] 1912: 2–3; cf. 2: 2)

C2P67 Sergi was also an important source for Montessori's interest in Darwinian evolutionary theory (see Section 2.4). He "tenaciously defended" a "frank Darwinian evolution" (Pesci 2022: 24) and had an ongoing correspondence with Francis Galton (Darwin's cousin and collaborator). To an even greater extent than Darwin, Sergi emphasized the formative role of environment and the need for organisms to adapt to their environments, though unlike Darwin—and like Montessori—he conceptualized this adaptation largely in terms of adaptation within a lifespan; each organism "adapts itself to the continually acting forces of external nature" (Sergi 1884: 6). In that sense, Sergi also had a profound influence on Montessori's own emerging ideas about the importance of the environment. Her conception of the absorbent mind is explicitly described by her in terms of human organisms' adaptation to their environments, and her whole pedagogical methodology involves careful preparations of environments within which children develop in healthy ways. Finally, Sergi's moral and political thought promoted the notion of humanity as a "collective organism" (e.g. Sergi 1884: 4), a notion that—as we will see in Chapters 10 and 11—becomes important in Montessori's own political thought.

C2P68 At times, albeit obliquely, Montessori took issue with aspects of Sergi's thought. Most obviously, she opposed his pseudoscientific misogyny; where Sergi had used phrenological studies and limited anthropology data to argue for an innate inferiority of women, Montessori clearly supports those whose "work arrived at an opposite conclusion: namely, that they can demonstrate a greater development of brain in woman" (Montessori [1910] 1913: 257). Her anthropological work and even her life itself are a sustained argument against Sergi's misogyny. She differed

from her mentor in other important ways as well. As we will see in Section 2.4, she prioritized the biological work of embryologists such as De Vries over Darwinism, precisely on the grounds that apply better to Sergi than to Darwin, namely that Darwin's evolutionary theory overemphasizes the role of environmental selection and understates the role of organisms' inner drives toward development (see Section 2.4). Methodologically, Montessori also associates Sergi with the more unidirectional psychology-to-pedagogy approach to scientific naturalism that she rejects in favor of a more integrative pedagogical naturalism (see Chapter 1). As she explains,

C2P69

> The authority of Sergi was enough to convince many that, given such a knowledge of the individual, the art of educating him would develop naturally. This, as often happens, led to a confusion of ideas among his followers, arising now from too literal interpretation, now from an exaggeration, of the master's ideas. The chief trouble lay in confusing the experimental study of the pupil, with his education. (Montessori [1909] 1912: 3)

C2P70

While framing this as a concern with over-literalizing Sergi's ideas, Montessori's general point is that anthropology cannot and should not be seen as a discipline that *precedes* pedagogy and is applied *to* it, but always also as a discipline that takes place in and through pedagogy, as loving teacher-scientists seek to change conditions to bring out the innate tendencies children manifest in conditions of freedom.[16]

C2S12

2.4 Evolution and Embryology: Darwin, Spencer, and De Vries

C2P71

Montessori studied medicine before she studied philosophy, and her medical training included detailed study of Darwin's evolutionary theory (see Mantecelli 50). In addition, she engaged closely with the work of Herbert Spencer, the popularizer of Darwin, who Montessori sometimes classifies alongside Rousseau,

[16] Relatedly, when she sharply critiques the conflation of psychology with physical systems (see Chapter 1), Montessori also obliquely critiques Sergi, who insisted that "mental phenomena" could "be reduced to physiological phenomena" (Foschi 2012: 313; see Sergi 1881: xvii–xx). Moreover, even while making use of some of Sergi's techniques of measurement, she shifts toward a less quantitative and less physicalist "observational" psychology. She thereby takes a middle path between Sergi's approach and the alternative offered by Roberto Ardigò, another forefather of Italian experimental psychology (see Chapter 4: xxx).

Perhaps for some or all of these reasons, Montessori's strongest praises of Sergi show up in her earliest works, when she was still dependent on his public support for her work. While he featured prominently in her first two books (1912 and 1913), he is not mentioned in later works such as *Spontaneous Activity* (1918: v. 9) or *The Absorbent Mind* (1949: v. 1) or the *Secret of Childhood* (1936: v. 22). Likewise, while she makes extensive use of biographical charts in these earliest works, there is little to no mention of them in later work.

Pestalozzi, and Herbart as a great "pedagogue" and at other times describes among "materialist . . . psychologist[s]" (9: 24, 47, 119). Montessori's biological education went far beyond the basics of Darwinism, however, and she often favored developmental biologists and embryologists—most notably Hugo De Vries—for accounts of biological evolution more adequate than those of Darwin or Spencer.

C2P72 Charles Darwin has become a household name today, virtually synonymous with "evolution." His *Origin of Species* ([1859] 1883) provided the basis for a new sort of mechanism in biology that showed how the wide variety of species on earth could emerge through naturalistic processes from common ancestors, and how apparently purposive structures of organisms could emerge from causal processes that are not intrinsically purposive. Random variations in organisms give rise to increasingly refined adaptive structures through natural selection, a process whereby "Owing to the struggle for life, any variation, however slight and from whatever cause proceeding, if it be in any degree profitable to an individual of any species . . . will tend to the preservation of that individual, and will generally be inherited by its offspring" (Darwin [1859] 1883: 49).

C2P73 Darwin's nineteenth-century followers, particularly Herbert Spencer, strongly influenced the Italian positivism prevalent during Montessori's graduate education (see e.g. Matellicani 2007: 25f.; Cimino and Foschi 2012: 310). Sergi (see Section 2.4) was actively translating Spencer's works into Italian during the period that Montessori worked with him (Cimino and Foschi 2012: 313). He described Spencer as "one of the first among those who see themselves as part of Darwin's line, one of the greatest of evolutionists" (Sergi 1889: 3). Most famous today for his introduction of the term "survival of the fittest" (Spencer [1864] 1910: 264), Spencer explicitly applied Darwin's theory to human psychology, including "the theory and practice of education," which he describes as "the subject which involves all other subjects, and therefore the subject in which the education of every one should culminate" (Spencer 1864: 173). Unlike Darwin, Spencer incorporated Lamarckian features of development, and he insisted, more than Darwin himself, that biological systems tend toward increased complexity, individuality, and self-sufficiency (see Spencer's *Principles of Biology*, *Social Statics*; cf. Darwin's *Descent of Man*). This conception of "evolution" as a drive toward increasing perfection had a significant influence upon Sergi and other Italian positivists, and also—as we will see throughout this book—on Montessori's views, from her metaphysics through her politics. Unlike Spencer, however, who ended up with a broadly utilitarian moral theory (see Weinstein 2019) and a metaphysics that often foregrounded competition, Montessori's perfectionist ethics is Nietzschean and Hegelian rather than utilitarian, and her metaphysics emphasizes integration and cooperation rather than competition.

C2P74 Montessori's *Pedagogical Anthropology* refers to the "*biological philosophy*, based upon evolution," which "held its own, for nearly half a century . . . under the glorious leadership of Darwin," but she immediately criticizes that Darwinian

approach as a "materialistic philosophy . . . [that] could hardly be expected to prove a field of victory for *man*, the intelligent animal, and nature's most splendid achievement" (Montessori [1910] 1913: 3). One important part of Montessori's criticism of Darwin is his overestimation of the role of external selective pressures in driving evolution. Consistent with Sergi's and Spencer's appropriations of Darwinian evolution as a sort of progress, but especially with broadly Hegelian notions of teleology in history, Montessori posits life as a creative force driving increasing perfection *from within*. That is, "The internal factor, namely *life*, is the primary cause of *progress* and the *perfectionment* of living creatures—while environment assumes a secondary importance, such as that of *directing* evolution, acting at one time as a stimulus towards certain determined directions . . . at another . . . effacing such forms as are unfit" (Montessori [1910] 1913: 46–47). This focus on internal factors driving development and ways these internal factors unfold into new (higher) forms of life leads Montessori to embryologists and developmental biologists, including Carl Naegeli (Montessori [1910] 1913: 46), Charles Manning Child (6: 70), and especially Hugo De Vries, who is "above all others . . . in the advance guard of modern biological thought" and offers "the most modern theory of evolution" (Montessori [1910] 1913: 455, 47). De Vries in particular helped lead embryology from "being incorporated into the theories of Darwin" to finding itself "obliged to embrace a wider view" that made it "possible to envisage other possibilities than that of the slow adaptive transformations of the Darwinian hypothesis" (1: 41–42).[17]

C2P75 Stephen Gould rightly identifies Hugo De Vries as "the world's most celebrated evolutionist during the early 20th century," albeit one whose ideas "have suffered a nearly total eclipse" in recent years (Gould 2002: 418).[18] De Vries was a Dutch botanist, one of several early twentieth-century biologists to recover and popularize Mendel's genetic theory and thereby set the stage for what has been called the "Modern Synthesis" in biology (see Bowler 1989: 325ff.; Depew and Weber 1995). Neither De Vries nor Montessori reject basic Darwinian principles of evolution through natural selection, but Darwin (and even followers like Spencer)

[17] For helpful discussions of Darwin's view and early alternatives (including De Vries), see Bowler 1989: 248, 267f.; Kirschner and Gerhart 2005: 10–37.

[18] For Montessori, De Vries was particularly important for his concept of "sensitive periods" of development. Rather than steady progress toward some particular end, De Vries posited that organisms (and species) undergo rapid development during particular developmental stages. At the level of species, too, both De Vries and Montessori endorse temporally discontinuous evolution. Based on observations of sudden and dramatic mutations, De Vries argued that "new species are created [suddenly and] unexpectantly" (quoted in Montessori [1910] 1913: 47; cf. De Vries 1909: 3). Likewise, against Darwin, Montessori argues that

> the mechanism of transformation is not that of a succession of very gradual variations . . . On the contrary, what produces stable characteristics is a revolution prepared in a latent state, but unannounced in its final disclosure. A parallel to this is to be found, for example, in the phenomenon of puberty in its relation to the evolution of the individual. (Montessori [1910] 1913: 47; cf. 1: 42–43)

essentially took variation within population for granted and wrongly conflated ordinary variations within populations (due, for instance, to recombination through sexual reproduction) with what De Vries called "mutations," which De Vries rightly identified as the source of species-level biological change. Evolutionary theory today draws from both thinkers, and technologies such as genetic engineering rely on a DeVriesian, post-Darwinian approach to biological change.

C2P76 For Montessori's philosophy and pedagogy, De Vries is particularly important for several reasons. Most basically, his focus on internal sources of biological evolution provides a framework for Montessori to articulate the relative importance (and roles) of freedom and a prepared environment within human development. She makes this point explicit in her first book when she introduces what she calls "The biological concept of liberty in pedagogy," in which she directly mentions De Vries (and Naegeli).

C2P77

> From a biological point of view . . . there exists only one real biological manifestation: the *living individual* . . . The child is a body which grows, and a soul which develops, these two forms, physiological and psychic, have one eternal font, life itself. We must neither mar nor stifle the mysterious powers which lie within these two forms of growth, but we must *await from them* the manifestations which we know will succeed one another. *Environment* is undoubtedly a *secondary* factor in the phenomena of life; it can modify in that it can help or hinder, but it can never *create*. The modern theories of evolution, from Naegeli to De Vries, consider throughout the development of the two biological branches, animal and vegetable, this interior factor as the essential force in the transformation of the species and in the transformation of the individual. The origins of the *development*, both in the species and in the individual, *lie within*. The child does not grow *because* he is nourished, *because* he breathes, *because* he is placed in conditions of temperature to which he is adapted; he grows because the potential life within him develops, making itself visible; because the fruitful germ from which his life has come develops itself according to the biological destiny which was fixed for it by heredity. This concept, so brilliantly set forth by De Vries in his Mutation Theory, illustrates also the limits of education. (Montessori [1909] 1912: 104–105)

C2P78 The *agent* of development, for Montessori, is the internal life of the child. As she explains later, "the environment can act in two opposite senses, favoring life, and stifling it" (Montessori [1909] 1912: 105), but environment itself cannot *create*. From this emphasis on internal causes of evolution, Montessori draws the conclusion that scientific pedagogy cannot "offer perfected methods" for bringing about desired improvements in the life of the child (9: 3). Rather, "we should leave as much as possible to Nature" while providing the conditions needed for the inner life of the child to do its work.

C2P79 We are beset by such anxieties as these: it is necessary to form character, to develop the intelligence, to aid the unfolding and ordering of the emotions. And we ask ourselves how we are to do this . . . It is Nature . . . which regulates all these things . . . [so] instead of having to deal with many different things—such as what are the best aids to the development of character, intelligence, and feeling?—one single problem will present itself . . . How are we to give the child freedom? (9: 3–4)

C2P80 In a sense, Montessori's entire pedagogical naturalist philosophy flows from this attention to the centrality of inner development as the driver of evolutionary change. Because true progress comes from within, the educator-philosopher must *await* the revelations of Nature and, at most, create environments that will not stifle those revelations.

C2P81 De Vries significantly influenced other features of Montessori's philosophy and pedagogy. His emphasis on the creative powers of life lent itself to notions of natural teleology more readily than Darwin's more mechanistic approach (see Chapter 3). De Vries extensively used the concept of sensitive periods, including the notion that specific capacities develop in parts before being unified into a coherent whole; Montessori's own concept of sensitive periods was explicitly an extension of De Vries's physiological concept into the psychological plane (see 1: 85, 22: 27–34). More broadly, she took his emphasis on embryological development, which was primarily focused on the growth of plants from single seeds, to include what she calls the "spiritual embryo," the human being during the early formative years of its consciousness (see 1: 41–73). Applying De Vries's tools for the analysis of biological development to the psychological realm, she describes how early childhood development provides a window into the processes by which new kinds of beings—human beings with advanced cognitive systems—are able to self-create.

C2P82 We must dig into the deepest mystery of human life; we must reach the nucleus from which all is formed, the apparent non-existent psyche of the newborn child. He has the power to develop everything which is in man. He creates a being who can orientate himself in the environment. Without language, he learns to speak; without intelligence, he constructs it; he coordinates his movements and . . . becomes interested in things. Nothing existed. Everything has been constructed by him. In him we are confronted with the mysterious, miraculous fact of creation. (17: 20)

C2S13

2.5 William James

C2P83 Perhaps the single most important philosophical influence on Montessori was the one from "America, the great positive scientist, William James" (Montessori [1909]

1912: 373). Montessori makes extensive use of James's ideas in articulating her own fusion of psychology, pedagogy, and philosophy. His *Principles of Psychology* was published in 1890, with the first—and highly acclaimed—Italian translation published by Giulio Cesare Ferrari in 1901, just as Montessori began her degree in philosophy (see Bocci 2022). During the time that Montessori studied at the University of Rome and later worked at the Orthophrenic School, American pragmatism in general, and James in particular, was very popular among university students (see James 1906; Santucci 1963). Furio Pesci notes, for example,

C2P84

> A large part of the pedagogical psychology lessons given by [Montessori's colleague and mentor Sante] De Sanctis comprised the schematic presentation of the content of the Italian translation of a minor work by William James . . . James had reached a peak of fame and scientific prestige with his famous *Principles of Psychology*, and demonstrated the usefulness of a "naturalistic" study of the human mind. His courses systematically presented the effects of the main psychological achievements on teaching. (Pesci 2022: 25)

C2P85 Pesci credits De Sanctis with "an intent" expressed "as far back as the 1910s to broaden the reference framework of his scientific research by incorporating the functionalistic perspective pioneered by James" (Pesci 2022: 26); Montessori invokes James in the context of her pedagogical naturalism already in 1909.

C2P86 Williams James (1842–1910), the most widely cited "American pragmatist," was arguably the most important philosopher living and working in the United States prior to the late twentieth century. Like Montessori, his academic specialization was initially medicine, and his initial teaching appointments were scientific rather than strictly "philosophical." Early in his teaching career, however, he migrated from anatomy and physiology to the emerging field of psychology, and his *Principles of Psychology* in 1890 helped to define that field. Also like Montessori, James's psychological work was infused from the start with philosophical insight, and the philosophical dimension of his work became more and more prominent over time. Unlike Montessori, however, James remained an ivory tower academic for most of his life, teaching at Harvard from his first course in comparative physiology shortly after finishing his MD to the professorship in psychology and philosophy that he kept until shortly before his death.

C2P87 A full discussion of James's wide-ranging philosophy and psychology is beyond the scope of this chapter. Even comparatively analyzing the psychological and pedagogical ideas[19] of James and Montessori would be a task well worth an entire

[19] James had much less to say about pedagogy than Montessori did, but some of his pedagogical ideas are directly relevant to Montessori's thought. For example, in a work that De Sanctis was teaching while he and Montessori were working together, James says, "Education, in short, cannot be better described than by calling it *the organization of acquired habits of conduct and tendencies to behavior*" (James 1899: 29). As we will see, particularly in Chapter 4, Montessori too sees education in terms of the organization of embodied behavior rather than the acquisition of disembodied knowledge. That the

monograph. For this short section, I merely highlight three overarching ideas important to Montessori as she developed her own philosophical perspective.

C2P88 First and perhaps most importantly, James refused to draw a sharp distinction between psychology and philosophy; when he helped establish Harvard's psychology department, he "tied [it] to the department of philosophy" in part because "James . . . remained unconvinced that psychology was in fact a distinct discipline."[20] The model of a doctor turned psychologist-philosopher helped inspire a young Montessori, studying philosophy in Rome, to see philosophy and psychology as cooperating toward the solution of fundamental problems about the human condition.

C2P89 Second, James was a member of the Theosophical Society (Lysy 2000) and more generally a naturalist philosopher open to and reflective about spirituality and religion. Montessori herself briefly joined the Theosophical Society in 1899 and then spent a prolonged period of time at the Theosophical Society headquarters in Aydar during the 1940s. More importantly, throughout her life Montessori sought to combine a broadly naturalist and positivist philosophical methodology with spirituality in general and even Roman Catholicism in particular (for discussion, see Cives 2000: xxviii). James's own pioneering work in both psychology (James 1890) and religion (especially James 1902) shows how someone with Montessori's sensibilities could approach religion in a philosophically rigorous way. She explicitly refers to "spiritualistic psychologists, to which William James belonged," who "recognized, in the concomitant of attention, a fact bound up with the nature of the subject, a 'spiritual force,' one of the 'mysterious factors of life'" (9: 120). Unlike James, however, Montessori put the child at the center of this methodology, looking to children's experiences of religion for guidance about the fundamental nature of spiritual reality (see discussion in Chapter 8).

C2P90 Finally, and most substantively, Montessori explicitly borrows from James a series of broadly pragmatist insights about the nature of attention, experience, and even reality itself. James articulated a conception of knowledge and sense experience according to which we know and experience only what we have some reason to be interested in for some pragmatic purpose. In defending her own interested empiricist epistemology, which we will discuss in Chapter 5, Montessori quotes James as saying,

C2P91

> It is possible to suppose . . . that a God could, without impairing his activity, simultaneously behold all the minutest portions of the world. But if our human

context for this passage is James's anticipation that teachers will complain that they need to keep kids still, and more generally his endorsement of the value of action over mere knowledge, brings it into even closer congruence with Montessori's overall pedagogical approach.

[20] See https://psychology.fas.harvard.edu/people/william-james.

> attention should be thus dissipated, we should merely contemplate all things vacuously, without ever finding occasion to do any particular act. (9: 158)

C2P92 The point, for James as for Montessori, is that *human* beings, unlike God, can only experience or cognize the world insofar as we have some interest involved in that cognition. Montessori also cites James as sharing her conception of the centrality of attentive work for agency and character: "William James speaks of . . . 'the faculty of voluntarily bringing back a wandering attention . . . [as] the very root of judgment, character and will . . . An education which should improve this faculty would be *the* education *par excellence*'" (9: 116). When Montessori read James in the midst of trying to integrate pedagogy, psychology, and philosophy, she found a kindred biologist-doctor turned psychologist-philosopher, who saw philosophical questions as questions by, for, and about the lives of active human beings seeking to make their way in the world. To this pragmatist naturalism, Montessori added an emphasis on children, making naturalism, and pragmatism, *pedagogical*.

C2S14

2.6 Friedrich Nietzsche

C2P93 During the early 1880s, while Montessori was charting her ground-breaking path by attending a boy's school of engineering, Friedrich Nietzsche was traveling around Italy and writing many of his most well-known works, including *Thus Spake Zarathustra*, which Montessori would later refer to in her first published work. According to Fulvio di Giorgi, Montessori developed an interest in Nietzsche during her time studying philosophy at the University of Rome, where a "decidedly post-positivistic horizon, at the start of the century, led Montessori to meditate on Nietzsche's thought" (De Giorgi 2013: 13).[21] Like James, Friedrich Nietzsche is one of few traditionally "canonical" philosophers to whom Montessori refers explicitly. In her first and most famous published book, *Scientific Pedagogy Applied to Children* (or *The Montessori Method*), Montessori describes Nietzsche as a philosopher of a new ideal of human love:

C2P94

> The goal of human love is not the egotistical end of assuring its own satisfaction—it is the sublime goal of multiplying the forces of the free spirit, making it almost Divine, and, within such beauty and light, perpetuating the species.

C2P95

> This ideal love is made incarnate by Frederick Nietzsche, in the woman of Zarathustra, who conscientiously wished her son to be better than she. "Why do you desire me?," she asks the man. "Perhaps because of the perils of a solitary life?

[21] De Giorgi also links this with Montessori's association with Sibilla Aleramo and Giovanni Cena, and he notes that the feminist Ellen Key, "whose perspective would not fail to influence [Montessori]," was also influenced by Nietzsche during this period (De Giorgi 2013; see too Tironi 2010).

C2P96 "In that case go far from me. I wish the man who has conquered himself, who has made his soul great. I wish the man who has conserved a clean and robust body. I wish the man who desires to unite with me, body and soul, to create a son! A son better, more perfect, stronger, than any created heretofore!" (Montessori [1909] 1912: 68)

C2P97 In a subtle gender-reversal of Nietzsche's own Zarathustra, who seeks a woman who will say "May I give birth to the Overman!" (Nietzsche [1883] 2006: 49), Montessori affirms Nietzsche's vision of the human ideal as a humanity that surpasses itself.

C2P98 Even while praising Nietzsche in this work, however, Montessori offers sharp criticisms of Nietzsche in two other works written during the same period. In *Pedagogical Anthropology*, written in 1910 and based on lectures given several years earlier, Montessori criticizes those "in Germany, [who] attempt to establish a biological basis for the Schopenhauerian theories of Friedrich Nietzsche" (Montessori [1909] 1912: 251).

C2P99 According to these, the persons who have acquired high social positions are biologically superior (possessing a greater cerebral mass), and the same may be said of conquering races as compared with the conquered. Differences in caste are to be explained in the same way, and on this ground nature sanctions the social inferiority of women. (Montessori [1909] 1912: 251)

C2P100 Unlike some appropriators of Nietzsche, who ominously fixate on supposed biological superiority, Montessori aspires to Nietzschean goals of self-overcoming through a pedagogy that could in principle be accessible to all. In a related way, in *Spontaneous Activity in Education*, published a few years later (1916), Montessori inverts her previous praise of Nietzsche as a philosopher of ideal love. She starts by reaffirming the same Nietzschean ideal that she endorsed in *The Montessori Method*:

C2P101 For man can reinforce his own strength by other powers which will urge him on upwards towards the infinite; before him who sleeps is the invisible ladder of Jacob, trodden by angels who call him heavenwards, that is, towards the supernatural life. Yes, to be *more* than man. This is a *dream* to him who lacks faith; but it is the realizable goal, the aim of life, to him who has faith. (9: 257)

C2P102 Montessori endorses a Nietzschean vision of self-overcoming, striving toward increasing excellence, and even the desire to transcend human nature, to be "more than man." She then implicitly associates this ideal with Nietzsche, but only through highlighting his failure to live up to the ideals implicit in his own philosophy:

C2P103

> To Friedrich Nietzsche, the superman was an idea without practical consequence, strange and erroneous even when tested by the very theories of evolution which inspired him. His conception offered no help in overcoming the ills of humanity; rather was it as a chain binding man to earth, there to seek means to create of himself the man superior to himself; and thus leading him astray into egotism, cruelty and folly. (9: 257)

C2P104 From the start of her career as a philosopher and educator, Montessori both drew from and critiqued Nietzsche.

C2P105 Four ideas, central to Nietzsche's philosophy as a whole, are important for understanding Montessori's appropriation of him.

C2P106 First, as we have already seen (and will see again in later chapters[22]), Montessori shares Nietzsche's interest in human progress, self-overcoming, and the development of a new humanity, which she sometimes even calls the "superman" (9: 257). Moreover, while both Hegel and Nietzsche share the view that humans progress through a kind of self-overcoming, Montessori shares Nietzsche's conception of this progress as indeterminate and open-ended. For Nietzsche, the philosophers of the future "reach for the future with a creative hand" (Nietzsche [1886] 1966: 136). At the close of his *Joyous Science*, Nietzsche calls out to those who "are new, nameless, hard to understand . . . premature births of an as yet unproved future . . . argonauts of . . . an as yet undiscovered land the boundaries of which no one has yet surveyed, beyond all the lands and corners of the ideal heretofore, a world ever-so-rich" (Nietzsche [1882] 2001: 246–247). Nietzsche's *Zarathustra* seeks the "self" that can "create beyond itself" and be a "bridge to the Overman" (Nietzsche [1883] 2006: 8). Montessori too looks forward to a future yet to be discovered, one within which human beings will rise to new and unforeseeable heights. Her pedagogy, in fact, is precisely her way to unleash the potential of free human beings.

C2P107 Second, Nietzsche developed a genealogical and typological approach to philosophy in general and moral philosophy in particular, an approach that sets the stage for the freedom of transcending established values. The creative philosopher of the future must be able to "pass through the whole range of human values . . . and be *able* to see with many different eyes and consciences" in order to "*overcome* the entire past" and create something new (Nietzsche [1886] 1966: 136). According to this genealogical approach, Nietzsche eschews any supposed "rational justification" of what he calls "prejudices which they baptize 'truths'" (Nietzsche [1886] 1966: 97, 13). Instead, he develops a "typology of morals" that would "collect . . . conceptualize, and arrange a vast range of subtle feelings of value and differences of value," and at the same time attempts a "genealogy of morals" that asks "the question of *what origin* our terms good and evil actually have" (Nietzsche [1886]

[22] Especially Chapter 6, Section 6.2.

1966: 97, 1994: 5). Tracing the origin of present values and situating them in a diverse field of values opens up the space for the sort of creative movement into the future that Nietzsche identifies with the superman, or *Übermensch*: "to pass through the whole range of human values and value feelings . . . are merely preconditions of the task: this task . . . demands that he *create values*" (Nietzsche [1886] 1966: 136). Montessori does not go as far as Nietzsche along these lines, though we will see in Chapter 6 both that she acknowledges a significant degree of cultural variability among moral values and also—more importantly—that she promotes an open-ended conception of human perfection according to which different ideals legitimately govern different individuals in different times.

C2P108 Third, as Nietzsche considers the creation of values and the cultivation of the *Übermensch*, he makes concepts of *life* and *health* central to his own meta-valuations. When he asks of a given set of values, "*and what value do themselves value?*," he parses this question in terms of life and vitality:

C2P109

> Have they up to now obstructed or promoted human flourishing? Are they a sign of distress, poverty, and the degeneration of life? Or, on the contrary, do they reveal the fullness, vitality, and will of life, its courage, its confidence, its future? (Nietzsche [1887] 1994: 5)

C2P110 As he puts it with respect to the value of judgments, "The question is to what extent it is life-promoting, life-preserving, species-preserving, perhaps even species-cultivating" (Nietzsche [1886] 1966: 11). In aiming for the transcending of present human natures and human values, Nietzsche uses quasi-medical terminology that we will see again in Montessori, focusing on a notion of "health" that encompasses the self-overcoming of the *Übermensch*: "we need a new means, namely a new health that is stronger, craftier, tougher, bolder, and more cheerful than any previous health . . . *the great health* . . . healthier than one would like to admit, dangerously healthy; ever again healthy" (Nietzsche [1887] 1994: 246–247).

C2P111 Given her background in medicine, these allusions to life and health would naturally have resonated with Montessori. As we have already seen, her pedagogical naturalism requires giving children "the best conditions of life" (18: 8), but we will see in the rest of this book—particularly Chapters 3 and 6—that life, health, and vitality are for Montessori, as for Nietzsche, central framing concepts of her meta-philosophy, which she even describes as a "a *positive philosophy of life*" (Montessori [1910] 1913: 27, emphasis original). Her rhetorical style is less contrary and contentious, and she does not share Nietzsche's interest in genealogy and typology; her emphasis lies too much with the child and the future. Like Nietzsche, however, she looks forward to a revaluation of values in the light of what is life-affirming and life-enhancing. In line with Nietzsche's meta-value, she moves us to "consider as *good* that which helps life and as *bad* that which hinders it . . . the good [being

that] which causes a maximum degree of development and the evil [that which] which—even in the smallest degree—hinders development" (18: 263).

C2P112 A fourth and final important feature of Nietzsche's view is his "egoism." Partly because of his emphasis on open-ended progress and individualizing drives, Nietzsche rejects moral and even metaphysical views that are presented as "universal" in favor of a self-centered and self-oriented philosophy: "egoism belongs to the nature of a noble soul" (Nietzsche [1886] 1966: 215). Nietzsche freely talks about "the strong and independent who are prepared and predestined to command" and an "instinct for rank that is a sign of a high rank" (Nietzsche [1886] 1966: 72, 212). He describes "the democratic movement" as "not only a form of the decay of political organization but a form of the decay . . . of man, making him mediocre," and he sees "pity" as a "form of *self-contempt*" that "belongs to that darkening and uglification of Europe which has been growing for a century now" (Nietzsche [1886] 1966: 117, 149–150). In many parts of his writings, Nietzsche seems to advocate anti-democratic, self-centered egoism that seeks to rise above and dominate others.[23]

C2P113 Montessori vehemently rejects the anti-democratic and anti-compassionate features of Nietzsche's philosophy. To an even greater extent than Nietzsche, if that is possible, she worries about how "we suffer from the all-too-little regard paid to the personal in us" (Nietzsche [1878] 1996: 51). Her life was spent studying and actively remedying the systematic ways adults deprive children of the environments they need in order to flourish. And she wholly endorses the notion that each individual has their own way of being excellent, a way they must actively promote and respect. But Montessori rejects Nietzsche's distinctions between ranks and types of people[24] and proposes that *all* human beings—at least as children—are capable of the sort of self-overcoming and progress that characterizes the Nietzschean *Übermensch*. Differences between people's degrees of self-elevation are grounded in different possibilities presented by material and social conditions. Partly for that reason, she insists that every human being has a right to the material conditions necessary for flourishing. She even takes Nietzsche's love of health (Nietzsche [1887] 1994: 246–247) and contempt at the "last men" who fail to realize their self-overcoming (Nietzsche [1883] 2006: 5–9) as shared features of those who excel. These very features, however, give reason to reject Nietzsche's egoism. As she points out, "It is characteristic of 'life' to purge the environment and the soul of substances injurious to health . . . And this is the morality that springs from sensibility: the *action* of purifying the world, of removing the obstacles that beset life, of liberating the spirit from the darkness of death" (9: 257). Nietzsche's failure to take seriously how the expansion of life within an individual drives them toward

[23] For a detailed defense of Nietzsche's egoism as an attractive option in moral philosophy, see Swanton 2011.

[24] See, for example, Nietzsche [1886] 1966: 72, 212; but cf. Guay 2013.

concern for the whole world led his "superman" to be "an idea without practical consequence" (9: 257). As we will see in Chapter 6, Montessori fundamentally endorses Nietzsche's perfectionist ideal of self-overcoming, but she combines this endorsement with a strong universalist ethic of mutual respect and collective responsibility, and she effects this combination through what she takes to be the full appreciation of Nietzsche's deepest insights.

C2S15

2.7 Antonio Stoppani

C2P114 This chapter has only barely touched on influences on Montessori's philosophy. I have not discussed her lesser-known professors at the University of Rome, and I have only scraped the surface of the figures in the history of philosophy she would have studied both formally and informally. I have not discussed figures who influenced her later in her life, including Ellen Key, Sigmund Freud, Henri Bergson, Rabindranath Tagore, Rukmini Devi, and countless others. Before closing this chapter, however, there is one further influence worth briefly discussing, in part because he is a figure to whom Montessori explicitly refers as a touchstone for her ideal of epistemic agency and as a source for much of her metaphysics and even social-political theory.

C2P115 Antonio Stoppani (1824–1891) was a Catholic priest, professor in the Royal Technical Institute in Milan, and a famous geologist. During his youth, Stoppani was famous for making air balloons that allowed Milan to communicate with surrounding provinces while they were under siege, and he eventually became a well-known writer of both technical work in geology and more popular works such as *Il Bel Paese* (*The Beautiful Country*, published in 1876), with its rich geological descriptions of the Italian countryside.[25] Stoppani's fame today, however, is primarily due to his concept of the "anthropozoic era."

C2P116

> I do not hesitate in proclaiming the Anthropozoic era. The creation of man constitutes the introduction into nature of a new element with a strength by no means known to ancient worlds. And, mind this, that I am talking about physical worlds, since geology is the history of the planet . . . [T]his [human] creature . . . is, to the physical world, a new element, a new telluric force that for its strength and universality does not pale in the face of the greatest forces of the globe. Geology feels thrust onto a new path . . . Already the Neozoic era forced it to walk very differently than how it had walked when it only narrated the most ancient events. The science of ancient seas was already destined to become the science of new continents. But [i]t is not enough to consider earth under the impetus of telluric

[25] See Turpin and Federighi 2012.

> forces anymore: a new force reigns here; ancient nature distorts itself, almost flees under the heel of this new nature. We are only at the beginning of the new era; still, how deep is man's footprint on earth already! Man has been in possession of it for only a short time; yet, how many geological phenomena may we inquire regarding their causes not in telluric agents, atmosphere, waters, animals, but instead in man's intellect, in his intruding and powerful will. (Stoppani [1873] 2023)

C2P117 In 2000, with explicit appeal to Stoppani as a source of the concept, the geologists Paul Crutzen and Eugene Stoermer coined the term "Anthropocene" for "the current geological epoch" in order "to emphasize the central role of mankind in geology and ecology" (Crutzen and Stoermer 2000: 17–18). Over the past two decades, as people have become more attuned to the need to redress the impacts that humans have had on the planet, the concept of the Anthropocene has become mainstream within geology and a rallying cry for many contemporary environmentalists. Even as contemporary environmentalists recognize Stoppani as an antecedent to present discussions, however, the dominant view is that, as Will Steffen has put it (in an article coauthored with Crutzen), after Stoppani and another mid-nineteenth-century predecessor, "Further development of the concept [of the Anthropozoic/Anthropocene] was interrupted by the two world wars of the twentieth century" and was revived "only in 1955" (Steffen et al. 2011: 844). As we will see, however, Montessori was further developing Stoppani's concepts throughout the entirety of the early twentieth century. Here, I focus on his thought as background to her philosophy, and in Chapter 11 I return to Stoppani and the Anthropozoic to show how Montessori extended his thought as part of her robust philosophical reflections on technology, humanity, and the history of the earth.

C2P118 While Stoppani shared with contemporary environmentalists a concern that human beings make use of their great power responsibly, his "characterization of the Anthropozoic emerged from a deeply articulated philosophy of nature," one with a different range of concerns (Luciano and Zaneni 2023: 109). Among the most important for Stoppani himself was to "use science and its discoveries as a tool to strengthen faith" (Luciano and Zaneni 2023: 111). Stoppani has a very clear theistic agenda, laying out his geology in terms of the "reasons" for and "principles" of things, where these reasons essentially lie in a rational intelligence, a divine providence that orders the geological history of the world (cf. e.g. Stoppani 1898: 1–8).

C2P119 According to the editors of her *Six Cosmic Lectures*, "Stoppani was the uncle of Renilde Stoppani, Maria Montessori's mother" (*Communications* 2007/1: 53), and while there has been recent work challenging this familial relation, there can be no doubt that Montessori saw Stoppani as an intellectual exemplar and profound influence. She presented her lectures on "Cosmic Education" as an extension of the work of Stoppani, that "great naturalist and philosopher" who "loved the environment and [saw] it with prophetic eyes, at the same time [being] one who was

well-versed in science. A great believer spiritually, and at the same time a rigorous scientist" (Montessori [1936] 2007: 54, [1936] 2009: 33). Gerard Leonard rightly notes that "Stoppani's book *Acqua ed aria* was the major influence on her expansive and deep understanding of the idea of cosmic task" (Leonard 2013: 15; cf. 1: 49).

C2P120 Stoppani's work contributed to Montessori's developing philosophy in three ways. First, Stoppani's integration of scientific rigor and religious faith provided a well-known example for a Montessori who was attempting a similar integration. Pesci rightly notes, in this context, that while, "thanks to Sergi, Montessori deeply internalised the positivistic culture of Roman anthropology," still "the groundwork for this influence was laid by the reflections of . . . Antonio Stoppani, a well-known Catholic scientist in Italy who, a few decades earlier, had attempted to instil a primary need for contemporary culture as part of a possible reconciliation between religious faith and scientific research" (Pesci 2022: 27–28, citing Stoppani 1884). Montessori's published work is, for the most part, less religious than Stoppani's,[26] but the model of a great scientist-priest, one to whom Montessori saw herself as related, provided a way for her to see her own pedagogical naturalism as consistent with, and perhaps even supporting, her Catholic faith.[27]

C2P121 Second, Stoppani's overall metaphysics saw the world in terms of an "economy of nature" (cf. Luciano and Zaneni 2023: 110), and Stoppani conceived of this geologically, such that life makes a complex whole that itself is a telluric force (or set of forces) on the planet as whole. On his account, "every mineral, every plant, and every animal was created in relation with the other natural elements" (Luciano and Zaneni 2023: 110). Moreover, higher-order forces, such as life, emerge and have planetary influence in order to "prevent the return to [an] original chaos" (Luciano and Zaneni 2023: 110). As Stoppani explains,

C2P122

> In this order of considerations, all animals, in all epochs, although arranged on different grades of organic perfection, moved by diverse and opposite instincts, stimulated by different needs, capable of different functions, are ordered as one large society, disciplined . . . and led on the field like a great army, which fights for the conservation of the order of the universe, which the physical powers, unbalanced by the lack of such a counterweight, would surely tend to precipitate into the chaos. (Stoppani 1898: 76)

C2P123 As we will see in Chapters 3 and 4, Montessori's metaphysics adopts a similar view about both life and the emergence of human consciousness, namely, that these

[26] Whereas Stoppani almost constantly reminds his readers of how science supports religious faith, Montessori writes in a way that, while consistent with religious faith and often using spiritual language, does not specifically seek to persuade her readers of the rationality of theism.

[27] See Chapter 8 for more on her philosophy of religion.

higher-order "telluric forces"—a term Montessori adopts from Stoppani (1898: 68; cf. Montessori [1936] 2007)—emerge in order to prevent the descent into chaos of the geological tendencies of the earth.

C2P124 Finally, Montessori shares Stoppani's view of the current geological epoch as what we would today call the Anthropocene. For Montessori, as for Stoppani, human beings are having an impact on the planet as a whole that can be compared to the impact of life itself, or of radically new forms of life such as corals or photosynthesizing plants (see Montessori [1948] 1971). Moreover, like Stoppani (and Crutzen and Stoermer), Montessori sees the impact of human beings on the planet as posing upon us an obligation to use that power responsibly, to be a telluric force that can direct its own impact in ways that take into account the planetary impacts we are having. However, like Stoppani (and unlike Crutzen and Stoermer), Montessori also sees the telluric force of humanity as a good, part of the destiny of the planet to become humanized, and part of the cosmic task of human beings to transform mere nature into what she ends up calling "supernature." Whereas Stoppani primarily situates this optimistic view of the Anthropozioc era in the context of theodicy, Montessori—as we will see in Chapter 11—uses it to direct attention toward the centrality of the child for redeeming technology's potential as a way of improving rather than degrading the world.

C2S16

2.8 Beyond Philosophical Influences

C2P125 Renato Foschi rightly says that "Maria Montessori was a sort of 'multiple scientist' . . . a doctor, psychiatrist, anthropometrist . . . an 'expert' in experimental psychology, a pedagogue, a politician, a feminist, a theosophist, a layperson, and a Catholic" (Foschi 2012: 13–14). If anything, Foschi underestimates how multiscientific she was; she was also a biologist, a spiritual embryologist, a pragmatist, and a cosmologist. In uniting all of these different sciences, she created a distinctive pedagogical naturalist method for developing philosophical insights. All her background and training pointed her in a single consistent direction—toward the child. In different ways, preceding philosophers of education paved the way for her emphasis on the freedom of the child in an environment conducive to free human development. The philosophers at the University of Rome oriented her toward a metaphysical framework within which empirical study could be relevant to philosophical insights, and those insights could mark positive new directions for human flourishing. The psychologists and anthropologists on whose shoulders she stood and with whom she worked gave her concrete materials and experimental methodologies that could help her focus in detail on what children are doing, and how, and why, and adjust her pedagogy accordingly. Biologists and especially embryologists opened to her possibilities for human development. James showed her how psychology could grow from medicine and develop into

pragmatist philosophy, and Nietzsche inspired her philosophical vision for a more vibrant human future. Stoppani gave her a geological perspective within which life in general and human life in particular are cosmic forces that fit into a vital terrestrial whole.

C2P126 None of these influences, however, dictated what Montessori would learn from the children with whom she worked. As I mentioned in the previous chapter, Montessori emphasizes that "Anything new must emerge, so to speak, by its own energies," and the energies to which Montessori attended and from which she developed new philosophical insights were the "unknown and therefore unsuspected" capabilities of children given freedom within an appropriate environment (22: 100–101). The influences in this chapter provide helpful background, but ultimately, Montessori's philosophy is a pedagogical naturalism, one that emerges from and flows back into the lives of children.

C3

3
Metaphysics and Life

C3P1 Lakshmi Kripalani (1920–2013), a Montessori teacher, teacher trainer, and leader for more than seventy years, tells a story that she heard while attending Montessori's lectures in Karachi:

C3P2 > It is 1946 in Karachi, and a simple but profound story is being told. A little child did not have a pencil to write with, so his teacher sent him to the store to buy a pencil. When he got there he had to wait a long time in line before he could purchase his new pencil. When he arrived back at school he complained about having to wait so long. A wise elder lady happened to be nearby and heard this. She beckoned him to her and told him a story—the fascinating journey of this pencil and the many, many people who had taken part in the pencil's trip and had worked to bring it to him. She spoke of the graphite and the wood and how they had been formed and where they came from. She spoke of the miners, woodworkers, transporters, and many others who had been part of making this pencil.

C3P3 > She also spoke of the lady shopkeeper and of how hard she worked to make a living and serve the people by selling the items they needed. She strove to awaken compassion, to open up the child's imagination and inspire his intelligence to see farther and deeper, one could even say to see through the surface of things, in order to perceive in this simple tool—the pencil—a sense of the whole and the interconnections between things and people. The elder hoped to awaken gratitude and invoke patience as a respectful response to another's noble labor.

C3P4 > That wise elder was Dr. Maria Montessori. She told this story to her trainees in Karachi. She was illustrating how a Montessori teacher whose mind and heart were prepared could take a small detail and open up the cosmic vision to a child. (Leonard 2013: 135)

C3P5 The story illustrates several important features of Montessori's philosophy: her emphasis on interconnections among things, a focus on concrete material objects, an orientation toward virtues both intellectual and moral, an attention to the phenomena of attention (especially how what one is interested in and cares about can affect what one sees), a valuing of work and "noble labor," an attention to moral and political implications of metaphysical connections among things, and, most of all, an attention to the child. The story also illustrates important aspects of who

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Montessori herself was as a person. Even at over seventy years of age, she was constantly teaching, developing materials for children, and most of all innovating—both practically and philosophically—in response to revelations by children. She was dedicated to a global movement of teacher-scientist-philosophers who would carry her method forward. Consistent with what I have called her pedagogical naturalism, she developed, taught, and defended her views largely through observations of and stories about children.

C3S1

3.1 Pedagogical Naturalism and Montessori's Metaphysics

C3P6 Montessori's metaphysics focuses on "life" as an internally driven teleological tendency toward self-enhancement. In Chapter 1, I argued that Montessori develops a philosophical naturalism informed by attention to children's lives in conditions conducive to their free development, and this attention informs her metaphysics in three main ways. First, her conception of life arises in part from observing the tendencies of free children. Her pedagogy takes the "*living individuality*" of the child as its primary focus (Montessori [1910] 1913: 18, see too Montessori [1910] 1913: 11; 9: 95), and her metaphysics elucidates the characteristics of life through lessons gleaned from this observant pedagogy. Thus, for example, children's tendency to pursue effortful activities conducive to development supports Montessori's claim that life is teleologically ordered toward self-perfection rather than mere survival (see Section 3.2.2).

C3P7 Second, Montessori's observations of children confirmed key philosophical insights she gleaned from embryologists and evolutionary biologists, such as the teleological, internally driven, and step-wise nature of life's processes. Montessori's concept of "sensitive periods" of human development, for example, validated by her engaged work with children, fits her more general metaphysical view that life—and indeed the universe as a whole—progresses through major advances at particular times, advances that are integrated into a coherent framework at a later stage.

C3P8 Finally, Montessori's work with elementary children directed her attention toward the important role that individuals' developments play in the cosmos. The "love . . . [of] the universe" (12: 18) essential for properly engaging with the curiosity of early adolescents also oriented her metaphysical attentions toward the place of teleology in the universe as a whole (see Sections 3.3–3.4). In describing elementary school curricula, she explains the importance of "correlating" a full range of subjects—particularly science and history—"to a central idea, of greatly ennobling inspiration—the Cosmic Plan in which all, consciously or unconsciously, serve the great Purpose of Life" (6: vii). She posits "a significant unity of method in all natural building," claiming that "It is clear that nature follows a plan, which is the same for an atom as for a planet," where the "basic principles of nature's

plan" are most clearly "revealed" not in physics, but in "embryolog[y]" (6: 70; cf. Montessori [1948] 1971: 23–24). In order to properly move the imaginations and intellects of older children, Montessori comes to see the importance of explaining the universe—from the basic structure of the cosmos to psychological and social realities—in terms of the single fundamental concept of "Life."

C3P9 This metaphysics of life did not emerge *simply* from observation of children. Montessori's work with children confirmed and developed a metaphysical vision with roots in several intellectual influences discussed in Chapter 2. Her focus on life is consistent with her medical background and the substantial impact of biologists on her philosophy.[1] In place of these physicalist approaches to human persons, she insists that psychology be understood as a vital *bio*logy.[2] As I highlighted in Chapter 2, Montessori's conception of biological evolution owes more to De Vries than to Darwin. Moreover, consistent with Spencer's (and Sergi's) more progressive conception of evolution, she sees biological systems as naturally tending toward increased complexity and individualization.[3] The important influence of Hegel, and in particular Labriola's Marxist-materialist interpretation of Hegel (see Chapter 2, Section 2.3.1), contributed to Montessori's comfort with the notion that life in general and in each individual has a teleological orientation, and her reading of Nietzsche supported a conception of teleology as promoting self-enhancement without specific endpoints or "rationality." From embryologists like De Vries, she drew lessons such as an emphasis on internal teleological factors and a step-wise evolutionary development rather than purely random variation and external selective pressure. And from the geologist Stoppani,[4] she came to see life as a geological or even cosmic force, transforming the world into a life-informed system.

C3P10 The present chapter elucidates the core features of the metaphysics Montessori developed from these philosophically informed observations of children,[5] focusing on three core features of her metaphysics of life. I start, in Section 3.2, with her account of teleology, emphasizing how teleology is internal, perfectionist, discontinuous, and irreducible. She espouses an evolutionary naturalism, but not a

[1] See Chapter 2, Section 2.3.

[2] See too Chapter 1, Section 1.4.

[3] Several important critiques of Spencer (and by implication Darwin) also play important roles in Montessori's metaphysics. Léon Bourgeois, an important French radical at the time Montessori was studying in France, led a "solidarist" movement that emphasized an anti-Spencerian rejection of the "struggle for life" in favor of a principle of "cooperation for life" (Foschi and Cicciola, 2006: 278). James's pragmatist critiques of Spencer (see Chapter 2, Section 2.4) also helped Montessori develop both a metaphysical naturalism conducive to integrating "life" with the emergence of consciousness (see Chapter 4) and a conception of experience and cognition that lies at the heart of her epistemology (see Chapter 5).

[4] See Chapter 2, Section 2.7.

[5] Montessori's metaphysics is laid out most explicitly in the introduction and first chapters of Montessori's early (1910) *Pedagogical Anthropology*; in her elementary materials (e.g. *From Childhood to Adolescence* and *To Educate the Human Potential*); and in occasional essays (such as "The Unconscious in History" (Montessori [1948] 1971) and "Cosmic Task" (Montessori ([1935–1936] 2007–2009)).

reductive materialism that would eliminate teleology in favor of *mere* accretions of environment-induced adaptations. In Section 3.3, I turn to a crucial feature of Montessori's metaphysics that distinguishes it from the (metaphysical) individualism of biologist-philosophers like Herbert Spencer. For Montessori, as for Hegel, both teleology and evolution are essentially holist or ecological. Not only do individuals and species develop, but they do so in tune with the development of the ecosystem (and even entire world) as a whole. Finally, in Section 3.4, I show two important ways in which this teleological and inter-connectionist metaphysics applies to non-living nature; Montessori completes her metaphysics by extending her teleological metaphysics of "life" to include the whole cosmos. These three themes do not exhaust Montessori's metaphysics, but they provide its basic structure. In Chapter 4, I extend the account here by discussing how Montessori's account of teleology allows for a naturalistic philosophy of mind. Chapter 8 discusses the role of God in her metaphysics. Much of the rest of this book discusses aspects of her broader philosophy—her epistemology, moral philosophy, and so on—that elucidate important ways her metaphysics of life applies to various spheres of *human* life in particular.

C3S2

3.2 Teleology

C3P11

In general, teleology refers to a thing's purposive tendency to act or grow or develop toward some end. Artificial things have a teleology provided by their makers, such that, for example, the purpose—or "telos"—of a toaster is to toast bread. Aristotle, famously, refers to teleology in terms of the "final causes" of things, and he ascribes tendencies to natural entities, such that, for instance, "fire and earth . . . move towards opposite points" (Aristotle 1941: 415 (i8.277a21–23)), acorns have oak trees as their teleological purposes, and humans have the life of rational activity as their telos. Given the influence of teleologically oriented philosophers like Hegel, De Vries, and evolutionary positivists in her formative education, and especially given her focus on life, the emphasis on teleology is unsurprising in Montessori's metaphysics. In a late lecture, she explains that "In nature there is no creation of an organ without . . . functioning" (17: 124). And in her first published book, she invokes "final causes" as one of two "properties . . . characteristic of life."

C3P12

> The term *final causes* refers to a series of phenomena that are met with only[6] where there is life, and that tend towards a definite purpose or *end*. Living organisms take nutriment from their environment, to the *end* of assimilating it,

[6] Although Montessori here says that final causes are met with "only" in life, in later works and implicitly even here, she extends teleological metaphysics to inorganic nature.

> that is, transforming it . . . into a . . . living part of themselves . . . [F]or example, [consider] the transformation of the fertilized ovum into the fully developed individual . . . Another form of final cause is seen in the *actions* of living creatures, which reveal . . . a consciousness that even in its most obscure forms guides them towards a destined *end*. (Montessori [1910] 1913: 40)

C3P13 Montessori speaks freely about "the purpose of nature" (e.g. 17: 89) and a "cosmic task" or "purpose" (e.g. 17: 89; 1: 49–50, 131). The notion that "life" has intrinsic, teleological principles of development in both the physiological and psychic realms is central to her philosophy. Teleology takes place at both individual and species levels, as forces of life lead human beings (and other living things) to act in ways that cultivate their full development as individuals and that drive the species toward progress.[7] This teleology is natural force, a "creative energy" as "the urge of life for the normal development of the individual. This is not a casual energy, like the energy of a bomb that explodes. It has a guide, a very fine directive—an unconscious directive—the aim of which is to develop a normal person [or other organism]" (17: 225).

C3P14 Throughout her philosophy, Montessori defends teleology in terms of developmental biology (embryology and proto-genetics), evolution, and pedagogy. "Embryology," she explains, "can point a direction for ourselves" since it "has as its . . . aim, to uncover the creative process, the way in which a body, which did not exist, comes to shape itself for entry into the world of the living" (1: 39, 30). With respect to theories of evolution, Montessori argues that animal species have a directedness, a tendency to develop toward certain sorts of increased perfection:

C3P15

> [A] great universal power . . . is the force of life itself in the process of evolution. It drives every form of life irresistibly towards evolution, and from it come the impulses to action. But evolution does not occur by luck, or by chance, but is governed by fixed laws. (1: 229)

C3P16 This teleology takes on a special role in pedagogy.

C3P17

> By education must be understood the active *help* given to the normal expansion of the life of the child. The child is a body which grows, and a soul which develops—these two forms, physiological and psychic, have one eternal font, life itself. We must neither mar nor stifle the mysterious powers which lie within these two forms of growth, but we must *await from them* the manifestations which we know will succeed one another. (Montessori [1909] 1912: 59)

[7] Consistent with her approach to evolution, "progress" is not mere survival but enhanced perfection, less Darwinian than Nietzschean.

C3P18 In all three areas—embryology, evolution, and education—Montessori emphasizes that teleological causation functions by means of creative forces that express themselves according to determined but discontinuous patterns over the course of development. While she appeals, at times, to "conscious" movement toward particular ends (e.g. Montessori [1910] 1913: 40), teleology is first and foremost *unconscious*, a matter of particular processes being explicable in terms of goals rather than an assertion that such processes consciously aim for goals. Conscious intention is a particular way in which teleology manifests itself in human beings and some higher animals (see 1: 229), and it is a useful *analogy* for teleological causation (see 1: 75; 6: 22–25; Montessori [1948] 1971: 11). But precisely because it is merely analogical, one does better to consider the lives "of animals and plants" as manifesting a "creative unconscious," a natural tendency to develop in creative ways even without conscious intent (see Montessori [1948] 1971: 10).

C3P19 Montessori's metaphysical teleology has several important features. It is *basic* or *fundamental*. Unlike Darwinian and neo-Darwinian "materialist" evolutionary theories from Haeckel and Spencer to the present, which reduce teleology to mechanism, Montessori does not see teleology as merely a useful heuristic that abbreviates what are fundamentally efficient-causal forces of environmental natural selection and/or molecular interaction (Montessori [1910] 1913: 38–39, 46). Teleology is also *internal*. Living things are teleological due to innate forces by which they propel themselves toward particular ends. Teleology is not best understood in terms of external causes changing a living system, but rather as a future-oriented causal power *within* a system effecting its own developments in suitable conditions. This teleology is oriented not merely toward some end or other, but toward *perfection*. And teleology is discontinuous in both time and space; progress toward perfection does not occur in a uniform manner, and particular changes in parts of a system can initially seem unrelated to the eventual perfection of the system. In this sense, Montessori's conception of metaphysical teleology is more "intelligent" than some contemporary alternatives, more the teleology of an engineer or master chef than of an arrow heading to a target or a rock falling toward the center of the earth.

C3S3 ### 3.2.1 Internal Teleology and the Nature of "Evolution"

C3P20 As noted in Chapter 2, Montessori criticizes Darwin's "materialistic theories of evolution" for overstating the degree to which "the environment is . . . the chief cause of the evolution of organic forms," preferring instead the "theories of evolution" proposed by Naegeli and De Vries (Montessori [1910] 1913: 46, cf. De Vries, 1909), which give *internal* teleology precedence over environment-based natural selection:

C3P21 > Naegeli . . . attributes the variability of species to *internal* rather than external causes—namely, to a spontaneous activity, implanted in life itself, and analogous to that which is witnessed in the development of an individual organism, from the primitive cell up to the final complete development . . . The internal factor, namely life, is the primary cause of *progress* and the *perfectionment* of living creatures, while environment assumes a secondary importance, that of *directing* evolution, acting at one time as a stimulus toward certain determined directions of development; at another, permanently establishing certain useful characteristics, and still again, effacing such forms as are unfit. (Montessori [1910] 1913: 46–47)

C3P22 One aspect of Montessori's position here is already implicit in Darwin and has now become standard biological orthodoxy. Natural selection operates only in the context of given variations, so environment can only drive evolution if there is an antecedent cause of sufficient variations of the right kind. Nailing down exactly what causes those variations remains an important problem within contemporary biology, though the discovery of DNA and its operations (and "errors") has provided a framework for answering that problem (see Depew and Weber 1995; Kirschner and Gerhart 2005). During the early twentieth century, Darwin's unexplained source of variation invited metaphysically loaded conceptions of variation, and Montessori offers just such a conception. On her general teleological account, the universe is teleologically ordered toward the "perfectionment" of living creatures (both as individuals and as species). While such a general teleology would be consistent with either external (natural selective) or internal drivers of such development, Montessori (with Naegeli and De Vries) emphasizes internality. Life causes progress from within. She even claims that the standard roles assigned to natural selective pressures—establishing or effacing specific variations—can ultimately be traced to internal causes, the resilience and adaptability of the internal factors themselves. Finally, even if (or when) one comes to give refined efficient-causal accounts of the origins of variation, such explanations will describe only the *mechanism* by which the "internal factor, namely life," which is always already metaphysically teleological, stimulates variations that are conducive to evolution.

C3S4 ### 3.2.2 Perfectionist Teleology

C3P23 Traditionally, teleological metaphysics involves evaluative concepts. Aristotle exemplifies this tendency, identifying the end toward which something tends as the "good" of that thing (see *Nicomachean Ethics* 1094a3 in Aristotle 1941: 935). When James criticized Spencer for pretending to eschew teleology, he put it in terms of values: "such a definition as [Spencer's] is precise, but . . . it is frankly teleological" in that it "postulates a distinction between mental action pure and simple and *right* mental action" (James 1878: 6). In principle, one could articulate

a teleological metaphysics stripped of such evaluative notions (see Hawthorne and Nolan 2006), but Montessori's teleological metaphysics—like those of Aristotle, Hegel, and Labriola—posits a value-loaded telos. For her, living things' "natural tendency" is a "drive for self-perfection" (7: 42). Individuals strive to perfect themselves, and species evolve as "new . . . more perfect forms of life appear" (10: 20).[8]

C3P24 Montessori never systematically defines or analyzes the notion of perfection. To some extent, given that it applies to varieties of living things, this indeterminacy is intrinsic to the concept. Like Aristotelian "excellence" (*arête*), "perfection" gets determinacy in the context of particular kinds of things. Acorns strive for perfection as (oak) trees, and human embryos strive for perfection as human beings. But Montessori uses some general qualities of perfection to make sense of the evolution *of species*, that is, how a species can develop into a more perfect species (see 6: 22–24; 10: 20). She also makes general claims such as that creative energy is "the urge to specialize" (17: 83) or that "the tendency of nature is to put itself in order" (17: 141), but much of her reflection on development toward perfection comes in the human case, where it involves an increase of "energies and mental capacities" (1: 186) along with a "drive" toward activity (1: 187). Perfection requires "integrat[ion]" wherein "all . . . parts act together in the service of the individual" (1: 182). In the case of non-human nature as well, perfection consists at least in part of a general increase in capabilities and the emergence of more complex systems of powers integrated into coherent wholes. Combined with the claim that "the impulse to activity . . . tends to its own upkeep" (6: 17), this might seem to support a broadly Spencerian notion that organisms' complexity arises from self-preservation. But what tends to its own upkeep is not the organism per se, but its impulse *to activity*. Greater perfection allows more "creative power," and Montessori shares less with Spencer than with the indeterminate teleological perfectionism of Emerson or Nietzsche. She approvingly quotes Nietzsche's *Zarathustra*, saying "I wish the man who has conquered himself, who has made his soul great . . . who desires to . . . create a son . . . better, more perfect, stronger, than any created heretofore!" (Montessori [1909] 1912: 69). She endorses the Nietzschean ideal "to be

[8] One might see Montessori's inclusion of value-loaded notions in a teleological metaphysical framework as an illicit "naturalistic fallacy," an inference from what is (final causes) to what ought to be (the "good" or "perfection"). Alternatively, one might see value-loaded teleology as an illicit intrusion of ethical norms into scientific investigation of nature, imposing on the data an orientation toward some "good." At times, Montessori seems susceptible to both charges. She repeatedly offers exhortations such as that "Nature is the teacher of life—let us follow her ways!" (6: 71), and her claims about the relative imperfections of Crinoids compared to other forms of life (e.g. 6: 22), not to mention her references to "deficients" who fall short of human perfection (e.g. 15: 306), can seem like dangerous impositions of moral concerns into scientific investigation. However, Montessori's appeal to "perfection" as the natural end of living things is better understood in terms of contemporary discussions of "life" as an irreducible, proto-normative kind of concept (see E. Thompson, 2007; M. Thompson, 2009), or Philippa Foot's point that "evaluations of human will and action share a conceptual structure with evaluations of characteristics and operations of other living things" (Foot, 2001: 5), or even Christine Korsgaard's comparison between human rational agency and animal agency (Korsgaard, 2009: 35–40).

more than man," raising oneself to something higher that has heretofore been and even contributing to the destiny of the cosmos to give rise to new, higher, creative forces (e.g. 1: 193).[9] Perfection involves integration of "energies" or capabilities into an increasingly complex, coherent, and essentially *active* whole. An increase in perfection is an increase in the variety, complexity, and efficacy of these powers and a consequent increase in the range of possible kinds of activity available to an organism.

C3S5

3.2.3 Discontinuous, Step-wise, Long-range Teleology

C3P25 One natural way to think of teleology is as a gradual movement toward a destination, like an acorn developing into an oak tree, a hiker ascending toward a summit, or a rock falling toward the earth. Darwin describes evolution this way, as a "slow and gradual" process (Darwin [1859] 1883: 29, 201, 272, 290, 293), and it became even more popular during the late nineteenth and early twentieth centuries. In a contribution to a memorial volume dedicated to Charles Darwin that was often cited during the early twentieth century, W. B. Scott explained the point clearly, saying that the evolution of horses "show[s] a slow, steady progress in a definite direction, all parts of the structure participating in the advance . . . [I]t should be emphasized that the changes are gradual and uninterrupted" (Scott 1909: 190). Neither Darwin nor Scott advocated accounts that were teleological in their ultimate basis, but the notion of gradualism also typified many teleological accounts, for which there is a target, and the object or system moves slowly and gradually toward that target. Superficially, the growth of an acorn into an oak or an embryo into a mature animal or an infant into an intelligent and capable adult seems to involve one thing gradually becoming more and more like its ultimate end state.

C3P26 Montessori, however, informed by sophisticated observations of both biological and psychological-pedagogical development, argues that systems develop toward their end states through a process that begins with the cultivation of distinct and initially independent local perfections, which are then unified into a more complex and qualitatively different whole. One element of this view is structural, or we might even say spatial; various elements of an eventual system develop independently, pursuing their own local perfection, before being united into a more perfect and qualitatively different whole. Another element is temporal. Biological individuals do not uniformly pursue improvement in every respect. Rather, each form of development is available only (or primarily) during its particular "sensitive period." Rather than seeing an acorn steadily develop into an oak tree, Montessori sees different components of the acorn developing toward specialized ends at

[9] However, she disagrees with the hierarchical and anti-democratic thinking that pervades much of Nietzsche's thought (see Chapter 2, Section 2.6, and Chapter 6, Section 6.3).

appointed times before being integrated into a single coherent goal, the tree. These teleological principles of discontinuity are particularly evident, for Montessori, in children's development. As she says after a short discussion of embryonic development, "Bring this reasoning to the psychic field and you will understand what happens with the child. All the various constructions join together to create the unification of the individual" (17: 154). As Esther Thelen and Linda Smith have recently put the point, "development appears to be modular and heterochronic" (Thelen and Smith 1994: xvi).[10] Children learn to hold a pencil, move their hands in the shape of letters, apply pressure to make marks, and correlate sounds with drawn symbols, and then combine it all into what, in Montessori's first school, was an "explosion of writing."[11] Montessori's studies of childhood development, along with detailed studies of bursts of growth in embryological development and what has come to be called a "punctuated equilibrium" model of species-level evolution (see Gould 2002, 2007), open room for thinking about natural teleology as a matter of long and gradual stasis interrupted by "crisis" or "upheaval," scattered "biological or geological epochs in which new, higher, more perfect forms of life appeared, as totally new conditions of existence on earth came about" (10: 20). She emphasizes the parallel between this species-level punctuated equilibrium and the individual embryological and developmental "sensitive periods," suggesting that species, like individuals, have long periods of gradual accumulation before bursting forth into sudden transformations.

C3S6

3.3 Ecology: Teleology Applied to the Whole

C3P27

As it applies to individual organisms and particular species, Montessori's teleological metaphysics posits that living things are fundamentally driven by internal creative forces operating along discontinuous pathways toward an increase of organized, activity-conducive complexity. Despite her insistence upon internal drivers for teleological development, however, Montessori does not see *individual* teleology as the most basic metaphysical teleology. Instead, teleological orientations of individual organisms and species, like those of individual structures *within*

[10] Thelen and Smith (1994) provide further evidence of these discontinuous features of human (and animal) development. Like Montessori, they also see developmental processes in psychology, biology, and even basic physics as continuous with one another. Unlike Montessori, they resist any internal teleological basis for development (see especially Thelen and Smith 1994: xviii). The most important proponent of this discontinuous thesis in the early twentieth century was Hugo De Vries. The most important proponent within more recent biology has been Stephen Jay Gould, whose theory of "punctuated equilibrium," while non-teleological, shares with Montessori an emphasis on discontinuous evolution (cf. Gould 2002: 745–971 and 2007).

[11] Montessori ties the first aspect of her discontinuous conception of teleology—that is, the fact that different elements of a system develop independently before being unified—to the work of Charles Manning Child, who developed an account of physiological gradients to explain embryological development (see 6: 70).

organisms, ultimately serve a more comprehensive purpose: "[p]lant life and animal alike now have to be considered from two points of view, and the more important is that of their function in the cosmic plan" (6: 24; see too 17: 29; Montessori [1910] 1913: 39). Here both points of view are teleological, but at different levels:

C3P28

> One side of evolution deals with the satisfaction of vital needs, defense, survival of the species, and growth by modifications towards individual and species perfection. Another—and stronger—factor in evolutionary processes is concerned with the cosmic function of each living being, and even of inanimate natural objects, working in collaboration for the fulfillment of the Purpose of Life in the whole. All creatures work consciously[12] for themselves, but the real purpose of their existence remains unconscious, yet claiming obedience . . . So the trees and plants might consciously exalt their desire for sunshine and vital need of carbon dioxide for nourishment, unconscious that nature has given them these instinctual urges for the purpose of preserving the purity of the air, on which depend all higher life on earth . . . [and t]he bee who robs the flower of its nectar is aware only of his own need or the hive's, not that the flower's need of his visit is as great for its purpose of reproduction, for perpetuating the life of the species. (6: 24–25)

C3P29

Each striving for individual and even species-level perfection is ultimately subordinated to a more fundamental "[v]ictory in self-fulfillment [that] can only come to the All" (6: 25). While Montessori sometimes connects this universal purpose with a "governing intelligence" or "Divine Spirit" (see 6: 28, 22: 169), she usually explains in scientific terms the ordered teleology within which individuals serve the good of the whole. One example is Montessori's concept of biological "adaptation." She explains that "Adaptation to the environment is necessary for all living creatures" (17: 80), but then conceives of that adaptation not in the purely individual terms of the "old idea . . . that we lived in the environment and absorbed as . . . much as possible for ourselves from the environment" but as a process whereby "[e]ach species' adaptation to the environment shows us what the purpose and useful work of each is, the work which each contributes towards universal harmony" (17: 87–88). Biology cannot be limited to the study of "those things that each species does for the maintenance of its life" but must also include "the important work which is done by each species individually for the harmony of all" (17: 84).

[12] Montessori here claims that they work "consciously" for themselves, and she goes on (here and elsewhere) to distinguish what she calls the "conscious" and "unconscious" purposes of the organisms. In these contexts, her use of the term "conscious" is a metaphorical way of referring to that internal teleological drive that is directed toward the perfection of the individual, as she periodically makes explicit by calling this terminology "fantasy" (Montessori [1948] 1971: 12) and frequently indicates through using consciousness language counterfactually when referring to lower organisms, using phrases such as "a coral polyp, if capable of conscious expression. . ." (6: 25) or "If animals were to become self-conscious. . ." (1: 49).

C3P30 Her conception of the fundamental contribution of biological interdependence, present already in her earliest works, anticipates the growth and emergence of ecology as a fundamental component of biology. In 1949, she explicitly references "Ecology" as "a study . . . [that] reveals that [animals] are not here to compete with each other, but to carry out an enormous work serving the harmonious upkeep of the earth," linking this point with her metaphysical claim that "The purpose of life is to obey the hidden command which ensures harmony among all and creates an ever better world. We are not created only to enjoy the world, we are created in order to evolve the cosmos" (Montessori, 1949: 89–90[13]; see too 17: 87–90, 165). Some of Montessori's ecological principles are now familiar facts. Organisms exist in ecosystems and fill various niches within those ecosystems, niches that both serve eco-systemic purposes and provide what is necessary for the organisms. Montessori's account of adaptation shows how individual/species-level fitness and the ecological fitness are integrated. Organisms must adapt to their environments, and they do so in part by serving functions within those environments. The interdependence of life is such that *wholly* parasitic life would undermine the ecosystems of which it is a part and fail to thrive over the long term.[14] But unlike most contemporary ecologists, Montessori sees a more basic teleology underlying these processes. For her, the ecological function of the organism is not merely the result of efficient-causal processes of selection and (consequent) adaptation. As in the individual case, teleology is *fundamental*. Adaptation is central to living organisms *because* it provides a mechanism for directing evolution in a way conducive to the promotion of ecological harmony and—in a more Hegelian or Nietzschean vein—the "evolution" of the cosmos.

C3P31 Montessori's reflections on adaptation and ecology support a metaphysical vision of purposive self-direction toward individual perfection integrated into a "cosmic plan" where "all living beings are destined to contribute to the well-being of other living beings" (12: 53). Pushing teleology to the level of ecosystems might seem to threaten the conception of teleology as rooted in *internal* creative powers oriented toward organisms' *individual* perfection. Montessori certainly limits individual-perfectionist teleology by ecological-holist teleology, explicitly saying that ecological purposiveness toward "the cosmic function of each living being" is "stronger" than individual tendencies to "grow . . . towards perfection" and claiming that with respect to individual organisms, such as those "made to be eaten," and entire

[13] This quotation is from a version of *The Absorbent Mind* published by The Theosophical Publishing House, Madras, India, in 1949, based on her lectures during her time in India (1937–1945). It does not appear in the revised *Absorbent Mind* published by Montessori-Pierson (2007–).

[14] The claimed interdependence between individual/species evolution and ecosystemic good is not absolute. Some individuals will thrive—a least temporarily—to the detriment of their ecosystems or species. In other cases—Montessori specifically mentions the evolutionary stasis of certain species (see 6: 21–4)—organisms or species will fail to thrive or even go extinct for reasons that are primarily ecological. What is good for individual life is not always good for life as a whole. But Montessori's "adaptation" provides for integrating these two teleologies.

species, such as the "more complex Trilobites" that gave way to simpler forms of life, "the cosmic plan needs sacrifice" of "individual goods" (6: 24–25, 22–23). While admitting that individual teleology is sometimes sacrificed to ecological goods, however, she more commonly emphasizes that the ecological goods are brought about *through* individual teleology. Thus not only are all ecologically oriented forces internal to organisms—a matter of individuals' "vital instincts" (10: 112n)—but "[t]he fulfillment of a great work [for the sake of the ecosystem] brings with it the happiness of the living beings who are charged with it" (12: 30). While nature can sacrifice individual goods for the sake of the whole, more often individuals in nature are *both* "egotists who just enjoy their own life" *and* "obedient agents of the harmony of nature" (17: 90). Moreover, the *kind* of good toward which the cosmos as a whole tends is one that *requires* individuals' pursuits of their own perfection. Harmonious *complexity* depends upon uniting already complex (that is, internally perfect), active beings into an even more complex whole, which in turn depends upon each's pursuit of individual perfection: "the freedom of the individual . . . is necessary for the evolution of the species" (10: 98). In the end, Montessori develops a metaphysics of life that posits individual organisms' teleology oriented toward their own and their species' perfection while also operating by natural laws that ultimately serve the good of the whole ecosystem (and eventually cosmos).[15]

C3S7

3.4 From Biosphere to Cosmos

C3P32

The central concept of Montessori's metaphysics is the concept of life. She finds in this concept a basis for natural teleology, both in the tendency of each organism (and species) toward its own perfection and in the coordinated development of individuals within natural ecosystems. One might take this teleological metaphysics to be limited to living organisms since Montessori emphasizes that life is a distinct "creative force . . . with its special laws that are studied in biology" (6: 17), and she often contrasts life and mere "material" forces (e.g. Montessori [1910] 1913: 38). In fact, however, Montessori extends her conception of cosmic teleology beyond life, and she does so in two importantly different ways.[16] First, she extends the *telos* of living things to include non-living features of the universe. That is, living things aim not merely for their own perfection, nor even for the perfection and harmony of all life, but for a perfection and harmony that includes non-living things. This extension is a relatively straightforward corollary of her ecological orientation and one

[15] As we will see in Chapters 6, 10, and 11, Montessori's ethics and political philosophy are likewise based in part on the role that individual human striving for perfection has in the good of the whole.

[16] Montessori's complex understanding of the relationship between life and non-living things is reflected in her curricula. In preschool classrooms, children learn to distinguish living things from non-living things as a basic sorting activity, and then in elementary classrooms they learn to see how all things—living and non-living—form an interrelated teleological whole.

about which Montessori is consistent throughout her works. Second, she extends teleo*logy* to non-living features of the universe. Merely saying that the function or purpose of living things involves non-living things does not imply that non-living things themselves *have* functions, but Montessori often describes non-living nature not only as part of the *end* of nature but also in terms that imply a teleological orientation *of* non-living things. While life is paradigmatic for metaphysical teleology, that teleology applies to basic chemical and even purely physical forces and entities.

C3P33 The first way in which teleology extends beyond life itself arises from Montessori's expansive conception of the "ecosystem" to which living things belong. While "life . . . can be regarded as an energy that maintains life itself" (10: 62), life also serves purposes in the ecosystem specifically relating to its abiotic factors. Thus "life creates rocks and soil and . . . sustains the harmony of the earth" (10: 61); it is "the force that creates the world" (10: 90) and "upon which depend not only the different forms of living beings but also the evolution of the earth itself" (7: 104).

C3P34

> The earth must be regarded as having been created by animal life, for the earth's soil as presently constituted is the work of forms of animal life. How can the air and sea remain pure . . . ? Why don't the oceans become a solid mass because of the calcium carbonate constantly deposited in them by rivers? It is plant life that maintains the balance of the atmosphere, and it is animal life that maintains the balance of the oceans. (10: 90; cf. 1: 49)

C3P35

> The trees . . . purify the air . . . the coral . . . filters the sea . . . to keep the water pure[. T]he animals that populate the earth are unconscious of their cosmic mission, but without them the harmony of creation would not exist. (10: 111n)

C3P36 The ecosystem is not merely the interaction of living beings, but includes the mutual dependence of living *and non-living* systems. Thus insofar as individual teleology is subordinated to ecological, the ultimate "cosmic function" of life is directed toward non-living as well as living nature. Most generally, "The animals [and other living things] all form one trained and disciplined army which battles to preserve the harmonies of nature" (1: 49).[17]

C3P37 Now one might understand this ecosystemic teleology as *ultimately* rooted in the value of life, a matter of life working for the good of abiotic features in order to preserve itself. Sometimes, Montessori seems to reduce ecological goods in this way; thus when she insists that "without [plants and animals,] the harmony of creation would not exist," she immediately adds "and life would cease" (10: 111–112n), suggesting that the promotion of ecological harmony is subordinated to the goal of "maintain[ing] life itself" (10: 62). But her considered view is

[17] Recall a related point in Stoppani (Chapter 2, Section 2.8), and for the implications in environmental ethics, see Chapter 11.

more comprehensive, that there is a systemic good to the complex interactions of components in an ecosystem that surpasses the value of the life within it. In fact, she even suggests that life arises to meet a need for order that *precedes* (both metaphysically and temporally) the origin of life itself:

C3P38 Besides the *hydrosphere* and the *atmosphere* there is also the immense multitude of vital energies that forms the *biosphere*. Were it not for these, were the earth abandoned to the mercy of non-living energies, it would soon be plunged into the primitive chaos, into the confusion of the elements. (Montessori [1948] 1971: 17)

C3P39 [L]ife undergoes changes together with the evolution of the earth. It is not that life needs to attain a perfection for itself, but, being an intrinsic part of creation, it does its part in transforming the world, its variations being more related to the earth's needs than to its own urge to perfection. (6: 17–18)

C3P40 In these passages, the earth itself has needs much like those we have already described in the context of bio-teleology. The earth "needs"—that is, is better insofar as it has—well-ordered complexity. And life is a mechanism for creating and preserving such complexity. Thus Montessori describes an origin of life in terms of solving a problem for inanimate nature:

C3P41 [R]ivers have been bearing to the ocean quantities of calcareous matter, sufficient to have choked it up . . . if left unhindered. Earth and water might have blended again a muddy chaos, but that has not happened . . . for the catastrophe was averted by the activity of living things, who stepped in to the rescue when the laws governing inanimate nature began to prove insufficient. (6: 21)[18]

C3P42 Montessori compares "the biosphere, or sphere of life" with "the fur . . . of an animal," a "part of the earth's body" whose "function is to grow with it, not only for itself, but for earth's upkeep and transformation" (6: 17).

C3P43 Thus Montessori extends the function of each living thing not only beyond itself to its species, and beyond its species to its (biotic) ecosystem, but ultimately to the good of the earth as a whole. At times, she goes further. In one important passage discussing humans' goals, she claims, "Above and beyond all these goals, which have to do with the interests of specific interests or groups, there is something that involves all [hu]mankind and perhaps even the universe itself, creation, cosmic harmony" (10: 61). The development of a relatively local harmoniously ordered complexity serves a cosmic purpose, perfecting the universe itself.

[18] This principle of life solving a problem faced by inanimate nature is a central theme of the "The Story of the Coming of Life," one of five "Great Lessons" consistently taught as part of the Montessori elementary curriculum.

C3P44 Even if part of the function of living beings involves harmony with and the "good" of abiotic elements of the ecosystem, this sense of teleology need not imply that non-living things have functions of their own. However, Montessori regularly applies her teleological metaphysics to inorganic things. In her elementary materials, in particular, where she lays out details of her overall metaphysics, she refers to "the cosmic function of each living being, and *even of inanimate natural objects*" (6: 24, emphasis added). When she claims that "Nature is . . . a harmony, a plan of construction," she explicitly says "Everything fits into the plan: rocks, earth, water, plants, man, etc." (17: 89). In one of her more explicitly metaphysical essays, when describing the "creative unconscious" by which "plants and animals" exhibit a teleology that we can consider by "analogy [with] the life of man," Montessori unambiguously says, "This analogy . . . refers to the behavior of all living things *and to that of the majority of great natural forces*" (Montessori [1948] 1971: 10, emphasis added). And when illustrating her basic teleological structure with embryological development, she adds that such development "revealed to us a significant unity of method in all natural building. It is clear that nature follows a plan, which is the same for an atom as for a planet" (6: 70). The plan that describes how embryos develop through internal, discontinuous striving toward perfection also describes the activities of atoms and the development of planets.

C3P45 Montessori understands abiotic nature teleologically, both as a whole and in its individual constituents. In part, this teleological orientation of abiotic nature is already implicit in her claims that living things include abiotic harmony in their ends. If "living things . . . stepped in to the rescue when the laws governing inanimate nature began to prove insufficient" (6: 21), then those laws of inanimate nature must have been insufficient *for* something. If teleology only enters the scene with life, then there can hardly be *teleological* reasons for the origin of life itself. But teleology does not enter only with life. Not only do individual chemical elements and compounds have functions, but the pre-biotic system of forces is teleologically directed toward ordered complexity. When this system risks devolving into muddy chaos, it creates new forces—biological ones—to help it fulfill its purpose.[19]

C3P46 According to this account, *all* nature is teleologically ordered toward harmoniously ordered, complex activity. At the level of basic physics, this can be understood in terms of something like what Montessori's one-time collaborator, the Italian physicist Luigi Fantappie, called "syntropy," according to which physical systems are attracted to increased order and complexity (Fantappie, 1951). At higher chemical levels, it can be seen as atoms coalesce to form complex molecules with new, more complex, forms of acting on one another. In both contexts, it reflects what Albert Szent-Györgyi called an "innate drive of matter which led to the origin

[19] Note that hers is not a vitalist or panpsychic account. She does not literally ascribe *life*, much less *consciousness*, to basic elements of the universe, and she even insists that with life, new laws emerge. But everything in nature is *teleological*.

of life" (Szent-Györgyi, 1974: 22–23). Montessori fleshes out the nature of this development in more detail in terms of conflicts that arise when individuals' internal drives toward perfection come into conflict with the harmonious unification of the forces through which these drives are realized. This tension, teleological at its base, gives rise to a further teleology, the development of higher-level "creative forces" with their own teloi.[20] Thus, for example, life itself emerges from conflicts at lower (chemical) levels of teleological organization. Montessori explicitly compares the emergence of life from mere chemistry by analogy with the emergence of social and political structures arising from conflicts between individual wills:

C3P47

> Something similar [to socio-political organization] happens in the field of chemistry, when elements such as hydrogen, carbon, oxygen, and nitrogen are captured by life in order to build organic molecules. In the inorganic world, the substances are of a simple nature. Some few elements join together a small number of their atoms to form water, carbon dioxide, salts, phosphates, nitrates, etc., in accordance with the law of affinity, which renders them attractive to some and repulsive to others, but organic molecules imprison masses of atoms . . . Life, to compose its substances, uses the same atoms as does inorganic nature, but it gives them a new organization, imperialistic in type. And yet the elements which are forced into the great enterprise of constructing dynamic living organisms still keep their innate tendencies, that love through which they unite to form water . . . or that hate that makes it impossible for them to exist together. As soon as the vital tension ceases and death befalls the living body, the chemical elements again regain . . . the primitive freedom of the inorganic world . . . Compared to these [primitive] modes of existence, those formed under the empire of life were "supra-natural" substances. (Montessori [1948] 1971: 23–24, cf. 6: 17; 10: 20)

C3P48 The universe as a whole is teleological in the sense that there is, intrinsic to each elementary component, a drive toward more intense and complete expression of its distinct form of activity. This drive, even in matter itself, is adaptive, in that everything seeks to express individual perfection through forming more complex, harmonious wholes with other components of nature. In some cases the integrated complexity threatens to dissolve into chaotic disorder. But when the system is able to emerge from such threats (and it often does not), it does so through the construction of a new kind of substance, something that from the standpoint of the

[20] Cf. Schopenhauer: "If several. . .phenomena at the lower grades. . .that is, in inorganic nature, come into conflict with one another. . .there arises from the conflict the phenomenon of a higher idea" ([1818] 1969: 144). Montessori would have been exposed to Schopenhauer during her graduate study in philosophy; Moretti shows (see Moretti 2021: 240–241n157) that she and her colleague Montesano studied Schopenhauer. Like Nietzsche and Hegel, however, Montessori rejected the Schopenhauerian pessimism according to which the emerges of these higher-order forces is something to be rejected.

previous stage appears "supra-natural."[21] Thus stable inorganic compounds are "supra-natural" from the standpoint of atomic physics. And organic compounds that change in environmentally responsive and potentially self-duplicating ways are supra-natural from the standpoint of inorganic nature. Life is a supra-natural consolidation and organization that gives rise to "special laws" and a teleological orientation that is more directed, more active, more specific, and more apparent than that in abiotic nature. The universe is teleological in its foundations, and the complexity, activity, and we might even say agency of that teleology increases over time. Moreover, this process is not complete. For Montessori, life has given rise to yet higher creative powers with their own special laws, the first and most important of which are psychological. Some living beings, pre-eminently human beings, are conscious, intelligent, creative agents. In that sense, Montessori contributes to a common project among early twentieth-century—and present-day—philosophers, the explanation of how conscious mind can be a natural continuation of the same sort of (teleological) process that gave rise to life itself (see Chapter 4). Beyond those developments, Montessori suggests—as we'll see in Chapters 10 and 11—that psychological forces give rise to higher-order social, political, and technological forces.

C3S8

3.5 Conclusion

C3P49

Over the course of her life, through her studies of children and their development, her immersion in developing biological and geological sciences, and her philosophical training, Maria Montessori developed a complex metaphysics of life. This metaphysics drew from and engaged with strands of evolutionary naturalism in thinkers from Hegel and Darwin to Haeckel, James, and Bourgeois. Her metaphysics posits natural teleology in the tendency of each organism (and species) toward its own perfection and in the coordinated development of individuals within natural ecosystems. Her metaphysics was prescient in several respects, anticipating the importance of variability (genetics) in evolution, the role of ecology and the shift from individuals/individual species to ecological wholes, and the importance of a metaphysics that could make sense of human consciousness. Her main contributions come from her methodological insight that basic principles of the universe can be gleaned from careful observation of the emergence of the human mind in the young child. The fullest development of this insight depends upon Montessori's philosophy of mind and ultimately her epistemological, ethical, political, and pedagogical theories. But from these observations she articulated her

[21] Life is "supra-natural" relative to mere chemistry because it is an emergent structure with laws that are irreducible to the "nature" of the lower (chemical) level. (For one discussion of this irreducibility in contemporary philosophy of science, see Kitcher 1984.)

basic metaphysical principle that complex systems emerge from simpler ones through goal-directed activity within the context of an interdependent whole. This basic principle is also, as K. T. Korngold once put it to me, "the formula for learning in a Montessori classroom." In that sense, Montessori's pedagogical principles put her metaphysics into practice, bringing that metaphysics to life in tens of thousands of classrooms every day.

C3P50 In some respects, Montessori's teleological conception of evolution might seem merely a throw-back to bad misreadings of "evolution" as "progress" from which contemporary biologists, by and large, seek to free themselves. Stephen Jay Gould has described the "straightjacket of linear advance" that infects even "the definition of evolution: the word itself becomes a synonym for progress," arguing instead that, in fact, "Life is a copiously branching bush, continually pruned by the grim reaper of extinction, not a ladder of predictable progress" (Gould 1987: 32, 35). There is a fundamental difference between those like Gould—and Darwin and Nietzsche—for whom "contingency rules" (Gould, 1987: 301), and those like Montessori—and Hegel, Marx, Labriola, and Bergson—for whom, as Thomas Nagel has recently put it, "mind and everything that goes with it is [teleologically] inherent in the universe" (Nagel, 2012: 15). It is true that evolutionary theory as such does not in itself *imply* or *depend upon* any teleological conception of perfection. Organisms undergo variations, and some variations persist. Often, but not always, the reasons have to do with adaptive success, but adaptive success need not imply any conformity to excellence or perfection. And the source of variations *could* be merely random. In that sense, Montessori's "myth" of Life (6: 17) goes beyond what is strictly implied by "facts" of evolutionary theory. But her teleological conception of life, as a basic feature of her metaphysics, rightly informs rather than being established by her conception of biological evolution. And *given* a teleological conception of the world, evolutionary biology provides a story of development that fits well within that conception of the world. For Montessori, the "creative force" of life is continuous with other "creative forces" implicit in the chemical and physical laws of the universe, and there is simply no denying that these forces *have* been creative, in that they have "created" an intricate life-filled world, not to mention the myriad and complex galaxies, planetary systems, crystal formations, and ocean currents in the "non-living" parts of the universe. Darwin, Nietzsche, and their heirs (such as Gould) may be particularly interested in the sheer power of contingency; Montessori emphasizes underlying teleological and ecological laws. She thereby provides a coherent, naturalistic, teleological, and interconnectionist metaphysics of life.

C4

4
From Life to Mind

C4S1

4.1 Life, Mind, and Cosmos

C4P1 Montessori's metaphysics of life (Chapter 3) provides a framework within which the human mind fits into a unified conception of nature; the mind is an emergent power, a "telluric force" to use Stoppani's terminology (Stoppani 1898: 68), that makes use of but supersedes biological forces in something like the way that biological forces make use of and supersede chemical forces. The mind marks a form of teleologically oriented agency that is higher, more complex, and more agile than mere life, and it has laws of its own that are irreducible to mere biology, but mind is ultimately an aspect of the life of conscious organisms. At its most basic level, the emergence of consciousness, cognition, intentionality, and so on reflects the general tendency of the universe to develop more complex systems of ordered activity. Through attention to the centrality of unconscious and embodied forms of cognition, especially in children but also in adults, Montessori builds an account of mindedness in which self-conscious mental processes emerge as developments of pre-conscious mental life. Conceiving of the biological world as a system of teleological and even "intentional" unconscious processes already establishes a continuity between "mind" and the world. More specifically, Montessori develops a vocabulary for talking about cognition, valuing, and willing that classifies these as conscious forms of more general tendencies of life. Thus consciousness is a special case—albeit one with its own special laws—of more general principles governing the universe in general and life in particular.

C4P2 Montessori's pedagogical work on children's development of consciousness from unconsciousness makes important contributions to the so-called "hard problem" of "how mind is possible in a material world" and even what Owen Flanagan has called the "really hard problem," namely "how meaning is possible in this material world" (Flanagan 2007: xi). In *Mind and Cosmos*, philosopher Thomas Nagel articulates both problems as a call for a metaphysical conception of the cosmos that can integrate human consciousness, cognition, and values into a unified conception of Nature.

C4P3

> [W]ould an alternative secular conception be possible that acknowledged mind and all that it implies [. . .] as a fundamental principle of nature along with physical law? Could it take the form of a unified conception of the natural order, even

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> if it tries to accommodate a richer set of materials than the austere elements of mathematical physics? (Nagel 2012: 22)

C4P4 Later, he puts the point in terms of evolutionary development, describing the central "problem . . . [as] this: What kind of explanation of the development of [conscious] organisms [. . .] could account for the appearances of organisms that are not only physically adapted to the environment but also conscious subjects?" (Nagel 2012: 44). Because Nagel sees the problem from the framework of evolutionary biology, where the issue is how conscious *species* could emerge from a world without consciousness, raw data for addressing the problem are difficult to access. We have never witnessed the emergence of a conscious (much less a thinking) species from an unconscious one (much less from inorganic matter).[1]

C4P5 In the context of her pedagogical naturalism, however, Montessori approaches the hard problem of consciousness from the perspective of childhood development. In the conception, embryonic development, and early infancy of children, we *can* directly observe the development of conscious organisms from unconscious physical states. We see the "creation of faculties, the creation of consciousness" (17: 31), and even what Nagel calls "the coming into existence of subjective individual points of view" (Nagel 2012: 44) from complex but not-yet-conscious bundles of organic matter. As Montessori explains,

C4P6

> We must dig into the deepest mystery of human life; we must reach the nucleus from which all is formed, the apparent non-existent psyche of the newborn child. He has the power to develop everything which is in man. He creates a being who can orientate himself in the environment. Without language, he learns to speak; without intelligence, he constructs it; he coordinates his movements and [. . .] becomes interested in things. Nothing existed. Everything has been constructed by him. In him we are confronted with the mysterious, miraculous fact of creation. (17: 20, cf. 29)

C4P7 Through her lifelong study of how conscious thought and action emerge in children, particularly in what she called "the spiritual embryo" (from birth through approximately age 6), Montessori formulated a conceptual apparatus that emphasizes the "creative power of life" and the continuity between life and mind. Even her scientifically informed teleological metaphysics arose in part through applying to the universe as a whole conceptual tools Montessori developed for explaining (individual) consciousness. As I show in this chapter, Montessori's vitalist metaphysics offers just the sort of teleological framework needed for Nagel's desired unified conception of nature, and her pedagogical naturalism provides a methodological framework for fine-grained analysis of the emergence of consciousness and value

[1] Here I leave aside, as Nagel does, the possibility of genuine Artificial (conscious) Intelligence.

in human life. At the same time, her metaphysics of mind provides a background for her accounts of agency and her pedagogical, ethical, and even political theories.

C4S2

4.2 The Psyche As an Emergent Creative Power

C4P8 In Chapter 3, we saw that within Montessori's teleological metaphysics, more complex ordered structures give rise to higher-order forces or powers in nature. Most prominently, life itself emerged as a new force from the increasingly complex order—and related tensions—within and among organic molecules (Montessori [1936] 2008: 6; cf. Stoppani 1882). In a similar way, consciousness and other properly mental powers emerge from the increasing complexity of biological systems. Montessori makes this connection explicit; just as life arose to deal with geological forces that were insufficient to maintain harmoniously ordered complexity, so too psychic forces arise in response to limits on the part of merely biological structures:

C4P9

> Besides the *hydrosphere* and the *atmosphere* there is also the immense multitude of vital energies that forms the *biosphere* . . . Humanity . . . contribut[es] a new energy: the additional envelope of a *psychosphere*, which participates in the perfecting of nature . . . A new energy . . . has come on our planet, to remove the tardiness of physical [including merely biological] energies and to give new impetus to the evolution of life. (Montessori [1948] 1971: 17, 20)

C4P10 Just as "[c]ompared to [merely chemical] modes of existence, those formed under the empire of life were 'supra-natural' substances," so too "[f]rom this parallelism with the chemical world, one is impressed with the thought that human 'supra-nature' is destined to contribute something great and new in the history of the universe" (Montessori [1948] 1971: 23–24; see too Montessori [1936] 2009). And just as physical and chemical laws continue to govern living systems, but their significance as independent forces pales beside the emergent powers of life, so too as "conscious awareness develops . . . [,] the force of life, which directs all these processes, is increasingly buried under the power of the developing conscious mind" (17: 65).

C4P11 In her claim that the psyche is emergent with respect to biological life, Montessori takes a middle path between the alternative conceptions of psychology offered by Roberto Ardigò, arguably the father of Italian experimental psychology, and Giuseppie Sergi, the pre-eminent practitioner of Italian "anthropology" and Montessori's personal teacher and mentor (see Chapter 2, Section 2.3). Ardigò was an anti-reductionist who argued that "mental acts [are] not observable elsewhere than within consciousness" so that *psych*ology must be "special and distinct from physiology" (Ardigò 1870/1882: 173, quoted in Foschi 2012: 311). Against this view, Sergi insisted that "mental phenomena" are "biological functions that

arose in order to better adapt the individual to the environment" and thus could "be reduced to physiological phenomena" (Foschi 2012: 313, see Sergi 1881: xvii–xx). While Ardigò thus emphasized introspection as a method of psychological research, Sergi's anthropological method focused on measuring physical and physiological characteristics (including, e.g., skull size and shape) to gain insight into psychological processes and possibilities. Montessori's conception of the psychosphere as *emergent* draws from Sergi an insistence on the continuity of mind and life; mind emerges as a biological adaptation to environmental conditions. But she insists, with Ardigò, that the laws governing mental life are irreducible to physical or even physiological laws. What emerges through biological forces is something "supra" biological, a *new* kind of force. As the philosopher Evan Thompson has recently put his own similar view, "Whereas living structures are ontologically emergent with respect to physical ones . . . human [psychology] is emergent with respect to living organisms" (Thompson 2007: 77).

C4P12 In describing the emergence of consciousness, Montessori attends not merely to its evolutionary origin in human beings as a species, whereby "a new impulse appeared in the kingdom of the living" (1: 53). Rather, she predominantly focuses on the emergence in *each individual human being* of characteristic forms of intelligent human consciousness over the period from birth through early childhood. Conscious mind emerges, over time, during the process of normal human development: "in the beginning the child is unconscious, and from this unconscious state emerges a state of consciousness" (17: 37). As infants, we are governed by unconscious tendencies of biological life, but these unconscious structures construct and become subordinated to conscious mental processes. The infant is a "spiritual embryo" (e.g. 1: 53ff.; 17: 102, 138), and much of Montessori's work was devoted to the careful exploration of the specific mechanisms by which this embryo develops into an intelligent and self-conscious human being.

C4P13 She details, for example, how a child must be "exposed to its environment" many times in order to come to conscious awareness of its features (17: 37), how cognition of something depends upon a "transfer [of] information to the subconscious" that provokes the "interest" required in order for "the intelligence [to] accept it" (17: 78–79), and how different "psychic organs . . . develop independently [and a]fterwards unite" (17: 138). Through absorptive adaptation to their environments, children form components of language, muscle control, direction of attention, and habits of action and feeling. At first, these elements are unconscious (such as when the young baby forms the ability to discriminate sounds of her native language), but as they mature, they become conscious loci of attention (as in the deliberate attention to and imitation of language) and then become unconscious again as they are incorporated into and form part of consciousness itself (as when the adult no longer focuses on language as such but on its meaning). In that sense, "[c]onsciousness develops bit by bit from the beginning. It starts out like a tiny membrane that grows in the course of time" (17: 65). As in all cases of teleological

development, development is discontinuous and involves multiple independent changes that are consolidated at later stages (see Chapter 3, Section 3.2.3). As in the case of transitional developments where new powers emerge, the development of the psychic embryo is first driven by the force of life but eventually gives rise to a new force, the psychological or spiritual, that can direct and control the powers subordinated to it.

C4P14 Montessori's overall metaphysics makes sense of how a new power governed by new laws can emerge in the course of the natural evolution of other natural forces. Astrophysical forces gave rise to varieties of (relatively) complex atoms with new properties and active powers; these gave rise to molecules of varying complexity and creative activity; these, at a crucial juncture, gave rise to life, which is governed by its own powers; and life has given rise to intelligent and conscious beings governed by psychological laws that are not reducible to the biological. Just as we saw in Chapter 3 that Montessori applies concepts taken from living systems—most prominently, the concept of teleology—to the abiotic systems from which life emerged, so too she draws from the study of consciousness a set of explanatory concepts that can be applied to non-conscious nature. In particular, conscious beings—and particularly "reasoning conscious" beings (Montessori [1948] 1971: 9)[2]—are not merely teleologically directed but also *cognize* the world, and *care about*, *value*, or *will* particular ends or features in that world. Once we see cognition, value, and willing as paradigmatic ways beings like ourselves relate to the world, we can consider *unconscious* forms of cognition and willing from which these conscious forms emerge. Through her work with children, Montessori plainly saw pre-conscious forms of memory, cognition, and volition, and she observed how these changed "through a gradual development" into the more conscious forms on which philosophers typically focus (17: 38).

C4P15 Montessori's concepts of unconscious volition and cognition allow her to see all life in terms analogous to and developmentally continuous with human psychological structures, and they allow her to see the mind as essentially embodied and integrated through activity into its world. "Mind" is neither a separate immaterial substance nor even merely a matter of processes in the brain; rather, it is the consummation of developing, living bodies in active engagement with their environment. In this context, what might seem like physiological changes in merely physical-biological systems are in fact elements in the construction of a conscious, intentional, knowing, and valuing mental life.

[2] Throughout her work, Montessori often conflates consciousness with self-consciousness or intelligent consciousness. Thus, on her account, children under the age of 1 are almost entirely non-conscious, because while they are literally "conscious" of the world around them (and thus "conscious" in the way that many in the philosophy of mind today treat the concept), they have not integrated this standpoint on the world into a temporally extended, conceptually framed, self-conscious standpoint. For similar reasons, Montessori does not see non-human animals as "conscious" in the way she is interested in.

C4S3

4.3 The Unconscious

C4P16 A detailed discussion of the role of the "unconscious" in the philosophy of mind is far beyond the scope of this chapter, and even many details of Montessori's account of the unconscious are beyond its scope.[3] But some of the concepts she develops to describe the unconscious are central to her metaphysics as a whole and shed light on how she provides a naturalist account of (conscious) mind. In particular, she answers the challenge offered by philosopher John Searle, namely, to show what it would be like to have "a conscious [kind of] mental state, only without the consciousness" (Searle 2004: 166). She not only articulates general concepts that apply to both conscious and unconscious states, where their conscious forms are paradigmatic features of intelligent conscious (human) psychology, but also shows how the latter, conscious forms arise from and remain dependent upon their unconscious correlates.

C4P17 Montessori employs the concept of the unconscious to highlight the continuity between what is properly psychological and what is merely biological. On the one hand, the notion of the unconscious allows her to give a name to that "analogy [with] the life of man" that "refers to the behavior of all living things and to that of the majority of great natural forces" (Montessori [1948] 1971: 10). On the other, the enduring influence of the unconscious in human life belies man's hubristic attempts to "interpret the events of social life only as the result of conscious efforts" (Montessori [1948] 1971: 10). In that way, "[t]he 'unconscious' offers much deeper conceptions . . . between events and environment" (Montessori [1948] 1971: 9). Because our conscious life is built from unconscious processes, when we see evidence of those processes in non-conscious beings, we can recognize the continuity of adult human mental life with pre-conscious forms of life. In that sense, while the non-psychological natural world would not be consciously mental, it would have, as Nagel demands, "mentalistic and rational elements of some kind" (Nagel 2012: 31).

C4P18 Montessori articulates two specific unconscious powers that correspond to human capacities for volition and cognition. Following the British educational theorist Percy Nunn, she calls these *horme* (corresponding to volition) and *Mneme* (corresponding to memory and cognition) (1: 54n, 75). In Section 4.3.1, I briefly lay out Montessori's concept of horme, showing both how horme can plausibly be seen as intrinsic to life and how it directly connects to human willing and thereby

[3] Views about the unconscious range widely among contemporary philosophers of mind, including John Searle's claim that there cannot be "deep unconscious mental states" though there are "neurobiological features that behave *as if* they had intentionality" and Alva Noë's view that "consciousness" or "something of this sort" arises for even "the bacterium," which "is a primitive agent, which is to say . . . a primitive subject," not even to mention psychoanalytic views that make the unconscious central to mental life (Searle 2004: 171–172; Noë 2009: 46; see too Freud [1920] 1963; Lacan [1970] 2006; Kristeva [1988] 1991; Westen 1999; Thompson 2007: 157–158).

to values. In Section 4.3.2, I discuss Mneme, the capacity of the horme to adapt to its environment, largely through what Montessori calls "absorbing" the environment into the psyche. Mneme most directly corresponds to conscious memory, but it also provides the foundation for all human cognition and even for the cultivation of learned values and practical reason.

C4S4

4.3.1 Horme, the Will, and Values

C4P19 For Montessori, the fundamental force of unconscious life is the *horme*, a "vital force within [each living thing] that guides [its] efforts towards their goal," a "force" that "might be likened to will power" (1: 75). She compares *horme*, albeit merely by "resembl[ance]," to Bergson's *élan vitale* or Freud's *libido*, but says the concept was "first proposed" by Percy Nunn (1: 75n). Nunn described it thusly:

C4P20

> To this element of drive or urge, whether it occurs in the conscious life of men and the higher animals, or in the unconscious activities of their bodies and the (presumably) unconscious behavior of lower animals, we propose to give a single name—*horme (ὁρμη)* . . . [A]ll the purposive processes of the organism are hormic processes, conative processes being the sub-class whose members have the special mark of being conscious (Nunn 1930: 23)

C4P21 Horme is the term for the subjective principle of teleology in each organism by which "life has a tendency to activity" and is "led . . . to a perfection of being" (6: 17; see Chapter 3, Section 3.2.2). It is an unconscious willing, like the will in being directed toward an end, but common to "life in general" and not merely to what is "a part of the individual's awareness" (1: 75).

C4P22 For Montessori, horme is particularly evident in the life of the newborn. In one lecture, she explicitly claims, "The psychology of the very little child is the psychology of the unconscious. It is possible to study it through direct observation, whereas it is difficult to see the unconscious in grown people" (17: 38). By observing unconstrained behavior of infants and children, one can see natural tendencies of the child's horme. The infant's "looking" is "unconscious" in two important senses (17: 39). First, before the child has developed the capacity to discriminate clearly among the various sensory inputs presented to it, it lacks the coherence necessary for its "awareness" of the world to be conscious in anything other than a mitigated sense. Whatever consciousness there is of the blooming, buzzing confusion that presents itself to the infant is more akin to lower animals' primitive awareness of the world than to the determinate cognitions of adult human beings. Second, and more important here, the impulses by which the child selectively attends to certain features of its environment are, at first, unconscious. The infant notices faces,

voices, and the smell of milk, and instinctively sucks and gesticulates in specific ways. But he is not aware *of* these instincts.

C4P23 While initially unconscious, however, the infant's "interest" in learning and moving is *like* conscious willing, and the learning that takes place is *like* conscious judgment and cognition. In particular, an attentive observer can see, in a way that "psychologists" and their "tests" often miss (17: 49; see Chapter 1, Section 1.4), that the natural urges of the child are urges toward "hard work," even if only the "work" of observing and distinguishing features of the environment (17: 49). Newborns have unconscious *agency*. And some such unconscious agency is *necessary* if consciousness is ever to emerge. Coming to conscious understanding of and action within one's world requires classifying and sorting what one takes in from one's environment. Within her epistemology, as we will see in Chapter 5, Montessori follows James in claiming that "everyone sees only a part [of the world], determined by his feelings and interests" (22: 48). In this context, "the question arises, what are the interests of the small baby that will lead it to make a choice from among the infinite medley of images in its environment," and Montessori rightly notes that "it is self-evident that the baby will not be affected by interests of an external origin" (22: 49). Before one can come to have externally derived interests, one must experience an external world. And to do this, antecedent interests must direct one's attention. These interests derive from "the irresistible force, the primordial energy" of unconscious horme. Infants are not mere stimulus-response mechanisms. They direct attention toward particular features of their environment in keeping with their developmental needs. Montessori is particularly attuned to this unconscious horme in infants in part because of her resistance to "blank slate" models of children's development (e.g. 15: 230). Given that children are responsible for *their own* development, they must have a self that directs itself; they must have interests and something like volitions. And they do. Children—even infants—preferentially attend to certain features of their environment and select certain kinds of activity over others.

C4P24 Horme is not merely a matter of following laws of nature but involves pursuing ends one gives oneself in accordance with norms one gives oneself. In explaining that even very young children "like hard work," Montessori gives the example of

C4P25

> a nine-month-old child that wished to see a piece of brown marble each day . . . [that] was set in a brown wall. There was very little difference between the marble and the wall, but the child was very interested in it. There was nothing attractive about it. It was just a stone . . . Yet the child delighted in it. Even before he reached ten months of age, he liked the work of distinguishing between two shades of the same color that were so nearly alike. (17: 40)

C4P26 This infantile activity of simple observation is continuous with more advanced work that 2- and 3-year-old children do in Montessori classrooms when they distinguish and name different shades of particular colors.

C4P27 For another fascinating example of volition that is not fully conscious, one more intermediate between pure horme and full will, consider Nina, a 17-month-old child at the Montessori Children's Center, setting herself the task of perfecting sensory awareness of correlations between three dimension and two-dimensional representations (a sensory task made famous by Molyneaux's famous question to Locke, see Locke [1700] 1975: 145–146 (II.ix.8)):

C4P28 Nina . . . is standing at the low shelf, looking at the various works, set out in various baskets. She walks over to the far corner of the shelf and selects a new work, one that has been added that morning: a basket with animal matching. She sits down and begins to look at what is inside. She takes out the horse block (a wooden block with a realistic drawing of a horse on it). She sets it on the floor. Then, she rifles through the contents of the basket. She finds a horse figurine. She takes it out and looks at it. She passes her hands over it. She looks at it some more. Then she places it on its side, on top of the horse block, matching the position of the horse figurine with the illustration. Next, she looks through the basket. Then, she takes out the cow block and places it near the horse and horse block. She looks back at the various blocks and figurines in the basket. When she sees the cow figurine, she grasps it and places it on top of the cow block.

C4P29 Around her, children are moving about, working, some are eating, others are making sounds; Nina is concentrating, fully dialed into this activity. She remains uninterrupted and is not distracted by the others. She reaches into the basket and removes a sheep block, adding it to her collection of blocks and animals on the floor. She takes the sheep figurine and lays it down, matching the position of the sheep on the block. Lastly, the rooster block and the rooster figurine remain in the basket. She peers into the basket. She reaches in and grabs them, one in each hand. She looks at her two hands. Right hand; left hand. She places the rooster block down on the floor and the figurine on top of the rooster block. She smiles.

C4P30 Here, then, is agency, appearing clearly in the extended act of Nina's self-chosen work: looking, matching, pairing. At the age of 17 months, Nina's visual discrimination skills have now evolved to enable her to see the similarities and differences in the figurines and blocks. She is driven to engage with the activity to match those that are the same . . . She is adept at pursuing her own interest to do so, and she expresses her cognitive understanding that she now knows they are the "same." (Korngold 2024)

C4P31 Whether first learning to distinguish colors, or doing more fine-grained work with distinct shades of the same color, or exercising their capacity to match

three-dimensional objects with two-dimensional images, children are attracted by work with internal norms, values, and standards of success.

C4P32 Once we see the role of unconscious horme in the absorbed attention and work of newborns and young children, we can see that similar forces are at work in all living things: "*Horme* belongs to life in general" (1: 75) and can even be called a "a great *universal* power" (1: 229, emphasis added). Montessori claims that "the will of nature" can be "called horme" and suggests that even "the roots of every plant" manifest something like a "power to choose that . . . which is conducive to its life" (1: 246). If we "penetrate into the realm of fantasy and endow the corals with consciousness . . . they would be conscious of the needs dictated by their instincts" (Montessori [1948] 1971: 12). Evan Thompson extends this point to "the now familiar example of motile bacteria swimming uphill in a food gradient of sugar."

C4P33

> The [bacterial] cells tumble about until they hit upon an orientation that increases their exposure to sugar, at which point they swim forward, up-gradient, toward the zone of greatest sugar concentration . . . [And] although sucrose is a real and present condition of the physicochemical environment, its status as food is not. That sucrose is a nutrient is . . . a relational feature, linked to the bacterium's metabolism. Sucrose has a significance or value as food, but only in the milieu the organism itself brings into existence. (Thompson 2007: 157–158)

C4P34 Even if we do not want to call the orientation of the bacterium a "will," it is recognizably continuous with the unconscious horme by which infants selectively attend to features of their environments conducive to psychological development. As Montessori puts it, there is "a form of subconscious life . . . present" in "amoeba," which "are not simply a form of protoplasm, but are living beings which . . . are able to move themselves spontaneously and . . . respond to stimuli" (15: 162). When "scientists stop to meditate upon them . . . [they] find such wonderful phenomena that they make us think of consciousness" (15: 162). For amoeba, infants, and also conscious wills, engagement with the environment involves selective attention, and in all cases, this attention is an internally directed, norm-governed activity of valuing. An organism values its environment in particular ways, and it can both get things wrong in terms of those values and get the values themselves wrong (failing to pursue what it "ought" to pursue, given its "good" in the teleological sense). As Evan Thompson explains, "Living is a process of sense-making, of bringing forth significance and value" (Thompson 2007: 158). Or, as Daniel Dennett has put a similar point, "When an entity arrives on the scene capable of behavior that staves off, however primitively, its own dissolution and decomposition, it brings with it into the world its 'good' . . . As the creature thus comes to have interests, the world and its events begin creating *reasons* for it—whether or not the creature can fully

[i.e. consciously] recognize them" (Dennett 1991: 174).[4] The infant, like the bacterium, has interests and responds to reasons, even before being conscious of them.

C4P35 The infant's unconscious horme thus lies on a continuum of biological complexity that includes the most primitive teleological tendencies of living things. But infant horme also lies on a developmental continuum that includes adult willing. Unconscious horme is not *identical* to its conscious manifestation. The horme of the living child must be transformed into the will of the adult mind, and, following Nunn, Montessori defines the "will" as "conscious horme" (Nunn 1930: 23, see 1: 75). Where horme involves selective attending to particular features of one's environment and acting in that environment in implicitly norm-governed ways, the "will" consciously—or better, *self*-consciously—directs actions and attention to the world in the light of goals of which one is aware.

C4P36 Often philosophers portray the difference between unconscious regulation and conscious willing as a difference in kind (e.g. Searle 1992; Nagel 2012). Montessori shows that, particularly in the case of young children, the boundary between conscious and unconscious engagement with the world is fluid, and the transition from unconsciousness to consciousness is *gradual*:

C4P37

> The child goes through successive stages, from the unconscious to the subconscious, and so arrives at clear consciousness. This consciousness is shown by an attraction to certain objects, to choose these objects from amongst others, and to prefer one thing rather than another. When a child does this, we are sure that this stems from genuine consciousness; modern psychologists say that this takes place when a child is ten months of age. But before this, the child was able to distinguish many things, he was able to distinguish light and some objects. He did not become conscious suddenly, from one day to another, but through gradual development. From an unconscious being, intelligence emerges slowly, like the gradual rising of the sun whose light increases until midday. So the light of consciousness comes little by little over a short period of time. Before consciousness is mastered, there must be some internal work. (17: 38)

C4P38 Observing the infant, say, we see that she attends more to the lips and faces of those in her environment than to other images, more to human language than to ambient noises. At first, her mental and volitional development is too thin to call such directing of attention a matter of conscious "choice." She is not aware *that* she wants to attend to faces and voices; she simply *does* attend to them. But over time, she more and more obviously expresses expectation, eagerness, and consequent pleasure toward these objects of attention. She comes to a place that is more than mere directed attention but still not quite fully conscious willing. And then, as

[4] There are important differences between Thompson and Dennett, as Thompson emphasizes in Thompson 2007: 160–161.

she matures, she explicitly does will—and eventually even ask for—the presence of human faces and the clear articulation of words.

C4P39 Not only is there a gradual movement from unconscious to conscious cognition, but this conscious cognition in turns gives rise to a more proficient unconscious cognition that provides the basis for further developments. The child who starts by unconsciously attending to human voices comes to consciously focus on sounds and words, seeking to imitate these. At first, imitating these sounds requires careful attention not only to what is heard but also to the movements of mouth and tongue needed to reproduce those sounds. Over time, however, "knowledge" of how to speak and listen to our mother tongue becomes unconscious again, providing a platform from which to develop further unconscious and then conscious knowledge.

C4P40 Once we see the gradual and continuous movement from unconscious to conscious and back in infants and young children, we can recognize similar phenomena in our own "experience" of the world. The experienced tennis pro who returns a 100+ mile-per-hour serve is aware in some sense of the ball and the opponent's position on the court, and must not only be aware of but even exercise directed and intentional control over his own body and racket. Much of this "awareness" and "control" are unconscious, however, and other aspects—say, awareness of the ball—lie in the vaguely indeterminate region between consciousness and unconsciousness. Similarly, in conversation with one another, we are aware of and intentionally respond to the words, gestures, and posture of others, but this "awareness" is usually neither wholly conscious nor wholly unconscious. We only become self-conscious of many of these features explicitly when they are missing, such as when we talk on the phone and cannot read another's gestures or when another says something so unexpected that we aren't sure we heard the words correctly or when others start wearing face masks and we become aware of how much we depend upon lip-reading for comprehension. With respect to our own words, we can often find, based on another's response or reaction, that we have said something we did not entirely realize we had said. As recent work on "flow experiences" has shown, our most intense experiences of agency and even-mindedness can occur when we are engaged in activities that lie on this boundary region between conscious and unconscious, where "action and awareness are merged" (Csikszentmihalyi 1996: 111) in the literal sense that what it *is* to be aware *is* to be active in a certain way. In conversation, excellent performance at tennis, and various "flow" activities, we express our "will" in a way that lies on the boundary between mere horme and the fully self-conscious "will" of reflective self-control. In many of these cases, it can be hard even to say whether or not I was "conscious" of what I was doing. In some sense, I must have been aware of the tennis serve that I returned perfectly or the words that I was writing in a flurry of inspiration, but in the moment, I lack the reflective self-awareness that characterizes the "consciousness" about which philosophers typically theorize.

C4P41 The will, then, can be understood as horme made (self-)conscious. As Evan Thompson has rightly argued, "the organizational properties of mind are an enriched version of those fundamental to life" (Thompson 2007: 157). Human children provide an opportunity to see just how this enrichment occurs. The infant horme provides the link between mind (particularly volition) and life. The infant lies on a continuum from unconscious forms of engagement with the world like the bacteria's to fully conscious volitions of mature adult human beings. In utero, the embryo begins as a single-celled organism akin to the amoeba, with an orientation to the world but nothing that we would consider consciousness. But unlike the amoeba, the human embryo interacts with its environment developmentally, as the beginning rather than climax of a life-cycle. The gradual accrual of competencies in engaging with the world begins with a specifically human horme and brings about "conscious" and "willed" attention to the world. The infant *constructs* an orderly engagement, guided by not-yet-conscious hormic impulses toward objects he cannot yet classify or understand. Classification and ordering happen gradually through cultivation of sensory attunements to particular features of the world and eventually through abstraction and imposition of concepts on that world. Once hormic directedness is sufficiently conscious, horme can be called "will."

C4P42 Likewise, various "values," which Nagel describes as "incompatible with evolutionary naturalism" (Nagel 2012: 97), can be straightforward (and natural) developments from the normativity intrinsic to biological-teleological directedness. Thompson's bacteria in pursuit of sucrose are "bringing forth . . . value" (Thompson 2007: 158), and while much of organisms' biological "valuing" arises from the need to "stave off . . . its own dissolution and decomposition" (Dennett 1991: 174), Montessori's teleological perfectionism implies that organisms aim for more than mere survival (and reproduction). Such goals are particularly evident in young children. The infant attending to different shades of brown in a wall, the toddler seeking to pour water from a pitcher to a glass, and the 3-year-old working with cylinder blocks all engage in activities that can be done well or poorly. They pre-reflectively govern themselves by norms implicit in their practices (cf. MacIntyre 1981: 187), norms that need not have anything to do with survival or reproduction (cf. Dawkins 1976; Dennett 2003). Likewise, the (adult) tennis player or concert violinist or party to a conversation governs herself in accordance with norms of which she is—at the time—not (wholly) conscious. As human beings develop broader and more abstract understandings of ourselves, our practices, and our world, we also develop abstract concepts of good and right. These values are real insofar as they correctly capture the constitutive norms of living a human life and contributing to a good world. They are biologically rooted in our teleological-perfectionist horme, though not narrowly oriented toward Darwinian, "biological" ends of survival and reproductive fitness.

C4S5

4.3.2 Mneme, Memory, and Cognition

C4P43 Horme, the most fundamental unconscious structure in Montessori's philosophy of mind, changes through adaptation to its environment. The susceptibility of horme to modification by experience is a kind of unconscious *memory*, to which Montessori (again following Nunn) gives the name "Mneme." While the notion of a "meme" is most commonly associated today with the internet, Percy Nunn elucidated the concept of "Mneme" in order to explain unconscious cognition:

C4P44 > [W]e shall bring together under a common designation all the varied phenomena referred by [Samuel] Butler to memory, conscious or unconscious. Following the German biologist Richard Semon, we shall speak of such phenomena as *mnemic* and shall give the name *mnemé* to the property of living substance which they exemplify. Memory, then, is conscious mneme just as conation is conscious horme. (Nunn 1930: 23)

C4P45 Mneme, in its most general form, is a tendency to preserve effects of environmental interactions in future hormic (conative) tendencies. Just as "life has a tendency to activity" (horme), so too "it has the power to acquire and retain impressions" (6: 17). As Montessori explains, "The impulse to activity leads to experience, which is retained in the mental organism" (6: 17). Montessori describes the preconscious Mneme of young children as "the absorbent mind," and much of her life's work involves detailed investigations of the structure of this "intense and specialized sensitiveness" to environment by which "the child *absorbs* . . . impressions . . . with his life itself" (1: 20).

C4P46 As in the case of horme, Mneme is active "in animals and men alike" (6: 17) but exists in human beings in a special way, as conscious memory and higher cognitions. At the most basic level, as George Lakoff and Mark Johnson rightly note, "Every living being categorizes . . . How animals categorize depends upon their sensing apparatus and their ability to move themselves and to manipulate objects" (Lakoff and Johnson 1999: 17). Human beings doing advanced mathematics and amoeba moving through a sucrose solution both categorize experiences arising through actions in their environments.[5] In both cases, categorizations of one moment shape future movements and thus successive experiences: "Adaptation to the environment is necessary for all living creatures, especially animals" (17: 79). Still, Montessori rightly notes, "There is a great difference between men and animals, because animals are born with a certain power of adaptation already prepared by nature . . . [But] man is not determined by heredity . . . He must construct his own adaptation" (17: 79, 82). For animals, much of

[5] For a much more detailed defense of this claim, see Varela, Thompson, and Rosch 1991.

the work of "memory" is accomplished by *hereditary* adaptations. But "The baby has . . . no heredity. This adaptation is made unconsciously by the absorbent mind of the child" (17: 85). Unlike hereditary adaptation, the child's absorbent mind is a fundamentally psychological—albeit unconscious—adaptation of basic hormic tendencies in the light of environmental conditions.

C4P47 Human Mneme is particularly well suited to perform a main function of psychological forces in Montessori's metaphysics, "to remove the tardiness of physical energies" (Montessori [1948] 1971: 26; cf. Chapter 3). Even in animals, the ability to adapt through learned behaviors plays an important role in survival, reproduction, and the perfectionment of life, but only with human beings does psychological adaptation—learning—dominate hereditary adaptation. This shift from hereditary-biological to Mnemic adaptation marks an important similarity between *Montessori*'s concept of "Mneme" and the concept of "memes" within contemporary neo-Darwinian philosophy, where the term "meme" refers to a new kind of replicator—a cultural unit absorbed through learning and psychological development—the emergence of which makes possible forms of cultural evolution that are faster than standard hereditary (genetic) adaptation (see, e.g., Dennett 2003; and for Montessori's version of this claim, see Chapter 10).

C4P48 While life in general is susceptible of modification through adaptation to environment in the light of experience, such adaptation eventually takes the form of self-conscious, reasoned "cognition" in adult humans. Mneme links life and mind at the level of *cognition* in the way that horme does at the level of volition and values. The child moves through the world with, at first, nothing that could be called "cognition" of that world. Children's experiences arise from (hormically driven) attention to specific features of the world, such as sharply delineated shapes or human faces and speech. As children move through the world, their experiences shape their personalities, in the broad sense that they interpret their worlds in terms of repeated and now familiar structures encountered through their activity. Thus, children learn their mother tongues through attention to the voices and faces of those around them and vocal activities of imitation. As they cultivate these abilities and sensitivities, they come to order other sounds in terms of the basic structures of their language and increasingly to interpret the world in the light of their language.

C4P49 Children also come to categorize their world in terms of familiar structures of experience, structures that they at first learn unconsciously and only gradually become capable of consciously recognizing:

C4P50

> The secret of the intelligence is that you cannot transfer information directly to the conscious. You must first transfer information to the subconscious. Once the subconscious has acquired experience, the [conscious] intelligence will accept it. (17: 78)

C4P51 Montessori's developed "education of the senses" emphasizes how children's impulses toward activity can be shaped to give them ordered and refined sensory experiences of the world and thereby a coherent set of categories for making sense of that world. All living things have a basic biological tendency to adjust impulses based on environmental conditions, but human beings have a particularly adept capacity for mnemic modification. For children, and some animals, mnemic retention of impressions is partly conscious, but even in children, *most* memories remain unconscious. We do not remember learning to speak, and we do not consciously remember how to move mouth and tongue to make the distinct sounds of our language. Rather, we apply unconscious knowledge in our engagement with the world. As children age, Mnemic adaptation to environment is taken up by the mechanisms of imagination and abstraction, so that children become capable of formulating abstract cognitions of the world in which they live. These higher processes remain shaped by the basic Mnemic structures by which one adapts to one's environment; we imagine and abstract in terms of what we have attended to in our active lives. And these higher processes remain mostly unconscious; we formulate general principles and concepts without a clear awareness of how or why we are grouping objects in the ways that we do. But as we come to more reflectively and deliberately apply general concepts to our conceptualization of the world, what were once mere cultivated and unconscious structures of sensitivity to the world take the form of propositional claims *about* that world. Mneme in its unconscious form remains fundamental to all engagement with the world, but through abstraction and conscious application, Mneme takes shape as cognition.

C4P52 For Montessori, then, cognition is a form of psychological adaptation to the world. Horme provides the general category for the "world-to-mind" fittedness that we associate with volition, wherein mental states seek to bring the world into conformity with themselves. Mneme has a "mind-to-world" fit wherein individuals conform their mental states to the world in which they find themselves. Against Nagel's insistence that "to allow oneself to be guided by the objective truth . . . is a kind of freedom . . . from the rule of innate perceptual and motivational dispositions together with conditioning" (Nagel 2012: 84), Montessori sees humans' cognitive capacities, from basic memory (both conscious and unconscious) through higher-order reflective reasonings, as expressions of innate dispositions together with conditioning of a certain kind. Because her conception of "adaptation" is teleological, perfectionist, and ecological rather than reduced to neo-Darwinian concepts of "reproductive fitness," there is no principled distinction between conditioning by one's environment and knowledge of objective truth about that environment. The emergence of psychological forces makes possible adaptations to the world that are cognitive and thereby representational and subject to epistemic norms. At the same time, Montessori does not see the ideal of "objective truth" as separate from pragmatic considerations. Mneme is always a modification of *life*, which has natural tendencies toward preservation, perfection, and integration into ecological

wholes. Our "knowledge" is always knowledge of what attracts our attention, which in one way or another is always tied to our interests: "We do not concentrate our attention haphazardly . . . but according to an inner drive" (18: 185). Thus even the most objective cognition remains a matter of shaping, however indirectly, the way we act in the world.

C4S6

4.3.3 Unconscious Life and Conscious Mind

C4P53 The unconscious links "life" and "mind" in three ways. First and most generally, certain processes of biological beings make sense best when understood as unconscious mental processes, where the boundary between conscious and unconscious forms of engagement with the world is a fluid and indeterminate one. The child learning and then using language and the adult learning and developing proficiency in tennis both slide from impulses to activity that are basically unconscious to attention to features of the world that is more conscious, and from that attention to actions (particularly imitative ones) that are motivated by a complex mix of conscious and unconscious impulses. As they grow more proficient in language or tennis, various elements of activity that required conscious attention become capabilities at the margins of consciousness, and conscious focus shifts to more complex attainments. In this process of growth and development, the most unconscious elements of learning and motivation—the increased sensitivity to relevant stimuli, the natural tendency to imitate in the finest details, and various originary impulses toward activity and attention—are identical in kind to comparable tendencies among other living things. The development of consciousness from unconscious life in individual human beings thus provides a model for seeing how conscious life-forms (human beings) could emerge from forms of life that are merely teleological and adaptive (bacteria).

C4P54 Second, the specific concept of *horme* provides a way to articulate the continuity between the teleological orientation of living systems and the self-governance of human wills. Moreover, because biological teleology is perfectionist and normative, its conscious articulation in the will involves recognition of values implicit in life in general and human life in particular.

C4P55 Third, the concept of "Mneme" provides a bridge between the psychological concept of memory and the biological concept of adaptation. Memory and more developed forms of cognition psychologically extend the basic biological tendency to adapt to the environment. Montessori's attention to how infants and young children adapt required the development of the concept of Mneme or unconscious memory because children's adaptation so clearly involves a pre-reflective and unconscious learned sensitivity to experience that affects future action, what has come to be called the "adaptive unconscious." Given that concept, it is easy to see how organisms' biological tendencies to adapt their actions to their environment

prefigure and give rise to psychological adaptations that take the form of conscious cognitions.

C4P56 In sum, Montessori can say with Evan Thompson that "life prefigures mind and mind belongs to life" in that "life and mind share a set of basic organizational properties, and the organizational properties distinctive of mind are an enriched version of those fundamental to life" (Thompson 2007: 128; see too Lakoff and Johnson 1999: 17; Clark 2001: 117–119; and Nöe 2004). The basic impulses implicit in all living things toward self-initiated, norm-governed activities (horme) and an adaptability of those impulses in the light of interactions with an environment (Mneme) correspond to the two most basic aspects of mind, volition and cognition.[6]

C4S7

4.4 Embodied and Enactive Mind

C4P57 Montessori's account of the unconscious provides what we might call a top-down approach to integrating mind into the natural world in that it starts with a familiar conception of the mental and seeks to extend this downward by developing conceptions of mentality that can apply to non-conscious nature.[7] Starting with folk conceptions of mind as involving cognition and volition, she shows how these features of mind are already present, albeit in "unconscious" forms, in young children, infants, animals, and even in all living things. Montessori complements her discussion of the unconscious with a bottom-up approach to integrating mind with the natural world, which involves breaking down the notion of the "mind" into elements naturally continuous with features of the world commonly regarded as non-mental. On this account, mind is essentially a way in which the whole body engages with its world. By seeing mind as embodied and enactive, Montessori shows how certain bodily capacities and forms of activity *constitute* minds. And because new bodily capacities, forms of activity, and environments develop continuously from prior bodies, forms of activity, and environments, this bottom-up approach eliminates much of the mystery in the emergence of mind in a material world.

C4S8

4.4.1 The Embodied Mind

C4P58 In recent years, embodied cognition has become a major approach within the philosophy of mind (and ancillary fields of psychology, cognitive science, and artificial

[6] For further details on this conception of unconscious mind, including the additional concepts of "nebulae" (particular states of horme) and "engrams" (particular units of Mnemic adaptation), see Frierson 2020: 45–48.

[7] Elsewhere (Di Paolo and Frierson, forthcoming), I discuss how Montessori also makes use of what is now called "extended" mind.

intelligence). This approach rejects not only traditional mind-body dualism, but also the notion that the mind depends wholly upon the brain or neuronal system. Instead, proponents of embodied cognition emphasize how the mind arises from "our brains, bodies, and bodily experience" (Lakoff and Johnson 1999: 4, see too 555), such that "features of the body make a special and . . . non-negotiable contribution to mind," and even "perception is in part constituted by our possession and exercise of bodily skills" (Nöe 2004: 25; Clark 2008: 51).[8]

C4P59 Montessori's approach to the mind presciently anticipates these recent philosophical developments. While she incorporates insights from the emerging neuroscience of her day (see 1: 78; 17: 109), she also recognizes the role that the whole body plays in mental life. The brain is a single organ in a network of organs and processes that together manifest humans' minds in the world. Thus she describes "the movements of the vocal organs in language and those of the hand in . . . working out an idea" as "[t]he true 'motor characteristics' connected with mind" (22: 67). She emphasizes the role of "muscular memory" in intellectual development (15: 307). With respect to pedagogy in particular, the whole body must be educated, not merely the brain.

C4P60

> When we wish to make physical observations [related to intellectual development], why should we pay attention to the organ that only has *some* relation to the development of the intellect, when we can directly follow the intellect by observing the *whole child*? It is the *whole body* that concerns us. (18: 62, emphasis shifted)

C4P61 Like contemporary proponents of embodied cognition, Montessori rejects approaches to mental life that focus exclusively on the brain, in favor of an approach that recognizes the body as a whole as the seat of consciousness.[9]

C4P62 Montessori's embodied conception of cognition arises from her pedagogical naturalism. Through her work, first with severely disabled children in the Orthophrenic School, and then with other children throughout the world,

[8] The shift from dualism to materialism is a first important step in the direction of a naturalist view of mind. Insofar as cognition is conceived of as primarily neuronal, however, there is still a significant challenge in bridging the gap between patterns of nerve signals and the experience of consciousness. Once we attend to the embodied phenomenology of consciousness and see cognition itself as a way bodies configure themselves through acting in environments, we can more easily show how properly cognitive processes emerge from physical-biological systems.

[9] There are different kinds and degrees of "embodiment" claims, from the banal claim that the (non-neuronal) body affects the nature of our cognition to a strong constitutive claim that sees all cognition as always essentially bodily. At times, Montessori seems to endorse moderate embodiment claims, seeing the abilities of the body as limiting or enhancing the range of mental developments (see, e.g., 1: 126; 17: 16) or—even less controversially—insisting on the importance of the body as instrument of the mind (1: 40, 65; 2: 77; 17: 83). At other times, however, she emphasizes a relationship between mind and body that, in today's parlance, is best seen as constitutive. Thus while she allows that "we can speak of sensory education, of motor education, and of education of the intellect," she insists that "all these things form one whole" (28: 207).

Montessori saw how intellectual development takes place through repeated exercises that train bodily movements.[10] Thus, for instance, she "once succeeded in teaching a . . . girl how to sew by simply having her imitate . . . the movements" of sewing (15: 306). As she sought to meet the developmental needs of free children, the children themselves taught Montessori the centrality of the body. In an endearing story from the Montessori Children's Center, K. T. Korngold describes a Montessori teaching assistant making a similar discovery about children's need to engage in specific bodily exercises:

C4P63 It is mid-afternoon, the shades are drawn, and the infant room is darkened and quiet. All eight infants are peacefully asleep on their low beds . . . Emmie . . . pushes the blanket off her body and then opens her eyes. She sidles her body off the edge of the low bed and onto the rug. Then, she crawls out of the sleeping cove and into the main activity room. Emme sits next to a low shelf. She takes a circle from the circle puzzle and places it into her mouth. She sucks for a while on the knob of the puzzle. She drops the circle down on the floor and begins to rock her body back and forth as she looks around, as if she is warming up deciding where to move forward. She loses her balance slightly and almost falls back but then rights herself. She crawls and moves her body over to the edge of the low shelf and then pushes her body up onto the lower shelf, until she is completely centered on the wooden stretch of the low shelf, with her legs sticking out from one side and her arms protruding out from the other. In this position, she discovers she can lift both her arms and legs simultaneously. She moves her legs up and down, using a lot of force, arching, reaching upward with both her arms and legs. The force of the upward motion causes her head to bop up and down, coming close to the underside of the top shelf. The assistant looks over and sees her under the shelf. She gets down to her level, using a soft voice: "Emmie, I don't want you to bump your head. I am going to help you move your body off the shelf." Then she slowly backs Emmie out of the shelf, showing her the way to move herself off.

C4P64 Emmie sits up briefly, then, she moves her body forward, and again, gets herself in the position in the middle of the lower shelf. With her belly on the shelf, her legs and arms have just enough height to raise off the floor. She is able to arch in an upward u shape—kick, kick, kick, kick—as if she is flying. She makes grunting sounds. This is hard work but Emmie is determined! She sounds like a trainer in a weight room, groaning along with her body as she applies maximum effort. Another observer might think the sound indicates she is expressing discomfort. Instead, we see that she is putting the full force of her energy into getting her muscles to move this way—she is working hard at something that is challenging

[10] For a recent developmental-psychological approach to embodied cognition that supports many of Montessori's findings, see Thelen and Smith 1994. (For discussion of Montessori and contemporary developmental psychology, see Lillard 2007.)

for her. She is persistent, dedicated, and driven. She grunts, and then lowers, she lowers everything, even her head, relaxing for a brief minute.

C4P65 But then, she begins again. For a second time, the assistant comes over, "I see you want to be under something—let's try the tunnel," she gently backs her off the shelf and moves her over toward the tunnel, placing her body at the edge. Emmie crawls her body halfway into the tunnel. There is a slight lift from the floor to the rim of the tunnel, but it not as high as the low shelf. She is able to raise her legs, but not as high. I cannot see the inside of her body, as it within the tunnel. She lifts, lifts, lifts, lifts. Then, her whole body passes into the tunnel, and she briefly disappears. Almost immediately, her face appears on the other side, then the rest of her. She comes out of the tunnel and moves forward, along the rug directly toward the low shelf and then scoots up on it. Back again, for a third time. She centers her body on the lower shelf, with her legs sticking out on one side and her arms out the other. She begins her routine again: up, up, up, up. She puts her arms and legs down and waits. Relax. Again, lift, lift, lift, lift. She lowers her legs. She rests. And then again. The assistant looks at her, she is about to come to her side to move her off, and then she stops, she has realized what she is seeing, "Emmie has a need," she says. "First, I thought she wanted to climb on the shelf, then I thought she wanted to be under something, but it looks like she wants to fly with her legs and arms. See—the lower shelf is helping her to lift her legs and arms!" Now that she is understood, the assistant leaves her be.

C4P66 Over the rest of the hour, Emmie continues with her self-created workout: pushing herself onto the shelf, lifting her legs and arms, grunting, and vocalizing as she moves her body. She is like a tiny dancer working out on the Pilates reformer, lifting her extremities against the force of gravity, as she strengthens the large muscles of her arms, legs, core, and neck. She rests briefly and returns again and again to the challenging task, and to feel the joy and happiness that comes to her from lifting her body and flying (known as the landau reflex https://neurologicexam.med.utah.edu/pediatric/html/06month.html). Over the course of the hour, she has chosen to "fly" a total of six times!

C4P67 Emmie is working on her body, inch by inch, applying maximum effort toward achieving bodily control, strengthening, and coordinating her muscles and joints, preparing herself to lift her head, to locomote. Driven by her internal engine, she returned repeatedly to meet her need, even when redirected gently by the assistant, until at last, after multiple interruptions and distractions, the adult has understood, accepted her agency, and has let her do the important work of self-creation. (Korngold 2024)

C4P68 As with learning to sew or write or even read, becoming an intelligent mover in the world, even from infancy, is an engaging process of embodied mindedness.

C4P69 Emmie's story illustrates a further feature of Montessori's philosophy of embodied mind, namely Montessori's focus on the practical pedagogical task of

making the mind embodied. She contrasts typical "physical education," which cultivates the body in a way that does *not* express mentality, from her own "exercises of practical life," which "are a kind of gymnastic training for the harmonious development of the psychic and motor parts of the individual" (17: 162). The "interconnection between mind and muscle" (1: 126) both requires and enables the cultivation of cognitive abilities through working with children's muscles. For example, Montessorian literacy integrates reading, writing, and speech, where all of these skills—but particularly writing[11]—require preparatory exercises that give the *muscles* the "knowledge" they need to successfully engage in the intellectual task (writing) (see 2: 199–200, 207–209). Puzzles in Montessori classrooms have small knobs that strengthen and refine the pincer grip that is partly constitutive of children's ability to write, and children trace sandpaper letters to cultivate motor memory in their hands and arms. When children start writing, their pincer grip and letter-writing muscle memory, along with their awareness of connections between letters and sounds and how phonemes fit together, all come together into a single coherent activity. In this activity, there is no "cognitive part" and "physical part," but rather a cognitively rich physical activity. As children mature, those with the requisite physical dexterity not only learn writing more quickly, but more easily use it for recognizably "intellectual" forms of self-expression.

C4P70

> Personality is one and indivisible . . . This is the secret which the . . . child has . . . revealed . . . by doing work far beyond our dreams . . . in all fields, including the intellectual and abstract, *provided his hand was allowed to work side by side with his intelligence* [emphasis added]. Children show a great attachment to abstract subjects when they arrive at them through manual activity. (6: 7)

C4P71 Conversely, any "lack of [physical] preparation will be an obstruction to the intelligence; it will repulse him, and kill his interest for intellectual expression" (17: 77). The interdependence of brain and body arises from and has important implications for pedagogy.[12]

C4P72 Montessori is among those who see "aspects of the agent's body beyond the brain play[ing] a significant causal or physically constitutive role in cognitive processing" (Wilson and Foglia 2011: 1). From the standpoint of cultivation and normative assessment, the non-neuronal body is partly constitutive of the mind; an *excellent* mind requires excellence of brain *and* muscles. From a narrowly metaphysical

[11] For related discussions of the muscular memory involved in speaking, see 17: 55–56. Reading is less bodily, but even reading depends upon complex and acquired movements of the muscles in eye and hand.

[12] This interdependence also has important implications for virtue epistemology (see Frierson 2020: 149–174), moral philosophy (see Frierson 2022: 175–200), and philosophy of religion (see Chapter 8, Section 8.4).

standpoint, Montessori does not clearly come down on one side or another regarding whether non-neuronal bodily endowments are constitutive of or merely causally interconnected with "mind,"[13] but as one contemporary philosopher has pointed out, this debate about precisely how cognition is embodied "tip[s] dangerously close to a merely verbal dispute" (Shapiro 2011: 159). Particularly given that the "mental" includes conscious as well as unconscious mental processes, we do best in the case of a thinker like Montessori to emphasize the ways in which brain-competencies depend upon, develop from, and are enmeshed with bodily competences without becoming overly preoccupied with deciding where to draw the line around "mind." However construed, Montessori's recognition that complex cognitive processes emerge from and consist of proficient bodily capacities provides a natural and pedagogically informed way to elucidate the emergence of the "mental" from physical systems.

C4S9

4.4.2 Enactive Mind

C4P73 Montessori combines her emphasis on the body with an equal emphasis on activity and movement. Renato Foschi describes as "the first true Montessori revolution" the claim that "movement and cognition [are] deeply intertwined" (Foschi 2012: 132; see 1: 126, 154). Similarly, among contemporary philosophers of mind, most proponents of embodied cognition connect embodiment with a more fundamental shift away from conceptions of the mind as a representational or computational process toward thinking of the mind as a kind of embodied *activity*. For Alva Nöe, for example, "consciousness is more like dancing than it is like digestion" (Nöe 2009: xii).

C4P74 Within her pedagogical naturalism, Montessori's approach to mind takes its "scientific departure . . . from the conception of an *active* personality—reflex and associative—developing itself by a series of reactions induced by systematic stimuli" (9: 56). "Intelligence" is a matter of *movement*, that is, of *activity*; it is "the sum of those reflex and associative or reproductive activities which enable the mind to construct itself, putting it into relation with its environment" (9: 147). For Montessori, then, "by the most intelligent being we do not mean only the one who gathers most but also the being who moves the most" (18: 165).

C4P75 The enacted nature of cognition has pedagogical origins and pedagogical implications:

[13] Thus, she can, in a single sentence, express both the view that muscles and neurons are essentially unified and that the muscles are mere servants of intellect: "The muscles should always serve the intellect [implying distinction] and thus preserve their functional *unity* within the human personality" (2: 82, emphasis added).

C4P76 The child's mind can acquire culture at a much earlier age than is generally supposed, but his way of taking in knowledge is by certain kinds of activity which involve movement. Only by action can the child learn. (1: 154, see too 1: 64–66; 17: 168)

C4P77 Summing up her view, Montessori explains,

C4P78 When mental development is under discussion, there are many who say, "How does movement come into it? We are talking about the mind." And when we think of intellectual activity, we always imagine people sitting still, motionless. But mental development *must* be connected with movement and be dependent on it. It is vital that educational theory and practice should become informed by this idea . . .

C4P79 Plentiful proofs of this are to be found in nature, and it becomes indisputable if we follow children's development with care and attention. Watching a child makes it obvious that the development of his mind comes about *through* his movements. In the development of speech, for example, we see a growing power of understanding go side by side with an extended use of those muscles by which he forms sounds and words. Observations made on children the world over confirm that the child uses his movements to extend his understanding. Movement helps the development of mind, and this finds renewed expression in further movement and activity. It follows that we are dealing with a cycle, *because mind and movement are part of the same entity* [emphasis added]. The senses also take part, and the child who has less opportunity for sensorial activity remains at a lower mental level. (1: 126; cf. 17: 169)

C4P81 As in contemporary enactive approaches to mind, Montessori insists that mind and movement are *essentially unified*.

C4P82 Montessori's rich theory of unconscious cognition helps make sense of how patterns of movement can themselves be properly cognitive. Horme is a tendency of embodied organisms to move in certain ways. Mneme refers to the ways in which that tendency toward movement changes through adaptation to its environmental conditions. Unconscious cognition is thus a dynamical system whereby tendencies toward movement give rise to particular movements in an environment, and those subsequent movements alter the form of our hormic tendencies, which give rise to new sets of movement, and so on. As these Mnemic adjustments become sufficiently complex, we call them conscious forms of cognition, and by virtue of conscious cognitive states, we come to be able to enact values and choices of which we are consciously aware. All of these changes happen in the whole bodily system, not merely in the brain. Insofar as horme and Mneme are essentially embodied and enacted, so too the conscious structures that emerge

from them—intellect and will—are embodied and enacted. And insofar as what cognition and volition *are* are capacities for and ways of moving one's body, the emergence of consciousness, cognition, and values from matter is a natural, pedagogical reality.

C4P83

4.5 Conclusion: Life and Mind

C4P84 This chapter showed how Montessori's metaphysics makes room for human mentality within a broadly naturalistic conception of the cosmos. Her metaphysics of life grounds her philosophy of mind in three ways. First, the mind emerges from complexity and conflict among the forces of life; just as life is an emergent property relative to the chemical forces that provide its foundation, so too the psyche is emergent relative to the life that provides its foundation. Second, mind is *continuous* with life in that the processes of conscious mind that distinguish human beings from other living things—our cognition and will—have correlates in forms of unconscious mentality that are shared between adults and children, humans and non-human living things. Finally, advanced conscious mental processes of human adults emerge naturally from certain ways of moving within the world. Cognition and volition are embodied; to know and will is to be able to move and interact with one's world in certain ways. Thus, on the one hand, mind *emerges from* life; it is governed by higher-order laws just as life is governed by higher-order laws than chemistry. But on the other hand, mind *is a way of life*. Not only are conscious mental processes such as will and cognition variations of more general capacities for self-direction and adaptation to the environment, but to have a mind at all is simply to be able to live and move in certain ways.

C4P85 This strong connection between life and mind provides a natural solution to the challenge Nagel posed at the start of this chapter, that is, the need for a unified metaphysics to incorporate consciousness, cognition, and values. In Montessori's metaphysics, life is the paradigm for understanding both basic physical forces and these psychological features: "the formation of each separate part of man's mental side . . . comes out of the great and complex processes that guide the universe itself. It is a part of creation . . . " (1: 197). If the mind is a set of proficiently carried out activities, dependent upon bodily configurations and the right environment, then mind is continuous with ordinary physical, chemical, and biological processes. At a certain point, living processes take on a character best called mental; but this point is not sharp. "Every living being categorizes" (Lakoff and Johnson 1999: 17), and categorization itself is a particularly complex expression of an even more general tendency toward teleologically oriented adaptation, a tendency shared even by chemical and physical entities (see 6: 70; Montessori [1948] 1971: 23–24). Not every challenge of integrating human realities into the natural world is fully settled

by Montessori's metaphysics, much less by my brief articulation of it here, but her philosophy of mind provides a way to make the emergence of consciousness less mysterious and more consistent with a uniform vision of Nature, and it gives direction for inquiry in seeking to refine accounts of how and why intelligent consciousness emerges in the ways that it does.

C5

5
Epistemology

C5S1

5.1 Pedagogical Naturalist Epistemology

C5P1 Having discussed Montessori's metaphysics and philosophy of mind, this and succeeding chapters take up various ideals—epistemic, moral, aesthetic, and so on—toward which Montessori's pedagogy aims. I start here with Montessori's epistemology, which focuses not on the nature of knowledge as such, but rather on epistemic excellence and the means for promoting such excellence. Her account of how human beings come to know and understand the world arises partly from her overall philosophy of mind, but primarily from reflection on how children come to know and understand *better*. Due to her focus on human (epistemic) excellence, Montessori fits well within so-called virtue epistemology, which locates "the primary focus of epistemic evaluation" in "intellectual agents and communities . . . [and] the traits constitutive of their cognitive character" (Greco and Turri 2011: 3). Moreover, while her enactive and embodied conception of cognition positions her quite radically vis-à-vis contemporary approaches to epistemology, which largely depend upon conceiving of knowing in terms of the manipulation of symbolic representations, her attention to the development of children's intelligence led her to a recognizably empiricist approach to knowledge.

C5P2 Montessori's epistemology is naturalistic in two important senses. First, she approaches mind, knowledge, and cognition as natural phenomena. Cognition is a form of adaptation of an organism to its environment. "Knowledge"—as a sort of Mnemic structure—is a modification of a human animal's hormic drives in the light of their experiences within an environment. Epistemic excellence is thus understood in a broadly biological way, as a sort of excellent cognitive adaptation to the world in which one lives, that is, as "the sum of those reflex and associative or reproductive activities which enable the mind to construct itself, putting it into relation with the environment" (9: 147). This epistemic naturalism is substantive, a matter of identifying the object studied in epistemology to be an object also studied by biology and psychology, a human organism.

C5P3 Second, Montessori's epistemology is methodologically naturalist. She builds her epistemology through observation of how children actually come to be intelligent knowers of their worlds. As noted in Chapter 1, she favors empirical research over "general principles or abstract philosophical ideas" (Montessori [1910] 1913: 14) in a way that aligns her project with recent philosophical trends in naturalized epistemology that seek a closer connection between epistemology and

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natural sciences. Proponents of "naturalized" or "naturalistic" epistemology "take the attitude that there should be a close connection between philosophical investigation . . . of such things as knowledge, justification, rationality, etc. . . . and empirical ('natural') science" (Feldman 2012: 1). Most contemporary (naturalized) epistemologies turn to empirical psychology as the relevant science; Montessori, as we saw in Chapter 1, reconceives of both psychology and naturalistic philosophy through the lens of pedagogy as a positive science. Her epistemology thereby enacts a sophisticated form of philosophical naturalism, one that privileges experiences of and with free children as guides and touchstones for philosophical inquiry.

C5P4 Some contemporary critics of naturalized epistemology object to the subordination of epistemology to psychology on the grounds that epistemology as such is or ought to be a normative discipline and that "handing epistemology off to psychology . . . makes epistemology a purely descriptive enterprise" (Rysiew 2020: 13). As Hilary Kornblith puts it, "Epistemology without normativity . . . is just *Hamlet* without the prince of Denmark" (Kornblith 1995: 250). For Montessori, however, epistemology is *both* naturalized *and* normative because her pedagogical naturalism sees normative judgment as part and parcel of empirical science. Montessori's paradigmatic science is not physics, but medicine, a discipline within which normative judgments about what is good for a human organism are fundamental to scientific practice. We determine what's epistemically excellent in the way doctors determine health, and in a way that will be discussed in more detail in Chapter 6, namely through an empirically correctable sense of what's good, where relevant empirical data are always already value-loaded. Just as doctors revise judgments about what constitutes health through caring attention to their patients, so too Montessorian epistemologists develop and revise their accounts of what counts as cognitive excellence through caring attunement to the children whose cognitive capacities they are cultivating.

C5P5 Young children, for instance, show a profound "love of order" (22: 37, 42), which helps teachers recognize that mere truth is cognitively insufficient if such truth takes the form of a hodge-podge rather than a coherent structure. Moreover, cognitive adaptations to the world that manifest children's thriving include not merely propositional knowledge but also attuned capacities for sensory discrimination—valued for their own sakes—and forms of bodily intelligence located in the muscles: "the most intelligent human is the one whose muscles are the finest and most capable of [coordinated] movement" (18: 166). Through caring attention to what allows children to thrive cognitively, Montessori revises traditional notions of the proper subject matter of epistemology, away from narrow concerns with merely logical justifications for true beliefs, and toward a full exposition of the cognitive dimensions of excellent human life.

C5P6 In her sensory discrimination work, Nina (Chapter 4) practices this sort of epistemic cultivation, as does—for another example—Arianna as she develops

embodied knowledge of the world through physical mastery of a curious new feature of her environment:

C5P7 Our infant Cove Guide has placed a set of wooden steps at the very center of the open activity space. It is constructed with two steps and then one higher middle platform at the center, and then two steps. At 17 months, Arianna . . . enjoys challenging her body. She checks out the steps, walks around the base, looking at this strange, new piece of equipment. What is it? What can she do with it? She goes all the way around. Then she turns around and walks around the other side. Then she takes a good look at the first step. She takes her right leg and puts her foot up to the first step. She shifts her balance. Then she joins her left foot with her right. She stays there for a bit. Then she comes down, scooching backwards to the floor.

C5P8 Later, she tries again. She walks all the way around the wooden steps, takes a first step. Brings her left foot next to her right, and then she scooches down backwards.

C5P9 On the second day, she gains a second step, and then in the afternoon, she makes it to the third step, the platform in the middle! She stands tall, proud of herself, eyeing the environment from her new vantage point. She has made it to the summit! To get down, she scooches backwards. Then, she tries again. She is learning how to walk up the steps, learning how to balance her body and to shift the weight on her feet as she ascends. She is stepping—pulling her right foot out, and then up, and then placing it on the next step. Then, she is placing the left foot beside the right. She practices over and again: up and up and then scooching down.

C5P10 By the third day, when she gets to the middle platform, she stops. She has a little grin on her face. She pauses for a few seconds, and then, she keeps going, moving herself forward. Now she is walking down. She is balancing, as her body shifts weight, balancing without holding on. At last, she is able to get all the way up, and then all the way down, too. When she gets to the bottom, both feet on the floor, she walks away to the other side of the room . . . to choose another activity. (Korngold 2024)

C5P11 One felicitous consequence of Montessori's broad epistemic focus is that Arianna's epistemic activity—a sort of know-how that's also a discovery of the world—can register as a proper topic within epistemology. Propositional "knowledge" and even "truth" cease to be defining goods of epistemic activity.

C5P12 As with cases like Arianna's, Montessori identifies the distinguishing feature of scientific genius not in more knowledge or cognition of more truth than others, but in a better capacity to isolate *relevant* truths and put them to *use*:

C5P13 We may say that genius has the faculty of isolating a fact in the consciousness, and of so distinguishing it from all others that it is as if a single ray of light should fall

upon a diamond in a dark room. This single idea, then, causes a complete revolution in the consciousness, and is capable of constructing something infinitely great and precious for all humanity.

C5P14 But it is the intense significance of ordinary things . . . which is the main factor; it is the isolation in a homogeneous field, not the intrinsic value of the thing, which determines the marvelous phenomenon . . . After a discovery, many will perceive that they themselves held the same truth within them; but in this case it is not the truth itself that has value, but the man who is capable of appreciating it and bringing it into relation with action. (9: 165)

C5P15 Once she sees epistemic activity as part of the life of a human organism, Montessori evaluates the value of knowledge and even truth in terms of its role in enhancing the life of that organism. Through working with young children (and studying historical epistemic exemplars), she recognizes the life-enhancing value of knowledge in which one is *interested*, truths one can make relevant to action, and forms of knowing that help each of us manifest our "individual tendency" and "see the external world about a fulcrum which sustains one's own æsthetical creation" (9: 159). Montessori contrasts one who merely has knowledge with the truly excellent epistemic agent:

C5P16 [In the mere knower] we may find, as in a sack of old clothes hanging over the shoulders of a hawker, solutions of the problems of Euclid, together with the images of Raphael's works, ideas of history and geography, and rules of style, huddled together with a like indifference and a like sensation of "weight." While, on the other hand, he who uses all these things for his own life, is like the person who is assisted in attaining his own welfare, his own relief, his own comfort by those same objects which are merely burdens when in the sack of the hawker. Such objects are, however, no longer huddled together without order and without purpose in a closed bag, but set out in the spacious rooms of a well-ordered house. The mind which constructs may contain a great deal more than that mind in which pieces of knowledge are heaped up as in the bag; and in that mind, as in the house, the objects are clearly divided one from another, harmoniously arranged, and distinctive in their uses. (9: 159)

C5P17 Within Montessori's pedagogical-naturalist epistemology, concerns with truth, knowledge, and justification are subordinated to concerns with what it is for human beings best to engage cognitively with the world.

C5P18 Linda Zagzebski exhorts epistemologists to "admit that questions of most significance to epistemology in the askeptical periods have been neglected" in recent Anglo-American epistemology and to "cease the obsession with justification and recover the investigation" of topics that have been important for "epistemology during askeptical periods" (Zagzebski 2001: 236). Montessori's askeptical pedagogical

naturalism leads her toward something like contemporary "responsibilist" virtue epistemology, discussed by philosophers such as Linda Zagzebski and Jason Baehr, which focuses on elucidating intellectual traits for which agents deserve credit. By raising questions about intellectual virtues from the standpoint of thinking about the role education and culture can play in children's development into intelligent, curious, engaged, and attentive people, Montessori provides a naturalized epistemology that orients itself around questions that are epistemic in nature but that arise *within* empirical, scientific pedagogy. In particular, like other responsibilist virtue epistemologists, Montessorian epistemology focuses on how to promote, identify, and clarify those traits that make for excellent epistemic agents.[1]

C5S2

5.2 Interested Empiricism

C5P19 One of the first and most obvious epistemic activities of children in conditions of freedom is observation. Children actively observe the world around them. The "nine-month-old child that wished to see a piece of brown marble each day" discussed in Chapter 4 (Section 4.3.1) shows how much children can "like the work of distinguishing between two shades of the same color" (17: 40; see this volume, xxx). Sofia (xxx), too, working with her cylinder blocks, was engaged in a complex task of visual differential between objects with different dimensions. Nina (xxx), matching three-dimensional horses with two-dimensional images through sight and touch, was developing her capacity for visual-tactile sensory integration. The infant works on auditory refinement by sorting through the complex array of sounds to isolate those of spoken language. Even Arianna, who was mostly working on physical self-cultivation, began by "looking at the strange new piece of equipment" (Korngold 2004, see this volume, xxx). In all of these cases, children shape their cognitive engagement with the world (their "Mneme") by refining their capacity to respond to subtle sensory distinctions. Through her work with children, Montessori found sensory refinement to be the key to further intellectual developments, and this led to a thoroughly empiricist epistemology:

C5P20

> Education of the senses is the foundation of the entire intellectual organism and might be called the intellectual raw material. There can be neither ideas nor imagination, nor any intellectual construction, if we do not presuppose an activity of the senses; indeed the senses' activity and their ability to respond to the most delicate sensations . . . [constitutes] the preparation of the intellectual organism. (1913: 260, cf. 17: 193–194)

[1] For further discussion of Montessori and responsibilist virtue epistemology, see Frierson 2020, 75–78.

C5P21

> [S]ense training will prepare the ordered foundation upon which he may build up a clear and strong mentality . . . This education . . . prepares directly for intellectual education, perfecting the organs of sense and the nerve-paths of projection and association. (Montessori [1909] 1912: 136)

C5P22 Having seen the role of sensory experience in the developing cognitive capacities of young children, Montessori extended her empiricism to knowledge in general: "Adults are intelligent [or] unintelligent according to the opportunities they have had to learn from experience" (17: 15).

C5P23 Just as previous empiricists such as Locke and Hume found the origin of all ideas in those of direct sensation and reflection, Montessori emphasizes direct experience as the foundation of later cognition, but she differs from Locke and Hume in important ways. For example, Montessori does not see senses passive as inlets for simple ideas, but as active capacities for attending to what interests us in the environment, capacities that always already organize, "distinguish[,] and classify" experience in terms of interest (9: 151; see too 17: 193–194). Even with raw sensory experience, "the attention which one pays to things is not passive, but corresponds to an activity" within which "[t]he ego is the real agent" (15: 229, 22: 83). The infant "sees only a part, determined by his feelings and interests" (22: 49),[2] and among mature epistemic agents, "untrained persons" cannot see "stellar phenomena by means of the telescope or the details of a cell under the microscope" (9: 99). Most generally, "stimuli will appeal in vain to the senses, if the internal cooperation of attention be lacking . . . It is not enough that an object should be before our eyes to make us see it; it is necessary that we should fix our attention upon it; an internal process, preparing us to receive the impression of the stimulus, is essential" (9: 172). The internal process here is hormic (conative): "In the world around us, we do not see everything . . . but only some things that suit us . . . We do not concentrate our attention haphazardly . . . but according to an inner drive" (18: 185). In children in particular, sensory interests are ordered toward the development of future capacities. Experiences—sensory and otherwise—result not from organs passively taking in the world, but from actively taking interest in that world to select relevant features for attention. Consistent with enactive philosophy of mind (Chapter 4, Section 4.2), perception is a modification of a dynamic, embodied system actively engaged with the world.

C5P24 Given this *interested* empiricism, Montessori develops a distinctive virtue epistemology.[3] Like so-called virtue reliabilists such as Ernest Sosa or John Greco (see Sosa 1991, 2007; Greco 2000, 2002, and the helpful overview in Battaly 2008),

[2] Montessori thus offers a much more detailed account than early empiricists of "the interests of the small baby that will lead it to make a choice from among the infinite medley of images that make up its environment" (22: 49).

[3] I discuss this virtue epistemology in detail in Frierson 2020.

Montessori sees basic cognitive faculties, particularly the senses but also memory, imagination, and so on, as faculties the reliable exercise of which is epistemically excellent. But unlike these philosophers, she insists that even these cognitive faculties are always infused with volitional elements. Young children do not *see* without some volitional orientation toward knowing particular things. This view may seem implausible in cases like Jason Baehr's example of "working in my study late at night [when] the electricity suddenly shuts off [and] . . . I . . . immediately know that the lighting in the room has changed" (Baehr 2004; see too Baehr 2011), but even in that case, the recognition of the darkened room depends upon *some* interest; someone sufficiently engrossed in reading a backlit e-book might well fail to notice the change in external lighting. What Baehr calls the "routine operation of my faculty of vision" is a "routine" that, for Montessori, depends upon interest.

C5P25 A second way Montessori departs from the passive, Lockean-Humean conception of the senses (and from related reliabilist virtue epistemologies) is that she sees bare sensing as an activity that can be *trained* and *cultivated*. Locke, developing his epistemology through introspective reflection on his own (adult) cognitive capacities, saw the mental operation by which one "perceives each idea to agree with itself . . . and all distinct ideas to disagree" as a basic consequence of sensation, accomplished "without . . . labor, at first view, by its natural power of distinction," something "which it always perceives at first sight" (Locke ([1700] 1975: 526 (IV.i.4)). For adults, sensory perception and distinguishing one sensory idea from another typically does seem passive and innate. Consistent with her pedagogical naturalism, however, Montessori examined how sensory discrimination takes place in developing children. She observed not only that such discrimination is based on interest, but also that distinguishing among what Locke would call "simple ideas of sensation" requires "sensory gymnastics" or "sensory exercises" that *cultivate* fine-grained sensory engagement with the world.[4]

C5P26 Thus, for instance, Montessori's pedagogical materials include a series of color tablets of different shades, both color-to-color shading (from blue to green, for instance) and light-to-dark shading (from very pale blue to very dark blue). Teachers first introduce children to materials involving extreme differences in color (lightest blue to darkest, or red vs. yellow vs. blue) and then, over time, expose them to materials with more refined distinctions, thereby allowing sensory training (see 9: 151). Among other things, this conception of sensation as active and cultivatable provides a distinctive Montessorian response to David Hume's famous "missing shade of blue," which he raises as a possible counter-example to the notion that all ideas necessarily arise from prior sensory experiences. Hume

[4] Strictly speaking, Montessori would agree with Locke that one "perceives each idea to agree with itself . . . and all distinct ideas to disagree . . . at first sight" (Locke ([1700] 1975: 526 (IV.i.4)), but only because the "first sight" has been trained by a mental preparation whereby one learns to distinguish the idea from others.

considers the possibility that one might have experience of a range of shades of color "except one particular shade of blue," and suggests that someone would be able to fill in this blank. Montessori's color tablets, however, show that it takes considerable work even to be able to properly distinguish among shades of colors that are physically present to one's senses. Even "many . . . adults" are often unable to "distinguish shades of color" (17: 195). To develop the ability to *see* colors, much less to imagine them, requires not only experience, but sensory exercises in which one "keep[s] their attention fixed in these exercises in such a way that they will continue the exercises . . . until they have developed the ability to distinguish the shades" (18: 160).

C5P27 Importantly, for Montessori, sensory training occurs within developmental windows she calls "sensitive periods" (e.g. 22: 84, 24: 13). It is now well known that attentiveness to auditory distinctions that make up languages is particularly acute in childhood; adults typically learn new languages with strong accents and are often unable to hear aural distinctions essential in a new language (e.g. Flege et al. 2006). Montessori generalizes this point in theory of developmental sensitive periods, according to which different stages of life are appropriate for the development of different aspects of cognition; people can eventually lose their ability for sensory experiences of certain kinds, even when their sense organs are otherwise functioning normally (see Frierson 2020).

C5P28 A third important difference between Montessori's empiricist epistemology and that of her Lockean and Humean predecessors lies in Montessori's emphasis on unconscious intelligence. In part due to her focus on young children and infants, whose experience of the world is grounded largely in unconscious processes, Montessori develops an epistemology that emphasizes *un-* and *pre-*conscious elements of knowledge acquisition. Thus, for example, interests that guide attention need not be conscious. In infants, for example,

C5P29

> We may imagine this marvelous creative activity as a series of keen emotions rising up from the subconscious, which, by contact with the outer world, build up human consciousness. Starting from confusion, they reach distinction, then create activity. (22: 31)

C5P30 Even for adults,

C5P31

> every human being does his most intelligent work in the subconscious, where psychic complexes . . . organize themselves to carry out work which we are unable to do consciously. Psychic complexes help a writer to create beautiful ideas, new to his conscious mind and vaguely attributed to inspiration. (6: 13)

C5P32 Montessori borrows from Hume the notion that higher cognitive activity consists largely of "associative or reproductive activities" (9: 147; see Hume [1740]

1978: 12–13). Knowledge extends beyond experience by virtue of "what used to be called the Association of Ideas," which includes all "sequential formation of thoughts" (6: 12). As Montessori sums it up in an early lecture, "The content of our mind is made up of what we take materially from the surroundings by means of sensations, and of what we may construct by means of imagination" (18: 193; cf. 17: 171ff.). For Montessori, however, the ideas associated by imagination are essentially Mnemic elements, and these can be either conscious (ideas properly speaking) or unconscious (what Montessori calls "engrams" and describes as "traces of [experiences] left behind in the mneme," which traces "make a mind powerful" (6: 11)). Human processes of reasoning involve conscious elements, as one deliberately hunts for connections between ideas or tries to follow out a coherent argument. But there are also "sub-conscious . . . association[s] of engrams [that are] spontaneous . . . [and t]hese . . . organize themselves to carry out work which we are unable to do consciously" (6: 12–13). For both children and adults, much of our knowledge acquisition occurs when unconscious hormic impulses guide attention to specific environmental features, and then unconscious mental processing connects Mnemic traces (engrams) of those features. In many cases, the resulting knowledge becomes conscious, as when "a mathematical student . . . decides to 'sleep on it' and on waking finds the solution easy" (6: 13). In other cases, activity in the world is shaped by unconscious realizations about our environment to which we never consciously attend.

C5P33 Overall, then, Montessori develops a distinctive empiricist epistemology, informed by her pedagogical naturalism. The senses are the foundation of intelligence, knowledge, and understanding, and further developments occur by means of principles of association among ideas formed in the light of experience. In that sense, her view is classically empiricist, though she focuses more on the cultivation of the senses as elements in an embodied cognitive system than on sense data as brute input. Moreover, her treatment of senses as active, interest-governed, and cultivatable capacities, and her emphasis on unconscious processing, distinguish her empiricism from that of philosophical predecessors like Locke and Hume.

C5S3

5.3 Epistemic Virtues

C5P34 Montessori's epistemology focuses on traits of excellent epistemic agents—that is, on epistemic virtues—rather than on "knowledge" or the problem of skepticism. Like contemporary "virtue epistemology," she locates "the primary focus of epistemic evaluation" in "intellectual agents and communities . . . [and] the traits constitutive of their cognitive character" (Greco and Turri 2011: 3). Like such theorists, she rejects an epistemology focused on *tokens* of knowledge (beliefs or judgments) in favor of one oriented toward intelligence as a set of dispositions, capacities, and "virtues" (9: 103, 181). Her holistic and pragmatic account of

epistemic goods gives rise to a characterization of the virtues needed to properly understand the world: "[I]n order to produce [the] work [of the intellect], it must be accompanied by other qualities: the courage of . . . Columbus, the patience and persistence needed for an experiment" (18: 231). She describes several central epistemic virtues, including so-called character virtues such as love and patience as well as faculties or skills such as sensory acuity and liveliness of imagination, and she explains and defends various virtues both in general philosophical terms and with specific reference to important examples, particularly from the lives of children (but also from the history of science and culture).

C5P35 Elsewhere (Frierson 2020) I have shown in detail how Montessori not only fits well with contemporary virtue epistemology but also makes several important philosophical moves that can enrich and contribute to it. For example, her interested empiricism justifies strong connections between moral and epistemic virtues and weakens distinctions between so-called "trait" or "character" virtues and "faculties" or "skills" (see Battaly 2008). In addition, her attunement to unconscious mental processes gives her an insightful approach to *patience* as an intellectual virtue and inflects an account of intellectual love that is distinctive in putting love of the world rather than love of knowledge at its core. Her embodied philosophy of mind helped her recognize the important role of physical (particularly manual) dexterity as a properly *intellectual* virtue, which provides a framework for fruitful rapprochement between virtue epistemologists and contemporary embodied theories of mind (see Chapter 4). Her accounts of imagination, creativity, humility, and courage likewise helpfully challenge and complement contemporary discussions of related virtues. Throughout, Montessori's interested empiricism and her pedagogical orientation provide her with a rich basis for explaining the nature, role, and development of intellectual virtues in human life.

C5P36 Through her discussion of intellectual virtues, Montessori rejects a general bias in virtue epistemology that sees virtues as distinctive of cultivated *adult* agents. Against this trend, she prefers to highlight the widespread exercise of virtues among children. She sees many intellectual virtues—even those like love, humility, or patience that would typically be considered character virtues—as already present even in the youngest infants. Consider, again, Arianna's work at climbing the new stairs she discovered in her classroom, work that required an intellectual courage of "challenging her body" with "this strange, new piece of equipment," and an intellectual patience, not only in sticking with her initial attempt to ascend the stairs but in returning over several days until she had fully figured out the material, and a intellectual humility, love, and even joy in discovery. For Montessori, children naturally express intellectual virtues when given freedom in conditions conducive to intellectual exploration, and their enacted cognitive engagements teach attentive philosopher-pedagogues what those virtues consist in. Education and experience disclose, preserve, and cultivate these virtues.

C5S4

5.4 Conclusion

C5P37 Montessori's epistemology, like the rest of her philosophy, reflects a naturalist metaphysics of knowledge within which epistemic values are values of and for human organisms in the world. More importantly, her epistemology, like the rest of her philosophy, expresses her commitment to identifying what makes for human excellence through empirical study of human beings as they develop in conditions conducive to free activity. From her observations of the development of intelligence in children, she develops an empiricist epistemology that foregrounds interest and active attention as conditions of possibility of experience, and experience as the basis of our basic cognitive engagement with the world. This epistemology gives rise to a virtue epistemology wherein we are responsible for developing a range of dispositions, from capacities for sensory discrimination, to deeply embodied forms of intelligence such as physical dexterity, to highly developed forms of patience and intellectual love.

C6

6
Moral Philosophy

C6S1

6.1 Montessori's Moral Epistemology

C6P1 Recall Millie's story, from the Introduction to this book (Section 1.4). Mille's friends were celebrating with her when one friend, Amelia, disrupted the scene. Rather than responding with anger or correction or sadness, the celebration went on. As Korngold said in describing that scene, "The children's synergy and solidarity were palpable—it felt as if a radiant circle of light connected them and as if they were all illuminated by a humming energy that flowed through each of the children, linking each to another in the circle of trust and joy that they had mutually created" (Korngold 2024). What is this "palpability" by which a set of responses can be recognized as beautiful and good even when they might not fit with pre-existing conceptions of justice or propriety? In the context of an exploratory pedagogical naturalism that created spaces for free interactions among children, Montessori developed a moral philosophy based on constant observations of palpable goods.

C6P2 Just as within epistemology "children's education begins with the education of the senses," so too, Montessori immediately adds, "I take the same view of moral education," such that there is a "great analogy between . . . moral education . . . and intellectual education":

C6P3

> Education of the senses is the foundation of the entire intellectual organism and might be called the intellectual raw material . . . [In] the moral realm, another form of sensitivity exists which I argue is fundamental, in an absolute sense, to moral education, just as the education of the [outer] senses is fundamental to the education of the intellect: we have a special inner sensitivity to something which we judge to be good, or bad. And this judgment, which is later made by reasoning,[1] we have already made through an inner sensation or something which can be compared to sensation . . . The word *conscienza*[2] is today used by psychologists

[1] In Chapter 9, I discuss moral effects of the transition from sensation in early childhood to abstraction in adolescence. One of those effects is a capacity to develop moral distinctions through reasoning rather than merely through perception. The point here is that such distinctions are initially made by inner sensation, and even later reason-based distinctions are based on abstraction from and imaginative reconstruction of data provided by inner (moral) sense.

[2] The Italian word *conscienza* is ambiguous between the English terms "consciousness" and "conscience." In the Montessori-Pierson English translation, they translate it as "conscience" here, but Montessori is working with both meanings here.

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> in a broad manner when they speak of the mind. Moralists and theologians instead limit it to this sort of inner sensory organ, if we may call it thus, *sine materia*, which gives us these . . . sensations of good and bad. (18: 260–261)

C6P4 Moral distinctions primarily arise neither from reasoning nor even from moral "intuitions" but from *sensation*. Montessori reiterates the sensory nature of moral perception by comparing it to color.

C6P5

> You will say, "How can this sensibility be given and refined?" That is impossible, it cannot be done, if it does not [already] exist. It would be like setting ourselves the problem, "what shall we do so that children should see the red [and] the green if children do not see it?" If children do not see it, you cannot make them see it. Children see—that is why they are capable of education . . . And how to educate it? Make them see the red and the white. But do you create the red and the white? No, these colors are everywhere. There we call attention to the red and the white and we say, "This is the red and this is the white" . . . [M]oral life should be presented in the same way. (18: 265–266; cf. 17: 236–237)

C6P6 We perceive colors by means of visual acuity, and we perceive moral distinctions through an "inner" sensitivity, and, in particular, a *feeling* of good and bad:[3] "We experienced a feeling of joy, of peace and tranquility, in certain moments and at other times we felt remorse and realized the lack of peace and inner joy" (18: 261); "good confers serenity, which is order; enthusiasm, which is strength; evil is signalized as an anguish which is at times unbearable: remorse, which is not only darkness and disorder, but . . . a malady of the soul" (9: 251). The emphasis on peace, joy, and remorse allows Montessori to distinguish qualitatively and immediately between the kind of pleasure or pain that constitutes appraisal of something as good or evil and other pleasures and pains. People make moral distinctions by means of these inner feelings; something is good when one feels peace or joy toward it and bad when one is distressed by or remorseful about it.

C6P7 Consistent with her broader empiricism, moral sense responds to experiences that emerge through active attention to the world: "it is not by philosophizing or discussing metaphysical conceptions that the morals of mankind can be developed: it is by activity, by experience, and by action" (12: 83, 1: 188). Again, like other senses, moral sense is susceptible of refinement through cultivation during special *sensitive periods*, and to degradation or loss, if not properly cultivated: "To know how to keep this inner sensibility alight and to refine it, this is our principal task" (18: 263; cf. 18: 260–261, 12: 5–6, 12–13, 17: 204).

[3] Cf. Hume ([1751] 1975) and Smith ([1759] 1982) for other sentimentalist approaches to moral sense epistemology.

C6P8 Montessori's moral sense theory integrates with a moral metaphysics wherein virtues are excellences of humans as living, teleologically ordered beings (cf. Chapters 3–4). Moral values are not platonic forms or other "very strange" metaphysical entities "utterly different from anything else in the universe" (Mackie 1977: 38); rather, they are grounded in humans' form of "life." Montessori's ethics orients toward an "ideal of 'life' " (9: 212; cf. 9: 257).

C6P9

> we may rise [. . .] toward a *positive philosophy of life*; [. . .] [W]e are *immoral* when we disobey the laws of life; for the triumphant rule of life throughout the universe is what constitutes our conception of beauty and goodness and truth. (Montessori [1910] 1913: 27; cf. 473, 475)

C6P10

> [W]e should consider as *good* that which helps life and as *bad* that which hinders it. In this case we should have an absolute good and evil, namely, the good which causes life and the evil which leads to the road of death, the good which causes a maximum degree of development and the evil which—even in the smallest degree—hinders development. (18: 263)

C6P11 As she uses the term in these contexts, "life" is not merely the perpetuation of organic form (contra Sergi or Darwin), but is a vivacity akin to what Nietzsche has in mind when he asks, about the value of values, "Are they a sign of distress, of impoverishment, of the degeneration of life? Or is there revealed in them, on the contrary, the plenitude, force, and will of life, its courage, certainty, future?" (Nietzsche 1967: 17). Life is about fullness, plenitude, progress, and exuberance, rather than mere "survival." As Montessori explains, "The internal factor, namely life, is the primary cause of *progress* and the *perfectionment* of living creatures" (Montessori [1910] 1913: 46–47). Later, she draws attention to various "guiding instincts" conducive to increasing perfection of "the individual and the species" (22: 178). These instincts are "bound up the very existence of life," tied to "life in its great cosmic function," and consist of "delicate inner sensibilities, *intrinsic to life*, just as pure thought is an entirely intrinsic quality of the mind" (22: 178). "Life" is an active force in the universe, teleologically oriented toward increasing complexity and perfection. This concept of life, as manifested in children's striving for excellence, provides a link between Montessori's pedagogical naturalism and her moral claims:

C6P12

> The knowledge of the little child's mental development has to become widely diffused, for only then will education be able to . . . say to the world with authority: "The laws of life are such and such. They cannot be ignored. You *must* act in conformity with them, for they proclaim *the rights of man* which are common and universal to all." (1: 10)

C6P13 Montessori's moral sense theory and her life-based metaphysics of morals fit together into an integrated and coherent whole in two ways. First, her metaphysics

of life makes clear what the moral sense perceives when it perceives good and evil. Just as a theory of vision might explain that what colors pick out are actually reflective properties of objects, so too Montessori's metaphysics identifies the object of moral sense as those characteristics or conditions that either express life or foster life. Second, the metaphysics of life serves as a reminder that concepts of good or evil—or even "health" and "sickness"—can only be defined relative to a value-laden, teleologically thick sense of life. We are capable of perceiving the life of things by virtue of being able to see this or that as good for a thing, where such judgments are partly informed by the moral sense. And as with other senses, and indeed other features of living things, moral sense provides the only ultimate basis for its own assessment and correction; a given exercise of the moral sense is unhealthy when it conflicts with the operation of an obviously healthy moral sense; there is no further court of appeal.

C6P14 This overall emphasis on clear-sighted perceptions of moral goodness via uncorrupted feelings of peace and joy on the one hand or remorse and distress on the other both follows from and confirms the centrality of the child within Montessori's philosophy as a whole. Human beings recognize moral truths by means of a moral sense, and these truths are normative facts about human life. But human adults have already absorbed culturally specific influences on both natural tendencies and the natural exercise of moral sense. Moreover, because most human adults were raised in conditions that did not grant them freedom in a healthy environment, the "cultural influences" on their actions and sensibilities more often corrupt than cultivate their natural tendencies. One who wants to develop a moral theory from reflection on *natural* human moral possibilities should study children, and particularly children left in freedom in an environment conducive to the practice of moral sense. That is, the children must "reveal to us the phases through which social life must pass in the course of its natural unfolding" (1: 212).

C6S2

6.2 Character, Work, and Perfection

C6P15 Consistent with her emphasis on learning moral values from children, Montessori notes that previous moral theories fail to properly understand "what was meant by character" because "all of them start with grownups, with adult man" and "generally overlook the little child" (1: 174). By contrast, Montessori claims, "our own studies . . . allow us to visualize the development of character as a natural sequence of events resulting from the child's own individual efforts" (1: 174). When Montessori attended to children in conditions conducive to freedom, she identified multiple dimensions of ethical life that brought children peace and joy and inspired their emulation and love. These dimensions include the value of mutual respect, appropriately given help, and various forms of shared agency and social solidarity. Her most important realization, however, was that children have

a substantial form of agency that they express and value, an agency consisting of concentrated attention in focused work that arises from an inner impulse to activity and "gravitates toward the center of perfection" (1: 217). Montessori calls the tendency to express this agency "character," and identifies character as that wherein "lies the source of those moral and intellectual values which could bring the whole world on to a higher plane" (1: 217).

C6S3

6.2.1 Basic Elements of Character

C6P16 In an essay on "The Character of the Child," Montessori makes explicit that "By character we mean not only the moral character traits but also the child's personality, which is not a set of moral, intellectual, and physical traits but a unity that can be analyzed" (Montessori 1927: 3). The relevant "unity" here is the unity of a self-directed agent. The agency that constitutes character consists of concentrated work, that is, "deep concentration on some activity" that arises when one "become[s] absorbed in a piece of work that attracts" (1: 182, 181). Unlike contemporary approaches to agency that emphasize second-order reflective self-governance (e.g. Frankfurt 1988; Korsgaard 1996, 2009), Montessorian agency is essentially and primordially a matter of first-order concentration in active engagement in some work to which one is attracted. Both moral life and pedagogy should perfect "character" understood as the actualization of this agency.

C6P17 Given a pedagogy that emphasizes how "children construct their own characters" on the basis of an already existent "tendency, however vague and unconscious, to raise themselves up" (1: 187–188), Montessori sees character as such as a "normality" we should "preserve" and enhance rather than a non-existent state to bring about (1: 217). The establishment of character is thus described as a process of "normalization," "a psychological recovery, a return to *normal conditions*" (22: 133–134). The notion of "normalization" can make it sound like Montessorian virtue is standardizing or even repressive, but her point is precisely the opposite. Human beings normally have character, but "abnormal conditions"' prevent them from "giv[ing] expression to the creative energies that naturally belonged to them" (2: 41). The results are various "psychic deviations" or "repressions" (22: 136–137) that suppress and stunt character. Creating a context within which children freely choose and diligently pursue interesting work "normalizes" them such that already existent character expresses and thereby further perfects itself (22: 185).

C6P18 Concentration brings normalization. Montessori describes as "*the most important single result of our whole work*" the fact that "Once the children begin to concentrate" "a unique type of child appears, a 'new child' but really the child's true 'personality' allowed to construct itself normally" (1: 183). The relevant

concentration arises in an environment that provides developmentally appropriate work children can choose for themselves:

C6P19

> Among the revelations the child has brought us, there is one of fundamental importance, the phenomenon of normalization through work . . . [T]he child's attitude towards work is a vital instinct; for without work his personality cannot organize itself and deviates from the normal lines of its construction. (22: 165)

C6P20 While acknowledging that adults often "want less work," Montessori notes that in her schools, "we observe something strange[:] left to themselves, the children work ceaselessly . . . [and] after long and continuous activity, the children's capacity for work does not appear to diminish but to improve" (4: 86–87). The relevant concept of work here is "purposeful activity" (4: 86), a contrast not with play as such but with either passivity or aimless/normless activity. It is "when the attractions of the new environment exert their spell, offering *motives for constructive activity*, [that] all [the child's] energies combine and the deviations can be dispersed" (1: 183, emphasis added). Montessori often contrasts the work of the child and that of the adult (e.g. 21: 18–19, 22: 161–184, see Chapter 9), pointing out for example that adults typically work toward *external* ends according to a "law of least effort by which man seeks to produce the most he can working as little as he can," while children have a different "rhythm" because their work is "the work of producing man" (22: 166–169). Nonetheless, the perfection of character consists, for both adults and children, in perfecting agency expressed through concentration on purposeful work.

C6P21 Character requires persistence, "do[ing one's] work carefully and patiently" (1: 187). In contrast to those who "flit incessantly from one thing to another" (9: 51), "a person of character is able to finish the work he begins" (17: 236). Montessori even identifies this capacity to "finish" with the capacity to "mak[e] a decision," adding that "persistence [is] the true foundation of the will" (17: 236; 9: 134). The importance of persistence for character is not unique to Montessori, but shared by Aristotelian virtue theories that emphasize consistent habits and Kantians who argue that agency requires commitment to stable principles. Her argument for the centrality of persistence in self-governance even anticipates contemporary Kantian accounts of its importance.

C6P22

> This quality ["constancy, or persistence"] is really the exponent of the uninterrupted concord of the inner personality. Without it, a life would be a series of episodes, a chaos; it would be like a body disintegrated into its cells, rather than an organism which persists throughout the mutations of its own material. This fundamental quality, when it embraces the sentiment of the individual and the direction of his ideation, that is to say, his whole personality, is what we have called

> *character*. The man of character is the persistent man, the man who is faithful to his own word, his own convictions, his own affections. (9: 133; cf. 15: 148–149)

C6P23 Just as Tamar Schapiro claims that only "a unified, regulative perspective . . . counts as the expression of [one's] will" (1999: 729) or Christine Korsgaard objects to "particularist willing" (2009: 75–76), so too Montessori requires that the concentration intrinsic to character reflect *one's own* directed attention and *therefore* be a consistent orientation of the will. Unlike these Kantian moral philosophers, Montessori requires neither that persistence involve second-order reflection nor that it extend—or even aim to extend—over the course of one's whole life.[4] Also unlike Kantians, Montessorian persistence is as much about convictions and affections as volitional commitments. But Montessori—like Schapiro and Korsgaard—makes persistence central for constituting the self that governs its own work.

C6P24 Character is not the capacity for persistent concentration on just *anything*. Attentive work is normatively loaded in that it requires standards of perfection to which one aspires. The importance of standards internal to one's work itself is reflected in a central feature of Montessori's pedagogy: "control of error" (1: 224). Montessori designed classroom materials such that those using them (usually young children) can control their own errors by discovering for themselves how well they use each material. For example, "one of the first exercises done by our children is that with a set of cylinders . . . which fit into corresponding sockets in a block of wood . . . The child begins by fitting them in one at a time, but finds when he comes to the end that he has made a mistake [because] one cylinder is left which is too large for the only remaining hole" (1: 225). These materials provide activities wherein error—and thus meaningful success—is recognizable by the agent herself.[5] "Work," in Montessori's sense, always involves activity where an agent governs herself by norms for success.

C6P25 This striving for perfection is not "dutiful" in the Kantian sense. While it requires "*serious work*" with "*maximum effort*" (9: 77), one with character is wholeheartedly "attracted by perfection" because "it is in their nature" (1: 190):

C6P26

> There is no force of gravity [against which they must struggle], but a *true* wish to become better. Often there is aspiration without the prospect of absolute perfection, but in any case these people are drawn towards perfection, naturally and without effort . . . Their search for it is not sacrificial, but is pursued as if it satisfied their deepest longings. (1: 189–190)

[4] For differences between Kantian and Montessorian conceptions of agency, see Frierson 2022.

[5] More controversially, Montessori objects to "free drawing" as "nothing but monstrous expressions of intellectual lawlessness" (13: 308). For discussion, see Chapter 7.

C6P27 Wholeheartedness does not imply that pursuit of perfection is easy; the *challenge* of pursuing perfection is what attracts them. But that challenge consists in overcoming difficulties of the work itself, not overcoming conflict among volitions, desires, or loves.

C6P28 In a striking passage, Montessori implicitly contrasts her conception of character with a whole set of moral theories:

C6P29

> [Those without true character] impose rules upon themselves to save them from falling. They attach themselves to someone better than themselves. They pray Omnipotence to help them in temptation. More and more they clothe themselves in virtue, but it is a difficult life. (1: 189)

C6P30 While describing folk strategies for acting well without fully integrated internal motivations, this passage also works through various moral theories, starting with Kantian autonomy, where one "imposes rules on oneself" because one's natural inclinations diverge, at least in principle, from what is good. For Montessori, by contrast, even the inclinations with which those with character most identify aim for increased perfection. She next objects to those who "attach themselves to someone better," whether in its quasi-Aristotelian form of looking to the "wise person" to discern what is excellent or in the broadly Hobbesian sense of binding oneself to a sovereign who constrains one's bad tendencies. Finally, she contrasts her approach to various forms of theistic ethics that depend upon God to help individuals overcome evil tendencies (cf. Chapter 8). All these moral theories, Montessori suggests, are valuable stop-gap measures to help individuals without character pursue self-perfection, but they differ from true character in failing to be *wholeheartedly* one's own.

C6S4

6.2.2 Open-ended Perfectionism

C6P31 Those with character seek "perfection" (1: 189). They seek to perform each particular work more and more perfectly by its own standards, and they seek, through their work, to increase their own perfections, that is, their capacities for further self-chosen work. And they seek human progress more generally through their individual efforts.

C6P32 Unlike the perfectionisms of Aristotle or Aquinas—or even Marx or T. H. Green—Montessori's perfectionism is open-ended, in two important respects. First, with respect to the essential capacity of human nature that lies at the heart of her theory—character—her moral philosophy is epistemically open or even broadly constructivist, in that Montessori's justification for making this particular feature of human nature central to her moral philosophy is that she finds this

feature of human nature to be what non-repressed children (and eventually also adults) actually *do* value.

C6P33 Second and more importantly, the "character" that we ought to perfect is itself open-ended. That we can and should perfect agency in self-chosen and self-governed work does not dictate *what* work, or what kinds of self-governance, to perfect. In that sense, Montessori's perfectionism is open in a way similar to Nietzsche's perfectionism, where there is no single sort of life toward which every noble soul should aspire, but the diversity of lives that noble souls will aim toward are all, say, life-affirming rather than life-denying, or all ways of "being oneself" or living a life of "genius" (Conant 2010: 207; Rutherford 2018a; cf. Montessori [1909] 1912: 69–70; 9: 16, 163–167; 18: 186–187). As Donald Rutherford has put it, "there is one *kind* of ideal appropriate to every human being—that of an autonomous existence in which one 'becomes who one is'—but that ideal will take different forms" (Rutherford 2018b: 226). Likewise for Montessori, the ideal form of human life is the life of character, wherein one pursues self-chosen work persistently and strives for increased perfection, but what work one engages in, and hence what specific forms of perfection one aims to realize, varies from person to person: "Man does not have a precise heredity to do one special thing . . . he is not obliged to do just one thing . . . [E]very man must prepare in himself an adaptation that is not hereditary. He must prepare his own adaptation" (17: 91). While other animals have specific and determinate "perfections" of their nature, human beings have none; perfecting one's character involves setting for oneself a determinate "task" (17: 91) that is not itself determined by one's nature. In another context, when talking about the virtue of obedience to the will of God, Montessori says something quite similar: "Obey with faith and joy; perhaps what God commands us is not some determinate action but the faith and joy with which we do it" (De Giorgi 2013: 348). Striving for perfection does constrain possible lives to some degree—Montessori rejects the notion that human beings are "here only to enjoy" (17: 91)—but it does not specify any *particular* work upon which an individual must direct his concentration. The specific action is less important than the character-driven way in which one does the work.

C6P34 Importantly, the openness in Montessori is not mere situation-dependence. In Aristotle, perfect virtue does not dictate a course of life because what is fitting for a given situation depends upon specific features of that situation. A virtuous person must have phronesis to discern what to do in a given situation. For Montessori, by contrast, character is open-ended in that even in a fully specified situation, there is no specific course of action that a person with character (and practical wisdom) would do. Admiral Byrd, one of her exemplars of character, first set foot on the South Pole because he "felt . . . the attraction of doing something never before done, and so he planted his banner among the others in the zone of perfection" (1: 191–192). There were, however, many things that had never been done before. Character requires pursuing perfection through work with normative standards

to which one persistently attends. Adventuring to the South Pole, excelling in portraiture, seeking new principles of chemistry (or even refining current principles), or investigating moral philosophy can all manifest character. One who engages in any of these tasks well has character; in that sense, character underdetermines the course of one's life.

C6P35 Pedagogically, this open-endedness has important implications. Teachers need not ensure that students perfect themselves in some specific way, and they also need not find *the* work that will attract a given student. Rather, they need to provide an environment in which each student can find *a* work that attracts them to work in a character-driven way.

C6P36 Despite being open-ended in this way, however, Montessori lays out several specific features that any perfection of character involves.[6] For one thing, it requires increased "independence." One with character is "independent in his powers and character, able to work and assert his mastery over all that depends on him" (1: 151). "Normal" childhood is fundamentally a "conquest of independence" where the child seeks "to co-ordinate his movements and to bring them under his control" (1: 161, see 1: 75–86). Those with character more and more bring themselves and their environment under their agential control.

C6P37 "Independence" is independent adaptation to the world, not a radical independence by which one would seek complete self-sufficiency. Humans' constructed and social world facilitates agency and its expression. Thus adolescent "independence," for example, requires "earn[ing] a livelihood through work" (10: 105; cf. 12: 61); one is "independent" in that one satisfies one's needs through one's own effort, albeit in the context of a constructed environment and mechanisms of exchange. Likewise, Admiral Byrd depended upon wealthy philanthropists and the support of his crew and teammates for his polar expedition, but he raised support in the spirit of asking others to "help me to do it by myself" (22: 175).

C6P38 Beyond independence, perfection includes orientation toward *precision*: "the child not only needs something interesting to do but also likes to be shown exactly how to do it. Precision is found to attract him deeply . . . It happens no differently with ourselves in sport . . . [T]his feeling of enhancing our abilities is the real source of our delight in the game" (1: 161). Whether moving blocks or playing sports or composing poetry, one with character aims to engage in activities with exactness. To some extent, "precision itself . . . hold[s] . . . interest" (1: 166), but "precision" also depends on—and in Montessori's writings can stand in for—*internal normative standards* of a particular work. In that way, Montessori anticipates Alasdair MacInytre's classic concept of a human practice, as a "coherent and complex form of . . . activity" with "goods internal to that form of activity" that involve

[6] In this way, again, her overall approach resembles that of Nietzsche. While there is no single noble ideal of the good life, all such noble ideals embrace general virtues like honesty toward oneself or creativity. (See, e.g., Conant 2010 and Rutherford 2018a.)

"standards of excellence which are . . . partially definitive of that form of activity" (MacIntyre 1981: 187). As noted in Section 6.1, those with character seek to do work *well*, which requires demanding standards of excellence internal to the work that expresses character.

C6P39 Beyond internal standards according to which one seeks to perform each task well, those with character in the fullest sense seek to perfect *themselves*, and even humanity as a whole, through those tasks; they have "a natural attraction . . . toward perfection," "a tendency . . . to raise themselves" (1: 189, 188). Many activities have internal normative standards, but those with character seek activities that allow them to "make progress."

C6P40

> By character we mean the behavior of men driven (though often unconsciously) to make progress. This is the general tendency. Humanity and society have to progress in evolution . . . [L]et us consider a purely human center of perfection, the progress of mankind. Someone makes a discovery and society progresses along that line . . . If we consider what is known of geography and history, we see this constant progress, because in every age some man has added a point to the circle of perfection which fascinated him and drove him to action. (1: 191)

C6P41 Beyond "perfections" internal to particular activities and the general perfections of precision and independence, those with character strive generally for improvement *as such*.[7] Just as MacIntyre identifies "practices" with those activities in which "human powers to achieve excellence . . . are systematically extended" (MacIntyre 1981: 187), so too, for Montessori, "The aim of the spirit" is "to expand" (18: 82).

C6P42 Independence, precision, normative standards, and even the striving for progress all underdetermine character-driven work. The notion of progress varies from person to person and from culture to culture. Admiral Byrd went to the South Pole because this *kind* of striving for perfection was comprehensible *as* a form of progress given his individual personality and his historical-cultural context. Character-driven writers, dancers, explorers, or scientists all work in the context of a history of exemplars and seek to add to that repertoire of excellence, starting with the effort to do what has already been done more and more excellently and rising to the desire to do something new, something recognizably more perfect from within the existing norms of the "circle of perfection." While open-ended in a variety of ways, the notion of progress nonetheless provides impetus for new tasks and challenges, with concomitant new internal standards.

C6P43 This open-ended conception of character, which requires striving for one's distinctive perfection, provides a valuable focus for contemporary moral sensibilities.

[7] Granted, young children do not *consciously* make self-perfection as such their goal, but Montessori repeatedly emphasizes that such self-perfection is their unconscious goal, one that they can eventually make conscious (see Section 6.5, and for more on unconscious goals, see Chapter 4, Section 4.3).

We arguably live in an era of "the ethics of authenticity," within which being "true to oneself" is one of, if not *the*, highest ethical ideal (Taylor 1992). Montessori's concept of perfection likewise emphasizes authenticity. The "good" person pursues *his own* passions to "add a point to the circle which fascinate[s] *him*" (1: 191). This moral ideal of an agency-promoting and authentic but deeply indeterminate pursuit of perfection consists in "multiplying the forces of the free spirit" in a way that "is made incarnate by Frederick Nietzsche, in . . . Zarathustra" (see Montessori [1909] 1912: 69–70; cf. Conant 2010). Like Nietzsche, Montessori emphasizes how the perfection one pursues need be neither "universal" human perfection nor even perfections pursued by others:

C6P44

> the child . . . makes . . . a selection of his own *tendencies*, which were at first confused in the unconscious disorder of his movements. It is remarkable how clearly *individual differences* show themselves, if we proceed in this way; the child, conscious and free, *reveals himself.* (Montessori [1909] 1912: 94–95, emphasis original; cf. Nietzsche 1967: 217; Rutherford 2018b: 215–216)

C6P45

However, Montessori's notion of character corrects the contemporary focus on individuality and authenticity in several important respects. Most fundamentally, character is *normative*; it depends upon ideals of perfection toward which one strives. These ideals need not be universal or external to the particular activities of self-perfection in which one engages, but to express oneself with character is to strive for perfection, in accordance with norms one prescribes to oneself through activities one engages in and capacities one cultivates. Relatedly, *hard work* is the proper locus of self-expression. In contemporary culture, people too often express themselves through consumption, but Montessori rightly notes that consumptive activity cannot be a form of self-perfection because consumption, however self-directed, is fundamentally about passive enjoyment rather than active work. Moreover, not only is character oriented toward work, but it takes work to *develop* character. Too often, authenticity is seen as being true to some "self" that one just happens to find oneself to be, and more and more people find themselves at a loss both to discern who they are and to be "true" to that self. But Montessori recognizes that the "self" worth being true to is a self that emerges through what Nietzsche calls "obedience over a long period of time and in a single direction" (Nietzsche [1886] 1966: 101), that is, a consistent and sustained effort toward tasks that one takes to be worth pursuing. Choice of and endurance in work are perfections that require practice and attention. This is particularly true because, like Nietzsche, Montessori sees authenticity and self-*overcoming* as intrinsically linked. While one might think that *overcoming* oneself and being *true to* oneself would be opposed, both Montessori and Nietzsche recognize (albeit in different ways) that the human "self" aims for perfections whereby it transcends itself: "your true nature . . . lies immeasurably high above you" (Nietzsche [1876] 1997: 129; cf. Rutherford

2018b: 226–227). And Montessori[8] recognizes that this process of authentic self-overcoming depends upon a strength of character that can only (or primarily) be cultivated in childhood, because authentic self-overcoming—like the moral sense itself—manifests a capacity that depends upon *early exercise* for healthy development. In a culture that increasingly—and rightly—values authenticity, the recognition that authenticity depends upon normative orientation toward the work of self-perfection invaluably clarifies this moral ideal. Given widespread malaise caused when people find themselves unable to realize this ideal, attention to processes by which children's capacities for character can be cultivated marks an essential contribution to solving some of the most important moral crises of our contemporary—post-Nietzschean—world.

C6P46 Montessori also clarifies and refines her broadly Nietzschean perfectionism by rejecting certain features of Nietzsche's overall approach to morals as "strange and erroneous even when tested by the very theories . . . which inspired him" (9: 257). For one thing, she emphasizes how human beings develop through absorbing and adapting to their environments, including their cultural environments. Distinctive characters arise from different ways individuals adapt and absorb values. Creativity is never ex nihilo. One with character may "add a point to the circle of perfection which fascinated him" (1: 191), but this fascination is formed in a particular cultural context.

C6P47 Even more importantly, while Montessori's conception of character endorses a broadly Nietzschean emphasis on human self-overcoming toward ever higher ideals, she sharply rejects his failure (or perceived failure[9]) to connect his *Übermensch* with genuine concern for others. For her, this is not merely a failure of opportunity, but a blindness to the implications of Nietzsche's own ideal:

C6P48

> To Friedrich Nietzsche, the superman was an idea without practical consequence . . . His conception offered no help in overcoming the ills of humanity; rather was it as a chain binding man to earth, there to seek means to create of himself the man superior to himself; and thus leading him astray into egotism, cruelty and folly. (9: 257)

C6P49 Montessori accuses Nietzsche of an "egotism" that sets its sights too *low*, binding itself to all-too-narrow scopes for agency rather than taking on the work of overcoming the ills of humanity. When considering the attunement to the world that active concentration requires, she asks,

C6P50

> How could [those with character] live quietly amidst evil? If under the windows of our house people were piling up refuse until we felt that the air was being

[8] Perhaps also Nietzsche, cf. 2006: 17.
[9] Compare, in this context, Rawls 1971 with Conant 2010.

> vitiated, could we bear this without protesting, and insisting on the removal of that which was causing us to suffer? . . . It is characteristic of "life" to purge the environment and the soul of substances injurious to health . . . [T]his is the morality that springs from sensibility: the *action* of purifying the world, of removing the obstacles that beset life, of liberating the spirit from the darkness of death. The merits of which every man feels he owes an account to his conscience are not such things as having enjoyed music or made a discovery; he must be able to say what he has done to save and maintain life. These purifying merits, like progress, have no limits. (9: 256–257)

C6P51 The drive for personal perfection also equips individuals with a "feeling" for the ills and potentials of others. The ideal of striving toward perfection, an ideal rooted in the deepest inner impulses of human beings, naturally realizes itself in a project of liberating others.

C6S5

6.3 Respect for Others

C6P52 While the core value of Montessori's moral theory is character, respect is the proper attitude to take toward that value. Character provides the "sense of personal dignity" that is one of two "noble characteristics that would prepare a man to be social" (12: 60), but ethics does not end with self-perfection through character. Montessori's critique of Nietzsche's excessive egoism integrates into her moral theory egalitarian and universal concerns with human dignity. Within moral life, "Two things are necessary: the development of individuality and the participation of the individual in a truly social life" (10: 52; cf. 12: 60). These two elements are connected, in that character leads individuals to seek participation in social life, and those with character naturally develop—and need to develop—respect for others. Along with and growing out of individual character, then, respect for others is a central feature of Montessori's moral theory.

C6P53 To some extent, Montessori simply notes the connection between character and respect as an "experimental fact" (9: 52):[10] "easy adaptation to the social environment" arises "as a result of the phenomenon of concentration" (17: 233).

C6P54

> After these manifestations [of character] . . . a true discipline is established, the most obvious results of which are closely related to what we will call "respect for the work of others and consideration for the rights of others." Henceforward a child no longer attempts to take away another's work; even if he covets it, he waits patiently until the object is free . . . [W]hen discipline has been established by

[10] My purpose here is not to decide whether or not Montessori's observations are ultimately supportable, but to lay out the structure of her approach. For relevant empirical work, see Lillard 2007.

> internal processes . . . there is a mutual respect . . . between the children . . . and hence is born that complex discipline which . . . must accompany the order of a community. (9: 70; cf. 9: 52)

C6P55 Consistent with her pedagogical naturalism, Montessori finds that for children in conditions of freedom, concentrated striving toward individual perfection quickens rather than deadens sensitivity to others; "normalization" generates respect for others.

C6P56 Several features of character naturally lend themselves to attitudes of respect. Those with character pursue *perfection*, which displaces the possessiveness and envy that Montessori rightly sees as threats to respect. Insofar as one seeks materials only as means toward self-perfecting activity, one has little incentive to hold onto materials one no longer needs or to waste energies by taking materials from others already working with them (see 1: 199; 3: 27; 10: 103). Because those with character seek *progress* in perfection, rather than relative *superiority*, others' excellences become reassurance that progress is possible rather than threats to one's sense of self (1: 209; cf. Dweck 2006: 30). Finally, precisely because it focuses on *work*, character prevents the competitive or hostile attention to others that contributes to disrespect: "the children . . . [are] too much absorbed in their work to indulge in any of the disorderly actions which had marked their conduct in the beginning" (9: 70).

C6P57 This does not mean that respect for others will always be easy. In a rich story that I will only be able to touch on briefly, K. T. Korngold describes how she helped one child—Evan—solve a problem of self-control and respect for others.

C6P58

> My [three-year-old] friend Evan was deeply bereft. I went down to his level. "Evan," I said, "I am here." He looked at me through his sad, tearful eyes. I started to say, "Would you like a hug," but before I could finish, he came into my arms, sobbing and heaving. We held each other for a good ten deep breaths. I didn't say anything. When he was finally able to talk, he looked up at me and said, "I wanted the Magna tiles, but only two can work at a time." Although we had introduced them the day before, Evan already knew the rules: he knew the structure, but he could not contain his pain at having to wait. I looked up, and I saw two friends, fully engaged in the Magna tiles, at a table. The Magna tiles were a new work that I had brought in to help provide a compelling, independent activity during the hours after the head teacher left. Lo and behold, the two children were sitting at the snack table, a table that is usually reserved for two children. The X on the floor that marks the waiting spot for snack was unoccupied. "Evan," I said, "would you like to wait on the X? Just as we do when we wait for snack? That way, when the friends are finished, they will know that you have the next turn." "Yes," said Evan, and with that, Evan dried his eyes and walked over to the X. When I came back later to check on him and to give some positive reinforcement in language

> that he had been successful in being able to wait, he was having his turn at the table. "Look," he said, "Ryder is waiting now. I'm almost done; then she can have a turn." (Korngold 2024)

C6P59 Young Evan had been in a Montessori classroom for much of his life and has a well-developed character for his age. It did not even occur to him to simply push his classmates out of the way and take their tiles. This sort of violent possessiveness would not have been consistent with his goal, which was to work peacefully and joyfully with the tiles. At his particular stage of development, he knew to respect, but was sad at the loss of opportunity, at the need to exercise self-control, and he had not yet discovered a method for exercising that control. A small hint from a guide (in this case, Korngold) helped him find tools to solve his problem. He knew how to wait for a snack; he had practiced those skills. Now he extended those skills to this new context. Now respect for his classmates became not a *lack* of activity but a different *kind* of activity, one that—like the Magna tiles he wanted to work with—required effort. As a child with character, he knew how to love effortful work, at least when he had some sense of how that work could be done, and now he had a way to effortfully wait.

C6P60 The connection between character and respect for others has another, even more basic, root. To have character, one must value norm-governed work toward ideals of perfection, and even while focused on their *own* pursuits, those who aspire for perfection come to admire, respect, and be inspired by others' similar pursuits.[11] Montessori offers neither a conceptual argument like Gewirth's insistence that "a claim on the part of the agent that he has a right to perform his action" is both "an essential feature of [one's] action" and a claim by which "he is logically committed to the generalization of this right-claim to all prospective agents" (Gewirth 1974: 62–63) nor even a Korsgaardian argument about what is constitutive of human reasoning as such (see, e.g., Korsgaard 1996, 2009). Given her pedagogical naturalism, Montessori instead describes perceptions of moral sense as it develops in children in conditions most conducive to its exercise. Like Gewirth, Korsgaard, and others, however, she highlights how striving toward perfection pushes beyond each individual. We naturally see others' pursuit of perfection as equal in value to our own, which gives rise to a commitment to respect and even admire it.

C6P61 Character is particularly conducive to mutual respect given a properly prepared social environment where circumstances of daily living provide opportunities to exercise social virtues. Montessori described "The meaning of morality" as "our relation with other people and our adaptation to life with other people."

[11] Nietzsche's "republic of genius" (Nietzsche [1876] 1997: 111) arguably involves a similar sort of mutual respect, albeit with a narrower scope of application.

C6P62 If the different individuals have to live harmoniously in one society, with a common aim, there must be a set of rules which we call morality . . . [Morality is] . . . a technique which allows us to live together harmoniously . . .a form of adaptation to a common life for the achievement of a common aim. (Montessori [1938] 1984: 15, cited in Sackett 2003)

C6P63 Children learn morality in this sense through actually *living* together—"Our [children] live always in an active community" (1: 203)—and Montessori designed her classroom environment to encourage the sorts of "conflicts" that prompt awareness of the need to respect others. In those contexts, normalized children develop their own moral sense: "If social virtues need to develop, they will do so at that moment when children must of themselves adapt themselves to these virtues" (18: 265). Montessori explains the effects of scarcity of materials, for example, in a well-ordered classroom:

C6P64 There is only one specimen of each object, and if a piece is in use when another child wants it, the latter—if he is normalized—will wait for it to be released. Important social qualities derive from this. The child comes to see that he must respect the work of others, not because someone has said that he must, but because this is a reality that he meets in his daily experience. There is only one between many children, so there is nothing for it but to wait. And since this happens every hour of the day for years, the idea of respecting others, and of waiting one's turn, becomes a habitual part of life which always grows more mature. (1: 202)

C6P65 Given scarcity of materials, there is "nothing for it" but to respect others' work. Children thereby learn respect for others as the way to make a community of character-driven activity function, not as a command from God or parents, an abstract requirement of practical reason, or a way to promote hedonic happiness.

C6P66 Because respect develops to promote "a combination of activities which have to be harmonized" (1: 202), objects of Montessorian respect are activities—not wishes or preferences—of others. Based on her work with children, Montessori came to identify interruption of another's work as a paradigm form of disrespect. She compares interruption of the child to "the manner of masters to slaves who have no human rights" (9: 15) and insists "He who interrupts children in their occupations in order to make them learn some pre-determined thing . . . confuses the means with the end and destroys the man for a vanity" (9: 134). Throughout her pedagogy, Montessori emphasizes interruption and unnecessary help as among the most severe errors caregivers make in dealing with children. Her moral philosophy explains why. Exercising effort toward achieving worthwhile goals is the core of character. In "those marvelous moments when their attention is fixed," the child who "is roughly interrupted" can rightly object that their *will* is being thwarted (9: 16). When "interrupted . . . they lose all the characteristics connected

with *an internal process regularly and completely carried out*" (9: 74).[12] The most basic form of moral respect is respecting others *in their effortful work*.

C6P67 Besides non-interference with others' free activity, respecting others can, at times, involve directly helping them. To highlight the dangers of unnecessary assistance, Montessori distinguishes "service" from "help." Service consists of doing something *for* another; it "suffocates their useful, spontaneous activity" by treating them like "puppets [or] dolls" (Montessori [1909] 1912: 97). Help, by contrast, is directed toward "*helping him* to make a conquest of such useful acts as nature intended he should perform for himself" (Montessori [1909] 1912: 97); it responds to the urge that became an articulated request among children in Montessori's schools: "help me to do it by myself" (22: 175; cf. 4: 6, 10: 97). Unfortunately, adults often serve in place of helping:

C6P68

> The mother who feeds her child without making the least effort to teach him to hold the spoon for himself and to try to find his mouth with it . . . is not a good mother. She offends the fundamental human dignity of her son—she treats him as if he were a doll, when he is, instead, a man confided by nature to her care. (Montessori [1909] 1912: 98)

C6P69 Here as elsewhere, normalized children show sensitivity to moral distinctions regarding help that adults, particularly in our relationships with children, often miss:

C6P70

> Children . . . solve their own [social] problems, but we have not yet explained how. If we watch them without interfering, we see something apparently strange. This is that they do not help one another as we do. If a child is carrying something heavy, none of the others run to his aid. They respect one another's efforts, and give help only when it is necessary. This is very illuminating, because it means they respect intuitively the essential need of childhood which is not to be helped unnecessarily. (1: 207)

C6P71 While avoiding unnecessary help, however, children *do* help one another when such help is necessary to encourage and foster character. When, for instance, "there is a mishap, like the breaking of a vase," and "the child who has dropped it is desperate [and] . . . feels ashamed . . . our children . . . all run to help, saying with an encouraging tone, 'Never mind, we shall soon find another' . . . They have an instinct to help the weak, encouraging and comforting them" (1: 208). Children possess a

[12] One practical implication of this abhorrence of interruption comes in Montessori's approach to sharing, one rooted in respect for others' work rather than mandatory generosity. While many see "sharing" as requiring that children interrupt their own attentive work to give items to others, Montessorian "sharing" means waiting patiently until others are finished before taking what they were working with.

"fine power of discrimination" (1: 207) and intuitively understand the proper object of respect, which is neither the choices nor the pleasures of others, but their capacity for effortful work. In an environment with conditions conducive to character, they show one another a respect that is agency-centered, offers necessary help but not service, condemns interruption, and strongly protects the ability of each to do his own work. Montessori's pedagogical experiences (or experiments) disclosed this "normal" form of mutual respect as a universal feature of healthy social life; respect for others is a universal value.

C6P72 Montessorian respect has affective dimensions. Respectful people esteem others *qua* agents with what Steven Darwall has called "recognition respect" (Darwall 1977: 38): "the children come to know one another's characters and to have a reciprocal feeling for each other's worth" (1: 205). Free from envy or jealousy, respect also includes that "appraisal respect" (Darwall 1977: 39) that consists in "admiration for the best. Not only are these children free from envy, but anything well done arouses their enthusiastic praise" (1: 209). Finally, as we will see in more detail in Section 6.4, character-driven respect is infused with "affection" and "true brotherhood" (1: 205).

C6P73 These universal aspects of respect for others—avoiding interruption, giving help, and approaching others with feelings of esteem and basic human affection—correspond more or less to universal features of traditional moral theories, such as Mill's "no harm principle" or Kant's conception of never treating others as mere means. Another significant theme of Montessori's account of respect, however, incorporates local social norms of propriety and good manners that specify and make precise otherwise vague requirements of social life and make what would otherwise be neutral forms of activity into normative requirements in a particular context. Many theorists distinguish norms of polite society from truly *moral* norms; some—most famously Rousseau—portray local norms as fundamentally *opposed* to moral life. But Montessori treats them as essential components of socially situated respect. She explains how respect must constrain children's liberty:

C6P74

> The liberty of the child should have as its *limit* the collective interest; as its *form*, what we universally consider good breeding. We must, therefore, check in the child whatever offends or annoys others, or whatever tends toward rough or ill-bred acts. (2: 50)

C6P75 Liberty's "limit," emphasizing "interests of the group" and avoiding what would "offend or annoy others," corresponds to universal features of respect. But liberty's "form"—"good breeding and behavior"—draws attention to the need to engage with others in terms of socially accepted norms of polite society (cf. Buss 1999). Social life includes abstract norms of respect *and* culturally specific requirements of civility; respectful people bring themselves into accord with both sets of requirements.

C6P76 While Montessori's notion of character, with its emphasis on individuality, progress, and perfection, resonates with Nietzschean perfectionism, her conception of respect, like Kant's, requires that one's actions—including one's pursuit of perfection—be subordinated to an obligation to respect others. Just as, for Kant, one ought always "so act that you use humanity, whether in your own person or in that of any other, always at the same time as an end, never merely as a means" (Kant 1900 4: 429), so with Montessori one must respect activities of others even while one pursues one's own. Her two-fold emphasis—*not infringing* on and *directly promoting* others' agency—even fits Kant's own distinction between perfect and imperfect duties (ibid. 4: 421–423). Moreover, while character is the fundamental value within Montessori's moral theory, respects trumps character not only in that people must respect others when expressing character, but also in that people must show respect whether they have character or not. Teachers—and, by extension, others with responsibilities for protecting human rights—must ensure that individuals respect each other in their actions even before they have developed character; the teacher "must not only not interfere when the child is concentrating, she must also see that [the child] is not disturbed," which will require that she "be a policeman" with those who interfere with others (17: 229). Relatedly, those who "impose rules upon themselves to save them from falling" fall short of Montessori's moral ideal of wholehearted character, but even this rule-driven respect is a "virtue" (1: 189). Respectful moral agents without character are incomplete and conflicted, but they ought to exhibit as much respect as they can for the sake of others. Character, we might say, is a perfectionist ideal, while respect is a categorical imperative.[13]

C6S6

6.4 Social Solidarity

C6P77 The demand for respect moves Montessori's moral theory beyond the egocentrism that many (including Montessori) associate with Nietzschean perfectionism. Even with the addition of respect, however, her moral theory might seem overly individualist, as though our responsibilities are to promote our own perfection, avoid interfering with others, and provide limited but necessary help to other individuals pursuing their individual projects. The third feature of Montessori's moral theory shatters this individualism by highlighting the importance of deep forms of shared agency that go beyond mutual respect or even mere cooperation.[14] This "third thing" is "harmony" among people who "work in a group" (17: 234–235). Earlier,

[13] For more on how Montessori's concept of respect compares with Kant's, see Frierson 2021a and 2021b.

[14] A further element of Montessori's moral theory, closely connected with solidarity, is obedience to rightful authority. For discussion of obedience in Montessori, see Frierson 2022: 107–114.

I highlighted the respect whereby children work side by side, but Montessori also highlights an "affection" that "unites" children together into a single social unit (9: 70). Respect involves "a discipline in which each has his different interests," "each person chooses his work," and "each must do different things . . . but . . . in harmony" (17: 235). Social solidarity, by contrast, involves "a true brotherhood . . . cemented by affection," (1: 205), "something that allows easy communication between individuals—sympathy, cooperation . . . *society by cohesion* (17: 233). "[V]italized by a social spirit," at this stage "children join together" into something that can be "compared to the . . . cells in . . . an organism" (1: 211, 17: 233; cf. 10: 22, 94).

C6P78 Montessori's paradigmatic example of social solidarity is the "lesson of silence" or "silence game" (Montessori [1909] 1912: 212–213, 364; 1: 237–238). While this game has many variations, its basic element is the establishment, as a class, of complete silence. The teacher directs the class—often with a whisper, or by writing a word on the board—to be silent, and silence gradually sweeps over the class of children; in the end, "[f]ifty or sixty children from two and a half years to six years of age, all together, and at a single time know how to hold their peace so perfectly that the absolute silence seems that of a desert" (Montessori [1909] 1912: 116). At one level, the game is one of many that attract children's attention and provide for norm-governed activity. But unlike many other forms of work, the lesson in silence cannot be done without the cooperation of every member of the class. The goal of complete silence depends not only upon *one's own* self-control, but upon the self-control of everyone, in unison. It is thus "an excellent *lesson in co-operation*" (7: 53) because "a single person can break it" (1: 237). In the silence game, one practices social solidarity. Such solidarity depends upon "everyone's consent"; "the whole class must *want* to be silent" (7: 54). Moreover, such consent is not *mere* consent, but *shared interest*: "The children all have the same aim and work together in order to achieve it. They all aim at perfect silence . . . The aim brings perfect cooperation. It unites the individuals" (17: 234). This "conscious and united action" gives rise to and depends upon "a sense of social solidarity" (1: 237; cf. 7: 49–56, 17: 234). Children *feel* united in a common task, and as they engage in it, they come to feel united as a common body. They work together, striving for perfection together. They are attuned to one another in a way that goes beyond mere cooperation or mutual respect. They have a shared character.

C6P79 One might think that conformity to a group would conflict with individual agency, but Montessori argues that genuine solidarity requires strong, antecedent, individual character: "the freedom of the individual . . . is the basis of human society" (10: 98). The game of silence illustrates this relationship. This game is quite unlike the "order" of "Silence!" given in "traditional schools" that is easily "confuse[d] with a general reduction in noise" and a way of "reduc[ing] disorder" (7: 50). In non-Montessori contexts, adults often command silence in order to stifle children's distracted impulses, decrease their activity, suppress their inclinations,

and make them receptive to instruction. In the silence game, by contrast, children are invited to a more thoroughgoing "activity," one that engages their entire body and is "very difficult," just as all engaging tasks are difficult (7: 53). The silence game happens "*spontaneously*" and depends for its exercise upon silence being something "*interesting*" (7: 54, 55, emphases original).

C6P80

> In order to have [perfect] silence, you must simply *not move*. And *in order not to move, you must think about everything that could possibly move*. So you must keep your legs and feet quite still, and your hands, and your whole body. You have to control your breathing. (7: 52–53)

C6P81 This silence is not passivity before an adult instructor but a particularly intense and social form of autonomous group *activity*, one that requires already established strength of will and even "offers a means of testing the children's will-power" (1: 237). Because silence is a *further outlet* for strong wills rather than a limitation of them, "very young children of three or four . . . [or] even two *love silence to an extraordinary degree*" (7: 51). Montessori extends this point to organized adult solidarity. Coerced cooperation, well-regulated communities, and calculating forms of reciprocal altruism are not expressions of social solidarity. In order to "hold the mass of men together and make them act in harmony," one requires not only "good laws and a good government" but also "masses" that "in their turn, are . . . strong and active . . . according to the level of development, and of inner stability, of the personalities composing them" (1: 215). Solidarity as a moral ideal arises when *strong* individual wills combine *autonomously* into a greater whole to pursue shared ends through a united will.

C6P82 Solidarity naturally grows from character. While one might in theory seek to pursue perfection only in purely individual tasks, as a matter of fact, children's pursuit of individual perfection gives rise to desires to be perfect as a member of society. Consistent with her pedagogical naturalism, Montessori's discovery of the importance of solidarity was a sort of accident, one that grew from an initial "little game" where she was holding a sleeping baby and, as "a joke," said "I don't suppose you can keep . . . as still as this little baby" but was "amazed" when the children "all looked so intent and interested" in staying silent and motionless (7: 52). Insofar as one comes to recognize feelings of unity with others that facilitate deeper forms of social cooperation, those with character naturally desire to perfect, strengthen, and refine these feelings. And those with character aim to perfect *agency*, to extend capacities to act in and on the world. They seek "to expand," and "having gained a broader spirit," they develop "a larger conception and greater comprehension of the compassion [*carità*] which develops naturally" (18: 82). The cooperation that comes with genuine solidarity makes human beings more capable of acting in and upon the world.

C6P83 Solidarity also cultivates individual character. Being part of a group helps one push oneself further than one might otherwise. In the silence game, the shared self-control of the group directly facilitates individual self-control. More generally, we often stick with difficult projects longer, work harder, and hold ourselves to higher standards when working as part of a group, especially when rooted in genuine solidarity. One who joins a group merely for external goods achievable by cooperation can be tempted with free-riding, but those with character want to do as much as possible as excellently as possible. Solidarity brings a desire for the *group* to go as far as it can go. The standard benefits calculus according to which free-riding is "rational" no longer makes sense when one *identifies with* the group, makes excellent *activity* one's chief good, and sees the good(s) of the group as one's own.

C6P84 Identification with group goods shows a further way solidarity relates to character. In Section 6.2, character was discussed as an *individual* good, and for Montessori, any group goods must be built on and compatible with individual character. But from a group of strong-willed individuals, a new entity can emerge, a community with its own goods and its own "character." Just as strong organs within the body unite to form an even stronger body with goods distinct from those of individual organs, so too diverse individuals in a community can unite to form a whole that pursues its own perfection. Like individuals, communities can be repressed or defective, caught up in infighting or pursuing merely external goods such as wealth or prestige. But healthy communities can also, like healthy individuals, have genuine character. In the case of communities, this character is a *shared* focus of concentrated activity. We can seek to become a more respectful and courteous community, with greater harmony and sympathy among ourselves. We—as a community—can also seek to stretch our powers, developing technology to put people on the moon or discovering new facts about the universe or combating disease, poverty, or ignorance. We—as a community—can seek peace and justice, externally as well as internally. Some of these goods can be accomplished by mere collections of individuals who happen to share goals or who agree to work together. But all will be *better* accomplished by strong and mutually respectful individuals who feel themselves bound together into a group by sympathy and a sense of solidarity.[15]

C6P85 The connections between character and solidarity highlight several ways that solidarity is morally important. As a capacity of individuals for unity with others, and a capacity of a group for agency, solidarity offers focus for self-perfecting

[15] Importantly, "cohesion alone is not enough to set up a society that can play a practical part in the world" as "recent history" exemplifies in "Mussolini and Hitler," who grasped that "rulers who wish to make sure of a new social order surviving must train people to it from infancy . . . These heads of the state felt the need to have a 'cohesive society' as a basis on which to build, and they prepared its roots accordingly" (1: 215–216). In the absence of emphasis on individual character and "universal" respect (10: 67, 70), mere solidarity can devolve into fascism. A morally excellent society facilitates the freedom of each individual through participation in a whole that does not overwhelm the individuality of each (see, e.g., 10: 98–101).

powers of individuals and eventually groups. Work done in solidarity can be done with greater or less precision, it requires attention and work, involves internal norms, and increases agential efficacy at both group and individual levels. As I become more unified with others, I become individually more perfect. And as *we* become more thoroughly unified—while retaining individual character and mutual respect—we become more perfect as a community. Solidarity with others in groups also contributes to further goods, both concrete external acquisitions—the silence we achieve, the bridges we build, and so on—and internal developments of intelligence, strength of will, and so on. Given the perils and possibilities made available by global interdependence, along with humans' innate need and desire to live and work with others, the full realization of our highest capacities for excellence depends not merely on being left alone and given occasional "help" but also on actively working *together* toward shared goals (see 10: passim).

C6P86 Solidarity is also a central feature of Montessori's mature political theory (see Chapters 10 and 11). The ability to feel solidarity with others is necessary for successful states, organizations, communities, and truly flourishing social life. Adult moral life requires laws, organizations, and structures, but societies whose formal structures manipulate selfish individuals into cooperative behavior fundamentally differ from those where laws articulate and structure genuine affective commitments to a social whole. Moreover, in the globally interconnected world in which we live, where "no phenomenon can affect one human group without affecting others," we will "continue to live an emotional world that is outdated," until we can truly *feel* that "all mankind forms a single organism" (10: 94).

C6S7

6.5 Embodied Ethics

C6P87 Montessori's threefold appeal to character, respect, and solidarity combines in an innovative way elements that play important roles in other moral theories, particularly those of Nietzsche and Emerson (character), Kant (respect), and Hegel, Marx, and Labriola (solidarity). Much more than any of those theorists (or virtually any theorists today), however, Montessori emphasizes the essentially *embodied* nature of ethical life. As noted in Chapter 4, Montessori conceived of the mind as essentially embodied, such that consciousness in all its forms—including the agency constitutive of moral life—is a form of embodied life. Unsurprisingly, then, even her most basic discussion of the character of individuals highlights human open-endedness by observing that "the *muscles* of man are not directed just by instinct, as are those of other creatures. The individual himself must animate *his motor powers* . . . [to] . . . prepare for his own individuality" (7: 95, emphasis added). Her pedagogical concerns and conception of the mind as embodied lead her to emphasize bodily comportments necessary for and partly constitutive of moral life. She compares "character formation" to learning the piano (17: 236–237) and emphasizes the

importance of *bodily* repetition and practice for moral virtue. A child who must "wait for [a material] to be released . . . every hour of the day for years . . . respecting others and . . . waiting one's turn" learns "patience" in an embodied way. He engages in bodily practices—standing, diverting attention to avoid interruption, speaking softly if necessary to get attention, and lifting the replaced material with care and without rushing or bumping into the student who has just finished working it—until these postures and movements "become an habitual part of life" (1: 202).

C6P88 Montessori particularly emphasizes embodiment when discussing the "grace" children learn as part of mutual respect. She notes, for instance, the importance of having light furniture for cultivating graceful bodily self-control. She contrasts children forced by desks and furniture "nailed to the floor" to maintain "immobility and silence" with those in Montessori schools with light furniture and fragile materials, who

C6P89

> will not only learn to move gracefully and properly, but will come to understand the reason for such deportment. The ability to move which he acquires here will be of use to him all his life. While he is still a child, he becomes capable of conducting himself correctly and yet with perfect freedom . . . [Such a] child has not only learned to move about and to perform useful acts; he has acquired a special grace of action which makes his gestures more correct and attractive, and which beautifies his . . . body now so balanced and so sure of itself. (Montessori [1909] 1912: 84, 353)

C6P90 Here, discussing a relatively mundane sense of "graceful" movement, Montessori transitions to claims about "correct conduct," "freedom," and being sure of oneself. The "methodical exercises" that cultivate "exactitude and grace of action" also develop "will-power" and teach a child "how to become his own master, how to be a man of prompt and resolute will. (Montessori [1909] 1912: 365–366; cf. 17: 139).

C6P91 In fact, even to *have* a "will," "some mastery of the body is also necessary" (9: 137). "Voluntary action . . . increases in degree as its dependent muscles perfect themselves" (9: 140). Moral virtue is a *realized capacity for virtuous activity*.

C6P92

> There can be no manifestation of the will without completed action . . . To think and to wish is not enough. It is action which counts. "The way to Hell is paved with good intentions." The life of volition is the life of action. (9: 127–128)

C6P93 One with excellent resolutions but lacking dexterity and poise to do what is required is not morally excellent. One with a strong *desire* for perfection who lacks physical *ability* to work toward it lacks character.[16] Character depends upon being

[16] For discussion of how Montessori's view deals with physical disability, see Hellbrügge 1982 and Frierson 2020: 161–174.

able to "make a selection among the muscular coordinations of which he is capable, persist in them, and thus begin to make such coordinations permanent" (9: 129). And one who "begins to respect the work of others" must be able to "walk about without knocking against his companions, without stamping on their feet, without overturning the table" (9: 129–130; cf. 17: 139). A loud and clumsy boor, whatever his feelings of affection toward others, fails to show them respect. One who cannot control his movements to accord with the needs of the group cannot exhibit—and thus cannot have—social solidarity. The body is the organ of moral virtue.

C6P94 Moreover, much moral virtue is almost entirely bodily. Many moral situations call for rapid or uncontrived responses that precede or even preclude reflection, and even more often, morally excellent agents act with moral "flow" whereby they immerse themselves in moral tasks at hand without self-conscious reflection.

C6P95

> [T]he person who has not been brought up to observe certain rules, but has been hastily instructed in the knowledge of them, will too often be guilty of blunders and lapses, because he is obliged to "perform" there and then all the necessary coordination of voluntary acts, and there and then direct them under the vigilant and immediate control of the consciousness; and such a perpetual effort cannot certainly compete with the "habit" of distinguished manners. (9: 128)

C6P96 Even to play tennis excellently, one often needs to stop thinking and trust bodily reactions to perceived nuances of the ball's motion. Similarly, much moral life consists in habitual reactions to situations. In a paradigmatic example of social courtesy and appropriate respect, Montessori describes how we might be "comfortably seated in a corner of the drawing-room, but a venerable person enters, and we rise to our feet" (9: 128). A young child may need to be reminded that this behavior is appropriate. Someone adapting to a new culture may need to think about whether standing is called for in the situation. But for a morally excellent, culturally well-situated agent, rising at the sight of a venerable person should be a response etched into muscle memory and unconscious motivation.[17]

C6S8

6.6 Conclusion

C6P97 Montessori builds her moral theory around a distinctive concept of agency, drawn from careful observation of the lives of young children. This agency consists of persistent, concentrated attention on norm-governed and self-perfecting activities that one chooses for oneself. It is the basis of individual character, the proper object

[17] Off-loading ordinary virtue into habit also enables conscious attention to further acquisitions of virtue: "the will stores up its prolonged efforts outside the consciousness . . . and leaves the consciousness itself unencumbered to make new acquisitions and further efforts" (9: 128).

of respect, and the foundation of social solidarity. Individual perfection of agency in this sense constitutes Montessori's ethical ideal, and such perfection depends upon respect for others and realizes itself in part through solidarity with them. Moreover, consistent with Montessori's embodied and embedded philosophy of mind, moral agency and ethical life are manifestations of thoroughly embodied life, such that excellence of character, respect, and solidarity all essentially require cultivation of bodily skill.

C7

7
Art and Beauty

C7P1 Aesthetics is "philosophy of the beautiful, or of art."[1] Consistent with recent aesthetics, which tends to privilege discussion of the arts over the beautiful as such, I focus in this chapter on the role of art within Montessori's aesthetics, though we will see that she identifies beauty as an important though not exclusive value within art. As with other aspects of her philosophy, her aesthetics starts with careful investigation of the roles art and beauty play for children living in conditions of freedom, and she uses this investigation to make broader claims about the nature and value of art and beauty for human life.

C7P2 After a short introduction (Section 7.1), this chapter turns to Montessori's discussion of the centrality of beauty for human life and the connection between artistic creation and beauty (Section 7.2). In Section 7.3, I bring up one of the more controversial aspects of Montessori's account of art, namely her objection to unfettered use of imagination in artistic expression. Section 7.4 discusses the role of individuality and genius in Montessori's aesthetics. Section 7.5 concludes with a brief discussion of how moral character (Chapter 6, Section 6.2) relates to artistic creation. Throughout, I highlight how Montessori's rejection of so-called free drawing and her specific pedagogical approaches follow from her account of the role of beauty, reality, and character in genuine artistic expression.

C7S1

7.1 Montessori against Art?

C7P3 At times, Montessori seems to de-emphasize or even disparage creative art. She accuses those who "employ [their] creative activity of thought for its own sake" of committing "sin against the intelligence" (9: 180). She rails against what she calls "free drawing" in schools:

C7P4

> the hideous drawings which are exhibited in the common schools, as "free drawings" characteristic of childhood, are not found among our children. These horrible daubs so carefully collected . . . are nothing but monstrous expressions of intellectual lawlessness. (13: 294; see too 2: 299)

[1] *Oxford English Dictionary*, "aesthetics, 1a." OED Online. Oxford University Press, March 2023. See too, e.g., Gaut and Lopez 2013: xx–xxi and passim.

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C7P5 Even when she affirms the value of art, Montessori sometimes seems to see its value primarily as support for more traditional sorts of learning. She begins one discussion of representational art by admitting, "The exercises which we have described as 'drawing' actually were intended to train the hand so that it would be ready to write," (2: 299). She highlights how "As the children draw, they learn many particulars concerning the geometric figures: the sides, angles, segments, diagonals, hypotenuses, circumferences, perimeters, etc." (13: 286). And she suggests that when "the children work many . . . hours on drawing[, t]his is the time we seize for reading to them . . . and almost all their history is learned during this quiet period of copy and simple decoration which is so conducive to the concentration of thought" (13: 287). All these comments seem to imply that the main purpose of art is to help develop skills that are more traditionally "academic."

C7P6 At the same time, Montessori passionately rejects crude instrumentalism about artistic creation—"God forbid that poems should ever be born of the desire to be crowned in the Capitol!"—and her reasoning applies to even more sophisticated forms of instrumentalism:

C7P7

> Such a vision need only come into the heart of the poet and the muse will vanish. The poem must spring from the soul of the poet, when he thinks of neither himself nor of the prize . . . The true reward lies in the revelation through the poem of his own triumphant inner force. (Montessori [1909] 1912: 29)

C7P8 She insists upon artistic materials within her prepared environments, saying that "the place best adapted to the life of man is an artistic environment" (9: 110). She treats the "writer under the influence of poetic inspiration" and the "artist whose mind has just conceived the ideal image which it is necessary to fix upon the canvas" as pre-eminent examples of the "men of genius" who partly constitute her paradigms of character and human perfection (9: 16–17). She identifies "Dante, Milton, Goethe, Raphael, [and] Wagner" as "miracles of intelligence" whose common feature is a "share of artistic imagination, [an] instinct to create the beautiful with his mind; and from this instinct duly developed come all the vast treasures of art" (9: 181–182). She describes "representational art"[2] as one of two primary ways in which the "instinct of self-expression" can "manifest itself" (2: 302).

C7P9 Virtually everything children do in Montessori environments is infused with art. Their movements as they walk from one table to another are informed by the poise and balance acquired from dance. Children illustrate the stories they write, and the elegance of their handwriting (even when, say, writing numbers for math) is informed by exercises in drawing. With musical instruments, tone bells, and

[2] The Montessori-Pierson translates "l'arte rappresentativa" as "representative art," but "rappresentativa" in this context better fits with the English "representational."

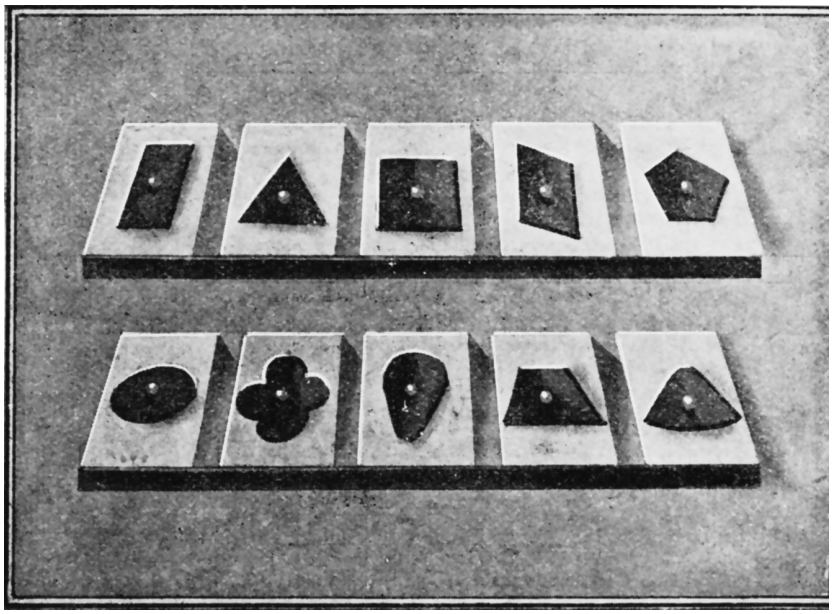
"tone bars," Montessori classrooms can and should be filled with music. In an environment of beautiful objects, "china plates and glass drinking-vessels . . . become the denouncers of rough, disorderly, and undisciplined movements," while "the child will accustom himself to do his utmost not to soil the gay and pretty things which enliven his surroundings"; through beauty and the care it enlivens, the child "makes progress in his own perfection" (9: 111; cf. Pironi 2017).

C7P10 One early, paradigmatic artistic material in Montessori classrooms, one she explicitly suggests as a basis for artistic development, nicely illustrates the twofold way she talks about art. Montessori describes this material—the "metal insets"—as follows:

> **C7P11** In the didactic material there are two sloping wooden boards, on each of which stand five square metal frames, colored pink. In each of these is inserted a blue geometrical figure similar to the geometrical insets and provided with a small button for a handle . . . The child is given a sheet of white paper and the box of ten colored pencils. He will then choose one of the ten metal insets, which are arranged in an attractive line at a certain distance from him. The child is taught the following process:
>
> **C7P12** He lays the frame of the iron inset on the sheet of paper, and, holding it down firmly with one hand, he follows with a colored pencil the interior outline which describes a geometrical figure. Then he lifts the square frame, and finds drawn upon the paper an enclosed geometrical form, a triangle, a circle, a hexagon, etc.… The child finds this exercise easy and most interesting, and, as soon as he has succeeded in making the first outline, he places above it the piece of blue metal corresponding to it . . . This time, however, when the action of placing the form upon the outline is performed, the child takes another colored pencil and draws the outline of the blue metal figure.
>
> **C7P13** When he raises it, if the drawing is well done, he finds upon the paper a geometrical figure contained by two outlines in colors, and, if the colors have been well chosen, the result is very attractive, and the child, who has already had a considerable education of the chromatic sense is keenly interested in it. (Montessori 1914: 87)[3]

C7P14 Young children begin working with these metal insets from an early age, and they serve several instrumental functions within Montessori education (se Figure 7.1). As she highlights in this passage, they build on the cultivation of the "chromatic sense," that is, the sensitivity to fine-grained distinctions among colors and an appreciation for how colors harmonize with one another, and a "mathematical sense," by giving children a sense for various geometric shapes. They play a role

[3] Photo from Montessori 1914: 87.



C7F1 **Figure 7.1** Metal insets.
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in developing literacy; for Montessori, children learn to write before they learn to read, and learning to write includes learning firm and dexterous pen and pencil control; exercises with metal insets foster just the kinds of finger strength and dexterity children will need for writing.

C7P15 The most direct instruction of the metal insets, however, is artistic. Children create "very attractive" figures in which they are "keenly interested," which "seize [them] with a desire to continue them," and which they "treasure" (Montessori 1914: 88, 90). This artistic exercise prepares the child for further artistic expression through the sense of order, color, and balance needed for original compositions and through cultivating the finger and arm movements necessary for precise and fluid drawing. The geometric insets themselves, "which are all definitely related to one another in dimensions and include a series of figures which can be contained one within the other, lend themselves to very beautiful combinations, with which the children make real creations and often follow out their ideas for days or even weeks" (13: 288).

C7P16 Ultimately, Montessori's philosophy of art, flowing from her pedagogical naturalism, finds its source in a careful attention to the activities and values of children in conditions of freedom. Artistic expression belongs to a philosophy of life, in which art and beauty have value as conditions of human flourishing, flow from character, enable self-expression, nourish love, and facilitate engagement with reality.

C7S2

7.2 Art and Beauty

C7P17 Montessori spent much of her life creating environments that inspire children to freely engage in active self-creation and self-expression. In creating those environments, she discovered the centrality of beauty for human flourishing. Even from a purely scientific point of view, "if we want the school to become 'a laboratory for the observation of human life,' we must gather within it things of *beauty*, just as the laboratory of the bacteriologist must be furnished with stoves and soils for the culture of bacilli" (9: 110). Leaving children "free" in a sterile room without anything aesthetically appealing is like leaving bacteria "free" in a dry icebox. All organisms require conditions of freedom in which to live as their natures dictate. Just as bacteria require heat and moisture to grow and live normally, so too human beings require beauty.

C7P18 Montessori contrasts the environments she creates for children with "schools [that] seem veritable tombs, with their desks ranged in rows like black catafalques . . . to the end that the starved and famishing spirit of the child may accept the indigestible intellectual food which the teacher bestows upon it" (9: 110). Montessori classrooms, by contrast, should "put no limits to the beauty of its environment, save economical limits," since "beauty both promotes concentration of thought and offers refreshment to the tired spirit" (9: 110; see too 8: 41–42). The connection between beauty and flourishing operates both in general and with respect to specific objects in an environment. A beautiful environment creates peace and joy conducive to free activity, and having specific beautiful materials invites work with those materials.

C7P19

> Children intuitively recognize these things . . . A little girl from one of our schools in San Francisco went one day to visit a state school and immediately noticed that the desks were dusty. She said to the teacher, "Do you know why your children don't dust and instead leave everything in a mess? Because they don't have pretty dust cloths." (8: 42)[4]

C7P20 This child articulates an insight that Montessori puts to use in designing her environments, namely that part of what attracts people to work with various materials is the beauty of those materials. We might even, consistent with its role in Montessori's philosophy, define beauty as that which is conducive to or invites toward free activity (see too 13: 287).

C7P21 The value of beauty is not limited to classrooms. Free children thrive in beautiful environments because human beings as such thrive in beautiful environments. Nature itself is beautiful—"There is no shell which does not exhibit great beauty

[4] It's striking that it doesn't even occur to this child that children might not be *allowed* to dust the desks.

and exactness" (Montessori [1936] 2008(1): 7)—and human artists also play a pivotal role in bringing beauty into the world. As we will see in Chapter 11, Montessori ascribes to human beings a task of humanizing the world, one important aspect of which is beautification: "This purpose of man is like that of a man who prepares a house for his bride. He does all he can to make the house beautiful" (17: 92).

C7P22 While human beings have in fact done much to make our earth uglier and more stale, a central part of our *task* as humans on this earth is to create beauty.

C7P23 Artists, in particular, beautify the human world. What makes "Dante, Milton, Goethe, Raphael, [and] Wagner" the magnificent artists that they are is each's extraordinary "instinct to create the beautiful with his mind; and from this instinct duly developed come all the vast treasures of art" (9: 181–182). Montessori admires these "great" artists, the "men of genius" from whom come "artistic masterpiece[s]" (9: 16–17), but she is equally concerned to promote more ordinary artists whose works make beautiful the ordinary spaces of human lives.[5] Thus she commends "the rustic art of all the Italian provinces, each of which has its special artistic traditions," traditions that make their ways into "tables, chairs, sideboards and pottery . . . textiles and characteristic decorative motifs," traditions that can "breathe new life into those moderns who seem to be suffocating under the obsession of physical hygiene" (9: 110). At another extreme, but equally tied to humans' forms of life, Montessori points out how "churches, which are *par excellence* places of meditation and of repose for the life of the soul, have called upon the highest inspirations of genius to gather every beauty within their precincts" (9: 110).

C7P24 For Montessori, beauty in all its forms involves various elements. At its most basic level, "beauty" describes the distinctive sort of attractiveness that things can have when they generate interest independent of any particular function they might serve. Beauty goes "above and beyond satisfaction of the need" for food or shelter; it gives rise to a "satisfying joy" that is the "full enjoyment of life" (Montessori [1936] 2008(2): 57). Like the "peace and inner joy" that indicate moral value in the world (18: 261; see Chapter 6, Section 6.1), so too beauty elicits a distinctive sort of joy, one that attracts toward activity. In preparing children both to recognize beauty and to create it, she fosters their "sense of color and form" (2: 302). Sensitivity to fine distinctions among colors and careful attention to structure and specificity of form enables fuller appreciation of the sensorially given world and a capacity to effectively use color and form for more subtle and refined forms of self-expression. Echoing a broadly Rousseauian aesthetic resistance against excessive luxury or baroque conceptions of beauty, Montessori affirms that "beauty is not produced by superfluity or luxury, but by grace and harmony of line and color, combined with . . . simplicity" (9: 109; cf. Rousseau [1762] 1979: 144–145, 393–394).

[5] In this attention to the art of everyday life, Montessori anticipates John Dewey's treatment of art as originally grounded in concrete life and experience. See Dewey 1934.

C7P25 Throughout, Montessori emphasizes the role of beauty in our everyday lives. Daily work is enriched by beautiful objects, and when we seek special times for "concentration of thought and . . . refreshment to the tired spirit," sacred spaces filled with beauty nourish us. Like her contemporary John Dewey's notion of art as "celebrations . . . of the things of ordinary experience" where "the nature of experience"—and thus of the aesthetic—"is determined by the essential conditions of life . . . in an environment" (Dewey [1934] 1980: 16, 13), so too Montessori emphasizes a "humanization of art" through closer attention to the role that beauty plays in the life of the human organism and the humanizing of the world (9: 110). Only in a beautiful world are human beings truly at home.

C7S3

7.3 Art and Reality

C7P26 The relationship between art and reality goes back at least to Plato's early exhortation to exclude the poets from his ideal republic because they "have no grasp of truth" and spread "lies" and "bad representations" (600e, 377d–e). "Models for speech" in Plato's ideal republic emphasize truth (and goodness), such that, for instance, "the models for speech about the gods" require that "the god must surely always be described such as he is" (379a).[6] From a different angle, contemporary "cognitivism" within aesthetics draws a close connection between the value of art and its depiction of reality, particularly in "the cognitivist thesis that artistic value does partially reside in truth or knowledge or learning" (Lamarque 2009: 127). According to the cognitivist view, even if art does not require mimetic exactness, not only should it in some way depict truth, but its value as art comes from the access to truth that it provides.

C7P27 For Montessori, as for Plato and for cognitivists, good art has an important connection with reality. Her approach to artistic realism, however, arises from her fundamental commitment to art as a practice of life. Just as in Dewey's interpretation of Keats, for whom "beauty is truth, and truth beauty" only because "truth . . . denotes the wisdom by which men live" (Dewey [1934] 1980: 34),[7] so too for Montessori art should be "true" because art is life. Like her philosophy as a whole, her philosophy of art is a philosophy of life, grounded in observations of children in conditions of freedom. Art should be beautiful because human beings are fully alive only in the presence of beauty, as Montessori learns from observing children in beautiful environments. Beauty, however, is not the only criterion of life. Life consists in part of adaptation to a world. Art that flows from and supports life must thus be firmly tied to creative activity in the real world. One of the more striking features of Montessori's aesthetics, particularly for a philosopher who claimed to

[6] Plato's views on poetry have been extensively discussed. For one brief overview, see Janaway 2013.
[7] For defense of seeing Dewey's aesthetics as cognitivist, see Freeland 2001: 166–167.

find in children the source of her philosophical insights, is her vehement rejection of unfettered imaginative activity—what she calls "fantasy"—in artistic creativity. Relatedly, while strongly endorsing the value of individual inspiration and genius, she insists that truly artistic inspiration be grounded in reality. In both of those cases, Montessori advocates a kind of artistic realism wherein "The more perfect the approximation to truth, the more perfect is art" (9: 188). Art, like all human activities, is a way in which human beings engage with the world, and the more free and healthy human beings are, the more grounded in reality their art will be.[8]

C7P28 Some of Montessori's claims about art make her seem like a particularly extreme sort of realist, one who sees the value of art primarily in terms of its capacity to copy the world or depict reality in the clearest ways possible. Her *Advanced Montessori Method* identifies excellent artists as those who "are observers of reality, knowing how to distinguish the forms and colors they see there" (13: 295). She describes how, after children acquired the basic elements of artistic skill, "the study of natural science proved to be a great help to drawing," in ways that were the "greatest surprise" to Montessori (13: 297). She gave a scientific lesson in the dissection of a flower, which the children did with admirable precision, and then when Montessori expected them to throw the materials away, instead "with great care they placed them all in attractive order on a piece of white paper" and "began to draw them" and then "began to mix and dilute their colors to obtain the correct shades" (13: 297). Here, where art and science approach each other most closely, art is realist in a particularly literal sense, and "the ability *to see reality* in form, in color, [and] in proportion is what is necessary" (13: 293, emphasis original). Art is the natural expression and outgrowth of clear and precise observation of the world, along with the ability—by virtue of being "master of the movements of one's own hand" (13: 293)—to reproduce one's observations in drawn and painted forms.

C7P29 The example of accurately painting natural objects echoes a suggestion Montessori makes in one lecture about the distinctive role artistic creation plays in representing the world. In a lecture on the "sensorial qualities of color and sound," she distinguishes between "sensorial properties" that "refer to quantity" and others that "refer to quality." Judgment of the former "is based upon mathematics" and belongs to the "scientific piece of work," while judgment of the latter "is based on sentiment, particularly artistic sentiment," and is reflected in "an artistic piece of work" (23: 9). Recalling that Montessori's empiricism is an *interested* empiricism (Chapter 5), her reference to "artistic expression" can imply a distinction between quantitative measures of a thing, which to some extent can be carried out in ways separate from an individual's actual attention to the thing,

[8] Fantastical art, like all fantasy, arises from the effort to cope with realities that do not meet one's basic human needs, either through failing to provide suitable environments or through oppression of one's free activity. For an interesting application to performing arts of this reality-oriented aesthetics, see Spatz 2015.

and the perception of the qualities of a thing, which always require at least some direct interest. Humans see color partly due to physiological features of our eyes, but more importantly because we have a natural artistic orientation toward colors. As Montessori puts it, with her characteristic pedagogical naturalism, "We know from the child's very love of color that at a certain age he has a particular aptitude for color. We all know children love colors. Generally, the love for something such as color means that same thing satisfies some inner need" (23: 13). Children reveal a natural human interest in some features of the environment—namely colors (and also sounds of certain kinds, smells, etc.)—and aesthetically pleasing objects are those that respond particularly well to that natural human interest. Consistent with her pedagogical naturalism, Montessori takes these interests in color to be empirically verified facts. Rather than speculating about why human beings are interested in color, she studies how fine-grained our interest in sensory discrimination goes, what can foster and satisfy interest in color, and what activities or further potentials it can foster or promote. Ultimately, as with all human interests, the fulfillment of attentiveness to this or that feature of our environment is "a fulcrum which sustains one's own æsthetical creation" (9: 159). Artistic objects flow from attunements generated by interests in qualities of the world, and they present qualitative properties of the world in ways especially suited to those natural interests. Children's effort to present the colors of the dissected flower perfectly reflects these general features of good art.

C7P30 While glorifying the artistry of exactly depicting the natural world, Montessori also sharply opposes what she calls *fantasy*: "the child with too much fantasy is a disturbed child" (12: 20). "Fantasy" does not refer to imagination as such; as we will see in Chapter 9, imagination is central to the maturation of children into adults because it allows human beings to extend understanding and affections beyond an immediately given sensory environment. Through the imagination, we understand distant times and places and abstract concepts and values, and the power of imagination is even "what distinguishes man from the animals" (17: 173). Accordingly, through "artistic imagination" one can "create the beautiful with his mind" (9: 182). However, to be well formed, imagination must have "a sensory basis," a connection to careful observation of reality (9: 184).

C7P31

> The insane talk of fantastic things, but we do not therefore say that they have a great deal of "imagination"; there is a vast gulf between the delirious confusion of thought and the metaphorical eloquence of the imagination. In the first case there is a total incapacity to perceive actual things correctly, and also to construct organically with the intelligence; in the second, the two things are co-existent as forms closely bound up one with the other. (9: 186)

C7P32 Many children, of course, talk of fantastic things, seemingly unconnected to the real world in which they live. For Montessori, however, this love of fantasy

unconnected with reality is a feature not of ordinary childhood, but of children subject to oppression or intellectual starvation. The tendency to "live in a world of fantasy . . . not in the real environment, but in their own ideas" is a consequence of being "wrongly developed" through "shock or injury" (17: 140, 139). It is incumbent upon artists as much as upon scientists to remain focused on truth:

C7P33 > Man is guilty of a like sin against the intelligence when he employs his creative activity of thought for its own sake, without basing it upon truth; by so doing he creates an unreal world, full of error, and destroys the possibility of creating in reality. (9: 180)

C7P34 When children are provided with a rich environment and the freedom to engage in real creation, not only does "their naughtiness disappear without correction" but "the great love of fairy tales disappears too" (17: 188). Montessorian artistic realism rejects fantasy in favor of an artistic imagination thoroughly grounded in careful attention to the real world.

C7P35 While praising scientific drawing and condemning fantasy unmoored from reality, Montessorian artistic realism is more subtle than mere representational accuracy. Perfectly accurate drawing and paintings are only one example Montessori offers of art, and they are not her primary examples even of realism. In *Spontaneous Activity in Childhood*, she lays out a sustained defense of the seemingly Platonic claim that "truth is . . . the basis of artistic imagination," culminating in a comparison of two Italian love poets, Dante Alighieri and Guido Guinizelli. As poems, of course, these artworks do not manifest literal representational accuracy in the way that paintings or even prose descriptions do, and as love poems, they express a deeply felt and individual feeling.[9] Nonetheless, Montessori insists that the difference between "Dante's sublime sonnet," which "must certainly have touched the heart of Beatrice profoundly," and Guinizelli's "clumsy and bombastic" sonnet is that the former is grounded in "the true basis of the imagination," namely, "reality" and "exactness of observation," while the latter gives itself over to "inappropriate and exaggerated metaphors" (9: 188–189). Montessori compares the case to that of "someone who wants to pay us a compliment":

C7P36 > If this is founded upon one of our real qualities and touches it closely, we feel legitimate satisfaction, because what has been said is relevant and we may conclude that the person *has observed us* and feels a sincere admiration for us . . . But if the complement praises us for qualities we do not possess, or distorts or exaggerates our true attributes, we think [of it] with disgust. (9: 188, emphasis original)

[9] Given their emotional charge, they would be paradigmatic of the sort of poetry excluded from Plato's republic.

C7P37 Montessori's point is not that artists must match every color and hue to perfectly fit what is found in the world, as did the children painting the plants' parts. Rather, her point is that imaginative constructions are built on real experiences.

C7P38 She repeatedly illustrates her artistic realism with reference to the poetry of Dante, arguably among the most fantastical of poets. Dante's detailed levels of Hell are filled with monstrous demons like "that filthy effigy of fraud" with the "face of a just man . . . his trunk the body of a serpent . . . two paws, with hair up to his armpits, his back and chest . . . adorned with twining knots and circlets" (XVII.7–15). Montessori cites various examples of figurative descriptions from his *Divine Comedy*, such as these:

C7P39
> As doves
> By fond desire invited, on wide wings
> And firm to their sweet nest returning home,
> Cleave the air, wafted by their will along;
> Thus issued from that troop where Dido ranks,
> They, through the ill air speeding.

C7P41
> And as a man with difficult short breath
> Forespent with toiling, 'scaped from sea to shore,
> Turns to the perilous wide waste, and stands
> At gaze; e'en so my spirit, that yet fail'd
> Struggling with terror, turn'd to view the straits
> That none hath passed and lived.

C7P42 (Carey's translation of Dante's *Inferno*, Cantos V, I; quoted in 9: 184–185)

C7P43 These examples depict fictional events of Dante's descent into Hell, and make use of imagined scenes of doves and sailors, but they are "realist" in several respects. The poetry depicts scenes with attentiveness to real details of how doves fly and sailors feel, and the careful word choices both describe the everyday experiences (how a dove's wing "cleaves the air") and evoke sentiments corresponding to the mood Dante seeks to create. The poem is "realist," too, in setting up an experience commensurate with the subject matter Dante discusses. As he enters into a poetic exploration of the most dreadful of conditions—the descent into Hell itself—he evokes a scene that in its content and the poetic form of description invites dread in his readers. As Montessori explains,

C7P44
> Dante's metaphors are profuse and marvelous, but every lofty writer and every great orator perpetually links the fruits of the imagination with the observation of fact; and then we say that he is a genius, full of imagination and knowledge, and that his thought is clear and vital . . . Imagery is confined to actual figures; and it

> is this measure and this *form* which give power to the creations of the mind. The imaginative writer should possess a rich store of perceptive observations, and the more accurate and perfect these are, the more vigorous will be the form he creates. (9: 185–186)

C7P45 Art depicts reality, even if it does not "copy" reality.

C7P46 Finally, works of art can and should flow from what we might call a "love of reality." Love is always a part of attentive observation of our world, and what Montessori says of children could just as well be said of artists:

C7P47

> It is indeed a form of love that gives them the faculty of observing in such an intense and meticulous manner the things in their environment that we, grown cold, pass by unseeing. Is it not a characteristic of love, that sensibility that allows a child to see what others do not see? That collects details that others do not perceive, and appreciates special qualities, which are, as it were, hidden, and which only love can discover? It is because the child's intelligence assimilates by loving, and not just indifferently, that he can see the invisible. (22: 84)

C7P48 Dante's love of doves was necessary for him to see their flight in detail sufficient to create his powerful metaphors. But love of reality also motivates the creation of art. As the children grew in knowledge and love of the flower they dissected, they burst forth into artistic activity. As Elaine Scarry has noted in a different context, beauty inspires a "momentum towards replication" (Scarry 2001: 6–7). Not only does art draw *material* from reality, it also draws *motivational power* from a love of reality. Dante's love of Beatrice inspired his sonnet, his love of God inspired his *Divine Comedy*, and all artists express their love for reality in their creative work.

C7S4

7.4 Art, Character, and Genius

C7P49 From the time of Plato, artists have often been seen as "inspired," filled with some special gift unique to themselves (see especially Plato's dialogue *Ion*). After Immanuel Kant described "genius" as what is essential to the creation of beautiful fine art (see Kant 1900–, 5: 307–320), philosophers came to see artistic genius as fundamental to the work of art; increasingly the "idea of art as fundamentally mimetic is . . . displaced as the claim of freedom (imagination, creativity) asserts itself," and we get the notion that "the artist imitates not things but nature's creating, which forms the core of the idea of artistic genius" (Bernstein 2003: xviii). In German Romantics such as Schlegel, "the lives of artists should differ completely from the lives of other men" through a sort of "self-sufficiency" that "is radical, is original," and that ultimately manifests the "fresh strength and health" of the truly

"spiritual man," for "only the spiritual man has a spirit, a genius" (Schlegel [1800] 2003: 266–267).

C7P50 Like her Romantic predecessors, Montessori emphasizes that art always goes beyond what is simply given in order to express a spiritual reality of the artist himself:

C7P51

> In addition to the work of observing material reality, there is a creative work which lifts man up from earth and transports him into a higher world which every soul may attain, within its individual limits. (9: 182)

C7P52

> The ability *to see reality* in form, in color, in proportion, to be master of the movements of one's own hand—that is . . . necessary. Inspiration is an individual thing, and when a child possesses these formative elements he can give expression to all he happens to have. (13: 293)

C7P53 In both of these passages, Montessori *starts* with an emphasis on the reality orientation of art but then shifts to discuss what each individual brings to the process of art-making. Similarly, after pointing out how early exercises in drawing cultivate fine motor skills, Montessori adds that they also provide "a foundation for, and component of, art and drawing *in the proper sense of the word*," where art in this proper sense is an "*expressive* drawing" (2: 299–300, emphasis added). Genuine art is never *merely* a representation of reality; it is always also a self-expression of the artist. Consistent with early Romantics and others, Montessori connects this individual capacity for artistic self-expression with "genius."

C7P54

> The value of imaginative speech is determined by these conditions: that the images used should be *original* . . . The artist "imagines" his figure; he does not copy it, he "creates" it. But this creation is in fact the *fruit* of the mind which is rooted in the observation of reality . . . The artist, when he creates . . . in the ardor of inspiration . . . sees the complete *new figure*, born of his genius. (9: 186–187)

C7P55 Reality gets taken up, re-presented, and created anew by the artist's distinctive genius. As noted in Chapter 5, all perception of the world is individual in that each person sees the world based on their own interests and susceptibilities. But an artist takes those observations and "see[s] the external world about a fulcrum which sustains one's own æsthetical creation" (9: 159). Art in the proper sense of the word, for Montessori, must be not only grounded in reality but also a form of one's own unique self-expression.

C7P56 In that way, artistic creativity fulfills one of humans' highest impulses, the impulse toward self-expression (cf. Dewey [1934] 1980: 58–105). In describing the early history of art, Montessori describes, with a nearly religious reverence, how

C7P57

> the astonishing colored drawings of animals in motion painted on the walls of caves by primitive men show us that an artistic genius for drawing has existed from man's very beginning. But those beautiful drawings were not simply a manner of [mundane] expression or a means of communicating pleasant ideas. They are rather . . . expressions of religious ideas.[10] Briefly, the instinct for self-expression looks for a means to manifest itself; and this may be in at least one of two different way . . . through writing . . . [or] through representative art. (2: 302)

C7P58 Humans have an innate need for self-expression, to make ourselves real in a social context, and eventually to transform the world such that the world expresses who we are (see Chapter 11). "Self-expression" here is not a matter of communicating one's needs or some pragmatic information, but rather a sort of religious impulse, a need to see oneself made real in the world of things and in the experiences of one's companions.

C7P59 This emphasis on self-expression resonates well with Romantic themes surrounding genius, as does Montessori's claim that "life itself is the only preparation for drawing" in that "once we have lived, the inner spark of vision does the rest" (13: 294), with its suggestion that genius is something that springs up from the life of the artist. However, Montessori's overall tone emphasizes attunement to reality more than many genius-oriented approaches to art, and she would likely resist at least some of the "trope of excess" (see Spatz 2013: 56–58) that often characterizes accounts of artistic genius. Most importantly, Montessori insists on a robust and thick conception of freedom at the heart of the freedom of the artistic genius. The genius is one "whose mind has just conceived the ideal image which it is necessary to fix upon the canvas" (9: 17). This genius has a vision grounded in attention perception of reality and also a vision *of* a sort of higher reality, a vision that needs to be painted properly. Rather than "free drawing" in the sense Montessori rails against in "modern education" (see 13: 294), the artist draws with the freedom of one with character, a freedom that seeks to do a task *well* toward increasing *perfection*, and that is willing to do the hard work of performing that task.

C7S5

7.5 Art, Morality, and Character

C7P60 Art, while responsive to reality, expresses the genius of the individual artist. At the same time, art has an important connection to human *moral* life. Erica Moretti has drawn attention to a critique Montessori offers of her predecessor Séguin (see Chapter 2, Section 2.6), namely, that "Séguin had 'forg[otten] the moralizing action that . . . could originate from . . . art" (Moretti 2021: 52; quoting from Montessori

[10] Montessori might include supernatural religious ideas in the scope of religion here, but her discussion seems rather to see the relevant "religion" as the carrying out of the instinct for self-expression.

1902: 17), and Tiziana Pironi has shown how Montessori's interest in beautiful places and objects for children shares with Ellen Key a commitment to fostering children's individual characters (Pironi 2017: 112–114). Montessori's description of churches that "gather every beauty" in order to be "places of . . . repose" (9: 110) might seem to support an instrumentalist conception of art in the service of morality. In fact, however, art has a more intimate and even constitutive relationship with morality by virtue of the close connection between art and character.

C7P61 In Chapter 6, I emphasized the centrality of character understood as a tendency to pursue and persist in norm-governed work that one chooses for oneself, and I showed how character is related to various other moral goods, most notably respect and solidarity. Here, it is worth highlighting how character essentially just *is* a sort of inspired creative activity. In describing children's character, Montessori explains how "the child is deeply and wholly concentrated. His entire intellect is at work" (13: 305). The intense engagement in which character consists finds expression in artistic creation: a child will persist, "follow[ing] out their artistic ideas for days and even weeks" (13: 305).[11] Character is also closely related to Montessori's account of the nature and value of artistic creations because individual character lies at the heart of artistic genius; only someone who *is* themself, who pursues work because they choose it for themself, can be an artist who *expresses* themself in that work. In that way, character is necessary for true art, and the instinct toward artistic expression is naturally present in those with character. This interrelation between character and genius flowed from Montessori's careful observations of the ways in which children in conditions of freedom engaged with artistic processes, where they found fulfillment, and what roles art played in the development and expression of character.

C7P62 The work with metal insets, discussed in Section 7.1, nicely illustrates how artistic skill and creativity go together. The structure of the material fosters concentration of attention. It takes work to hold the metal frame (and then the inset) steadily, and the young child's hand must carefully trace the inside of the shape. This attention also quite directly uses both mind and body, especially the hand. What engages the attention of the youngest children is precisely the disciplining of the hand by the mind, the effort—at first—to hold frame and pen steady and thereby reproduce the proper shape, and eventually, to color within the lines and

[11] The degree of this concentration can vary considerably depending upon the kind of art children are engaged in, such that often "copying some design" can be "a work of application" that "clarifies and rests the mind instead of rousing it to intense activity" (13: 287). This sort of activity does not particularly exercise character, but it keeps his mind "sufficiently stimulated . . . as not easily to wander away into the world of dreams" (13: 287), so this sort of artistic work is best accompanied by "the reading of books" to the children (13: 287, 288). Strikingly, traditional "free drawing" does not serve either of the valuable roles that art can have for concentration. Because it lacks clear criteria for success, it cannot directly engage the full concentration of the child to the degree that more reality-governed art can. And the nature of the freedom of "free drawing" invites children to engage their imaginative capacities on the art itself, so rather than leaving them free to listen to the reading of books, they are distracted by their dreams.

in finer and finer strokes. The result is a "hand that has been trained to the most delicate movements" and of which "the children are masters" (13: 312), and thus a child who has at least the manual competence—the manual autonomy, we can even say—to draw "freely" (cf. 2: 303). Moreover, this concentrated attention is autonomous. The materials themselves attract children's interest; they are "arranged in an attractive line" and produce "very attractive" results. The word "attractive" here is both aesthetic and motivational; the child takes "keen interest" in this work (Montessori 1914: 87–88). Moreover, throughout, the work is guided by the choices of child; he will "choose one of the ten metal insets" and "choose the colors by himself." The autonomy of the child, however, is governed by normative standards; children make progress in drawing by developing more precision in tracing the shapes and relating them to one another, and this progress can be measured independently as there is a clear overlap or disconnect between the shapes traced with different colors.

C7P63 In contrast to the metal insets, those who leave children to "free drawing" are, like those who abandon bored children to "do whatever they want," not facilitating freedom but stunting it.

C7P64

> Such things [the results of so-called "free drawing"] are not "free drawings" by children. *Free drawings* are possible only when we have a *free child* who has been left free to grow and perfect himself in the assimilation of his surroundings and in mechanical reproduction; and who when left free to create and express himself actually does create and express himself. (13: 294)

C7P65 The character of the true artist is true character, not lawless freedom but persistent work toward various perfections and ideals. The metal insets allow for a development, from an initial careful copying that perfects manual and sensory skills to beautiful and original geometric patterns made from combining insets in new ways, and eventually to even more creative forms of expression that flow from an individual genius responsive to reality.

C7P66 The manifestation of character in artistic expression is not merely instrumental. Art is not merely an outlet for character or a way of cultivating character. Rather, just as making choices freely cultivates character because it *is* character, so too artistic creation *is* character made real in the world. And when Montessori rejects so-called artistic creation unconnected to reality, she does so because "by so doing [the artist] creates an unreal world . . . and destroys the possibility of creating in reality, like a god, producing external works" (9: 180). Creating *real* art, art that expresses one's self into the real world, raises humans to their highest heights, making us almost godlike. For some, this creative work may be scientific research or voyages of discovery rather than what is typically seen as "art," but each human life ultimately requires satisfying one's "instinct for self-expression" through transforming one's world, through "add[ing] a point to the circle of perfection

which fascinated him and drove him to action" (1: 191). Not only is art not merely a means to knowledge, but knowledge itself has value only as "a fulcrum which sustains one's own æsthetical creation" (9: 159). However valuable it might be as a means for promoting knowledge or morality or other human goods, artistic creation in this broad sense is ultimately the point of human life on earth.

C8

8
Philosophy of Religion

C8P1 Both religious and non-religious readers of Montessori's texts may initially be put off by her attitudes toward religion. On the one hand, some of her contemporaries found her scientific and humanistic orientation to be anti-religious, such that the term "pedagogical naturalism," which I have used in a positive way throughout this book, was initially an accusation, made by religious authorities, suggesting that Montessori excludes religion and spirituality from her pedagogy. On the other hand, many today are accustomed to secular norms within academic philosophy and most educational discourse, norms not unfamiliar to Montessori herself, who complained about "the dominant political party in the municipalities [which] has abolished religion from the public schools with a sectarian rigor, which causes the word 'God' to be feared as [religious] bigots fear the word 'devil' " (9: 262). Those accustomed to secular spaces can find disturbing Montessori's regular invocation of Christian scriptures, her openness about her own Catholicism, and her free mixing of spiritual imagery with scientific argument.

C8P2 Unsurprisingly, then, one of the more vibrant current debates about Montessori's thought relates to the role of religion, and in particular Catholicism, in her philosophy. Views range from those that describe "the religious and Christian sensibility of Montessori" (Honegger Fresco 2018: 112; see too De Giorgi 2013, 2018, 2019) to others that emphasize a "series of open conflicts with the Catholic Church" (Romano 2020: 204; cf. Moretti and Dieguez 2018, 2019; Foschi and Cicciola 2019) or others that claim "Montessori was a theosophist" (Wilson 1985). Speaking of two of the leading scholars of Montessori in Italy, Giacomo Cives helpfully describes "the interpretation of Montessori's [religious] thought . . . in De Giorgi and Foschi . . . [as] fundamentally dialectical, in a primarily Catholic key for the former and secular for the latter" (Cives 2014: 123).[1] Some debates are

[1] Elsewhere, Cives presents his own answer to the question, "How important was the religious sentiment for Maria Montessori?":

> Montessori had a strong spirituality, which was expressed especially in frequenting the Roman Franciscan Sisters of Mary in the via Giusti. However, her Christianity, nourished by reading the Gospels, was *sui generis*. Suffice it to say that her rejection of punishment and of original sin put in crisis the theological system of Catholicism. Also, the modernism to which . . . she was attracted was drastically condemned in the *Pascendi* of [Pope] Pius X. Thus we understand the failure of her attempts, especially in Spain, towards an adaptation of the liturgy that valorized the centrality of the child. In this way . . . relations with the Roman [Catholic] Church were, at least for the time, truncated, starting with the condemnation in *Divini Illius Magistri* of Pope Pius XI . . . (Cives 2019: 229–230)

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essentially biographical, such as whether Montessori was a practicing and faithful Catholic or how deeply she was committed to the ideals and organization of the Theosophical Society. To some extent, however, the concerns are philosophical and theological. Such concerns include questions about how much her philosophical ideas derive from religious beliefs and whether they are consistent with this or that religious tradition (particularly Catholicism). They also include what, if anything, Montessori can contribute to the philosophy of religion or Christian theology.[2]

C8P3 This chapter starts with Montessori's relationship to Catholicism and theosophy (Section 8.1) and then shows how her metaphysics and moral philosophy do not depend on God's existence but make room for enrichment by theism. I then discuss how Montessori's philosophy can contribute to contemporary philosophy of religion through her approach to the sensus divinitatis and the hiddenness of God (Section 8.3) and her notion of religion as an embodied form of life.

C8S1 ## 8.1 Catholicism, Theosophy, and Religious Diversity

C8S2 ### 8.1.1 Montessori's Catholicism

C8P4 Montessori was baptized as a Roman Catholic on April 3, 1870, buried in a Catholic cemetery on May 6, 1952, and attended Catholic mass throughout her life (see De Giorgi 2013: 81; Fresco 2018: 19). In 1901, just before going back to the University of Rome to study philosophy, she considered the possibility of joining the Handmaids of the Sacred Heart, a religious order dedicated to education, but the head of that order told Montessori, "This method is the work the Lord wants from you" (De Stefano [2020] 2022: 70). Several of her closest students and followers converted to Catholicism, at least in part through her influence (see De Stefano [2020] 2022: 206, 238, 296, 302). In her early years, she formed a collaboration with Franciscan Missionary Sisters of Mary to teach Montessori classes at their convent, and starting in 1916, she oversaw a school in Spain that was specifically focused on Christian education. In an important letter to Cardinal Pompili written in 1917, Montessori makes explicit both her commitment to the truth as articulated in Catholic doctrine and the ultimately spiritual basis of her life's work:

C8P5 > [W]hatever error may have been found in [my method,] I am ready to correct it, because I believe that all the truth is in the Catholic Church, and that whatever is

[2] I am not a theologian and do not address features of Montessori's thought that contribute specifically to Christian theology, but for an excellent discussion of these features, see Carnes 2015.

contrary to it is certainly an error, the repercussion of which would fall back on the destiny of humanity.

C8P6 Nevertheless, I believe that not only in my sentiments is there nothing against the truth of the Church, but if there has appeared in any of my writings anything which seems against it is an error of expression, and involuntary error which I would immediately withdraw. Furthermore, I am convinced that it is precisely my religious faith which has inspired me in my method, which I had indeed taken from the church.

C8P7 I believe that this method of education is an instrument placed by God in my hands; and that God showed me this instrument and placed it in my hands for His own ends.[3]

C8P8 Not only does Montessori claim that her philosophy as a whole is inspired by her faith, but over the course of her life she also published material with a distinctively Catholic focus, such as "The Mass Explained to Children" (Montessori 2007–, v. 19) and "God and the Child" (Montessori [1929] 1965: 3–20), in which she notes that, for instance, "God has fixed the manner of conception, development, and birth . . . [T]he principle part of man, his soul, does not come from man at all, but is created directly by God" (Montessori [1929] 1965: 13) and that "supernatural growth is linked up with the use of the means which God Himself has determined, of which the sacraments and prayer are the most important" (Montessori [1929] 1965: 15). Unsurprisingly, Montessori regularly sought the approval of the Catholic hierarchy for her educational method. She requested an audience with the pope on several occasions; in 1918, Pope Benedict XV granted her a private audience and a sort of benediction on her *Method*, welcoming her works into the Vatican Library (Giovetti 2009: 75). Many years later, Pope John XXIII gave a strong Catholic endorsement of Montessori's method:

[3] From an extract of a letter by Maria Montessori to his Excellency Cardinal Pompili, 1917, transcribed by C. M. Standing, located in the Standing archive at Seattle University in Seattle, Washington. Montessori says something similar in a letter to Padre Pietro Tacchi Venturi, affirming that she endorses Catholic teaching and adding,

> If some word, some expression may make one believe the contrary, it is a personal error of mine, an error of exposition owing to the scientific language in which I was educated and trained. (I studied in the most acute era of materialism; my mind was shaped by the doctrines of Darwin. I studied physiology with the famous materialist Moleschott.) That scientific language is like my mother tongue, and some involuntary accents of it are still with me. (Montessori letter to Padre Pietro Tacchi Venturi, September 23, 1917, in "Maria Montessori e le sue reti di relazioni," in *Annali di storia dell'educazione e delle instituzioni scolastiche*, 25 (2018), Brescia: Marcelliana, 37–42; 42.)

See too De Stefano, who rightly notes that Montessori "reiterates that her faith is strong and that the Catholic hierarchies need not fear her image as a progressive scientist nor the positivist tone of her writings" (De Stefano 2022: 222).

C8P9

> It is possible to see a clear analogy between the mission of the Shepherd of the Church and that the of the prudent and generous educator of the Montessori method, who with tenderness, with love and with a wise evaluation of gifts, knows how to discover and bring to light the most hidden virtues and capacities of the child. (Cited in Montessori [1929] 1965: v)

C8P10

Nonetheless, throughout her life, there was also significant resistance to her philosophy by prominent leaders in the Catholic Church, particularly among its anti-modernist wing (see Di Giorgi 2013: 47–48 and passim). Perhaps the most serious confrontation came with Pope Pius XI's encyclical *Divini Illius Magistri* (*On Christian Education* (Pius XI 1929)), which some interpreted as an attack on her pedagogy (see Scocchera 1997; De Giorgi 2013: 56; Cives 2014: 129–231).[4] Much of that encyclical reflects views that Montessori shares, such as the insistence that "the subject of Christian education is man whole and entire, soul united to body in unity of body, with all his faculties natural and supernatural, such as right reason and revelation show him to be," but the pope criticizes several features of "pedagogic naturalism" central to Montessori's thought. Against Montessori's faith in the guiding instincts of the child, the pope affirms "original sin," whereby we lack "perfect control of bodily appetite" (Sec. 58) and thus require "the rod of correction" because "disorderly inclinations must be corrected [and] good tendencies encouraged and regulated from tender childhood" (Sec. 59). Against Montessori's efforts to develop a universal philosophy acceptable to people of all and no faith, the pope excoriates "educators and philosophers who spend their lives in searching for a universal moral code of education, as if there existed no decalogue" (Sec. 61). And against Montessori's efforts to apply scientific pedagogy to improve religious catechesis, the pope rejects as "false, irreverent and dangerous" the claim that we can "submit to research, experiment and conclusions of a purely natural and profane order, those matters of education which belong to the supernatural order" (Sec. 64).[5] This papal encyclical marked a high point in the anti-modernist

[4] Many claim that Montessori herself interpreted this encyclical as targeting her (e.g. De Giorgi 2013: 56), a claim based on a speech Montessori delivered at the opening of the 15th International Course in 1930, shortly after the encyclical was released. In that speech, Montessori contrasts her own approach with that of "the wise men of the past . . . such as . . . Solomon, who said: If you do not chastise the child will be the cause of his perdition" (Montessori 1930: 34). Given the pope's explicit invocation of a similar passage from Solomon's Proverbs—"Folly is bound up in the heart of a child and the rod of correction shall drive it away"—(Proverbs 22: 15; quoted in Pius XI 1929: Sec. 59), Montessori could be referring to his criticisms of modernist methods. However, the invocation of Solomon's Proverbs to defend disciplinary regimes of raising childhood is hardly distinctive of the papal encyclical, and given Pius's own nuanced reading of this passage, there is no reason to think that Montessori, in this particular speech, took the pope's encyclical as a critique of her method.

[5] The pope also warns against "another very grave danger," namely "that naturalism which nowadays invades the field of education in that most delicate matter of purity of morals" in "so-called sex-education" (Sec. 65). For more on how Montessori's outspoken advocacy of sex education (see Montessori 1912a) relates to Catholic teaching at the time, see Babini and Lama 2000: 238–253; Moretti 2021: 262n97.

Catholic reaction against Montessori's thought, and particularly against her methodological naturalism, apparent rejection of original sin, and efforts to work out a universal, not specifically Catholic, pedagogy.

C8P11 Among commentators, assessments of Montessori's relationship with Catholicism have ranged from what De Giorgi describes as a "dark legend" of a "secular, naturalist, anti-Christian, theosophical Montessori" to the view of some her early religious collaborators, who claimed to "positively know that Montessori is . . . a practicing Christian, that she leads a most pious life, that she often goes to Mass and receives Communion" (De Giorgi 2013: 5–6; De Stefano [2020] 2022: 151; see too De Giorgi 2013: 81).[6] While De Giorgi, and some of Montessori's Catholic contemporaries, saw the prospect of a secular and naturalist Montessori as something negative, other Montessori scholars today emphasize her secular orientation as a positive feature of her view, a "safeguarding of secular freedom from invasions of any kind" (Cives 2014: 135). Marcello Grifò rightly notes that in her ardent feminism and political advocacy, "Montessori appeared . . . very far from that model of feminine Christianity incarnated in [her contemporary] the Countess Elena da Persico, dedicated to philanthropy and obsequious to the instructions of the hierarchy" (Grifò 2018: 189). Paolo Giovetti's intermediate view acknowledges that Montessori was a practicing Catholic but adds,

C8P12

> She never completely adhered to Catholic doctrine, of which she did not accept the doctrine of original sin, which seemed incompatible with the purity of the children, who had nothing to forgive. She also did not accept the idea of an authority that rewards and punishes. (Giovetti 2009: 59; see too similar views in Cives 2019: 229 and Quarfood 2022: 194)

C8P13 At a personal level, Montessori's Catholic faith was clearly an important part of her life, but she was unwilling to compromise what she thought God revealed to her through children, even when opposed by anti-modernist Catholic forces. For developing her philosophical views, she also freely drew from science and particularly from her pedagogical naturalism, and freely advocated for the rights of women and children, even when resisted by Church authorities.

C8P14 While some of the issues relating to Montessori's Catholicism are essentially about her personal faith, Giovetti and Cives both highlight the Catholic dogma seemingly most at odds with Montessori's philosophy, that of original sin.[7]

[6] Importantly, the passage goes on to emphasize both her deep roots in science—"they fervently hope she will be one more scientist that the study of science has brought to the faith" (De Giorgi 2013: 81; De Stefano 2022: 151)—and her specifically pedagogical naturalism with its focus on the child, as they note that she seeks to "conform her educational method, *which arose from a profound observation of childhood*, to the teachings of the Church" (De Giorgi 2013: 81, emphasis added).

[7] With respect to the other doctrine Giovetti and Cives highlight, namely "the idea of an authority that rewards and punishes" (Giovetti 2009: 59), there is no evidence that Montessori rejects this idea. While she emphasizes that we should not forget "the admonition of Him who said, 'judge not'," she nowhere denies that God rewards and punishes. Instead, she consistently rejects that *we*—adults and

According to Catholic teaching, human beings inherit from our first ancestor Adam "a sin with which we are born afflicted" which is "a deprivation of original holiness and justice" whereby "human nature has not been totally corrupted" but "is wounded in the natural powers proper to it, subject to ignorance and inclined to sin" (Catholic Church [1993] 2000: Secs. 403,405; see too Pius IX 1929: Sec. 58). For Montessori's anti-modernist critics, her emphasis on following and learning from children in conditions of freedom suggested that she saw children as essentially pure and uncorrupted. Her attention to social and environmental conditions of moral deficiencies suggested further rejection of an inherited propensity to sin.

C8P15 However, in a lecture entitled "Original Sin" presented in London in 1919 or 1921 (see De Giorgi 2019), Montessori explicitly affirms the Catholic view that each child has a "weakness and liability to fall which is found in his soul, struck as also our own by original evil," and she describes her own work as an effort "to second with education the redeeming grace due to Christ, in order to try to bring man back within the limits of the original plan" (De Giorgi 2019: 80, 79). As a practical matter, Montessori sees the doctrine of original sin in children as one that teachers ought not preoccupy themselves with. Too many teachers are

C8P16

> occupied with "the wicked tendencies of the child" and "how to correct its naughtiness" and "actions dangerous to the soul, caused by the remnants of original sin which are in the child," etc. Instead of this, she should begin by looking for her own bad tendencies and defects—"First take out the beam that is in your own eye . . . " (Montessori [1929] 1965: 46)

C8P17 Likewise in her lecture on original sin, she emphasizes adults' tendency to "say that the child is doing wrong when he does something which bothers us or which changes the routine of those habits in which we rest and find our well-being" (De Giorgi 2019: 76).

C8P18 Montessori describes her pedagogical naturalism, in broadly theological terms, in terms of the *relative* innocence of children. Even if they are affected by original sin, children lack the habitual sin present in adults: "between us [adults] and the baptized child, there lies the distance created by our sins" (De Giorgi 2019: 78). Moreover, children have a special connection with God: even the non-baptized "child is more or less free from sin. Not only is a child, compared with ourselves, purer, but he has certain pure, occult, and mysterious qualities, generally invisible to adults, in which however must faithfully believe because our Lord spoke of them with such clearness and insistence" (Montessori [1929] 1965: 46). Finally,

teachers—have the rightful authority to administer rewards and punishments. Her argument against *our* authority is based partly on God's authority, partly on the presence of original sin in children, and primarily because of the presence of sin within the adults who claim authority as judges (see De Giorgi 2019: 80–81, 78–79).

Montessori argues that the best way to *address* original sin in children is through promoting contexts within which what is good in children can grow, rather than trying to attack what is bad in them. She tells a beautiful parable of a wheat field within which there are both good and bad seeds, but when conditions are healthy for good seeds, the bad remain dormant while the good grow. So too, she says,

C8P19

> It happens with the soul somewhat as it happens with the wheat field and the meadow . . . There will not be a good harvest merely by exterminating the bad . . . The surest way of keeping down the bad seed is to encourage the growth of the good . . . The key to the problem is not to destroy evil but to cultivate good. (Montessori [1929] 1965: 53)

C8P20 Children are not wholly pure; they have natural tendencies that can lead to sin. But original sin merely wounds our natural powers; it does not wholly corrupt them. The proper role of the educator is to create contexts within which natural powers develop in a healthy way; and the proper role of the philosophers is to observe what children disclose when their good natural powers are able to grow and flourish.[8]

C8P21 This shift of focus away from supposed sinful tendencies on the part of children comes along with a fervent reiteration of *adults'* original sin: "We have within our souls numerous bad tendencies which develop like weeds in a meadow, the result of original sin" (Montessori [1929] 1965: 46). Even in writings with a broader audience, she regularly points out the dangers of human vice, such as "anger," which often expresses itself toward children without the "social check" that limits anger toward those with more power: "Anger is one of those sins that are held most easily in check by the strong and determined resistance of others . . . We therefore find a real outlet in meeting persons unable to defend themselves . . . such as children" (22: 94, 96). Montessori not only calls these tendencies "sins" but even describes them as outgrowths of "original sin" (22: 93). She exhorts teachers to recognize their own sinful tendency to be "inclined to see evil [in children], so that they may check it at once" and commends instead "a sensibility capable of seeing good wherever it may be found, even if it is something small and hidden away" (Montessori [1929] 1965: 50, 51). Far from denying original sin, Montessori's philosophy

[8] She contrasts this approach both with those who impose false adult values on children and with those whose excessive optimism prevents them from making moral judgments:

> we must not confuse this kind of charity with vague forms of optimism. It does not make us regard all things as good, but only what is really good and on that account, to be clearly distinguished from evil . . . The kind of goodness to which everything seems good, and evil nonexistent, is, therefore, something totally different from the charity which is needed in good teachers of the young. (Montessori [1929] 1965: 51)

As noted in Chapters 1 and 6, Montessori's pedagogical naturalism requires moral discernment in which one remains open to revising values in the light of revelations by free children in health environments, but one should not merely accept what one happens to find as what is good.

emphasizes that human beings are drawn toward sin, and she uses this claim in order to convict adults of their own oppressive tendencies.

C8P22 Beyond shifting the focus from children's supposed sin to that of the adults who oppress them, some of Montessori's writings suggest a distinctive way of articulating the *nature* of original sin. According to Catholic doctrine, such sin is universally inherited by all human beings, but precisely *how* we inherit "original sin is a mystery that we cannot fully understand" (Catholic Church [1993] 2000: Sec. 404). Many modern interpretations of original sin take this transmission of sin to be biological, as though something in Adam's genes is passed on to all of his descendants. Montessori entertains an alternate view. Natalie Carnes has rightly argued that "Montessori has an understanding of original sin and the sinfulness of children" and has also gone further to show how "she offers a sophisticated account of original sin precisely because she attends to children" (Carnes 2015: 334).

C8P23

> Young children, she observes, are porous. They naturally absorb the environment and then come to resemble our sin-filled world as sin is passed environmentally by the oppression of the marginalized and particularly the oppression of children by adults. She is thus able to articulate the way we are responsible for sin (we adults create the environment) and yet how such sin is beyond us (children absorb such sin before they can choose it and so create deficient adults to create this deficient environment). (Carnes 2015: 334–335)

C8P24 Not only does Montessori not reject the Catholic doctrine of original sin, she at least arguably contributes to a more sophisticated understanding of it, precisely through her pedagogical-naturalist emphasis on learning from children.

C8P25 Overall, then, Montessori was a Catholic heavily influenced by philosophical naturalism and positivism. Her philosophy emerged in part from her Catholic faith, but she intentionally crafted that philosophy in order to make it consistent with a range of different religious and non-religious views. At the same time, she also articulated specifically Catholic variations of her method and applied her pedagogical naturalism to specifically Catholic contexts and concerns.

C8S3

8.1.2 Montessori and Theosophy

C8P26 According to official records in the archives of the Theosophical Society in Adyar (India), Montessori registered as a member of the European branch of the Theosophical Society in March of 1899 (Giovetti 2009: 35). She likely attended a conference with Annie Besant—a leader in the Theosophical Society—in London in 1907 (see Wylie 2008: 53; De Giorgi 2013: 77–78). In 1939, she went to India at the request of the Theosophical Society in Aydar. Initially planning on a three-month training course, she and her son were confined by the British for

the duration of World War Two, which she spent under the protection of George Arundale and Rukimini Devi, the heads of the Theosophical Society. Some of Montessori's most important works, including *The Absorbent Mind* and *The Formation of Man*, were written in India and first published by the Theosophical Publishing House in Aydar.

C8P27 In contrast to the mixed response to her philosophy among Catholic thinkers, theosophists widely embraced Montessori's method and ideas. An article entitled "Dr. Montessori's Ideals," by Rukmini Devi, one of the leaders of the Theosophical Society, notes that Montessori saw parallels between her ideas and those of Helena Blavatsky, the founder of theosophy: "Madame Blavatsky wrote many good things about education. Madame Montessori had read them and was surprised that so long ago there were already educational ideals so similar to her own" (Devi 1946: 29, as quoted in Giovetti 2009: 38–39). Nonetheless, and despite her earlier enrollment as a member, when asked explicitly, at the age of 77, whether "she had become a theosophist," Montessori replied, "I am a Montessorian."[9]

C8P28 Paola Giovetti extensively documents Montessori's time among theosophists in India, as well as numerous important parallels between theosophy and Montessori's thought. Both Montessori and Blavatsky saw education as central for the reform of humanity, and both emphasized the "latent powers of man" (Giovetti 2009: 35). Like theosophists, Montessori embraced in her vision all of "humanity, without discrimination by race, creed, sex, caste, or color" (Giovetti 2009: 35, 120–121). Both Montessori and theosophists emphasized "a profound respect for . . . life" and made enhancement of life central to their thought (Bazin 2011: 52). These and other parallels belie the claims of some Montessori scholars, who understate the connections between Montessori and theosophy, claiming for instance that among theosophists "there was principally a tendency to a technical assimilation of Montessorianism" (De Giorgi 2013: 87). Significant philosophical overlaps between Montessori's philosophy and theosophy gave theosophists good reason to praise and support her in more than merely technical ways. Moreover, Giovetti rightly claims that "the relationship with theosophy certainly exerted an influence on Maria Montessori's thought" (Giovetti 2009: 36), at least insofar as theosophists Devi and Arundale gave Montessori the space and time to reflect and write *The Absorbent Mind* and to develop and experiment with her elementary materials.

C8P29 However, and despite overlaps between her ideas and those of theosophy, there is no evidence that Montessori's philosophy was substantively shaped by theosophical ideas, and at least some evidence that it was not. While Giovetti suggests that there may be unacknowledged debts to theosophy in her writings (see Giovetti 2009: 40), Montessori had already developed the core ideas of "cosmic education"

[9] See *Time Magazine*, October 20, 1947, available at https://content.time.com/time/subscriber/article/0,33009,804340,00.html (accessed August 9, 2022), cited in Cives 2019: 230.

in the 1920s, long before her sustained engagement with theosophy (see Giovetti 2009: 125; De Giorgi 2013: 61). Moreover, Montessori's reaction to theosophical ideas when she finally read the works of Blavatsky in Aydar was "surprise" at "educational ideals so similar to her own" (Devi 1946: 29). This sort of reaction, which Devi and Giovetti rightly use to show the affinity between Montessori and theosophy, also strongly suggests that Montessori developed her own view independently.

C8P30 Moreover, Montessori declines to take up many important theosophical ideas. Giovetti seems to treat Montessori's Catholicism and her commitment to theosophy as on par with one another, suggesting that in both cases Montessori adhered to some ideas but not others.

C8P31

> From the Theosophical Society, Maria Montessori certainly accepted her work for humanity "without distinction of race, creed, sex, cast, or color." But she did not accept other aspects, for example faith in reincarnation; and of the rest of Catholicism, from which she never broke away, she didn't accept the concepts of original sin and that of an authority that rewards and punishes. (Giovetti 2009: 40).

C8P32 However, this understates Montessori's fidelity to Catholicism (see Section 8.1) and overstates her affiliation with the Theosophical Society. Montessori found theosophists to be helpful collaborators, and many of her views overlap with theirs, and particularly during the phase of her life when she was most focused on international feminist political action, she allied herself with the theosophical movement. At no point, however, do we find Montessori making toward theosophy anything like the clarifications and concessions she makes to Catholic authorities.

C8S4

8.1.3 Religious Diversity

C8P33 Montessori had ample opportunity for engaging with religious diversity through education courses around the world and especially through the time she spent in India.[10] She regularly sought to move beyond sectarianism toward unity, affirming not only that "God is love" but also that "love . . . is creation itself" (1: 264). She emphasizes the universal nature of children's philosophical revelations:

C8P34

> people with ideas and sentiments so different or even contradictory—as for example monarchists and communists, Catholics, Jews, and Buddhists—were intensely interested in the children's manifestations, and what it was they discovered

[10] "Comparative study of religions" is also a core tenet of theosophy (Giovetti 2009: 35).

> in the things the children were doing that seemed important in relation to their own convictions. (Montessori [1929] 1965: 4)

C8P35 Even when Montessori explicitly appeals to her own Catholic background, she often does so in ways that acknowledge other spiritual traditions: "I should like to be able to quote from all the poets, the prophets, and the saints, but they are not all known to me, nor could I do so in their various tongues. But perhaps I may quote one that I do know" (1: 264).

C8P36 At the same time, while emphasizing the universal appeal of her ideas, Montessori does not downplay fundamental religious differences, which can be "even contradictory" (Montessori [1929] 1965: 4). At times she seemingly endorses notions such as that "the Catholic religion is the one and true religion," or that "only the Son of God [Jesus] could bring about redemption," and she writes, "It saddens me greatly that my work here in India is primarily in the hands of Hindus, theosophists, and Muslims; but unfortunately Catholics are interested in it only slightly" (in De Giorgi 2013: 361, 174, 362).[11]

C8P37 While there is some evidence that Montessori became more religious over time, her settled view was a firm endorsement of Catholicism. At the same time, she deliberately articulated a philosophy that would transcend religious difference, even to the point of endorsing imagery and mythology from a variety of different religious traditions, such as when she suggests that teachers can identify "those sons of God who direct earth's natural forces" with "a committee of Angels or Devas—according to the religion [they] profess" (6: 22).[12] Ultimately, the divergent strands in Montessori's work with and discussion of other religions fit well with progressive ideas within twentieth-century Catholicism (e.g. Lorenzo Milani), which would come to fruition in the Second Vatican Council. In the primary document from that council dealing with other religions, Pope Paul VI, while affirming the unique truth of Jesus Christ, also affirms that "there is found among various peoples a certain perception of that hidden power which hovers over the course of things and over the events of human history," such that, for example, "in Hinduism, men contemplate the divine mystery and express it through an inexhaustible abundance

[11] This final quotation is written in a letter after her time in India, contradicting Scocchera's speculation that "the confessional education born in Spain dies definitively in India" (Scocchera 1997: 189).

[12] Note that this text was written after her time in India, which lends some support to the claim of Alatri and Foschi that "working in a new cultural and spiritual environment . . . may have given Montessori the means for overcoming the (Catholic) confessional perspective" (2011: 129). Given the presence of parallel courses as early as 1910, however, and her explicit mention of the appeal of her philosophy across religious lines as early as 1929 (see Montessori [1929] 1965: 4), at most one might say that the broader exposure to Indian and theosophist religious ideas gave her a more determinate conception of how to make her perspective more pluralist. Strikingly, however, Montessori doesn't explicitly endorse the program of religiously inflected cultural education in dance developed by her host Rukmini Devi, an embodied and almost liturgical practice that manifested for a Hindu context something akin to Montessori's own efforts to enrich Catholic liturgical experience.

of myths and through searching philosophical inquiry" and "other religions found everywhere try to counter the restlessness of the human heart, each in its own manner, by proposing . . . teachings, rules of life, and sacred rites" (Paul VI 1965: Secs. 1–2). Pope Paul VI goes on,

C8P38

> The Catholic Church rejects nothing that is true and holy in these religions. She regards with sincere reverence those ways of conduct and of life, those precepts and teachings which, though differing in many aspects from the ones she holds and sets forth, nonetheless often reflect a ray of that Truth which enlightens all men . . . The Church, therefore, exhorts her [children], that through dialogue and collaboration with the followers of other religions, carried out with prudence and love and in witness to the Christian faith and life, they recognize, preserve and promote the good things, spiritual and moral, as well as the socio-cultural values found among these. (Paul VI 1965: Sec. 2)

C8P39 Montessori's philosophy of religious pluralism manifests the overall view expressed in these documents. Like Paul VI, she affirms her Catholic faith while not only accepting but even fostering what is true and good in the culturally specific beliefs and practices of other religions.

C8S5

8.2 Metaphysics, Morals, God, and the Child

C8P40 Both Montessori (in most of her works) and my reconstruction of her views (at least until this chapter) develop a naturalist philosophical approach that does not appeal to God or special supernatural forces. Nonetheless, in this section I acknowledge contexts within which Montessori makes use of theistic frameworks within both metaphysics and moral philosophy. She sometimes seems to advocate a metaphysics in which God is the Divine Intelligence underlying the teleology of the world and a moral philosophy akin to divine command theory, in which moral obligation arises from the requirement to obey God's laws. In both cases, however, she actually invokes God in order to shift attention to *immanent* rational values. Thus in metaphysics, the idea of God as creator highlights the world as ordered in terms of teleological principles internal to each (living) thing. In moral philosophy, the idea of God primarily secures children's dignity and authority. Both invocations of God support the free-standing and secular philosophy I have laid out in this book, a philosophy of teleological life and autonomous moral agents. Most basically, Montessori's incorporation of God into her philosophy reinforces her lifelong focus on the primacy of the child and brings us "face to face with that little one whom Jesus Christ offered to us as a guide to lead us to the Kingdom of Heaven" (Montessori in De Giorgi 2019: 78).

C8S6

8.2.1 God and Teleology in Montessori's Metaphysics

C8P41 Chapter 3 laid out Montessori's metaphysics of life without reference to God. As noted in Chapter 2 (Section 2.7), this metaphysics was influenced by that of Montessori's supposed uncle, Antonio Stoppani. Stoppani, however, develops this metaphysics explicitly to show how "He who made the earth for man and man for it"—that is, God—provides the "real reasons for that marvelous succession of facts brought to light by geology," facts for which "the materialist will never find a reason" (Stoppani 1898: 5, 4). By contrast, Montessori does not use her metaphysics as part of an anti-materialist argument for the existence of God, but she freely makes use of theological concepts to enrich that metaphysics. In her explanation of the importance of natural teleology in terms of "guiding instincts, with which is bound up the very existence of life in its cosmic function," she goes on,

C8P42

> We might . . . look on them as divine thoughts working in the inmost centers of living creatures, leading them subsequently to action on the outer world in realization of the divine plan. The guiding instincts have not the impulsive character of episodic struggles, but those of an intelligence, a wisdom leading creatures on their journey through time (the individuals) and through eternity (the species). (22: 178; cf. 17: 154)

C8P43 When she offers illustrations of various "marvels of nature," she adds, "We have always considered these as a manifestation of the divine" (7: 93). While describing the interdependence of living and non-living elements of the ecosystem and the fragility of the atmosphere on which we depend, she adds, "But we are not haunted by this danger . . . being assured that God protects us!" (6: 20). For Montessori, "the cosmic plan" at the center of her metaphysics "may also be called the Will of God"; natural teleology is the reflection of "a governing intelligence" (6: 47, 28).

C8P44 Strikingly, in many of these theistic metaphysical claims, Montessori uses locutions like "*may be called* the Will of God" or "*we might look at them as* divine thoughts" (6: 47, 22: 178, emphasis added). Moreover, she uses generic teleological language much more often than specifically theistic language, and in her most detailed published exposition of her metaphysical natural history, she introduces theistic language by saying, "we may usefully call to our aid some myths or fairy-tales, but they must be such as symbolize truths of nature, not the wholly fantastic" (6: 17). In these contexts, she explicitly distances her overall metaphysical teleology from any particular theology and situates religious language as a way of symbolizing teleologically organized development. Her claim that "the cosmic plan . . . may also be called the Will of God" (6: 47) can be read in multiple ways. Those with antecedent religious commitments are free to see the teleology in the universe as established by a "governing intelligence," and those without such commitments are free to read references to God or God's will (or angels or devas

or whatever other categories are used in the context) as expressing analogically the fact that the universe behaves teleologically, according to a plan, governed by the kind of intelligence normally associated with minds.

C8P45 Moreover, even when Montessori provides it with a theistic foundation, her metaphysis assumes that any divine intelligence operates in and through a teleology that is always *internal* to natural entities themselves: "It is not that God has created the world, but that every creature has an inner activity" (7: 94). Her commonplace religious confidence "that God protects us!" is immediately followed with the insistence, "But the fact is that He works through agents in this protection that He gives to all His children, and we owe them gratitude and some understanding of the part they play" (6: 20). Rather than a straightforward grounding of teleology in religion, Montessori here is *interpreting* religious confidence in divine providence *in terms of* an internal but ecologically oriented teleology of individual, natural agents. Her claim that we can look at guiding instincts as divine thoughts is followed by describing these instincts as "command[s] *of nature*" (22: 181, emphasis added). Her claim we should look to "the Divine Spirit" since "the tiniest creatures have their guide which leads them on step by step" is immediately followed by an elaboration emphasizing intelligence *within* those creatures (7: 94). Even where she most directly invokes God, these invocations primarily highlight the dignity and internal teleology of creatures.

C8P46 Early in her career, when Montessori deliberated about and decided against founding a religious order dedicated to the education of children, she instead "created two different types of . . . work: one secular and the other one Catholic" (Romano 2020: 205; cf. Schulz-Benesch 1997).[13] She offered lectures on pedagogy in both a "neutral course" and a coinciding "parallel course" specifically for Catholics (see 7: 27). As noted in Section 8.1.3, Montessori—near the start of "God and Child," one of her most religious works—notes that her method has interested "people of every religious and political party . . . monarchists and communists, Catholics, Jews, and Buddhists" (Montessori [1929] 1965: 4).

C8P47 Like these two courses, her metaphysics has two parallel interpretations. Her teleological metaphysics does not depend upon any particular theological commitments, but she occasionally offers parallel explanations of that metaphysics in specifically theological terms. Montessori personally conceived of nature's "cosmic plan" as the plan of a Christian God, though onto her religious faith "the totality of modern science is grafted, refreshing eternity with a luxuriant form of life" (De Giorgi 2013: 322). In her metaphysics as in her pedagogy, she de-emphasizes specifically religious views relative to general scientific principles

[13] In 1910, Montessori went so far in the Catholic direction as to consecrate her work through a Project of Union dedicated to Mary and various Catholic saints and devoted to the development of children (see De Giorgi 2013: 316–320). Even in that context, however, rather than obedience to this or that religious dogma, she emphasized that "Love is our law" (De Giorgi 2013: 319).

sharable across religions and by those with no religion. She defends metaphysical teleology by appeal to genetics and ecology rather than theological commitments and transforms the metaphysics that her uncle Stoppani used to defend theism into a freestanding teleological view of the universe.

C8S7

8.2.2 Divine Commands, the Moral Sense, and Life

C8P48 In Chapter 6, when I laid out the overall structure of Montessori's moral theory, I mentioned that the epistemic foundation of that moral theory is a moral sense, and its metaphysical basis lies in her teleological metaphysics of life. As in the case of her metaphysical teleology more generally, the appeal to life as a teleological structure grows from her scientific and medical background, but at times Montessori suggests a theistic basis for morals or sees moral sense as a receptivity to the Divine. Thus, she explains that "man is great because he can receive the emanations of the Godhead" and describes our moral "sensitivity" as an "instrument . . . destined to receive the holy waves transmitting divine love through the boundless spheres of eternity" (10: 27).

C8P49 As with her metaphysics, the relatively few passages in which Montessori discusses a divine foundation for morals do not require theism in order to justify moral claims. Just as the will of God is expressed in the internal teleology of the natural world, so too "God makes known His plans . . . by means of the nature of the beings He has created" (Montessori [1929] 1965: 14), such that from the nature of individual human beings and their guiding instincts, we discern the "triumphant rule of life throughout the universe," which "constitutes our conception of . . . goodness" (Montessori [1910] 1913: 475). The goodness of an action or trait is perceived through a moral sense that responds to what is natural and healthy for a particular organism, even if that goodness is always *also* an expression of the (good) will of God.

C8P50 There are two contexts within which Montessori makes stronger claims for the importance of God in moral life. First, Montessori extends her moral theory into religious life and ultimately sees religious life as part of—and in some sense even equivalent to—flourishing human life. I discuss this extension of her moral theory in more detail in Section 8.4. Second, she sometimes sees theistic underpinnings as essential for fully realizing her child-centered philosophical and pedagogical methodology:

C8P51

> The secular approach sometimes pompously talks about respect for the child. But, in view of our egotism and our desire for domination and power, true respect for the child is only possible when we have respect for God in the child. The individual who does not believe in God . . . and who, therefore, comes to consider man as the supreme being, inexorably falls into a tyrannical attitude towards the child.

> Without question, he will begin, under the appearance of genuine concern, a real struggle with the child in order to force him into what he himself considers as the ideal . . . Where the will of God is not followed as the directive, the strong man treats the weak as a being without rights, because it is he—the Director—who determines the destiny of his subjects . . . True respect for the child recognizes the ideal which God wishes to make actual in him. (Montessori [1929] 1965: 14–15)

C8P52 This respect for "God in the child" does not require specifically Christian belief; Montessori refers to Rabindranath Tagore who shows trust in "the souls of the young" when he "leads these young people to the banks of the sacred river . . . and expects some divine manifestation" (Montessori [1929] 1965: 6–7). Nonetheless, in claiming that belief in God is necessary for rightful relationships with children (and any who are "weak"), Montessori might seem to require something like a divine command approach to moral theory. In fact, however, the passage is narrower in focus, in three important respects. First, her religious claims here are directed toward a specifically religious audience. With admittedly strong language, she exhorts religious believers about how religious faith can help them respect children. She does not direct toward non-believers a call that they must believe. Second, and relatedly, the function that her invocation of God serves is to shift attention from one's own sense of what is right for the child to what the children reveal themselves: "To discover the laws of the child's development would be the same thing as to discover the Spirit and Wisdom of God operating in the child" (Montessori [1929] 1965: 14). The point is not that one should look to the Bible, or Church teachings, or any other specifically religious source for one's ethics. Rather, the appeal to God should orient us toward listening to the weak themselves.[14] Finally, the main threat of atheism in this passage is one that a moral sense theory—with or without divine sanction—alleviates. Instead of seeing moral ideals as a matter for individuals to determine, we must look outside ourselves. For the religious person, this outward focus takes the form of responsiveness to God. But for any moral sense theory, we should discover and subordinate ourselves to perceived moral ideals rather than construct and impose them.

C8S8

8.2.3 God and/As the Child

C8P53 Just as theism in moral theory helps educators and philosophers set aside preconceived ideas in order to focus on children themselves, so too theism more generally supports following the child. In that way, pedagogical naturalism itself is—in a way

[14] Even in religious education, Montessori exhorts catechists to avoid imposing their beliefs on children: "We must suffer little children to go unto Jesus and we must not pretend that they should come to us" (De Giorgi 2019: 78).

that may seem paradoxical at first—implied by Montessori's theism. Montessori neither uses theism as a necessary ground for metaphysics or morals nor argues for God's existence from features of her metaphysics. Instead, her metaphysics and morals stand on their own, albeit consistent with and enriched by theism. But what is most striking about Montessori's appeals to God is how consistently the concept of God is used to direct attention back to the methodological and ethical core of Montessori's whole philosophy: the child.

C8P54 Montessori emphasizes "the child's own powers, given to him by the Creator," the "wonderful powers of divine creation in the child's soul," and the ways that "children in spiritual freedom disclose the will of God" (Montessori [1929] 1965: 4, 5; De Giorgi 2013: 325–326). When she seems to theologize pedagogy, saying "we must not just see the child, but God in him," she immediately makes this theology immanent and naturalized with*in* the child: "We must respect the laws of creation in him. We must not think we can make him; if we do, we are spoiling the Divine work" (7: 96). Her personal faith in God and her theistic statements in writings directed toward religious believers enhance rather than replace her pedagogical naturalism. Throughout all of her philosophy, the child is central.

C8S9

8.3 Epistemology of Religion: Our Sense of the Divine

C8P55 Roman Catholicism includes a long tradition of religious epistemology, within which the existence and nature of God can be established in at least three ways: (1) through natural reason, which can establish the existence and some aspects of the nature of God; (2) through Scripture and tradition; and (3) through the experience of God in prayer, meditation, and (indirectly) miracles. In Section 8.2, I argued that neither Montessori's metaphysics nor her moral philosophy depend upon the existence of God. Montessori also does not use her general teleological metaphysics or her realist moral theory to argue *for* the existence of God. In those ways, she does not employ natural reason in her religious epistemology, though nothing in her philosophy excludes arguments for the existence of God. Her regular appeals to Scripture throughout her writings (e.g. 1: 264, 2: 36, 9: 244–245) suggest some sense of its authority as a legitimate basis for belief, though she also appeals to poets and philosophers and others who would not be seen as having special divine sanction. Her adherence to traditional views about authoritative teachings is most explicit when she is focused specifically on religious education, as when she said, "It is our duty as [Catholic] parents and teachers to pass on to the next generation the 'Deposit of Faith' which has been handed down through centuries by the Church" (Montessori [1929] 1965: 54; see too 34). Montessori's philosophy is consistent with traditional Catholic views regarding rational arguments for God and traditional, authoritative Catholic teachings, but she is not particularly animated by those views.

C8P56 However, when it comes to the third source of religious belief—the direct experience of God—Montessori enthusiastically embraces the importance of such experiences and develops them into a pedagogical-naturalist approach to religion. She treats the sense for the divine like other senses and thereby seeks to investigate humans' relation to God through creating environments wherein children's spiritual sense can find exercise and then following the insights of children freely developing in those conditions. Just as the child has taught us, for instance, that love of knowledge and work are deeply rooted in human nature, so too children will teach whether we have a capacity for experiencing God:

C8P57 > If religion is born with civilization, its roots must lie deep in human nature. We have had most beautiful proof of an instinctive love of knowledge in the child, who has too often been misjudged in that he has been considered addicted to meaningless play, and games void of thought. The child who left the game in his eagerness for knowledge, has revealed himself as a true son of that humanity which has been throughout centuries the creator of scientific and civil progress … Now, in his liberty, the child should show us, as well, whether man is by nature a religious creature.

C8P58 > To deny, a priori, the religious sentiment in man, and to deprive humanity of the education of this sentiment, is to commit a pedagogical error similar to that of denying, a priori, to the child, the love of learning for learning's sake. (Montessori [1909] 1912: 373)

C8P59 While the widespread prevalence of religious practices in early human civilizations offers strong prima facie support for some sort of sense for the divine, the ultimate "proof" of the religious sentiment will be found when children are given conditions within which this sentiment—if it exists—can develop.

C8P60 Montessori's attention to developing children guided her attention toward sensorial features of cognition. We have already seen how this sensorial focus extends into her moral philosophy.[15] It extends in much the same way into her philosophy of religion. Thus, for instance, in *Spontaneous Activity in Education*, Montessori not only appeals to Volta and Newton as exemplars of scientific observation (9: 166), but also appeals to traditional saints like Teresa of Avila or Augustine of Hippo as "persons whose spiritual life was of very great intensity" and who "have *internal impressions* which cannot be accounted fruits of the imagination but must be accepted as realities simply perceived" (9: 183[16]). As in the scientific case, such exemplars provide insights into human possibilities, and Montessori uses their descriptions to elucidate her own account of the religious sense:

[15] Chapter 1, Section 1.5.2; Chapter 6, Section 6.1.
[16] Regarding Augustine, see De Giorgi 2013: 155.

C8P61 That they [the objects of these internal impressions] are realities is affirmed not only by the introspection of normal subjects, but by the effect upon their internal personality. "The revelations vouchsafed by God," says Saint Teresa, "are distinguished by the great spiritual benefits with which they enrich the soul; they are accompanied by light, discernment, and wisdom." But if such persons wish to describe these impressions which do not penetrate by means of the senses, they are obliged to borrow the language of sensorial impression. "I heard a voice," says the Blessed Raymond of Capua, "which was not in the air, and which pronounced words that reached my spirit, but not my ear; nevertheless I understood it more distinctly than if it had come to me from an external voice. I could not reproduce this voice, if I can call that a voice which had no sound. This voice formed words and presented them to my spirit." The Life of Saint Teresa abounds in similar descriptions, in which she tries to convey, by the inappropriate language of the senses, what she saw, not with her eyes, but with her soul. (9: 183)

C8P62 Again as in the case of great scientists, Montessori does not take the experience of these saints to be unique or out of reach for human beings in general. While she notes that "few researches have been made into . . . the spontaneous religious sentiment of children," she cites one public study of a child with no religious education who seemed to have a natural sense of responsibility before God, and gives her own accounts of spontaneous religious sentiment in children she had the opportunity to observe (see 9: 262).

C8P63 Montessori's focus on religious sensations connects with current debates within analytic epistemology of religion. Over several decades, the philosopher Alvin Plantinga developed an account of religious belief as a kind of "basic belief" akin to the belief that "I see a tree" or "I had breakfast this morning" or "that person is angry" (Plantinga 1981: 44). Plantinga's concept of a "basic belief" arises from his critiques of what he calls "classical foundationalism" and "evidentialism," which assume we should believe only claims for which we can provide adequate evidence based on a foundation that is either self-evident or "evident to the senses" (Plantinga 1981: 44; but cf., e.g., Alston 1991 for a more evidentialist approach to perceptual belief in God). The foundationalist idea is that because (of if) there is no such evidence for belief in God, it is unreasonable to believe in God. Plantinga's objection to this idea depends in part upon his criticism of foundationalism as "self referentially incoherent" (Plantinga 1981: 44; see Plantinga 1979, 2000), but it is not necessary to get into the details of that objection. His positive alternative to evidence-based arguments is the notion that some beliefs are properly formed without appeal to evidence. To make this argument, he carefully distinguishes between *evidence*—which consists of claims that one uses to justify a further claim—and what he calls "grounds," which are conditions (but not beliefs) that justify holding the belief. Thus while I do not infer from the fact that I am standing looking at a tree to the conclusion that I see a tree, it is the case that my standing looking at

a tree is the ground for my properly formed basic belief that I see a tree. This distinction between grounds and evidence, and the consequent notion of a properly basic belief, is not limited to philosophy of religion; for Plantinga, it provides an explanation for how we can be justified in holding a range of perceptual and other beliefs. Plantinga applies the concept of basic beliefs to religion, however, to show that we can believe in God without *evidence*, but where this belief still has *grounds*. As he explains,

C8P64

> When the [Protestant] Reformers claim that this belief [in God] is properly basic, they do not mean to say . . . that there are no justifying circumstances for it, or that it is in that sense groundless . . . Quite the contrary. Calvin holds that God "reveals and daily discloses himself to the whole workmanship of the universe" . . . God has so created us that we have a tendency or disposition to see his [sic] hand in the world around us . . . [T]here is in us a disposition to believe propositions of the sort *this flower was created by God* . . . when we contemplate a flower. (Plantinga 1981: 46).

C8P65 Just as a properly functioning human being forms the belief "I had breakfast this morning" when they remember having breakfast, so too a properly functioning human being forms the belief "God made this flower" when considering a beautiful flower.

C8P66 There are important differences between Plantinga's epistemology and Montessori's. Most notably, Montessori's way of describing her view is broadly foundationalist, in that belief in God is based on something "evident to the senses," if "senses" are understood in the broad sense to include the feeling for the divine (cf. Alston 1991). Moreover, while Montessori would affirm Plantinga's overall view that we should arrive at criteria of basicality "inductive[ly]" through "assembl[ing] examples of beliefs . . . that . . . are obviously properly basic . . . and test these [criteria] by reference to those examples" (Plantinga 1981: 50), she would insist that we identify our examples through appeal to the experiences of *children* in conditions of freedom, rather than go with the brute intuitions of corrupted adults. Nonetheless, both Montessori and Plantinga affirm the notion that properly functioning human beings have a natural tendency to believe in/perceive God. This commonality makes both Plantinga and Montessori prima facie vulnerable to two related and increasingly prominent objections to either Platingian epistemology or religious-sense epistemology: (1) an objection based on the so-called hiddenness of God and (2) an objection from the fact of religious pluralism.

C8P67 The objection to theism based on the hiddenness of God was best articulated within recent philosophy of religion by J. L. Schellenberg in his book *Divine Hiddenness and Human Reason* (1993) and recently discussed at length in Michael Rea's *The Hiddenness of God* (2018). Schellenberg summarizes his argument as follows:

C8P68 1. If a perfectly loving God exists, then there exists a God who is always open to a personal relationship with any finite person.

C8P69 2. If there exists a God who is always open to a personal relationship with any finite person, then no finite person is ever nonresistantly in a state of nonbelief in relation to the proposition that God exists.

C8P70 3. If a perfectly loving God exists, then no finite person is ever nonresistantly in a state of nonbelief in relation to the proposition that God exists (from 1 and 2).

C8P71 4. Some finite persons are or have been nonresistantly in a state of nonbelief in relation to the proposition that God exists.

C8P72 5. No perfectly loving God exists (from 3 and 4).

C8P73 6. If no perfectly loving God exists, then God does not exist.

C8P74 7. God does not exist (from 5 and 6). (Schellenberg 2017: 1)

C8P75 For the purposes of understanding how the hiddenness argument works against views like Montessori's and Plantinga's, the key point here is the claim that given certain assumptions about the nature of God, if God exists, then God should be available to be believed in by anyone who is not specifically resisting that belief in God. For Montessori, this would imply that the experience of God is available to anyone open to that experience. For Plantinga, it would imply that all people are positioned to form basic beliefs about God, unless those people specifically resist such beliefs. In the context of those claims about the nature of God, premise (4) is the crucial empirical premise, namely the claim that there are people—arguably, *many* people—who do not believe in God or experience God, despite the fact that they are not resistant to such belief.

C8P76 As the problem of divine hiddenness is typically discussed within contemporary philosophy (e.g. in Schellenberg and Rea), it poses a logical problem for theism given certain assumptions about the nature of God and the importance of belief for relationship with God. Throughout this book, I have emphasized that Montessori, like her mentor Sergi, "substitutes . . . the human individual taken from actual life in place of . . . abstract philosophical ideas" (Montessori [1910] 1913: 14). So, too, when it comes to the problem of hiddenness, Montessori does not enter into abstract philosophical or theological debates about what configurations of belief are consistent with the goodness of God.[17] Instead, she addresses the hiddenness of God as a question within pedagogical naturalism. If there are people who non-resistantly do not experience God, does that show that God does not exist? Conversely, if God does exist, what is required in order to experience God well?

[17] Moreover, consistent with her broader epistemology within which propositional belief is relatively unimportant compared with excellent cognitive engagement with the world, she does not focus on the problem of why people do or do not form particular propositional beliefs, such as "God exists."

C8P77 To the first question—does the hiddenness of God imply that God does not exist?—Montessori gives two related answers. Ultimately, she answers this question with a decisive affirmation of God's existence and participation in human lives, one grounded in her own participation in relationship with God through prayer and liturgy. More provisionally, however, she exhorts a shift from experiences of adult philosophers raised in conditions of disorder and oppression, who might "deny, a priori, the religious sentiment in man," toward the experiences of children in the process of raising themselves with freedom in conditions conducive to that freedom (Montessori [1909] 1912: 373). Even in conditions of freedom, of course, children will not experience every feature of reality, and they will not reveal every human good. In order for children to experience something, it must be present in their environment in a way that can be relevant to their activities. Thus, when it comes to developing a fine-tuned sense of color perception, for instance, Montessori says,

C8P78 > If little children are interested in color . . . you may think they should be given quantities of beautiful colors . . . [But when] children [merely] see all these marvelous colors around them . . . they have an impression of all this, but nothing remains—no knowledge, no interest, no concentration, no detail, no exactness . . . But if the children can move objects with their hands, their movements become correlated with their senses and . . . their senses are educated. (17: 168)

C8P79 Sensory cultivation requires "sensory gymnastics" (9: 149), and "no sensorial education can ever occur except as part of some total activity in which both intelligence and movement are involved" (1: 163). In just the same way, if there are spiritual realities that children can experience, they must be given freedom and space to experience those realities, and those experiences must be incorporated into a total life of intelligent spiritual activity.

C8P80 In Section 8.4, I discuss two important components of Montessorian religious education: silence and liturgy. Here, however, it is worth highlighting a further feature of Montessori's epistemology that helps explain divine hiddenness. For Montessori, sensory cultivation takes place during specific "sensitive periods" in development. Those who fail to develop the relevant sensory capacities during the appropriate periods of childhood have—at best—a difficult time developing them in adulthood. Similarly, Montessori sees childhood as including various sensitive periods for spiritual development. Those who grow up in contexts bereft of opportunities for spiritual experience, activity, and expression will not exercise those sensory capacities and will find it difficult to experience God as adults. Just as someone who grows up learning only English will have a hard time hearing differences between vowel sounds that Chinese speakers can clearly distinguish, so too someone who grows up without practical experience of spiritual realities will have a hard time experiencing divinity in various religious practices. With Chinese

vowel sounds, English speakers tend to trust the testimony of their Chinese counterparts about the reality of audible distinctions even when those English speakers cannot sense the relevant distinctions. With spiritual experiences, those who lack such experiences often reject testimony of their religious counterparts. In discerning whether or not God exists, Montessori adopts the same general approach as in the rest of her philosophy. Just as Montessori classrooms are filled with materials that exercise specific forms of sensory acuity such as auditory or tactile discrimination, and also with materials that encourage general habits of attention to the natural world,[18] so too in religious education, Montessori created child-friendly spiritual spaces within which children can experience God. And just as, within her moral philosophy, Montessori carefully attends to children in order to gain insight from children's moral perceptions, so too in the moral realm, she regularly cites Jesus's instruction to "become as little children" in order to "enter into the Kingdom of Heaven" (Matthew 18: 3; cited, e.g., in 22: 93). Applying pedagogical naturalism to the spiritual realm, Montessori follows children where they lead. And in her experiments with the liturgy in Italy and Spain, she found a profound spiritual sensibility in children that testified to the reality of what is seen not with the eye, but with the soul (cf. 9: 261–264).

C8P81 This Montessorian approach does not directly address the problem of divine hiddenness in the way that problem is laid out by contemporary philosophers of religion. In conjunction with Montessori's approach to original sin, however, it suggests a variation on theistic responses that seek to offer "*reasons* for a perfectly loving God to do something (by commission or omission) that would result in nonresistant nonbelief in persons who are capable of relating personally with God" (Howard-Snyder and Green 2022). Daniel Howard-Snyder and Adam Green suggest many possible sets of reasons, most of which emphasize why the presence of non-culpable inability to believe is better for the person who non-culpably cannot experience God.[19] Montessori, particularly as interpreted by Natalie Carnes (2015), suggests a different sort of reason, one rooted in God's respect for human freedom, a respect that includes the possibility that human beings will sin and that such sin will have serious consequences on other human beings. Just as, in general, "sin is passed environmentally by the oppression . . . of children by adults" (Carnes 2015: 334), so too adults' sin—whether in culpable rejection or neglect of God or in oppressive and pharisaical imposition of religious dogmas or activities—gives rise to environments within which children are not able to freely experience God in active and joyful spiritual lives. This recognition of the role of adult oppression

[18] For discussion, see Frierson 2020: 135–148.

[19] See Howard-Snyder and Green 2022 for a brief summary, and for more details, see, e.g., Hick 1966; Swinburne 1979; Howard-Snyder 1996, 2015; Dumsday 2012; and Paytas 2017, 2019 (all cited in Howard-Snyder and Green 2022).

of children in the hiddenness of God does not wholly solve the problem of divine hiddenness. How to reconcile God's love with God allowing degrees of freedom whereby people can inhibit others' freedom remains a difficult philosophical and theological problem. But Montessori's attention to the role of adult-constructed environments in shaping the epistemic capacities of children provides a different sort of reason for hiddenness than present in most philosophical literature on this problem.

C8P82 While divine hiddenness argues against the possibility of a loving God from the apparent fact that some people non-resistantly lack belief in God, one might also object to Montessori's claim that religious belief arises from the perception of spiritual realities from the widespread *diversity* of religious beliefs. If children and saints have a spiritual sense by which they are able to respond to impressions of the divine, why do people in different cultures come to form different—and indeed "contradictory" (Montessori [1929] 1965: 4)—ideas of that divine? Doesn't this diversity suggest that religious beliefs are culturally formed rather than responses to "realities simply perceived" (9: 183)?

C8P83 In the case of divine hiddenness, more careful attention to sensory development in general showed that there is nothing extraordinary about the fact that children in conditions of deprivation and oppression can fail to develop a religious sensibility. So too, careful attention to the way culture generally shapes sensory perception and belief formation shows that there is nothing special about religious diversity. Speakers of different languages become attuned to different auditory realities, and some but not most peoples even become attuned to cardinal directions at a perceptual level.[20] These sounds and spatial orientations are there to be perceived, but how (or even whether) they are perceived depend upon cultural specifics. Moral sense, too, is culturally inflected, partly in substantive moral claims that can and should be corrected over time, but also in norms of grace and courtesy that are appropriately distinct from one culture to another. Since different cultures and communities refine *all* senses in different ways, the sense for God will also come to have culturally distinctive modes of refinement. This lends itself to strong religious pluralism and, just as norms of politeness constitute legitimate forms of moral relativism, even to some degree of legitimate religious relativism. However, since God is a reality we experience and not a construct put to use to meet this or that need, considerable religious convergence—and even conversion—should in principle result from active dialogue and spiritual exploration.

[20] See Levinson 2003; Boroditsky and Gaby 2010: 1637–1638; and Frierson 2020: 145–148 for discussion.

C8S10

8.4 Embodied Philosophy of Religion: The Liturgy

C8P84 In Sections 8.2–8.3, I focused on how Montessori's thought addresses traditional topics within philosophy of religion, namely the metaphysical place of God (Section 8.2.1), the place of God in grounding moral obligation (Section 8.2.2), and the epistemology of religious belief (Section 8.3). As traditionally expounded within the philosophy of religion, these concerns are adult-centered and largely belief-centered. In her philosophy of religion, as in the rest of her philosophy, Montessori's focus is on "the human individual taken from actual life" (Montessori [1909] 1913: 14) rather than abstract metaphysical claims about God or how to form justified beliefs about God: "Religious life is not a thing apart from ordinary everyday life, but one complete life which includes and takes up into itself the common things of life," such that "Religion is no longer the crowning achievement of life, but life itself" (Montessori [1929] 1965: 40; De Giorgi 2013: 322). In that context, Montessorian philosophy of religion emphasizes religion as a set of practices that infuse and enhance life as a whole. Religion is an embodied way of life, made particularly real in liturgy, where God meets people through meaningful sensorimotor enactments in a carefully constructed environment.[21]

C8P85 Montessori's method for religious education is the same as her method for all cultural education. Montessori environments introduce children to the cultural and communal norms and practices through participation in the life of the class. Children absorb particular language(s) and culturally specific norms of grace and courtesy. So too, children absorb the religious practices of their community. Montessori environments present these features of culture in attractive and sequential ways so that children absorb culture while pursuing their own interests. In the case of religion, Montessori identifies specific "religious instincts" that draw children toward the sacred (Montessori [1929] 1965: 35), but religious education integrates all of children's interests into their participation in the spiritual life of a community. For example, Montessori identifies the period from birth to age 6 as one within which the child is particularly interested in direct sensorimotor engagement with concrete objects.

C8P86

> In this same sensory-motor period . . . the child also has a special interest in the sensorial qualities of things . . . Now the liturgy of the Catholic Church is rich in the lavish use of material aids to religion at this sensorial level—colored vestments, incense, dignified and stately actions, beautiful forms, statues, pictorial representation, resplendent lights, and so forth. It is precisely during this

[21] This also responds to certain presuppositions of the hiddenness argument. Schellenberg asks, rhetorically, "how could you be grateful for what you have experienced as a gift of God's grace or . . . do any other thing involved in a conscious reciprocal relationship with God if you do not believe that God exists?" (Schellenberg 2017: 2). Insofar as gratitude consists of embodied practices within a form of life, it need not involve specific beliefs.

> sensory-motor period—well before the age of reason sets in—that these things exert the most powerful fascination. (Montessori [1929] 1965: 60)

C8P87 Montessorian religious education not only exposes children to the sensorial riches of the (Catholic) liturgy, but also provides opportunities for children to engage with those riches in an active way. She translates many of the materials used in general sensory education into religious contexts, such that the Silence Game[22] "would now become the prelude to the still more wonderful silence of prayer and meditation," and for children working on color discrimination through the color tablets,[23] "it would be a great joy . . . to be given little models of the liturgical vestments, in order to recognize their different colors and learn the significance of each" (Montessori [1929] 1965: 37). In these and related ways, Montessori adapts her general method of cultural education to a religious context (see Montessori [1929] 1965: 36). Moreover, she emphasizes that when the child is "taught how to follow the actions of the Mass, how to take part in processions and . . . liturgical ceremonies . . . [a]ll these are things to be *done* rather than things to be *read*" (Montessori [1929] 1965: 33). Just as children learn to distinguish musical notes through active work with tone bars, or learn to write in their culturally specific alphabet through working with sandpaper letters, so too they learn to experience God through active prayer, meditation, and liturgy. Religious life is a form of life, not merely belief, and children absorb this religious life as they do other elements of culture, through attention to the sights and sounds and smells, through activity, through learning various practices.

C8P88 Like science, moreover, religion is not *merely* a feature of culture to absorb. Just as scientific practices are culturally specific ways in which human beings improve cognitive engagement with reality, so too religious practices are culturally specific ways people engage with God, who Montessori sees as a living reality manifested in and through a Church established by the incarnation of God in Jesus. The function of religious education is to introduce children to the way of life of the religious community, and thereby to put them into contact with God (cf. Section 8.3).

C8P89

> When divine truths are presented in a way corresponding to the child's psychology such that the child can go deeply into them, when the supernatural finds a well-prepared nature capable of concentrating with will and attention, then we are faced with unexpected manifestations. [For example,] that a child without any pressure or advice or invitation asks to be able to go to . . . chapel and prays for an entire hour . . . this and similar facts can teach us how much true religiosity lives in the child. (Montessori, in DiGiorgi 2013: 116–117)

[22] See Chapter 6, Section 6.4.
[23] See Chapter 5, xxx.

C8P90 Children in conditions of freedom develop capacities for attentive concentration on the world. When those same children are placed in contexts where spiritual realities are accessible, they direct that same attention to those realities. Consistent with her pedagogical naturalism, Montessori does not take these features of childhood as mere playful fantasies that children should overcome. In fact, she strongly objects to excessive fantasy in the lives of children precisely because it prevents them from cultivating the ordered attention to reality that is central for both science and proper religion: "religion is not a product of fantastic imagination, it is the greatest of realities," and encounters with God in prayer and meditation are "*internal impressions* which cannot be accounted fruits of the imagination, but must be accepted as realities" (9: 198, 183). Likewise, participation in liturgy and religious life are not mere cultural practices but grounded on and oriented toward spiritual reality (see De Giorgi 2013: 170–175).[24] To flourish, human beings not only must actively and creatively engage with the world, but also participate in communities of solidarity and mutual respect (see Chapter 6). Spiritual or religious flourishing, likewise, requires not only active and creative engagement with spiritual realities, but also participation in a living spiritual community of solidarity and respect.

C8S11

8.5 Conclusion

C8P91 Montessori's philosophy of religion is an extension of her philosophy of life. As with her epistemology and metaphysics in general, religion is a form of life by which one adapts to reality through interest-driven sensory appreciation of features—in this case spiritual ones—of the world. As in her moral philosophy and politics, religion involves absorbing norms of grace and courtesy that enable solidarity and mutual

[24] The deep rootedness of Montessori's spiritual life in Catholic liturgical practices reinforces the essentially social nature of humans' engagement with reality in general and spiritual reality in particular. While Augustine, Teresa, and many—including children—in prayer and meditation have had personal encounters with God through individual internal sensations, for Montessori, religious life is not merely an individual relationship with God but also participation in the life of a historical institution (the Catholic Church) with its characteristic activities, history, and so on. One obvious form of communal religious life lies in the role of silence in shared worship and communion with God. As we noted in Chapter 6, Section 6.4, silence is a paradigmatic example of social solidarity, and the shared "profound silence" (e.g. De Giorgi 2013: 229) of a religious community provides both a context for individual encounter with God and a deeply *shared* sense of reverence. Likewise in a theatrical commentary on the Mass, Montessori describes the repentance manifested by a community confessing together and calling for God's mercy through a character who exclaims, "Never have I felt such union, not even with my family" (De Giorgi 2013: 246). Moreover, as with the communities of classroom and society, the religious community has norms of grace and good manners:

> In the share of religious practice there are certain actions, connected with worship, which one might describe as the good manners of the Church. These include such actions as making the Sign of the Cross, with or without holy water, genuflecting, kneeling down and standing up during a service, carrying lighted candles without spilling grease, placing flowers at the foot of a statue, and so on. (Montessori [1929] 1965: 60)

respect within a community engaged together in effortful activities, in this case of worship and love.

C8P92 Moreover, Montessori's philosophy of religion ultimately centers itself around respect for—and following of—the child. The child discloses the will of God. The child's exposure to spiritual reality enables the growth of sensitivity to God that makes for spiritually mature adults. The child's naïve appreciation of and sensitivity to spiritual reality discloses divine truths that adults repress or simply cannot perceive. Ultimately, religious education and even religious life requires following the child:

C8P93

> Just as the education of physical and psychic life is nothing else that co-operation with the natural forces of growth, so the supernatural education is nothing else than co-operation with God's grace, which provides the real urge to true process of growth in the divine life. (Montessori [1929] 1965: 15)

C9

9
Adulthood

C9P1 Adults are not children. Although her pedagogical naturalism observes children in conditions of freedom in order to glean insights about the human condition more generally, Montessori recognizes important ways in which children—especially very young children—are fundamentally different from adults. In Chapters 5–7, I laid out the basic structure of Montessori's epistemology, moral philosophy, and aesthetics. In all three contexts, Montessori approaches traditional philosophical topics from a standpoint that is both prescriptive and scientifically informed. In that sense, she develops a rich philosophical naturalism. In my discussions of these areas, I focused, as Montessori did, on insights gained from young children about the nature of epistemic, moral, and aesthetic excellence. We could say of all these areas of philosophy what Montessori says of moral philosophy, namely, that "Morality has been considered something abstract concerning adults, not concerning children. Instead we must consider morality as a fact of life, which can be studied in the developing child" (14: 20–21).

C9P2 While Montessori often emphasizes the centrality of children under the age of 6, however, she recognizes that human life and children's development is not limited to this first stage of growth. Again, her description of morality could apply to every area of her philosophy: "It is a fact of life which has different phases following the phases the child passes through" (14: 21). Montessori divides human life into four (or sometimes three) basic planes of development, corresponding to early childhood (0–6), pre-adolescence (7–12), adolescence (12–18), and adulthood (see 12: 1; Montessori [1938–1939] 1971). Adults and older children have capacities that young children lack, capacities that affect what it means for them to be epistemically, morally, and aesthetically excellent. In *From Childhood to Adolescence*, Montessori describes "three characteristics" of the "second period" of development, from ages 6 to 12 (12: 7):

C9P3 1. "the child's felt need to escape the closed environment" and "succeed in adapting [themselves] to the outer world,"

C9P4 2. "the passage of [the older child's] mind to the abstract," and

C9P5 3. the development of a proper "moral sense" (12: 7, 11–12).

C9P6 In this chapter, I start (in Section 9.1) with a brief discussion of differences in the environments of young children and adults, and in particular with the need

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of children as they grow to leave their prepared environments and "go out" in the real and more expansive world (12: 11). I then turn in Section 9.2 to the increasingly important role that imagination and abstraction play in human life as children mature into adults. In Section 9.3, I take up one particular arena within which imagination and abstraction prove important, namely, the development of morals properly speaking from forms of character, respect, and solidarity that were, prior to this stage, mostly pre-conscious, environmentally situated, and sensorial. Section 9.4 returns to the notion of leaving the prepared environment to go out into the world, but now from a different standpoint. Not only do adults inhabit a wider world than young children; they also play a different role in that world.

C9S1

9.1 Going Out: From Prepared Environment to Supranatural World

C9P7 For Montessori, young children thrive in carefully prepared environments with ample opportunities for self-chosen work and with morally loaded contexts of social interaction. The world(s) within which adults live are also constructed worlds, what Montessori refers to as a "'supra-nature' devised by man [which] . . . includes the great scientific progress in biology and in chemistry, and a consecutive progress of succeeding generations" to bring about a "transformation of nature to a higher level of beauty and usefulness" (12: 64–65). The transition from carefully prepared and simplified environments of early childhood to the highly complex supranature of adult life is one of the most important differences between childhood and adulthood, one Montessori believes humanity has not fully reckoned with (see Chapter 11). Ultimately, "the intelligence of man must conquer the world as the intelligence of the little child has conquered the environment" (12: 21).

C9P8 As they transition toward adulthood, children increasingly desire to expand their environment.

C9P9

> From seven to twelve years, the child needs to enlarge his field of activity. As we have seen . . . a limited environment is suited to the small child. There, social relations are established with others. In the second period the child needs wider boundaries for his social experiences. (12: 3)

C9P10 In place of the prepared environment, Montessori emphasizes going out: "To go out of a classroom to enter the outside world, which includes everything, is obviously to open an immense door to instruction . . . When the child goes out, it is the world itself that offers itself to him" (12: 17). This "going out" includes

literally leaving the school walls, but also "going out" in a broader sense, with "new intellectual interests (climates, winds, et cetera)" (12: 17). The older child "demands to go out into the world" in a way that can be "used by the school for furthering the cultural development of the child" through providing children with "guides so that the child can go out and find material for himself" (Montessori 1971: 6).

C9P11 As the child matures, engagement with the wider world involves new forms of independence. Foremost among these, particularly for adolescents, is the independence that comes from earning money through work. At its most basic level, the importance of earning money reflects Montessori's pedagogical naturalism. As she observed children maturing in conditions conducive to freedom, she found that adolescents naturally sought opportunities to earn money. Montessori studied under leading Italian Marxists, worked closely with Catholic sisters who had sworn vows of poverty, and railed against punishments and rewards as undermining the intrinsic motivation of free children. Nonetheless, as she observed children mature, she recognized their striving to earn money not as a reluctant and repressive capitulation to the oppression of capitalist conditions but rather as a development of their striving for freedom and independence. Children, now growing older and developing toward adulthood, helped Montessori see features of the human condition—in this case money—in a new light.[1]

C9P12 The importance of money expresses several features that distinguish adults from children and thereby contributes to "the study of mankind and his place in the scheme of things" (Montessori [1939] 2018: 4). Money provides a materialized abstraction for human interdependence.

C9P13

> It is necessary that he come to understand, among other realities, what money ought to represent. Without money we could pass among the most marvelous things without ever being able to touch them. We would be like a bird with a broken beak dying of hunger on a pile of grain. Money is the means by which man procures things. That is why it attracts so much interest. We must consider money as the "golden key" that opens the door of supra-nature. (12: 3)

C9P14 The reference to supra-nature in this quotation is important. As we will see in more detail in Chapter 11, supra-nature refers to the human-made environment. Montessori notes that "the things which we can have by paying for them represent the work of man" (Montessori [1939] 2018: 7). Other animals access what they need for flourishing directly from a natural environment, but the environment humans need in order to fully flourish is made by others:

[1] For a similar and similarly belated recognition of the importance of property, see Nussbaum 2000: 78n82.

C9P15 The birds have beautiful feathers to clothe them and the insects have beautifully colored scales. In the case of man . . . the shops are filled with clothes of all kinds for men, women and children. It would seem that one only had to walk in and choose the garments one wanted. And it is easy to understand that supranature has put a great quantity of the means at the disposal of mankind. The curious thing, however, is that although one finds oneself among this plenty, it is not possible to put out a hand and just take the things one wants. It is necessary for there to be an exchange for the article, which is something that does not exist in the animal world. (Montessori [1939] 2018: 5)

C9P16 For Montessori (as for Marx), human beings rely upon one another for the materials to thrive. Our situatedness within a cultural environment creates mutual dependence just as it opens opportunities for new kinds of flourishing. Money symbolizes this interdependence and helps us be aware of how our needs are met by others through our own provision for others' needs.

C9P17 Free human beings seek independence in mutual interdependence. Young children take their constructed environment for granted. The child who asserts his independence relative to his parents by putting on his shoes for himself does not care where those shoes came from. As children grow, they increasingly recognize their environment as a product of human labor, and they seek a new sort of independence within that constructed world. To some degree, this independence can consist of creating the means for one's own development. Children can bake their own bread and sew their own clothes. But human potential for growth requires more than what an individual can create entirely for themselves. We rightly depend upon one another to craft the environments we need. So adolescents seek independence-within-interdependence, in the form of *economic*[2] independence:

C9P18 The essential reform is this: to put the adolescent on the road to achieving economic independence . . . For this would result in a "valorization" of his personality, in making him feel himself capable of succeeding in life by his own efforts and on his own merits, and at the same time it would put him in direct contact with the supreme reality of social life. We speak therefore of letting him earn money by his own work. (12: 61)

C9P19 By earning money, adolescents come to feel this new independence wherein they acquire what they need through providing to the community as a whole goods valued by that community or by various of its members.

[2] The term "economic" originates in the Greek terms "oikos" (family) and "nomos" (norms, rules, or values) and literally means "the values of the family." In modern life, the scope of the oikos expands beyond the confines of the family to include the broader community and eventually the human family as such, but oiko-nomic independence remains essentially independence *in a community*.

C9P20 The consciousness of knowing how to make oneself useful, how to help mankind in many ways, fills the soul with noble confidence, with almost religious dignity. The feeling of independence must be bound to the power to be self-sufficient, not a vague form of liberty deducted from the help afforded by the gratuitous benevolence of others. (12: 60; see too Montessori 1971: 9)

C9P21 As we saw in Chapter 3, Montessori's metaphysics—elaborated in her curricula for older children—emphasizes a cosmic plan or cosmic task, wherein each living thing finds its individual fulfillment in ways that also serve the good of the wholes of which it is a part. In young children, this integration of individual and community happens within an enclosed environment, as children carry out their own work in ways that create a peaceful classroom. As children mature, money provides a tangible instantiation of this cosmic plan as it plays out in human communities, and earning their own money provides a way for older children to express independence while also taking up social roles in a wider sphere of human activity.

C9P22 Earning money is part of "going out" in that it involves consciousness of and participation in a wider environment than that of the closed classroom, but money is not the final or ultimate form of independent interdependence. As humans develop further, the basic principle of independent interdependence gets taken up into higher forms of free engagement with the world.

C9P23 Beyond this phase . . . the individual should be the man who knows how to make his own choice of action having passed to perfection in the preceding stages. He should be as a live spark and aware of the open gate to potentialities of prospective human life and of its own possibilities and responsibilities . . . This is the last stage or the fourth plane of education. Love of power, love of possession, love of an easy life must be overcome. (Montessori 1971: 9–10)

C9P24 Young children express their character through freely chosen work that promotes perfection, but in a limited environment without awareness of the greater context of that environment. Older children and adults develop awareness of the sources of the (material) culture on which they depend, and they seek independence through providing themselves access to that culture by their own work. At first, this awareness is mediated through money, a sort of materialized abstraction of interdependent independence, but eventually, the love of possession gives way to a self-consciousness awareness of oneself as a "live spark" or "open gate," one that gratefully takes up possibilities for development and attentively makes use of those possibilities to fulfill responsibilities to one's communities and ultimately to humanity as such.

C9S2

9.2 Imagination, Abstraction, and the Expansion of the World

C9P25 While some experiences of going out, such as camping in the woods, involve exposure to sensorially given environments beyond the classroom, the sorts of "going out" reflected in the use of money as a means of exchange, and especially in taking up one's possibilities and responsibilities to humanity as a whole, depend upon a capacity to engage with realities beyond those that can be given directly to the senses. In *From Childhood to Adolescence*, Montessori describes the transition from the first plane of development (ages 0–6) to the second (7–12) in these terms:

C9P26 > the knowledge presented must not be on the same scale as before. It must not be purely sensorial anymore. Now the child must have constant recourse to his imagination. Imagination is the great power of this age. (12: 19)

C9P27 Imagination is not wholly absent in young children, but it comes to the fore as "the child tends to elaborate in the second period those inner formations which he has built in the first" (1: 154–155). In the earliest ages, children actively absorb the order and contents of the prepared environments in which they live. As they mature, they extend this order beyond what is sensorially given. Imagination allows us to "retain the images that we gather in our minds and to construct with those images [and] also enables us to see that which is not there" (17: 173). This power is "the true form of the intelligence of man" and "what distinguishes man from animals" (17: 172, 173). Imagination's "inner activity" arises from the absorbent mind but goes beyond it. At early stages, "the child actively takes from the environment" for the sake of the "construction of intelligence" (17: 172). Imagination "allows our intelligence to go far beyond the limits of sensorial impressions," such that "if I describe the Bay of Naples, for example, with its blue sea and blue sky and the little sailing boats going in and out, you will get a picture of it, a picture which is not before your eyes. It is a construction of your mind" (17: 174).

C9P28 The power of imagination reaches a culmination in humans' power of abstraction. Through abstraction, we conceive of concepts disconnected from any particular example. The general concept "oak" or "tree" extends cognition beyond a sensorially given, particular oak tree to a range of different oaks or trees.

C9P29 > Of its nature, the mind not only has the power to imagine (i.e., to think of things not immediately present) but it can also assemble and rearrange its mental content, extract . . . an "alphabet of qualities" from all those numberless things that we meet in the outside world. This it does by the power it possesses of abstract thought. (1: 164–165)

C9P30 Given the close connection between the expanding imagination and the capacity for abstraction, Montessori rightly says that "the passage to the second

level of education is the passage from the sensorial, material level to the abstract" (12: 5).[3] This "power of abstraction belongs exclusively to man," distinguishing him from mere animals and allowing him to "further create ideas in his mind through which something new arises" (24: 50; cf. 1: 165, 17: 194, 24: 190). The increased interest in abstraction that arises in later childhood and adulthood permeates every aspect of human life. Abstraction is the capacity to take, "from the millions of things that we can see around us . . . a quality from many objects which possess that quality," and thereby "form an idea" (24: 78). Children who have worked in sensorial ways with various materials come to formulate words and concepts that extend application of the principles they already understand in an embodied way. For example, with respect to mathematical principles, which she teaches first through the manipulation of concrete objects such as sets of beads or shapes, "The child knows the rules already through experience and practice," but as they mature, they come to express them abstractly (24: 298). More generally, for young children, the materials with which they work constitute "materialized abstractions" (24: 81) with norms for self-governance ("control of error," 1: 224) built directly into them. As children mature, they make these norms explicit for themselves, such that they can govern themselves by abstract and consciously endorsed criteria of excellence rather than only by constraints built into the materials themselves. Sofia (xxx) at age 3 can fit cylinders into their proper holes; at age 13, she can solve complex mathematical problems in accordance with rules of mathematics.

C9P31 The process of abstraction has its roots in the selective nature of perception itself. As noted in Chapter 5, a central theme of Montessori's epistemology is that attention is selective: "we do not see everything . . . but only some things that suit us" (18: 185). Montessori's materials give sensory exercises that make salient certain features of objects—their precise shade, their dimensions, their shape, their odor, etc.—and thereby make children aware of those features. Through repeated work with materials that isolate specific features of particular objects, individuals form intellectual habits of selection (and association), which provide the basis for further accomplishments:

C9P32

> in case of the intelligence, the individual must exercise himself in his activities of association and selection, guided and aided by external means, until he has developed, by the definitive elimination of certain ideas and the choice of others, "mental habits" characteristic of the individual. (9: 159)

[3] Montessori occasionally claims that "this power [of abstraction] is within the child when he is born" (24: 190). All children have at least the rudiments of abstraction in their capacities to isolate features of objects for attention, but later childhood (starting around age 7) is the period within which abstraction matures.

C9P33 Having come to distinguish particular shapes from each other through work with metal insets, or different colors through work with color tablets, children develop mental habits of attending to those features of objects. As they mature, they become directly aware of previously implicit focus on particular features:

C9P34

> The capacity for forming a conception of a thing, for judging and reasoning, has always this foundation. When, after having noted the usual qualities of a column, we abstract the general truth that the column is a support, this synthetic idea is based upon a selected quality. Thus, in the judgment we may pronounce: columns are cylindrical, we have abstracted one quality from among the many others we could have adduced, as, columns are cold, they are hard, they are a composition of carbonate of lime, etc. It is only the capacity for such a selection which makes reasoning possible. When, for example, in the demonstration of the theorem of Pythagoras, children handle the various pieces of the metal insets, they should start from the point at which they become aware that a rectangle is equal to the rhomb[us], and a square is equal to the same rhomb[us]. It is the perception of this truth which makes it possible to go on to the following reasoning: therefore the square and the rectangle are equal to each other. If it had not been possible to determine this attribute, the mind could not have arrived at any conclusion. The mind has succeeded in discovering an attribute common to two dissimilar figures; and it is this discovery which may lead to a series of conclusions by means of which the theorem of Pythagoras will be finally demonstrated. (9: 158; see too extensive discussion in 17: 193f.)

C9P35 The basic human tendency to selectively attend to features of the environment based on specific interests, a tendency enhanced through Montessori's sensorial materials, finds fulfillment in the reflective capacity to identify those selected features as objects of attention in their own right. From attending to particular shapes in practice, we can attend to this or that *type* of shape and manipulate properties of such shapes to prove geometric theorems.

C9P36 Abstraction has profound effects on the lives of older children and adults. They no longer live in worlds limited to what is sensorially given but have access to the entire universe and even to purely imagined or purely abstract truths. This greater capacity expands interests—they can have "intellectual emotion" with "lofty enjoyment which will rise superior to and overcome the most acute [immediately sensory] suffering" (9: 160). Through abstraction, they "enter into a new world . . . a rich world," a world wherein they can understand "cause and effect" and "become a strong being" in a whole new way (12: 10). Imagination and abstraction make possible science, history, and all knowledge beyond what is immediately present to the senses.

C9P37 > the uncultivated person has only the direct knowledge of objects . . . The knowledge of . . . uncultured minds is not only disorderly, but it is confined to the objects with which it comes into direct contact, whereas the knowledge of the scientist is infinite, because, possessing the power of classifying the attributes of things, he can recognize them all, and determine now the class, now the relationships, now the origins of each; facts much more profound than the actual things could of themselves reveal. (9: 153)

C9P38 The classification of particular objects in terms of more general characteristics is necessary for the extension of scientific knowledge and for the processes of abstraction that come to characterize general knowledge. Likewise, in order to know truths about the past, we must be able to extend our inferences to different contexts, imagining what life must have been like based on what we experience life to be like today.

C9P39 Beyond these epistemic benefits of abstraction and imagination, artistic inspiration involves an extension through imagination whereby one sees analogies and metaphors not immediately apparent to the senses or comes in contact with ideals that one can express artistically (see Chapter 7). Most importantly, imagination and abstraction affect our moral lives, making possible a new relation to moral life and thereby an emergence from the close moral community of the prepared environment into a political and technological world within which one participates in the development of humanity as a whole (see Chapters 10 and 11).

C9S3

9.3 Morality

C9P40 The concern with the world rather than merely the prepared environment, along with the increased emphasis on abstraction both have important implications for Montessori's moral philosophy. [4] Just as one became explicitly aware of abstract concepts and principles underlying one's sensory discriminations and engagement with particular objects, so too moral relations that were formerly built into one's environment become explicit objects of consideration, with consequent changes in their nature. Thus, for example, rather than merely avoiding physical interactions with others, one comes to see disregard for others' physical presence as a form of disrespect. This expands the scope of moral consideration, so that one can have concern for how this or that class of people in general is treated in this or that general context, and it also opens new possibilities for moral disrespect: "If, up to the present, it is important not to bump someone in passing, it is now considerably more important not to offend that person" (12: 7). Moreover, while love, respect,

[4] The material in this section is discussed in greater detail in Frierson 2023: 115–144.

and solidarity develop first in a prepared environment, adults extend the domains of those moral feelings: "In man . . . love does not disappear when the children are grown up, and not only that but it extends beyond the confines of the family" (1: 267). Love branches out toward imagined communities, as in the "love of the homeland," which Montessori emphasizes "is based on imagination" (12: 19). Eventually, love rises to an "abstract love" embracing all humanity (12: 19).

C9P41 Because it is marked by the development of embodied ethics into abstract moral concepts, Montessori describes middle childhood as a period when "children . . . have a strong sense of good and bad and so it is during this time that a moral education will help" (17: 209).

C9P42

> The child . . . enters the abstract field; he wishes to know reasons. It is curious to notice that one of the things which preoccupies these children is what is ethical in life; what is good, what is bad . . . [T]he seven-year-old wants to know . . . what it is to be bad, etc. (14: 32; see too 12: 10)

C9P43 For all of the basic elements of moral life—character, respect, and solidarity—young children simply embody moral values through freely living in a suitable environment. They get interested in materials and persist in working with them (character). Another child is using an interesting material, and there is "nothing for it but to wait" (1: 202) (respect). The class is given the opportunity for an appealing joint project such as the Silence Game, and children join in and feel united with their friends in a shared activity (solidarity). Older children and adults, however, can see these activities as instances of more generally articulable virtues, values, and principles. As children mature into adults, they shift from a focus on materials with internal norms to the norms themselves. They want to know *why* this is the right way to do this or that, and then how to generalize this right way into a more general standard of excellence for things of this type (character). They seek to develop rules for social interaction and then hold themselves to those rules (respect). And they seek formal or quasi-formal structures of social cooperation and coordination (solidarity).

C9P44 Relatedly, older children and adults shift the nature of their self-governance: "Children decide on their actions under the prompting of natural laws. Adults do it by taking thought" (1: 198). Within contemporary philosophy, several accounts of what distinguishes adult agency from that of animals and children appeal in one way or another to higher-order reflection and/or deliberation. For many contemporary philosophers, these differences imply that adults but not children are full agents, worthy of non-paternalistic respect, because only an adult is capable "of making her own choices, whether good or bad" (Schapiro 2003: 579); the child "does not really 'have' a will yet [and] is still internally dependent upon alien forces to determine what she does and says" (Schapiro 1999: 730). As we have seen in this book, Montessori rejects the notion that only adult agency counts as

agency worthy of non-paternalistic respect, and she even suggests that the emergence of reflective deliberation and rational moral principles can be a source of moral error to which children are not susceptible (see 17: 206). Nonetheless, increased capacity for deliberation marks an important part of development into adulthood and a maturation of our moral lives. Such deliberation has several important dimensions. It allows an individual to step back from particular interests or desires of the moment and consider how those particular interests may fit into broader plans, thereby extending the time horizon over which one exercises agency (see especially Bratman 1987, 2018). Because abstraction enables the development of an explicit concept of one's self, deliberation also allows us to see decisions as made by my*self*.

C9P45 An inner change has taken place, but nature is quite logical in arousing now in the child not only a hunger for knowledge and understanding, but a claim to mental independence, a desire to distinguish good from evil by his own powers, and to resent limitation by arbitrary authority. In the field of morality, the child now stands in need of his own inner light. (6: 2)

C9P46 Young children follow their own guiding instincts and work in accordance with the standards of success built into the materials in their environment, but older children and adults can reflect on whether acting on this or that desire or in accordance with this or that norm would be true to who they take themselves to be.

C9P47 Abstraction and reflection add new dimensions to character, respect, and solidarity. Character is a capacity to persistently engage in work that one chooses for oneself and that aims toward perfection, and each element of character is enhanced through abstraction and reflection. One can now commit oneself to work that has a vaster scope, and even to work that is "imaginary" in that it consists, say, of the organization of chemical elements into an "imagined" periodic table or the construction of new imagined communities (Anderson 1983). One can commit to projects with larger time-horizons, such that one might dedicate days or even years to some work, even suspending various desires of the moment to take the time to progress in the larger project to which one is committed. One's commitment to one's work can have a different sort of internality, such that one not only commits to work one is interested in, but also commits to those interests themselves as expressive of one's deeper values. And the "perfections" toward which one strives can be not merely internal norms of a particular, sensorily given material, nor merely various unconscious aims of self-perfection. Through abstraction and reflection, one can self-consciously formulate ideals and seek to actualize those through work.

C9P48 Respect, too, takes on new dimensions. Once one is capable of committing to longer-term projects and more self-consciously affirmed desires, one can show and receive respect in new ways. Older children begin to formulate explicit principles of mutual respect, and adults can and should act on such principles.

Unlike early moral development, moral education for older children and adults "is not a question of training movements; we begin the introduction of moral relationships, of those that awaken the conscience" (12: 7). Moreover, while interruption is among the worst forms of disrespect toward young children, toward an adult, ignoring self-consciously endorsed values is more serious. Relatedly, I noted in Chapter 6 that the fundamental objects of respect are *activities* rather than wishes or preferences. Once we become capable of abstraction, however, the pursuit of particular wishes and preferences can be integrated with an overall sense of ourselves as independent agents, particularly given the role that money plays in mediating work and preference-satisfaction. Thus, interrupting adults in the midst of flow is not as bad as interrupting young children, but frustrating adults' efforts to satisfy even trivial desires with money they've earned can be impermissibly disrespectful. Moreover, because abstraction gives rise to an awareness of one's own dignity as something abstract, behavior that might not directly interfere with agency can threaten one's sense of self (see 12: 7). Especially as individuals make the self-presentation of an abstractly conceived, socially situated self into an explicit goal, they are vulnerable in new ways and thus worthy of new forms of respect.

C9P49 Abstraction also expands social solidarity to include what some today call "imagined communities" (Anderson 1983): "the love of country is born, the feeling of belonging to a national group, and of concern for the honor of that group" (1: 175). It also facilitates a shift from merely active and affective solidarity, as in the Silence Game, to forms of *organized* unity, which are necessary for well-functioning, complex, societies: "Cohesion alone is not enough to set up a society which can play a practical part in the world"; we need an "organizational and conscious part of society" (1: 215, 216). Abstraction makes it possible to conceptualize social relations and act together in the light of those relations. The desire for structure leads the older child "to associate himself with others, not merely for the sake of company, but in some sort of organized activity. He likes to mix with others in a group wherein each has a different status . . . This is a natural tendency, through which mankind becomes organized" (6: 2)

C9P50 Abstraction and reflection also make it possible to pursue ideals of ethical life indirectly, even when one does not wholeheartedly embrace character, respect, or solidarity. A child raised in freedom in a prepared environment and then allowed to go out into the world with increasing degrees of engagement will expand their ethical life to include principled action, but even a child who does not develop these moral traits at an early age can come to understand their value as an adult. Once adults recognize through reflection the value of character, respect, and solidarity, they can pursue those goods, as abstract values to which they are committed. Such adults can "impose rules on themselves to keep themselves from falling," "clothe themselves in virtue," and join "the category of the virtuous" (1: 189). For many contemporary moral theorists (e.g. Christine Korsgaard), this principled,

reflection-driven virtue is the human ideal. So, too, Montessori notes that "this, today, is the atmosphere in which we train character and teach morals" (1: 189).

C9P51 For Montessori, this "category of the virtuous" is a "third circle," one that avoids immorality and criminality through an abstract or reflective commitment to avoid vice and pursue what is good, but without yet having the "force of gravity, a *true* wish to become better" that would make them "people . . . drawn towards perfection, naturally and without effort" (1: 187). In morals as in every other area, Montessori emphasizes that our fundamental personalities are shaped during the period of the absorbent mind, such that reason can never fully make up for lack of development that happens in early ages (see Section 9.4). When young children develop these moral traits from an early age, however, they can add abstract principles and reflective endorsement to them at later age, so that their character is wholehearted *and* reflective, their respect for others is fully embodied *and* principled, and their solidarity with others is deeply felt *and* rationally organized. Those who *merely* have a reflective pursuit of perfection, principled respect for others, and well-organized social organization have something morally worthwhile, but it is an incomplete sort of virtue.

C9P52 Even in those who develop well, the more rule-governed, abstract, rational, and reflective sort of moral life is only one further stage in overall moral growth. Those "adults . . . who are always considering whether their actions are good or bad . . . are at the psychological stage of children from seven to ten years of age" (17: 206). Abstraction and reflection make this sort of moral conscience possible, and they deeply enrich human moral life, but there can be a risk that "those who are concerned with looking at the good and the bad forget humanity" like "people in religion who . . . consider every little sin" (17: 206). Ultimately, Montessori emphasizes, the function of the imagination, including its power of abstraction, is to expand the scope of human love, and with that expansion comes "generosity," which "saves humanity"; this stage "builds on" the prior two "to expand the soul" (17: 206). As children move from early childhood to adulthood, the ideal form of moral development goes from pre-conscious and embodied character, respect, and solidarity to traits that are more reflective, organized, and abstract, and then eventually to a love of humanity that surpasses reflection and expresses character, life, and solidarity in an expansive, deeply felt, wholehearted, and reasonable way.

C9S4

9.4 Two Cosmic Tasks: The Work of Children and of Adults

C9P53 The differences in interests and capabilities described in Sections 9.1–9.3 are knitted together in a final fundamental difference between young children and adults, a difference of *task*, or rather, a difference in the sort of contribution each can and should make to humanity's cosmic task. For Montessori, all things have a

role to play in perfecting the cosmic whole of which we are parts, and humans' role involves ongoing transformation of the earth through culture. This human task is reflected in the basic structure of human character, which constantly seeks new heights, "adding a point to the circle of perfection which interests" a given person (1: 191). For Montessori, however, the task at the species level has two distinct, related, and equally crucial components. On the one hand, human beings need to form *themselves* into character-driven agents who absorb the cultural inheritance inscribed in their environments to equip themselves for contributing to the development of human culture. On the other hand, human beings need to form their *environments*, inscribing culture into the built world.

C9P54 Human beings carry out these two tasks at different stages of development. Young children perform the all-important work of forming spiritual embryos into mature human adults capable of flourishing. Montessori often quotes Wordsworth's line "The child is father of the man" (e.g. 22: 26, 169). Once they become adults, humans then perform the work of forming an environment conducive to flourishing. "It is the adult's task to build an environment superimposed on nature, an outward work calling for activity and intelligent effort . . . It is the child who builds up the [hu]man [being]" (22: 167,169).

C9P55 Importantly, neither adults nor children can do the work of the other. Children cannot effect the requisite changes in their environments for two main reasons. First, they are simply too weak. Not only physically weak, children also lack requisite knowledge, foresight, patience, and abstract reasoning to effectively change environments to suit their wills. Moreover, at least initially, children are unwilling to voluntarily struggle and suffer for the sake of effecting an external change. And this is related to the second key reason they cannot change their environments: children are focused on internal development. Children focus not on external ends to be advanced, but on *activity* as such. For adults, activities—particularly those we call "work"—are typically end-directed. For children, "ends" are incidental parts of activities, and it is the activities themselves that are valuable, as "exercises" whereby the child "learns to co-ordinate his movements and absorbs from the outer world the emotions that give concreteness to his intelligence" (22: 170). Hence a child will repeat an activity—placing cylinder blocks, washing hands, scrubbing a table, writing a letter—again and again, even when the external "goal" of the activity—say, clean hands—has been achieved. This repetition, this emphasis on effort and activity, conflicts with the fundamental principle of adults effecting environmental change, the "law of the least effort by which man seeks to produce the most he can," a law that is necessary from the standpoint of reshaping the environment but antithetical to the processes of authentic self-development (22: 167). The child is unwilling to focus on efficiency and external goals because she has a different task, a task of inner self-creation.

C9P56 The adult, contrarily, is severely limited in his ability for self-creation.

C9P57 It is the child who builds up the man, the child alone. The adult cannot take his place in this work; the exclusion of the adult from the child's "world" and "work" is still more evident and more absolute than the exclusion of the child from the work producing the social order superimposed on nature, in which the adult reigns. (22: 169; see too 1: 11–13)

C9P58 Adults are the people they are largely due to childhood experiences. This is true in obvious ways, such as the role that childhood trauma can place in shaping adulthood and adults' challenges trying to speak a new language without accent. The dependence of adults on the children they were also takes place in more subtle ways. Montessori discusses how various problems with character, attention, or personality in adulthood often have roots in childhood. She draws a parallel between her work and that of Freud and notes that "one of the most important discoveries due to [psychoanalysis] was how a psychosis may originate in the distant age of infancy" (12: 5). Whereas Freud typically focuses on sexual or erotic repression, Montessori argues that it is primarily "the repression *of the spontaneous activity of the child* by the adult" that brings about most psychoses (22: 5). Even in relatively "normal" adult lives, lack of focus, weakness of will, social dysfunction and awkwardness, and even just reduced drive for excellence can be traced to failures to properly develop character in early childhood (e.g. 1: 175–186). As noted above, one important insight of Montessori's work with children was her discovery that there are sensitive periods of learning, and for her, one's core character, strengths and weaknesses of will, basic affective and sensory connections to the world, and sense of order are all shaped during the first six years of life. At times, she goes so far as to claim that "the hope of altering adults is . . . vain," but more realistically she insists that "no amount of higher education can cancel what has been formed in infancy" (1: 58, 162). An example can best illustrate the sort of change that Montessori thinks is and is not possible:

C9P59 The respect for life in India is so great that animals also are included in a veneration firmly rooted in the hearts of the people. So deep a sentiment can never be acquired by people already grown up. Just to say: "Life is worth of respect," does not make this feeling ours. I might think the Indians were right: that I also should respect animals. But in me this would only be a piece of reasoning; it would not stir my emotions. That kind of veneration which Indians have for the cow, for example, we Europeans can never experience. Nor can the native Indian, reason as he may, ever rid himself of it. (1: 56)

C9P60 Reason can accomplish change of behavior, and over time even some change in sentiments. But there are depths and varieties of feeling—for life, God, oneself, work of various kinds, other people, and so on—that are formed only in childhood and that constitute an underlying framework through which (or against

which) future development takes place. In terms of genuinely acting in accordance with values that they give themselves, children are in this sense *more* autonomous that adults. When "normalized" and acting freely, a child's actions are fully integrated by values to which she is thoroughly committed. Adults are always, to various degrees, governed by patterns, sensitivities, and values of the children from which they come: "no [one] exists who was not made by the child who once he was" (1: 12).[5]

C9P61 Adults and children have different interests, capabilities, and tasks. For both, excellent human life involves intellectual virtues whereby we cognitively engage with the reality in which we live, artistic creativity whereby we express ourselves into that world, and various forms of character, mutual respect, and solidarity through which we live well. For young children, these aspects of human life arise through adaptation to the environments in which they find themselves, adaptation that occurs via interested absorption of those environments and active self-construction of the basic features of their personalities. The relevant work takes place largely in unselfconscious, sensorially driven, environmentally situated ways. For adults, these aspects of human life arise through self-expression into a social and built environment, constructing the world in accordance with projects and ideals, both individual and social, that we conceive for ourselves based on the adults we have become. Adults are capable of abstract thinking, longer-term projects, higher-order reflective agency, investigation of imagined worlds, and solidarity with imagined communities. Adults are not children, but they are the adults created by their child selves, and the basic structures of excellent (adult) human life are built on the fundamental epistemic, moral, and aesthetic principles Montessori discovered in children.

[5] According to Montessori, even the most well-intentioned adults tend to fundamentally misunderstand this relationship with children. Instead of recognizing that children form the character of adults and adults should make environments within which children can create themselves through freely chosen activity, adults see their task as teaching, disciplining, and choosing *for* the child to develop her into what she should be. This conception of adult responsibility is based on the perceived lack of internal capability on the part of the child:

> The adult has become egocentric in relation to the child . . . Thus he considers everything from the standpoint of its reference to himself, and so misunderstands the child. It is this point of view that leads to a consideration of the child as an empty being, which the adult must fill by his own endeavors, as an *inert and incapable being* from whom everything must be done, as a being without an *inner guide*, whom the adults must guide step by step from without. Finally, the adult acts as though he were the child's creator, and considers good and evil in the child's actions from the standpoint of himself . . . And in adopting such an attitude, which unconsciously *cancels the child's personality*, the adult feels a conviction of zeal, love, and sacrifice. (22: 10)

> The result of our misinterpretation is an excess of misdirected efforts on the part of adults, an unjust limitation of the autonomous self-expression children are capable of even at the earliest ages, and ultimately developmental hindrances to the development of mature characters capable of fully governing themselves autonomously in a social world. By mistakenly thinking of children as needing adults to directly help them with the task of self-construction, adults tend, albeit with the best of intentions, to usurp the child's task of internal development and to fail to do our own task of providing an appropriate environment.

C9P62

Adults create the environments—both social and physical—in which we live, and from which children absorb what they need for their tasks of self-construction. And adults construct these environments in the light of principles of organization and articulable ideals. In the next two chapters, I turn to two further topics in Montessori's philosophy. In Chapter 10, I discuss some elements of Montessori's political philosophy. Her interest in politics and political philosophy pre-dates Montessori's work with children, but the ways in which she came to understand politics were deeply informed by her pedagogical naturalism; she came to see children as offering, in more ways than one, hope for a new and better politics. In Chapter 11, I turn to Montessori's philosophy of technology. Given the pace of technological change, and the urgency with which philosophers are coming to see technological change as a philosophical problem, it might seem odd to look to an early twentieth-century philosopher for insight into how to address our technological challenges. Strikingly, however, Montessori saw in the telegraph and railroad and machine gun many of the philosophical issues that we think of as arising from the internet or artificial intelligence or global climate change. Ultimately, she develops a philosophy of technology that manages to be deeply aware of the dangers of modern technology (and even prescient about the dangers of twenty-first-century technology) while also insisting on the value—and even a non-instrumental value—of technological progress for humanity's destiny.

C10

10

Feminism, Cosmopolitanism, and Peace

C10P1 In Chapter 9, we saw that Montessori's ideal form of human life, while rooted in her observations of children, takes special shape in the lives of adults. Adults pursue knowledge and act in the world in accordance with abstract concepts, extensive imagination, and values endorsed through reflection. Adults respect others in accordance with conceptions of rights that apply to human beings in general, and they seek solidarity through organized structures of social life. All these aspects of adult life, but especially the more abstract and organized forms of mutual respect and solidarity, lead adults into politics.[1]

C10P2 The need for political engagement has never been greater. Human beings in the twenty-first century find ourselves in an unprecedented era of global connectivity and technological development. Movements of populations, communications technology, the internet, social media, and countless other forces have made sensibilities less local as people learn about one another, particularly among marginalized persons who *need* to learn various ways of thinking in order to survive. At the same time, various technologies undermine autonomy and tribalize people into ideological bubble chambers. While war and injustice are widespread, people have also become more conscious of justice toward others, and global media regularly report, for example, data about civilian casualties or disasters in all parts of the globe. Meanwhile, we have created international political bodies such as the United Nations, World Trade Organization, UNHCR and UNESCO, and thousands of international non-governmental organizations dealing with a wide range of issues.

C10P3 These changes toward a more cosmopolitan world provide opportunities to realize Montessorian ideals in ever greater ways and at vast scales, but they also bring important challenges for realizing those ideals. Insofar as the contemporary situation is radically different from the situation, say, a thousand years ago, there is a need to articulate both what this difference amounts to and when we can be said to have turned a radical corner. Getting a clear sense of the perils and possibilities of cosmopolitan integration (and, as we will see in the next chapter, technological development) can help us discern how to more effectively make use of these changes for the good rather than ill of humanity.

[1] Moreover, since abstract deliberation make possible principles, values, and organizational structures even without prereflective character, respect, and solidarity, the development of adult capacities makes politics possible (and necessary) even for adults who lack the wholehearted flourishing toward which Montessorian education aims.

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C10P4 In that context, Maria Montessori is a particularly important figure. She was attuned to the shifting conditions of the world in which she lived, and eerily prescient about the developing conditions over the course of the twentieth and even into the twenty-first centuries. Consistent with her overall pedagogical naturalism, she learned from children essential elements of an ideal politics, and in her work with children she developed an increasingly complex sense of humans' "cosmic task," one that requires cosmopolitan political unity. At the same time, she was acutely aware of how distant the (adult) world of politics is from its ideal, and she formulated forceful political proposals for how to change that non-ideal world.

C10P5 In this chapter, I discuss three key components of Montessori's politics. I start (in Section 10.2) with Montessori's feminism, a topic that has been discussed at some length in other contexts (see especially Babini 2000, 2023; Babini and Lama 2000). Here my focus is to highlight Montessori's general political activism, particularly her recognition of and willingness to confront social injustice. I then (Section 10.3) turn to the primary topic of this chapter, namely, various issues surrounding the issue of "cosmopolitanism," such as how to reconcile ethical and cultural pluralism with universal moral/political rights, how to distinguish healthy from toxic (e.g. fascist) forms of patriotism and nationalism, and how to balance commitments to local communal values with shared cosmopolitan ideals. Finally, in Section 10.4, I consider Montessori's advocacy for peace. In a time when there are ongoing wars all over the world (including, at the time I write this, in Sudan, Ukraine, Armenia, Palestine and Israel, Korea, Myanmar, and Ethiopia), and when even "peaceful" countries suffer from internal warfare and violence, the need for philosophical reflection on the conditions for lasting peace is as great as ever. As Erica Moretti (2021) has shown, such reflection was a driver of Montessori's thought from the very start of her career.

C10P6 Before turning to these specific issues within Montessorian political philosophy, I briefly situate that political philosophy in the context of her philosophy as a whole. Montessori's metaphysical teleology and ethical perfectionism give rise to a philosophy of history within which humanity "has a mission," one that Montessori articulates in terms of the imposition of culture onto nature (the creation of a "supernature" (e.g. 10: 62)). At the same time, her metaphysical doctrine of interdependence and her moral emphasis on respect and solidarity imply the need for this "mission" to be a social one carried out by human beings as a cosmopolitan whole, a "single nation," or even a "single living organism" (e.g. 10: 94). Her conception of humanity's historical vocation provides the background for Montessori's consideration of various political problems, so I start in Section 10.1 with an overview of that philosophy of history.[2]

[2] This account also lays an important backdrop for the discussion of technological progress in Chapter 11.

C10S1

10.1 Teleological History and the Mission of Humanity

C10P7 In Chapter 3, I discussed Montessori's teleological metaphysics, according to which the universe tends toward increasing order, complexity, and perfection. As systems become more complex, conflicts among entities at a particular level of organization give rise to higher-level emergent properties by which those conflicts are mediated. Thus, for instance, the flexibility and relative instability of organic compounds and geological forces of erosion and sedimentation enable and necessitate the emergence of living systems that unify organic compounds under biological laws and shape the earth's geology into ordered ecosystems. Typically, for Montessori, the emergence of such new forces arises in a "sudden upheaval" or "crisis" after long periods of stasis (10: 20). Life itself is an emergent force, and, as Chapter 4 showed, human psychology is another emergent force irreducible to mere biology. As *psychological* beings, humans are capable of unique forms of progress and self-regulation, "contributing a new energy: the . . . *psychosphere*" (Montessori [1948] 1971: 17).[3]

C10P8 Humans' capacity for psychological development has one immediate and important implication for Montessori's philosophy of human history. Human beings adapt to their environments not only through biological change but through psychological "absorption," which makes possible a rapid and profound sort of historical progress not possible for other organisms of similar biological complexity. In line with Montessori's fundamental insight about the importance of human psychology, Daniel Dennett has recently suggested that we consider the emergence of human brains as the basis for a "euprimatic revolution" (Dennett 2003: 180) comparable in importance to the "eukaryotic revolution" in which competing single-celled organisms learned to work together as integrated biological systems.[4] Montessori notes that

C10P9

> Man does not have this precise heredity to do one special thing . . . he is not obliged always to do just one thing . . . From this stems the obvious fact that every man must prepare in himself an adaptation that is not hereditary. He must prepare his own adaptation. This is the great difference between men and animals. (17: 91)

[3] Chapter 11 relates this psychosphere to human technology; here I focus on the implications of that psychosphere for the development of human culture as such.

[4] Organisms with very short life-spans and rapid reproductive and mutation rates (such as bacteria or even fruit flies) can undergo relatively rapid adaptation to new environments. But this adaptation is still fundamentally *biological* rather than cultural, and when time is measured in generations, it is extremely slow. Human beings are uniquely capable of rapid and dramatic degrees of cultural change, such that humans' way of life—our form of adaptation to our environment—can be profoundly different from one generation to the next.

C10P10 In the absence of a single, biologically programmed way of life, humanity brings to nature a *rapidity* of change that exceeds the ordinary processes of biological change. Dennett's euprimatic revolution "makes cultural transmission"—over and above genetic adaptation—"its information superhighway" (Dennett 1990: 173). And Montessori argues (more teleologically) that with the emergence of human beings,

C10P11

> A new energy, a mechanism entirely different from the [other] animals, has come on our planet, to remove the tardiness of physical energies and to give impetus to the evolution of life . . . [T]his agent, even though his skeleton and entrails show that they have used the same common material . . . has nevertheless brought in himself a new force, a complex of nature that differs from all others . . . *Rapidity* is his fourth dimension. (Montessori [1948] 1971: 20)

C10P12 Even within the lifetime of a single individual, people can change norms and values, responding to situations in new ways, developing new skills and forms of life. But the capacity for *deep* change comes from one generation to the next, as young children absorb the values and forms of life implicit in their culture and "incarnate" those values into their basic psychological make-up, becoming new kinds of human being in the light of the cultures into which they are born.

C10P13 This culturally absorbent mind not only allows for dramatic progress from generation to generation but also establishes close connections between human beings. The culture children absorb is always the culture of a group. Human beings have capacities for sympathy, compassion, and solidarity. We seek community and strive for cooperation with others. Moreover, humans' expansive imagination allows us to understand connections with those in history and around the world. The combination of our capacities for absorption, solidarity, and imagination makes possible the development of supra-psychological expressions of agency, wherein human communities, nations, and even humanity as a whole operate as agents in their own rights.

C10P14 Unfortunately, the same psychology that expands solidarity also generates *problems* for human beings. We seek community and have capacities for sympathy, but we also can develop capacities for profound degrees of selfishness, violence, and cruelty. The imagination that makes possible an expansion of interest into solidarity with others also makes possible an abstraction from others' individuality and a drive toward wars with those against whom we have no personal animosity. These problems are, for Montessori, symptoms of yet another upheaval, comparable to earlier "biological or geological epochs in which new, higher, more perfect forms of life appeared, as totally new conditions of existence on earth came about" (10: 20). In this case, the problem is not with the balance of chemical compounds or with the tardy evolution of living systems. Rather, the forces of human psychology come into conflict with each other and generate pointless wars, general hostility,

and an artificial incompatibility of human interests. From these conflicts internal to the psychosphere, Montessori claims, a new sort of force must emerge. Human psychology makes social solidarity possible, and human conflict makes that solidarity *necessary*. Just as the earth's chemical forces enabled and required the emergence of a new—biological—force, and the nature of living systems enabled and required the emergence of new—psychological—forces, so human psychological forces both enable and require new social, political, and ultimately cosmopolitan forces: "World shaking forces are now making the realization of human unity an urgent necessity" (6: 71; see too Montessori [1948] 1971: 23–24).

C10P15 Montessori periodically asks about humanity, "Does he have a cosmic task in the environment? This great man with his great intellect, with his special adaptation, does he have a purpose on this earth or is he here just to enjoy it?" (17: 91). Her answer appeals to humanity's ability, need, and "tendency" to transcend individual psychological needs and differences to unite into "one organism," a "Universal Brotherhood" (Montessori [1948] 1971: 22). Rather than war, we can and should become a cosmopolitan whole psychologically strong enough to *use* our amazing capacities for our good and the good of the world (see Montessori [1910] 1913: 259). This historical progress is not *inevitable*. We are at a cusp where transformation is necessary, but avoiding a calamitous end requires psychological transformation that begins in formative years when we construct our most basic orientation toward the world. As we will see in Section 10.5 and again in Chapter 11, the social and political transformation that will save humanity from itself must begin, for Montessori, with children.

C10S2

10.2 Feminism

C10P16 Montessori's journey to social and political activism began not with children, but with the rights and dignity of women. She started personally, advocating within her family, society, and university for the right to study science and medicine. This personal self-advocacy brought her into feminist circles early in her life, and by 1896, when she was selected to represent Italy at the International Women's Congress in Berlin, she said of herself, "I speak for the six million Italian women who work in factories and on farms as long as eighteen hours a day for pay that is often half of what men earn for the same work"; she proposed a resolution—adopted unanimously by the Congress delegates—advocating equal pay for equal work (Kramer 1976: 55). Before long, she was a feminist icon, giving speeches throughout Italy and representing it again at an international conference in London in 1899.

C10P17 Historian Valeria Babini has aptly described Montessori's feminism as a "scientific feminism" that fit within moderate nineteenth-century Italian "practical feminism" (Babini 2023: 21; cf. Babini and Lama 2000: 85–90). Rather than focusing on political power (e.g. suffrage), practical feminists emphasized women's capacities

to take on active roles within civil society. Montessori's success as a doctor, researcher, codirector of a major psychiatric institution, and university professor fit well within this practical feminist agenda; as Babini and Lama put it, "the particular form of her feminist militancy . . . was always focused on demonstrating the professional capacities of women in traditionally masculine fields" (Babini and Lama 2000: 240).

C10P18 Montessori took her practical feminism in a specifically scientific direction. Most obviously, she made her mark in the world as a practicing scientist. Even when she shifted from medicine to pedagogy, she consistently emphasized the scientific nature of her vocation. Her early publications were in major scientific journals, and her first book, which in English was entitled *The Montessori Method*, was originally entitled *Il Metodo della Pedagogia Scientifica applicato all'educazione infantile nelle Case dei Bambini*, that is *The Method of Scientific Pedagogy Applied to the Education of Children in the Children's House*. The work was not a mere pedagogical treatise but explicitly positioned as a scientific one, the inauguration of a truly "scientific pedagogy" (Montessori [1909] 1912: 1; cf. 2: 1). Throughout her career, Montessori integrates the sciences of her day—particularly medicine and embryology, but also geology, chemistry, and other sciences—into her speeches and writings. She positions herself not as a teacher but as a *scientist*, and thereby as an example of women's capacity to engage in science at the highest level.

C10P19 Relatedly, Montessori's scientific feminism promotes scientific literacy *as* feminism. She promoted "science understood as a form of feminist militancy" (Babini 2023: 23). Rita Kramer quotes Montessori as having said "my wish is for women to fall in love with scientific reasoning" (Kramer 1976: 80). Babini comments,

> C10P20 With this unusual but intentional wording Maria Montessori sought to identify rationality itself as a guide to female conduct, even in the most personal and intimate choices, including marriage. Consequently, she urged women wishing to become mothers to follow the dictates of medical science, informing themselves about the health of their own partners and about any possible hereditary illnesses. The choice of motherhood was thus referred back to a female consciousness "illuminated" by science.
>
> C10P21 Promoting the value of scientific authority to women in relation to maternity, mothering, and heredity entailed pointing out to them their intellectual autonomy even regarding questions pertaining to the intimate sphere and their own sexuality. This autonomy of thought, along with economic independence, represented an indispensable instrument for the emancipation of the female world. (Babini 2023: 22).

C10P22 Montessori hoped to elevate women's authority in both social life and their own personal lives through equipping them with the scientific fluency by which they could demonstrate rational bases for their claims.

C10P23 As we will see shortly, Babini correctly emphasized women's maternal role as an important part of Montessori's feminism. One of the areas in which Montessori—controversially—insisted upon scientific education was in the arena of sexuality and reproduction. Her "Sexual Morality in Education," presented at the National Congress of Italian Women in 1908 (and published in 1912), represented a shift in her feminism from more direct advocacy for political and legal representation to a feminism rooted in empowering women within domestic and social life (for discussion, see Babini and Lama 2000: 240–244). Nonetheless, Montessori's exhortation to women to love scientific reasoning is not limited to questions of maternity, mothering, and heredity. A crucial component of her scientific feminism is her insistence that all children—including girls—be taught to reason well about the world in which they live. Feminist concerns provide further context for her claim that people should apply imagination to reality rather than fantasy (see Chapters 7 and 9). Those concerns also help provide background for her distinctive accounts of intellectual virtues, which emphasize the cultivability of basic human capacities, and her emphasis on character and respect. When women's perspectives were often ignored or treated as sub-rational, Montessori turned to scientific literacy to ground women's voices in undeniable rational standards while giving women contexts to pursue their own interests.

C10P24 Montessori's scientific feminism also used science to reject essentialist claims about women's inferiority. From her position as a professor of anthropology in a time of phrenological arguments about the superiority of various kinds of persons, Montessori directly tackled "a very widespread belief of long standing that is confirmed in the name of science: that woman is biologically, in other words totally, inferior, that the volume of her brain is condemned by nature to an inferiority against which nothing can prevail" (Montessori [1910] 1913: 256). Without specifically endorsing phrenological methodology, Montessori adeptly shows how the best phrenological research available at the time "arrived at an opposite conclusion: namely, that they can demonstrate a greater development of brain in woman" (Montessori [1910] 1913: 257). She draws the social implications of this research:

C10P25 > Thus, we have a contradiction between existing anthropological and social conditions: woman, whom anthropology regards as a being having the cranium of an almost superior race, continues to be relegated to an unquestioned social inferiority, from which it is not easy to raise her. (Montessori [1910] 1913: 258)

C10P26 *Pedagogical Anthropology*—the book as well as the course Montessori taught at the University of Rome—provided a context for directly tackling the scientific sexism of her day through a scientific feminist response. Less directly, this feminist science endured through all of her future pedagogical research, as Montessori created classroom contexts in which both boys and girls could explore their interests and develop freely in healthy environments, and in which children of all genders

demonstrated intellectual and moral development beyond the expectations of psychologists and pedagogues of her time.

C10P27 Beyond scientific work, Montessori's feminism led her to advocate for equal pay for equal work and to support the activist organization *Pensiero e Azione*—Thought and Action—as it sought to promote women's suffrage (see Babini and Lama 2000: 164–181; Babini 2023: 23).[5] A consistent advocate for women's sexual empowerment, at times she criticized marriage as a patriarchal institution in which "the wife is a slave, for she has married in ignorance and has neither . . . knowledge nor . . . power" (Montessori [1910] 1913: 473). This condemnation of the modern institution of marriage may have some roots in Montessori's personal experience, having given birth to a child outside of traditional marriage and having been forced to conceal her maternity in order to protect her career and the legitimacy of her child. The book from which this is taken—*Pedagogical Anthropology*—was based on Montessori's lectures at the Teacher's College of the University of Rome, so Montessori would have delivered this message to rooms of female students as both warning about marriage and exhortation to scientific knowledge.

C10P28 Montessori's condemnation of the slavery of marriage brings out a further dimension of her feminism, namely that Montessori's was what we might call a *maternal* feminism. Her worry that married women lack both knowledge and power warns that in this condition they can be "made the instrument for the birth of weak [and] diseased children" or become "the mother who cannot restrain her own son from degradations she knows are the probable source of ruin of body and soul" (Montessori [1910] 1913: 473). Conversely, as early as 1902, Montessori had said,

C10P29 > Women's social victory will be a maternal victory, one destined to ameliorate, to render stronger the human species. [A woman,] after having gone on to conquer social labor, will take a further step: she will conquer her biological labor, which is the true goal of feminism: the victory of her own children. (Quoted in Babini 2023: 22)

C10P30 This passage has been "criticized by Italian feminist historians" (see Babini 2023: 22), and Montessori's invocation in *Pedagogical Anthropology* of broadly eugenic ideas of "weakly, diseased, or degenerate children" (Montessori [1910] 1913: 473) is equally subject to such criticism. However, when she describes what sorts of mates knowledgeable and empowered women will choose, she does not refer to any genetic or racial characteristics, but to the self-conscious commitment to creating a home that fosters the development of children:

[5] Although women's suffrage was a cause Montessori promoted as part of Thought and Action, she was silent during discussions of fighting for suffrage at the Italian Women's Congress in 1908. For discussion and speculation about why Montessori may have stepped back from this cause, see Babini and Lama 2000: 231–237.

C10P31 To better the species consciously, cultivating his own health, his own virtue, this should be the goal of man's married life. It is a sublime concept of which, as yet, few think. And the socialized home of the future, living, provident, kindly; educator and comforter; is the true and worthy home of those human mates who wish to better the species, and to send the race forward triumphant into the eternity of life! (Montessori [1909] 1912: 69–70; cf. 2: 362)

C10P32 The Montessori who wants women to be equipped with the knowledge (and thereby power) to raise children who will excel in the world also "differed from [her] colleagues" because she recognized that "mental deficiency [is] more of an educational than a medical problem" (2: 21; cf. Montessori [1909] 1912: 31). Her feminism recognized a special role for women in the development of humanity as a species. Women empowered by knowledge in liberating social conditions could assume privileges of motherhood in ways that ennoble their children and thereby humanity as a whole. More generally, as she put it in an editorial written while she was still at the University of Rome,

C10P33 As soon as she becomes a human being free in her social rights, the work of peace will begin; she will be able to shed divine light onto minds lost in egotism and she will instill into hearts the sacred love of humanity, which is none other than maternal love extended to the world. (Montessori 1906)

C10P34 By the empowering of this extended maternal love, Montessori continues,

C10P35 As if by magic, human weaknesses will be strengthened . . . and humanity directed towards its path . . . In this spiritual and political union of man and woman . . . you will see the new and unheard of victory of the man who has already conquered the earth; you will see the victory of the man who surpasses himself! (Montessori 1906).

C10P36 Montessori's career as philosopher and pedagogue unfolds a scientific and maternal feminism that seeks to empower women for the sake of bettering humanity as a whole. Her scientific rigor creates contexts where children reveal philosophical insights into the human condition, and she articulates and applies those insights with the aim, as she said in her first book, "to send the [human] race forward triumphant into the eternity of life!" (Montessori [1909] 1912: 70). Early feminism bears fruit in a scientific pedagogy aimed toward human fulfillment understood as a democratized Nietzschean self-overcoming. Further feminist ideals come through in specific features of her pedagogy. In her prepared environments, every child, regardless of sex, has opportunities to freely choose among the same sets of materials, and mutual respect in the classroom is extended equally to all. The basic human ideals laid out in Chapters 5 and 6 of this book are identical for

boys and girls, for men and women. All people need to cultivate moral character, respect, solidarity, and intellectual virtues. Montessori classrooms are filled with brooms and dusters and knitting needles and saws and knives and lathes and other materials of practical life, and at no point in any of her writings does she suggest that these tools should be taught in a gendered way. She alternates between universalism, where each child has the same needs in general, and particularism, where each child develops in their own way. She never distinguishes learning based on social categories, including gender.

C10P37 Before closing this section, it's worth adding one final contribution of Montessori's feminism to her broader philosophy. Fundamental to Montessori's philosophical methodology is a profound respect for children and an insistence that children in conditions of freedom can best disclose human ideals and human possibilities. She rightly notes that children's oppression is often invisible, as adults paternalistically care for them in ways that ultimately undermine their dignity and development. In those contexts, she often draws on the struggle for women's rights as an analogy for her struggle for children's rights. Thus, for example,

C10P38

> Some time ago, a very important question arose—that of the role of women . . . The same kinds of things were said at that time about women as are now being said about children and their role in society. In those days, too, it seemed absurd to speak of women as forgotten human beings. "We've neglected women, you say? How can that be, when we do everything possible for them, when we love them so much, when we protect them and are ready to die for them, when we work all our lives for them." (10: 45)

C10P39 Just as this patronizing, paternalistic treatment of women wore a veneer of love while utterly neglecting women's dignity, so too with children:

C10P40

> Yes, of course, we all love children, we love them a great deal, but we do not appreciate them for what they really are . . . We do not do what we should for them, because we have no idea what it is we should do, what place they should occupy in society . . . The adult commits a serious error when he takes himself for the child's creator and believes he must do everything for him . . . And all he succeeds in being is a dictator, whose wishes the child must blindly obey. The adult has considered this very kind of dictatorship to be one of his own social problems, but he has never regarded it as a social problem of children (10: 45–46).

C10P41 Montessori was a feminist before she was an advocate for children, and feminism provides a lens through which she saw the intense oppression of children.[6]

[6] For an excellent contemporary example of a similar use of feminism to highlight the oppression of children, see hooks 2000: 21).

Moreover, her *maternal* feminism showed her the stakes of women's oppression in ways that highlighted for her the importance of advocating for children. And her *scientific* feminism provided a context for pursuing and propagating the knowledge needed both to identify and to overcome the tyrannies that destroy lives of women, children, and humanity itself.

C10S3

10.3 Cosmopolitanism and Pluralism

C10P42

In 1946, Montessori was asked what nationality she held, and she promptly responded, "My country is a star which turns around the sun and is called the Earth" (Kramer 1976: 352; Schultz-Benesch 1997: 199). In offering this response, she personally embraced what Samuel Scheffler has called "the root idea of cosmopolitanism," the view that "each individual is a citizen of the world" (Scheffler 1999: 258; see too, e.g., Nussbaum 1996; Appiah 2006; Kleingeld and Brown 2019). The statement was in part simply a matter of fact. Most of Montessori's adult life was spent outside of her native Italy, with extended residence in Spain, the Netherlands, and India and extended periods in other countries where she directed training courses that, from their earliest days, drew a broad international student body. When asked about her nationality, she was returning to Europe after six years in India, a stay that began as a short training course but ended up with extended confinement under British supervision for being a citizen of an enemy nation. Upon returning from India, her closest national allegiance was likely to the Netherlands, where her son's in-laws were based and where she had located the headquarters of the International Montessori Association (AMI). But she had no allegiance to any particular state; she was a citizen of the world. Even in her earliest days, her feminist work involved participation in international women's congresses and conferences, and until the end of her life she was actively involved in international movements and institutions, particularly working for the rights of the child but also for women's rights, efforts toward global peace, and other endeavors. She was an active participant in the early formation of UNESCO (see Barres 2005; cf. Moretti 2021: 221–224) and nominated several times for the Nobel Peace Prize.

C10P43

Despite—or perhaps because of—her cosmopolitanism, Montessori vigorously defended the importance of more local (and national) traditions and communities. While proclaiming herself citizen of the world, Montessori also returned from India with a draft of her *Absorbent Mind*, in the final version of which she describes the essential role that local traditions and values play in the formation of human persons. "Nothing has more importance for us than this absorbent form of mind, which shapes the adult and adapts him to any kind of social order," allowing the child to "absorb the customs and habits of the land in which he lives" to the extent that "[e]very personal trait absorbed by the child becomes fixed forever . . . in the subconscious mind" (1: 56–57). The capacity for absorption so central to human

excellence also gives rise to cultural distinctiveness at the core of each individual's personality.

C10P44 Partly due to their importance in shaping individual personalities, Montessori regularly recognizes the worth of local customs and habits for human development. In *Spontaneous Activity in Education*, she emphasizes the value of regional culture in classroom furnishings:

C10P45 > If . . . studies should be made some day upon the rustic art of all the Italian provinces, each of which has its special artistic traditions, "types of furniture" might arise which would in themselves do much to elevate the taste and refine the habits. They would bring to the enlightenment of the world an "educational mode," because the time-honored artistic feeling of a people with a very ancient civilization would breathe new life into those moderns who seemed to be suffocating under the obsession of physical hygiene, and to be actuated solely by a despairing effort to combat disease. (9: 109–110)

C10P46 Montessori was a firm believer in the importance of universal claims of modern sciences, and especially of hygiene, but she here points out that *mere* attention to these universals can suffocate. Abstract human ideals, like environments constructed solely with hygiene in mind, lack the rich particularity of specific traditions. There may also be some nationalist pride in her comment here, too, an admiration for the distinctive contributions of her particular nation of origin. Despite her complex relationship with Italy over the course of her life, Montessori did not shy from patriotic sentiment when appropriate. Thus in the very same breath with which she insists that "Today . . . those things which occupy us in the field of education are the interests of humanity at large, and of civilization, and before such great forces we can recognize only one country—the entire world," she also affirms that "Truly, Italy, the country of Lombroso, of De-Giovanni, and of Sergi, may claim the honor of being pre-eminent in the organization of such a movement . . . [and] surely all this is something of which our country may be justly proud" (Montessori [1909] 1912: 5–6). Such national pride is not an *exclusive* pride, since "any contribution . . . is worthy of the respect of humanity" (Montessori [1909] 1912: 6), but it is a national pride nonetheless.

C10P47 Montessori's personal recognition of both local culture and cosmopolitan citizenship highlights a pressing political problem in both her day and ours. Today we witness widespread growth of nationalist movements that often turn to violent xenophobia. At the same time, we are increasingly aware of the need to recognize and celebrate cultural diversity and reverse centuries of colonialist erasure of local identities. At least as early as the UN Declaration on Human Rights (1948), we have widely recognized universal rights, but it can often be challenging to work on behalf of those rights without a "cultural imperialism" that threatens local customs. Meanwhile, global problems tempt so-called green missionaries (Guha 1997) to

impose solutions to global problems—particularly environmental problems—on local communities, even without the buy-in of those communities. Throughout these conflicts, local and communal ideals can seem threatened by—or can seem to threaten—global goods or cosmopolitan values. What we need, and what Montessori's philosophy can help defend, is what philosopher Samuel Scheffler has described as "human institutions, practices, and ways of life that take seriously the equal worth of persons without undermining people's capacity to sustain their special loyalties and attachments" (Scheffler 1999: 275). We need a genuinely cosmopolitan political philosophy that takes seriously both fundamental human unity and the value of particular cultures, communities, and identities.[7]

C10P48 Montessori's cosmopolitan ideal proposes a deeper and more substantive unity among people than proposed by most contemporary cosmopolitanisms, but for Montessori such unity is not only compatible with the value of individuals' identities and communal attachments but even depends upon strengthening those narrower spheres of connection. In the rest of this section, I start by laying out Montessori's cosmopolitanism in a way that highlights its potential tensions with individual liberties and communal values. I then show how her cosmopolitanism preserves both local values and individual agency while promoting solidarity among members of a global community. To pursue one's individual agency to the fullest requires identifying with both local and global communities, and those communities best flourish when they cultivate the individuals that make them up. Rather than a *conflict* between individual, local-cultural, and cosmopolitan values, these all can—and at their best should—support each other.

C10S4

10.3.1 Cosmopolitanism and its Conflicts

C10P49 For Montessori, human flourishing depends upon increasing self-awareness of our cosmopolitan unity. We *are* one people: "We are all a single organism, one nation. By becoming a single nation we have finally realized the unconscious spiritual and religious aspiration of the human soul" (10: 22). At one level, this unity is simply a fact. For better or worse, present human control over sufficient power to change the world at a global scale *requires* global cooperation. Moreover, "thanks to economic mechanisms [of interdependence] and communications . . . [it is] no longer possible to assume the existence of nations with divergent interests" (10: 22).

[7] Within the broad rubric of "cosmopolitanism," contemporary philosophical debates make use of a wide variety of cosmopolitanisms: political or economic or moral (cf. Kleingeld and Brown 2019: 20–25); cosmopolitanism "about justice" or "about culture" (Scheffler 1999); and various versions of a "moderate" versus "strict" distinction (Scheffler 1999; Kleingeld and Brown 2019). In the context of present debates, Montessori's approach to cosmopolitanism is, on the one hand, moderate and primarily ethical-cultural rather than political. Still, the *degree* of identification with others that she posits as part of her cosmopolitan ideal often goes beyond that proposed by theorists such as Nussbaum (1996), Singer (2002), or O'Neill (2000).

Ironically, war itself illustrates this fact of unity and shows the self-defeating nature of parochialism:

C10P50

> The [first world] war in Europe has already shown that the victors have not gained new energies and benefits from their victory, as victors did in the past. An entirely new phenomenon has occurred: defeated peoples have become a danger, a burden, an obstacle. The victors must aid them and help them get back on their feet. (10: 22)

C10P51 More generally,

C10P52

> The impoverishment of one nation does not make another nation richer; rather, all nations decline. Destroying one nation is tantamount to cutting off one hand in the mistaken hope that the other hand will thereby become twice as strong. (10: 22)

C10P53 These examples show the futility of ignoring factual interdependence among peoples, but they also illustrate a further feature of Montessori's view: the unity of peoples is something of which "we are not yet fully aware" (10: 23). As a matter of *fact*, the world is united into an interdependent whole, but human beings have not internalized this fact into their motivations and allegiances. Even while mutually dependent, people and nations continue to pursue what they perceive as their own "interests," often at the expense of "the community of human beings in the entire world." Humanity must still be "educate[d] . . . in order to guide it toward seeking common goals" (10: 24). From Montessori's perspective—a perspective vindicated by recent upsurges of xenophobia and violent nationalism—myopic individual and local allegiances are a misguided denial of and threat to cosmopolitan unity. But from another perspective—that of those who emphasize individual liberties or who fear universalist imperialism—cosmopolitan unity is itself the threat. For conservatives seeking to retain "traditional" communitarian values as well as progressives seeking diversity and resisting colonial violence, cosmopolitanism can sound like forced conformity to the ideals of the most powerful.

C10P54 One apparent conflict with cosmopolitanism arises from human *individualism*, what Montessori calls "the isolation of the individual" (10: xii). Individualism can lead people to be competitive and possessive, seeking to gain more and more for themselves, even at others' expense: "Human beings . . . regard themselves as isolated individuals who must satisfy their immediate needs by competing with other individuals" (10: xi). When faced with the reality of mutual dependence and prospects for cooperation, we often respond with diffidence and duplicity, trying to benefit as much as possible from others while avoiding contributing to the common good. Secondly and relatedly, human beings typically lack a felt

consciousness of fundamental unity with others. At the crudest level, this can involve literal lack of awareness of how we depend upon and affect one another. But even when we cooperate or are organized into social and political bodies, such forms of cooperation often incentivize cooperation on the assumption of fundamentally selfish individual motivations. Within such structures, "discipline and morality . . . become end products of coercion" (10: 28) rather than a freely embraced "allegiance" (Nussbaum 1996: 4). In that sense, the primary force with which cosmopolitanism has to reckon is not national or cultural distinction—"not a physical boundary between one nation and another"—but rather "the isolation of the individual" (10: xii).

C10P55 From a different perspective, those committed to various forms of individualism might see dangers for individual liberty in Montessori's commitment to cosmopolitan solidarity, particularly in metaphors like that of a "single organism" wherein individual agents are like "chemical elements" in a cell (10: 94; Montessori [1948] 1971: 24). The fact that Montessori was willing to collaborate with Mussolini for nearly a decade reinforces these worries.[8] At the same time, Montessori endorses "the consciousness of man" that "today raises its voice to invoke liberty" (Montessori [1948] 1971: 23–24), and she warns against false notions of cosmopolitan "peace" wherein the unity of peoples "means the forcible submission of the conquered to domination" (10: 4). Individualism and cosmopolitanism can, it seems, be in conflict.

C10P56 Just as cosmopolitan solidarity might conflict with individual liberty, so too there seems to be tension between cosmopolitan unity and allegiances to more local, particular communities, cultures, and nations (see, e.g., MacIntyre 1984). The "loss of everything the vanquished hold dear" (10: 4) that comes with a false peace is more often than not the loss of *cultural* goods. The vanquished learn the victor's language and customs, giving up their own culturally specific ways of life. Nussbaum, who puts the cosmopolitan position particularly starkly, invites just this fear:

C10P57

> When Diogenes the Cynic replied, "I am a citizen of the world," he meant . . . that he refused to be defined by his local origins and group memberships, so central to the self-image of the conventional Greek male; instead, he defined himself in terms of more universal aspirations and concerns. (Nussbaum 1996: 6)

[8] A chapter on Montessori's politics might seem incomplete without a thorough discussion of her relationship with Mussolini and fascism. For an overview of various perspectives on this relationship, ranging from some who see Montessori's pedagogy as "well equipped to serve the fascist regime of Mussolini" (Engelmann 2022: 527; see too Leenders 2001) to others who emphasize how "the fundamental differences between the principles of Montessori's work and . . . the fascist regime brought the relationship to a predictable halt" (Moretti 2023: 293), see Quarfood 2022: 129–167). See too Marazzi 2000; Foschi and Cicciola 2019.

C10P58 Montessori's insistence that "human groups . . . with different traditions . . . must unite as constituent elements of a single organism or die" (10: 23) similarly seems to require sacrifice of local culture and values. Humanity as "single organism" threatens to squash local cultures.

C10P59 From the other side, local allegiances can seem to threaten human unity. Montessori raises this concern in describing the ways that "each [distinct cultural] group varies" (17: 96):

C10P60 > These adaptations detach and separate them from each other . . . If . . . people go abroad and must adapt to the behavior of another group, they either do so with difficulty or fail. They cannot . . . renounce their own habits, religion, or language . . . The creative adaptation, once fixed, does not allow for understanding of the other groups of man, who, being adapted to something quite different, have another sentiment. (17: 96–97)

C10P61 The tension between cosmopolitanism and local identities need not be an absolute conflict; Nussbaum herself admits that "to be a citizen of the world one does not need to give up local identifications, which can be a source of great richness in life" (Nussbaum 1994: 9). But there remains an issue about whether, "above all," one should consider oneself, say, a "citizen of the United States" or "of a world of human beings" (Nussbaum 1994: 6).

C10S5 ### 10.3.2 Cosmopolitanism without Conflict

C10P62 Despite the conflicts—both apparent and real—between cosmopolitan unity and individual or community-based identities, Montessori emphasizes how cosmopolitan unity *completes* and *enriches* rather than destroys or undermines more particular forms of agency. In a peaceful world community, individuals and local cultures would not cease to express their distinctive characteristics: "There will always be human groups . . . with different traditions and languages" (10: 23). Montessori's claim that smaller communities must "unite . . . [into] a single organism *or* die" (10: 23, emphasis added) is *not* a claim that diverse human traditions must be *replaced* by a single, homogenous, cosmopolitan mono-culture; rather, uniting together is precisely how different traditions and languages *survive*. Her analogy by which individual agents in a global community are like atoms in a complex living system emphasizes that "the elements which are forced into the great enterprise of constructing dynamic living organisms still keep their innate tendencies" (Montessori [1948] 1971: 24). Just as cells and organs in a living organism contribute to the whole by expressing their individual characters, so too individual human beings and the cultures of which they are parts are united into a single body *in their particularity*. In both cases, the point is not that individual agency or

cultural identity is *lost*, but rather that it is integrated into a greater whole, within which each individual and each culture plays a part in the beauty and increasing perfection of the whole.

C10P63 The positive relationships between individual agency, communal solidarity, and cosmopolitan unity are multidimensional. On the one hand, strong individuals and communities are necessary in order to have a well-functioning cosmopolitan whole. As noted in Chapter 6, individual character is the foundation for all social virtues; in particular, the (re)construction of individual character grounds social solidarity because such solidarity is precisely a union *of wills*. Thus strong individual characters are a *means toward* cosmopolitan solidarity. Moreover, individual strength of character promotes the effectiveness of the whole, which whole is "more or less strong and active according to the level of development, and of inner stability, of the personalities composing [it]" (1: 215). Individual liberties also help distinguish an admirable and worthwhile cosmopolitan unity from a dystopian cosmopolitan despotism.

C10P64

> Obedience of the right kind is a sublimation of the individual's will, a quality in the human soul without which society could not exist. But an obedience without true self-control, an obedience which is not the natural consequence of an awakened and exercised will, brings whole nations to disaster. (6: 77)

C10P65 While here she focuses on national unity, the point applies even more profoundly to cosmopolitan unity. A world whole established through the *elimination* or *stunting* of individual wills would be a moral disaster. A cosmopolitan solidarity that grows from the *exercise* of individual wills is a moral ideal.

C10P66 Cosmopolitanism requires not merely strong and free *individuals*, but also flourishing particular communities and cultures. Even to have strong individual characters, one must cultivate and respect the cultures that partly constitute those individuals: "anyone who says 'I love my country' does not say something superficial or artificial, but reveals a basic part of himself and of his life" (1: 56). An attempt to *replace* local allegiance with cosmopolitan allegiance would undermine the individual personalities upon which any just cosmopolitanism will depend. Moreover, cosmopolitan unity expands the solidarity that initially arises in local contexts in early childhood. Finally, strong local communities contribute to the richness and diversity of the world. One serves humanity poorly if one seeks to eliminate local particularity for the sake of universal conformity, a point Montessori makes repeatedly in her exhortations to adapt classroom materials to the cultures in which they are used, and one she elegantly emphasizes in her account of the art and furnishing of her "Children's Houses":

C10P67

> Every little corner of Italy is a storehouse of local art . . . Nearly all these treasures are now being dispersed, and the very memory of them is dying out, under the

> tyranny of the stupid and uniform "hygienic" fashions of our day. It was therefore a delightful undertaking . . . to make careful inquiries into the rustic local art of the past, and to give it new life . . . in the furniture of the "Children's Houses." (Montessori [1909] 1912: 144)

C10P68 Montessori identifies uniformity with tyranny and stupidity, rightly insisting that a thriving cosmopolitan whole requires thriving local (and national) cultures, each contributing to that whole in its own unique way.

C10P69 Just as true cosmopolitan unity depends upon individual strength of character and flourishing local cultures, so too individual character and local culture are completed through cosmopolitan unity. Individual character naturally leads to solidarity with others (see Chapter 6), and human imagination is naturally expansive (Chapters 5 and 8). Since "details . . . become interesting" when "they are presented as being parts of a whole" (12: 19), the more that children are introduced to *interrelations* among things, the more interested they become in the details to which they are (or should be) exposed in their interactions with their local environments. Through seeing their own local situations as part of and related to the whole, they come to attend to more closely and understand more deeply both part and whole. But imagination is, for Montessori, intrinsically ordered toward *action*: "Imagination was not given man for the sheer pleasure of fantasizing . . . Imagination does not become great until man, given the courage and strength, uses it to create" (12: 19). The ultimate fruit of children's naturally expansive and holistic imagination is a cosmopolitan "*generosity*" (17: 206).

C10P70 Moreover, cosmopolitan unity is simply a *fact* of the world in which we live. Individual and cultural expression always takes place within the constraints of reality; they reflect an "adaptation to the environment" from which arises "the possibility of flexibility and a variety of creative responses" (17: 87). Insofar as the present reality is one within which human beings really *are* united, the rejection of cosmopolitan identity for the sake of local or merely individual interests can only reflect a lack of true freedom. The free individual with strong character identifies herself as a *member* of a cosmopolitan whole because only from such a stance can her "creative responses" be realistic. Cosmopolitan generosity is the honest response of a free spirit to a globally interconnected world.

C10P71 For individuals secure in individual freedom and for cultures and communities secure from suppression,[9] global interconnection also presents an *opportunity* for heightened self-expression. What is "sublimation" (6: 77) from the standpoint of the whole would be self-elevation on the part of particular individuals. Where in

[9] I add this caveat recognizing that individuals and communities who feel threatened with oppression or extinction at the hands of more powerful global forces may rightly be unable to see global interconnection as optimistically as I portray it here. When others are trying to replace my will or culture with their own, interconnection is more of a threat than an opportunity.

the past human generosity was limited in scope, now it can have a global reach. In the past it was possible to contribute to a small community of mutual respect, shared agency, and organized cooperation; now one can contribute to a *world-wide* community. Opportunities for elevated agency are greater, the call of generosity wider and more intense. The cosmopolitan generosity that springs from a strong sense of my own liberty and the value of my culture implies that I should use the resources available to me to act on behalf of others in ways consistent with my culturally grounded identities and values, where the scope of the others toward whom I am generous should be as wide as it reasonably can be. I need not maximize overall benefit but should excel in positive activity. Thus, a "generous" ballerina will spend thousands of dollars a year on pointe shoes because this is what it takes to serve the world in the way that *she* serves the world, through performing her art. The writer will expend the resources to practice his craft, purchasing a computer, books, cups of coffee, and so on. The porter carrying materials up and down mountain passes will spend money for good boots and sufficient water. This conception of cosmopolitan generosity as the natural expression of strong individual character gives Montessori's approach to global problems a very different structure than that of contemporary moral theorists with more utilitarian (Singer 1971, 2009; Unger 1995) or accommodationist (Appiah 2006: 163–166) approaches.

C10P72 The end result of this confluence of individual self-expression, local identifications of various kinds, and cosmopolitan generosity can be beautifully illustrated by Montessori's suggestion, in her first major book, of an appropriate form of art to be included in every classroom inspired by her ideas:

C10P73

> Among the pictures in our "Children's House" in Rome we have hung a copy of Raphael's "Madonna della Seggiola," and this picture we have chosen as the emblem of the "Children's Houses." For indeed, these "Children's Houses" represent not only social progress, but universal human progress, and are closely related to the elevation of the idea of motherhood, to the progress of woman and to the protection of her offspring. In this beautiful conception, Raphael has not only shown us the Madonna as a Divine Mother holding in her arms the babe who is greater than she, but by the side of this symbol of all motherhood, he has placed the figure of St. John, who represents humanity. So in Raphael's picture we see humanity rendering homage to maternity,— maternity, the sublime fact in the definite triumph of humanity. In addition to this beautiful symbolism, the picture has a great value as being one of the greatest works of art of Italy's greatest artist. And if the day shall come when the "Children's Houses" shall be established throughout the world, it is our wish that this picture of Raphael's shall have its place in each of the schools, speaking eloquently of the country in which they originated. (Montessori [1909] 1912: 82–83)

C10P74 Raphael's Madonna is at once a symbol of "universal human progress," an expression of Montessori's particular solidarity with "women" and "mothers," and a symbol of a distinctively Italian pride. Strikingly, future editions of this work, despite numerous and substantial revisions, preserve this passage, even up to 1950, long after Montessori had been driven out of Italy by Mussolini, had largely settled in the Netherlands, and had identified herself as a citizen of the world. The local remains an essential part of any individual, and the highest expression of any individual or culture comes through its distinctive contributions to the progress of humanity as a whole.

C10S6

10.4 Peace, Non-Ideal Politics, and Education

C10P75 On the one hand, then, cosmopolitan unity seems to threaten and be threatened by individual agency and cultural particularity. On the other hand, however, such unity depends on and fulfills the promise of those more local forms of agency. The problem is to find the path from the present situation of threat and conflict to the ideal—one might even say utopian—condition in which individuals and cultures are fulfilled through self-conscious participation in a global whole. For Montessori, that path most fundamentally involves a particular kind of education of children. In this section, I start in Section 10.4.1 by considering two other possible ways to promote unity: the political and the material/economic. While Montessori has sympathies with those who emphasize political and material change, she argues that these are neither necessary nor sufficient. I then in Section 10.4.2 turn to two models of how education might effect cosmopolitan unity, a relatively straightforward model of "peace education" (particularly as promoted by Nell Noddings) and a widespread, traditional conception of cosmopolitan unity as the result of expanding interest from narrow to wider spheres (e.g. in Nussbaum). Through laying out Montessori's critiques of these approaches, I articulate her own, distinctive, approach to cosmopolitan education.[10]

C10S7

10.4.1 The Centrality of Education

C10P76 Political and material/economic conditions for promoting cosmopolitanism dominate contemporary discussions of cosmopolitanism. Given the existence of nation-states with their own political structures, one might think that the path to a cosmopolitan political whole would proceed through treaties, international

[10] Montessori's alternative need not preclude a "both/and" strategy; her approach can be combined in various ways with elements from other approaches.

negotiation, international political and legal structures, or even a unified world government. Alternatively, one might look to transnational non-governmental organizations, social movements, or corporations. Or, from a more Marxist perspective, one might emphasize material conditions, particularly of capital and labor, as a locus for change. Marx himself suggested that by virtue of the global consolidation of capital, a global class-consciousness would arise among the proletariat, and true cosmopolitan unity would depend fundamentally upon a (revolutionary) reorientation of the means of production.

C10P77 Montessori, too, engaged in political and social interventions in order to promote a just peace. As noted in Section 10.1, her early feminism included both organizing for political change (especially the Thought and Action group) and a practical feminism aimed at improving women's economic opportunities. Throughout her life, she promoted international political movements, including support for the United Nations and especially UNESCO, and also early attempts to establish a "White Cross" that would provide psychological and educational aid to victims of war.[11] Montessori also consistently sought political and social affiliations that could promote her pedagogical goals, including very problematic ones (such as with Mussolini). As Foschi notes, she opportunistically "engaged with various aspects of positivism, theosophy, Catholicism, and also liberalism and fascism . . . to be able to promote [her approach to] modernization in education" (Foschi 2012: 14–15).

C10P78 Fundamentally, however, Montessori proposed that the path to peaceful cosmopolitan unity proceeds first and foremost by *psychological* means rather than political, social, or material change. She describes "the human personality" as "much more important than any treaty between nations" (De Giorgi 2019: 359) and explains that "the preparation of the citizen of tomorrow depends entirely upon the psychological foundations of man" (7: 102). Because the human personality is formed in childhood, it depends fundamentally upon *education*. Thus even while admitting that "[t]he complete revolution is [both] external and internal" and noting that she "began as a sympathizer with political revolutionists of all kinds," Montessori remarks that she "came to feel that it is the liberation of . . . what we have in our hearts that is the beginning and end of revolution," that "we must educate children so that they will know how to free themselves and others from bondage" so that the "first thing is to bring our children under the care of worthy teachers."[12] As Erica Moretti has shown,

[11] For details on these efforts, see Moretti 2021.

[12] These passages are from a striking interview between Montessori and Helen Keller, in which Keller emphasizes the need to change political and material conditions and Montessori, after stating her position that education must come first, responds to Keller's subsequent revolutionary political statements by changing the subject. The interview is quoted in full in "When Helen Keller Met Montessori," *Literary Digest* 48 (January 17, 1914): 134ff, archived online at https://archive.org/stream/literarydigest48newy#page/135/mode/1up, accessed July 29, 2024.

C10P79

> Unlike other pacifists of the time [1917], [Montessori] did not consider propaganda, rallies, or demonstrations viable tools to spread a pacifist message among people, nor did she support half measures in school curricula aimed at integrating activities promoting peace. Peace was to come from the child. She advocated for spreading an educational system that would allow children to develop as individuals who seek peace and foster understanding. If children were educated according to the "laws of life," in harmony with their own spirit and their immediate environment, they would grow up to become mentally and physically healthy human beings, leading the way to perpetual peace in adulthood. (Moretti 2021: 101)

C10P80 To promote a truly lasting peace, we need properly prepared environments and a willingness to leave children free to develop character, respect, solidarity, and intellectual virtues for understanding their world.

C10P81 Montessori offers both pragmatic and moral reasons to begin with educating for a different psychological orientation rather than advocating for different political or material conditions. Pragmatically, Montessori argues that one simply cannot achieve the *kind* or *degree* of unity required through political or material transformation alone: "Preventing conflict is the work of politics; establishing peace is the work of education" (10: 21). And ethically, she rightly notes that without the requisite reorientation of individuals' characters, participation in cosmopolitan political organizations will require sacrifice of individual agency and communal identity. For all of these reasons, Montessori subordinates politics to a "new education" that will be "a revolution, but without violence"; she goes so far as to say that this new education "is *the* nonviolent revolution, after which, if it triumphs, violent revolution will have become forever impossible" (1: 193, emphasis original). In its original context, presented as a lecture (republished as a book) for an Indian audience less than two years after their own non-violent revolution won them independence from Britain, there could hardly be a more forceful statement of the relative insignificance of politics compared to education.

C10S8

10.4.2 Three Models of Peace Education

C10P82 What *kind* of education can constitute this non-violent revolution and pave the way for lasting peace? One obvious approach might be to focus on education that takes peace as its explicit object and goal. Nell Noddings, for example, has proposed a form of "peace education" that emphasizes "material presented in schools" that is "devoted" to "help students understand the love-hate relationship people maintain with war and the forces that manipulate their attitudes" along with strategies to "teach . . . people to listen to one another" (Noddings 2012: 141). Within such approaches, teachers come with a conception of the peace they aim to promote and

choose relatively straightforward methods for guiding students toward the knowledge and skills that will facilitate that peace.

C10P83 A second and related pedagogical approach, one Noddings also sees as part of her own peace education (e.g. Noddings 2012: 54–57), is direct instruction in explicitly "cosmopolitan education" (Nussbaum 1996: 6). That is, one can directly teach students to positively identify with others and expand their circles of moral concern. Martha Nussbaum, who proposed this approach, explains: "students . . . must . . . centrally, learn to recognize humanity wherever they encounter it, undeterred by traits that are strange to them, and be eager to understand humanity in all its guises" (Nussbaum 1996: 9). She even suggests, following the Stoics, that "a central exercise in this process of world thinking is to conceive of the entire world as a single body" (Nussbaum 1996: 10). Just as in the case of direct instruction in peace, these contents and techniques that children "must . . . learn" are provided to them by skilled teachers.

C10P84 At their best, educational curricula that feature peace or cosmopolitanism as central topics might be compatible with Montessori's approach to education, and her elementary curricula include materials and lessons that explicitly show students how humans rely on one another and can support one another (e.g. 6: 57). However, she emphasizes the dangers and insufficiency of any education promoting "peace" through didactic instruction. For one thing, such education risks becoming a way for instructors to "thrust our particular creed or ideal upon them in order that they may grow up to demonstrate it" (7: 99). This peace education can become "indoctrination" that treats children as passive material who need "to be *made* aware" of this or that (Noddings 2012: 80, emphasis added). Such approaches leave unchallenged the fundamental assumption that educators should determine what needs to be taught and how to teach it. For Montessori, however, this assumption undergirds the violence-promoting tendencies of much contemporary education:

C10P85 > By considering the child as a passive *tabula rasa*, without inner directives, the adult has in fact forced him to bend to the will of his elders and . . . has thus repressed the child's natural sensitive inclinations and trampled them underfoot, rousing in him unconquerable instinctive resistances and defenses capable of degenerating into real spiritual illnesses. (10: 33)

C10P86 Children's experience of school—even schools that teach about peace—is an experience of war in which "[t]he adult defeats the child," such that "once the child reaches adulthood the characteristic signs of the peace that is only an aftermath of war—destruction on the one hand and painful adjustment on the other—remain with him for the rest of his life" (10: 12). Even without such psychological scars, enforced training in peaceful cooperation and top-down education *about* peace are insufficient foundations for true cosmopolitan unity.

C10P87 It is not enough to keep the child from playing with toy weapons, to stop making him study the history of mankind as a succession of feats of arms . . . It is not even enough to instill in the child a love and respect for all living beings and all the things that human beings have built throughout the centuries . . . An education capable of saving humanity . . . involves the spiritual development of man, the enhancement of his value as an individual, and a preparation of young people to understand the times in which they live. (10: 25, 27)

C10P88 Direct instruction in peaceful cooperation is insufficient to generate that cooperation. We need an education that unleashes every child's full potential for character, respect, and solidarity.

C10P89 Thus, the fundamental requirement for true peace education is a profound respect on the part of *educators* for individual children's needs to pursue activities for themselves, in accordance with their own personalities. As Montessori explained in a speech to UNESCO,

C10P90 When children are accustomed, from earliest childhood onwards, to considering those who surround them as a source of help to explore the world, they are not tempted to adopt a wary or hostile attitude towards men who belong to different races or religions. At a later date, children raised according to these principles will be great help in the construction of a peaceful society and the encouragement of this understanding among nations that UNESCO has set as its ideal. (Montessori in Barres 2005: 2)

C10P91 The path to cosmopolitan unity starts with "developing a strong character and a clear mind" on the basis of which our natural recognition of true justice and love is not "confused and misdirected" (10: 17). "For a better man," one with a deeply rooted psychological awareness of others as potential aids and collaborators rather than oppressors,

C10P92 war would not even be a problem; it would simply be a barbarous practice diametrically opposed to civilized life, an absurdity completely beyond the comprehension of the new man . . . [I]t would be easier to live without so many anxieties [caused by war] and to procure needed products from their places of origin than it is to conquer others and acquire material goods by force. (10: 18, 38)

C10P93 The emphasis on cooperation and mutual respect *within the educator-student* relationship makes Montessori wary of content-based approaches to cosmopolitan or peace education that treat children as blank slates ready to be molded into cosmopolitan citizens. True unity arises from the strength of character that flourishes among children in conditions of freedom.

C10P94 This focus on individual agency does not mean that Montessori ignores social sentiments or a sense of one's place in a greater whole, but she roots this social education in already present individual instincts such as "the social drive" (10: 28). In order for this social education to be non-coercive, it must take place not through direct *instruction* nor even imaginative exercises dictated by a teacher, but though active participation in social life.

C10P95

> It has been our experience that if the child and the adolescent do not have a chance to engage in a true social life, they do not develop a sense of discipline and morality. These gifts in their case become end products of coercion rather than manifestations of freedom. The human personality is shaped by continuous experiences; it is up to us to create for children, for adolescents, for young people an environment, a world that will readily admit such formative experiences . . . Thus from early childhood on, human beings must have practical experience of what association is, and only then gradually fathom the secrets of the technical evolution of society. (10: 28–29)

C10P96 Real contexts of conflict and cooperation with fellow students, particularly when one's peers come from diverse backgrounds, create the conditions for *auto*-education in morality and solidarity, which provide psychological conditions for later cosmopolitan unity.

C10P97 Montessori's cosmopolitan education, then, begins with the cultivation of a strong individual character, a person capable of setting and pursuing her own goals with the implicit sense that others are potential aids and collaborators rather than oppressors, adversaries, or competitors. Children with this strong sense of self, living in community, are able to express their innate instincts for social life. They naturally respect one another's work and love working in solidarity toward common ends. When children with this combined individual security and social sense become increasingly aware of the wider world, they are naturally drawn toward cosmopolitanism. As Moretti puts it, "the child would grow in response to her own bodily and intellectual needs, fulfilling her own potential," and "having developed into a satisfied adult, she would be gratified by her own work and . . . have a natural propensity towards peace [and] would find joy in her work and in her relationships" (Moretti 2021: 4).

C10S9 10.5 Conclusion: The Child As the Hope of the Future

C10P98 In her political philosophy, Montessori extends moral respect and solidarity into a cosmopolitanism wherein individuals come to feel the unity that already exists among peoples and nations and come to organize themselves explicitly in

ways that promote the fundamental dignity and value of all people and cultures. Consistent with the central role of character in her moral theory, this cosmopolitan peace would be built from a pedagogical freedom whereby each develops the internal peace in which character consists. As with her entire philosophy, the child lies at the heart of Montessori's political philosophy. At the most basic level, the child reveals to Montessori the moral ideals on which her political aspirations are based. As I argued in Section 10.4, the child is also the primary agent of political change, since lasting change—particularly, lasting peace—happens only through the emergence of better human beings, oriented toward self-perfection, respect, solidarity, and generosity rather than "love of power, love of possession, [and] love of an easy life" (Montessori [1938–1939] 1971: 10).

C10P99 In the child lies the hope for humanity's future. In rather exalted language, Montessori exhorts, "We must have faith in the child as a messiah, as a savior capable of regenerating the human race and society" (10: 12). Because children have not yet suffered from the repression of their natural tendencies to find fulfillment in work, mutual respect, and community, the infants of today have the potential to make adults of tomorrow into instruments of peace, love, and effortful striving for perfections that promote the common good. Moreover, children have the potential to unite even today's adults. Each child is an "external grace which enters the family" a sort of "apost[le]" of love to the adult world: "The child can change the hearts of men; in the midst of children their hardness disappears. The child can annihilate selfishness and awaken the spirit of sacrifice" (Montessori [1929] 1965: 9). Despite tendencies toward vice and misguided love, adults naturally respond to the child's invitation to affectionate care. Montessori notes, with reference to her own "Montessorian gathering[s]," a great "heterogeneity" of people, from all walks of life and political and religious and ideological convictions, united in a single vision. These occurrences, commonplace among Montessorians, led newspapers to say, "For years we have striven to have meetings attended by all the parties [e.g. Catholics and Socialists], and here it is happening by itself" (1: 261). How does this happen?

C10P100

> Such is the child's power. Whatever be our political or religious affiliations, we are all near to the child and we all love him. From this love comes the child's power for unity. Adults have strong, often fierce, convictions, which separate them into groups, and when they fall to discussing these they easily come to blows. But there is one point—the child—on which all have the same feelings. Few people realize how great is the child's importance owing to this . . . This is the path that man must follow in his anguish and his cares if, as his aspirations direct, he wishes to reach salvation and the union of mankind. (1: 261, 268)

C10P101 The ultimate summit of Montessori's political philosophy is the unleashing of this love and the attunement to "the source from which it springs, The Child" (1: 268).

C11

11
Technology in the Anthropocene

C11P1 Either humankind as a whole will organize and master the mechanical world, or the mechanical world will destroy humanity. (Maria Montessori, *Education and Peace*, 10: xii)

C11P2 Autonomous technologies, runaway markets, and weaponized media seem to have overturned civil society, paralyzing our abilities to think constructively, connect meaningfully, or act purposefully. It feels as if civilization itself were on the brink, and that we lack the collective willpower and coordination necessary to address issues of vital importance to the very survival of our species. It doesn't have to be this way. (Rushkoff 2019: 3)

C11P3 In 1952, the year Montessori died, the barcode and optical fiber were invented. The first commercial jetliner took flight. Alick Glennie developed Autocode, the first computer compiler and an antecedent of Grace Hopper's creation of machine-independent programming languages. 1952 was approximately the last year that CO_2 levels in the atmosphere remained within the 170–300 ppm range that had been standard for nearly a million years. It was the year the Caribbean monk seal was last observed. The Great Smog in London killed thousands of people.

C11P4 Over the course of her life, Montessori observed an already staggering pace of technological progress. In 1949, she anticipated many hopes for and concerns with technology that seem so imperative today, writing,

C11P5 the sudden and amazing changes that have taken place in the organization of man's material environment in the last fifty years as a result of scientific discoveries have brought about such radically altered conditions in men's lives that it is now absolutely imperative to give serious thought to the human side of things in order to help men themselves change for the better. (EP xii)

C11P6 As we end the first quarter of the twenty-first century, it is even clearer than in 1949 that people—especially adults (see Chapter 9, Section 9.4)—have taken up the task of technologizing the world. We live in a world of satellites and social media and smart phones and nuclear bombs and electric cars and, soon, colonies on the moon or Mars. Communication and transportation technology enables the cosmopolitan unity described in Chapter 10, according to which humanity

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already is a single whole where what happens anywhere affects people everywhere. Technology also makes this unity imperative because threats posed by artificial intelligence, enhanced military technology, and global environmental problems cannot be solved by individuals or single nations. And technology transforms our lives in other ways as well: computers, refrigeration, washing machines, televisions, plastics, foods (including genetically engineered ones), medical technologies and pharmaceuticals, etc. More and more people live in cities, where the landscape is not only technological (which might also be said of farmland) but wholly conceals its dependence upon nature. For most people, the vast majority of objects in our immediate surroundings are made by human beings, and increasingly, by human beings in distant parts of the globe.

C11P7 These changes require thoughtfulness about the relationship between human flourishing and the technologies among which we will either flourish, stagnate, or perish. The present chapter makes three Montessorian contributions to what we might call an ethics or politics of technology. Franssen et al. rightly point out that "not only is the ethics of technology characterized by a diversity of approaches, it might even be doubted whether something like a subdiscipline of ethics of technology . . . exists" (Franssen et al. 2023). Partly for that reason, this chapter will not exhaustively cover Montessori's relationship with other philosophers of technology. Instead, I start with a discussion of the concept of the "Anthropocene," a term coined to capture the extent of human impact on the planet, and I show how Montessori's philosophy of technology used a very similar concept albeit in different ways than many people today. I then turn to a broader discussion of technology in classrooms and human lives, presenting a Montessorian perspective on what Franssen has described as an overall "negative judgment of the way technology has affected human society and culture" (Franssen et al. 2023). In my final section, I briefly discuss Montessori's concerns with the pace and tempo of recent technologies and her proposal that a reorientation toward the child can provide the context for a future in which technological development helps rather than hinders human flourishing. Throughout this chapter, I show that Montessori develops a "philosophy of technology" in the sense described by Don Ihde, in that she "make[s] technology a foreground phenomenon and [is] able to reflectively analyze it in such a way as to illuminate features of the *phenomenon of technology itself*" (Ihde 1993: 38).[1]

[1] I have not included other contributions Montessori could make to more specific discussions within the philosophy of technology. To give just two further examples worthy of exploration, her account of the embodied development of technological fluency in children provides an important broadly pragmatist counter-point to Heidegger's notion of Dasein as always situated in technology in such a way that objects ready-to-hand (or "handy") are not consciously recognized (see especially Heidegger [1953] 1996: 65), and her notions of both "normalization" and embodied cognition bear complex relationships with Foucault and post-Foucauldian discussions of technology in relation to biopower (e.g. Foucault [1975] 1977, 2008).

C11S1

11.1 Anthropocene and Apocalypse

C11P8 In the year 2000, geologists Paul Crutzen and Eugene Stoermer coined the term "Anthropocene" in the newsletter of the International Geosphere and Biosphere Program. They sketched a wide range of human impacts on the planet, including not only the increase in CO_2 and methane levels, but also the rapid expansion of human population, the massive growth of land used for agriculture, human-caused shifts in water resources, and the release of toxic (and radioactive) materials, especially into the atmosphere. They went on,

C11P9

> Considering these and many other major and still growing impacts of human activities on earth and atmosphere, and at all, including global, scales, it seems to us more than appropriate to emphasize the central role of mankind in geology and ecology by proposing to use the term "Anthropocene" for the current geological epoch. The impacts of current human activities will continue over long periods . . . Without major catastrophes like an enormous volcanic eruption, an unexpected epidemic, a large-scale nuclear war, an asteroid impact, [or] a new ice age . . . mankind will remain a major geological force for many millennia, maybe millions of years, to come. (Crutzen and Stoermer 2000: 17–18)

C11P10 Initial articles on the Anthropocene proposed that this epoch began in the late eighteenth century, even hinting at 1784—when Watts invented the steam engine—as a suitable starting point. Others have suggested that the inauguration of the atomic era in the 1940s represents the true start of the Anthropocene. In 2016, when the Anthropocene Working Group of the International Union of Geological Sciences (IUGS) voted to recommend the Anthropocene as a formal geological epoch, they pointed instead to what they called the "Great Acceleration," which supposedly began in the 1950s, when technological expansion and human impact (including population) increased at a faster rate than in any previous period in human history.

C11P11 At its most basic level, the designation of a new geological epoch—the Anthropocene—is a claim about the size of human impact on the planet. However, most embed into the concept a value judgment about that impact. Crutzen and Stoermer end their inaugural article with a call "to develop a world-wide accepted strategy leading to sustainability of ecosystems against human induced stresses," as "one of the great future tasks of mankind" (Crutzen and Stoermer 2000: 18). John Holdren (Chief Science and Technology Advisor for President Barack Obama) described the Anthropocene in terms of human hubris: "The hubris is in imagining that we are in control . . . The reality is that our power to transform the environment has far exceeded our understanding of the consequences and our capacity to change course."[2] In 2010, the President of the London Geological Society

[2] Quoted in https://www.npr.org/2023/07/11/1187125012/anthropocene-crawford-lake-canada-beginning.

wrote, "The time in which we now live would then, *sadly and justly*, be known as the Anthropocene" (Lovell 2010: 196, quoted in Steffen et al. 2011: 846, emphasis added). Today, the Anthropocene is associated with the "sixth great mass extinction" and the "inconvenient truth" of climate change, and many link the Anthropocene to "cataclysm" or a "potentially apocalyptic future lurking on the horizon" (Guggenheim 2006; Kolbert 2016: 92; Dehr 2020). A massive growth in dystopian science fiction takes as backdrop what literary scholars have called "Ecohorror in the Anthropocene" (Tidwell and Soles 2021). The technologies within and among which we live are built on an energy-intensive economy that threatens global apocalypse due to human hubris.

C11P12 Like many environmentalists today, Montessori has serious concerns about the impact of technology on human development and on the planet as a whole. As she explains in 1932,

C11P13

> We are undergoing a crisis, torn between an old world that is coming to an end and a new world that has already begun . . . The crisis we are experiencing is not the sort of upheaval that marks the passage from one historical period to another. It can be compared only to one of those biological or geological epochs in which new . . . [3] forms of life appeared, as totally new conditions of existence on earth came about. If we do not appreciate this situation for what it is, we shall find ourselves confronting a universal cataclysm, mindful of the prophecy of the Apocalypse. If man . . . uses the energies of space for the purposes of destroying himself, he will soon attain that goal. (10: 20)

C11P14 Montessori was unaware of the full extent to which human beings could use the energies of the earth toward their own destruction. She was unaware of early prototheories about the role of greenhouses gases in potentially warming the planet, and when she wrote the words quoted about in 1932, she could not have anticipated the development of atomic bombs and nuclear energy.

C11P15 Strikingly, however, for someone whose death in 1952 coincides with the *beginning* of the Great Acceleration emphasized by the Anthropocene Commission of the IUGS, Montessori was already describing a sort of great acceleration as a crisis and task for humanity in the twentieth century and beyond. As she said in 1949,

C11P16

> Either mankind as a whole will organize and master the mechanical world, or the mechanical world will destroy humankind . . . the sudden and amazing changes that have taken place in the organization of man's material environment in the last fifty years as a result of scientific discoveries have brought about such radically altered conditions in men's lives that it is now absolutely imperative to give serious

[3] These ellipses conceal three important words to which I will return later.

thought to the human side of things in order to help men themselves change for the better. This is the task of education. (10: xii)

C11S2

10.2 Technology and the Erosion of Humanity

C11P17

Montessori's reference to "the task of education" (10: xii) highlights a recently emphasized problem, the effect that excessive use of technology can have on human development, especially in children. Many educators and caregivers today worry about effects of technology on attention and about the displacement of human intelligence onto technological devices, such that children cannot focus or plan or add or spell because they have devices to do those things for them.[4] With ChatGPT and other AI, people increasingly use devices to create art or write entire papers, including doing relevant background research. As humans off-load tasks to increasingly "smart" technological devices, we seemingly give up our own abilities to think for ourselves. Parents with means are increasingly choosing technology-free educational options, generating a new and ironic digital divide, and many teachers and schools market expensive educational programs by appealing to techno-skepticism (see Bowles 2018). Particularly for young children, the American Academy of Pediatricians has long recommended limiting digital media use (see Reid Chassiakos et al. 2016). Montessori schools in particular often eschew digital and media technologies, partly due to the emphasis on materials developed by Montessori before such technologies existed and partly due to more general and widespread concerns with harmful effects of technology on children, especially those who, as the American Academy of Pediatricians has said, "are still developing cognitive, language, sensorimotor, and social-emotional skills, which require hands-on exploration and social interaction with trusted caregivers for successful maturation" (Reid Chassiakos et al. 2016: e4). Moreover, the attention-demanding nature of many technologies, especially so-called social media, seems to foster a constant distraction that erodes human capacities for sustained attention on other tasks (see Aylsworth and Castro 2024; Ra et al. 2018).[5]

C11P18

Concerns among educators about negative effects of technology on human development are echoed in a major strand of twentieth-century philosophical theorizing about technology, one associated with Martin Heidegger's *The Question*

[4] For an overview of these problems with special emphasis on smartphones, see Aylsworth and Castro 2024: 67–114.

[5] Among Montessori educators, there has long been suspicion of the negative effects on attention, social development, and a host of other goods from excessive attention to screens and other forms of technology, even before widespread concern with social media. When my kids were young and attending a Montessori school, I was encouraged to avoid screens entirely with my children until they were at least 6 years old.

Concerning Technology. Heidegger describes how treating "modern technology [a]s a means to an end" has led to a situation in which technology, which could be a "bringing forth in the sense of poesis," is transformed into a "challenging which puts to nature the unreasonable demand that it" serve as a "standing-reserve" (Heidegger [1953] 1977: 313, 320, 322). For Heidegger, the primary danger is not that we will deplete resources or contribute to climate change, but that in using technology to make of nature a mere standing-reserve, "humanity for its part . . . belong[s] even more originally than nature within the standing-reserve," as evidenced, for instance, by increasing talk about "human resources" (Heidegger [1953] 1977: 323). Heidegger does not see this leveling down of humanity as inevitable or irrecoverable, and—like Montessori—he calls for a reframing of humans' relationship with technology and thereby the world. But his overall philosophical stance shares with ordinary technoskepticism a general sense that the way human beings are using and being used by a technological paradigm of use and domination is, in the end, eroding authentic being in the world.

C11P19 Other major philosophers of technology share Heidegger's concerns. Hannah Arendt describes how human beings have always used tools, but "the case of machines is entirely different. Unlike the tools of workmanship, which at every given moment in the work process remain the servants of the hand, the machines demand that the laborer serve them, that he adjust the natural rhythm of his body to their mechanical movement" (Arendt 1958: 147). Themes of technological dehumanization show up throughout twentieth-century philosophy, in approaches ranging from Gabriel Marcel's Christian existentialism (e.g. Marcel 1985) to Michel Foucault's accounts of how technology operates in conjunction with and as a form of power (e.g. Foucault [1975] 1977, 2008). More recently and from a very different perspective, Andrew Feenberg suggests that "The fundamental problem of democracy today is quite simply the survival of agency in a technocratic universe" (Feenberg 1999: 101). I cannot engage here with all of these philosophies of technology, but I use them here to introduce some philosophical history of contemporary techno-pessimism, which highlights how modern technology promotes mechanization of human lives and erosion or manipulation of the meaningfulness of those lives.

C11P20 In line with these technological pessimists, Montessori notes that even as technology does more and more for us, it does not enable us to do and be more. At one point, she even defines morality relative to technology: "Morality must be regarded as the science of organizing a society of men whose highest value is their selfhood *and not the efficiency of their machines*" (10: xiv, emphasis added). Using morally loaded (broadly Christian) terminology of sins like "sloth" and "greed," she argues that modern technology degrades humanity through both undermining meaning-making and enmeshing human beings in capitalist systems of mutual manipulation for the sake of trivial goods.

C11P21 Working less and allowing machines to do our labor for us is the greatest goal of the contemporary era. And underlying this chaotic moral life is an overweening ambition to acquire a great deal of money, an ambition that betrays the existence of . . . greed—a vice that is the equivalent in the moral sphere of sloth in the physical sphere, for both represent a form of hoarding and illusory enjoyment. But man declines, for this sort of enjoyment is rooted in two vices [sloth and greed]—the wide world that would open out and challenge him were he to live a healthy life remains hidden to him, and he unconsciously isolates himself, consumes himself in the dark shadows of unsatisfied pleasure-seeking . . . We live . . . in a state of moral paralysis, in dark and suffocating shadows, and we often allow ourselves collectively to be carried away by statements that feed our illusions . . . The truth of the matter is that reason today is hidden under a dark cloud and has almost gone down in defeat. (10: 10–11)

C11P22 In remarks that almost prophesy effects of social and mass media on mental health, Montessori notes,

C11P23 Man is totally unaware of one entire aspect of the problems confronting him. Nothing has been done to further his spiritual[6] development. His personality has remained exactly the same as in past centuries, but the many changes that have occurred in his social conditions force him to live in an unnatural environment today. Man is thus weak and helpless in the face of the suggestions exercised both by his physical environment and by other men. He has no confidence in his judgment, and his personality is fragmented . . . The imbalance between the development of the external environment and man's inner spiritual development is quite striking . . . Men have achieved so much and could be so rich, and yet they are poor and unhappy. (10: 40–41)

C11P24 Technology generates psychological harms at many levels. It drives human beings to "proceed at a more and more frantic pace" (10: 64), one out of step with our needs—especially when young—to devote attention to our work in order to cultivate our own agency and concentration. When Montessori (like Arendt) discusses the rise of the "machine," she focuses on its overwhelming *rapidity*: "our civilization is not based upon 'respect for life' and 'respect for the soul,' but rather is it based upon 'respect for time.' It is solely in an external sense that civilization has pursued its course. It has become more rapid, it has set in motion *machinery*" (9: 149). She also warns that the increased technologification of the world puts more and more power in the hands of those who shape that environment, and in

[6] By "spiritual" here, Montessori refers not to religious development, but to agency and selfhood.

particular puts more power in the hands of adults over children. She emphasizes how technology that should unite people ends up dividing them through greed and competition.

C11P25 Within classroom contexts in particular, Montessori warns about "mechanical aids":

C11P26 > mechanical aids are insufficient to bring about the totality of education. Children do not learn and do not develop their character by merely listening and looking on . . . The child learns by means of his own activity and if given an opportunity to learn actively he develops his character and personality too. The child perfects himself even more by means of his hand than by means of the senses. He can develop himself and the personal talents of his nature when given the opportunity and guidance to produce and to discover by himself. Modern methods of education [by which she refers to her own methods], in fact, are not only visual, but above all active. (Montessori [n.d.] 2015: 7).

C11P27 Technology in classrooms can promote passivity, which not only inhibits learning the content, but prevents the development of "character and personality."[7] Relatedly, in a lecture from 1923, Montessori explains the danger of trying to help children learn as much material as quickly as possible:

C11P28 > These modern methods try to find the way in which the child can learn more rapidly, as though the purpose were to abbreviate the time which is necessary for an intelligent acquisition, which will have a practical use. It is not our [Montessorians'] purpose that the child should learn at an earlier age or in a shorter time. In fact we try to eliminate some of the aids which might lead to this more rapid learning, in order that the child's inner forces and energies may have more time to develop and to strengthen themselves.[8]

C11P29 Elsewhere (including in this same lecture series), she points out the importance of children developing muscle memory and making associations that take long practice with a given material. All of the forms of technology that seek to present content quickly and efficiently work against children's innate need for slow and patient repetition as a way of consolidating their own "inner forces and energies."

[7] Elsewhere, she expresses other concerns relevant to modern technology in the classroom, such as the danger of extrinsic motivation, of fantasy, and the importance of sustained attention on a single task for a prolonged period.

[8] From Lecture 15 (pages 5–6) of a lecture course delivered in 1923 and transcribed by C. M. Standing. These notes are located in the Standing archive at Seattle University in Seattle, Washington.

C11S3

10.3 Montessori's Anthropocene

C11P30 As I've shown in Sections 10.1–10.2, Montessori shares with environmentalists, humanists, and others a concern with the dangers of rapid technological development for our planet and our human selves. However, even while being aware of technology's dangers, Montessori not only embraces technology and the technologification of the world but sees technological progress as an essential part of human meaning. In this section, I outline Montessori's humanist conception of what has come to be called the Anthropocene. For her, human transformation of the planet at a geological scale is a reality that she values in a way diametrically opposed to many contemporary environmentalists' remorseful, anti-human pessimism.

C11P31 While Section 10.1 credited Paul Cruzen and Eugene Stoermer with coining the term "Anthropocene," the *concept* of a geological period that is defined by human impact did not originate with them. In their first article on the Anthropocene, Crutzen and Stoermer rightly credit "the Italian geologist Antonio Stoppani" with the notion that human beings represent a new sort of "telluric force," where "telluric" here refers to a geological force at a global scale.[9] While Crutzen and Stoermer preferred the more modest "Anthropocene"—referring to a geological epoch—Stoppani used the more ambitious term "Anthropozoic" to refer to a new geological era (a much longer period than an epoch). As I discussed in Chapter 2 (Section 2.7), Stoppani was a significant influence on Montessori's overall metaphysical conception of the world. Unsurprisingly, then, she describes human technological progress in geological terms, as "one of those biological or geological epochs in which . . . totally new conditions of existence on earth came about" (10: 20). The echoes of contemporary environmentalist discourse that one finds in her writing are not mere coincidences; Montessori is ethically responding to the Anthropozoic just as today's scientists and activists are responding to the Anthropocene.

[9] In this context, it is worth briefly pausing to note Montessori's place in the history of the Anthropocene concept. We are in the midst of formulating a "canon" for the Anthropocene. Right now, the history of antecedents of the concept puts Stoppani in first place along with J. P. Marsh. A dominant story about the development of the concept, however, claims that after Stoppani "further development of the concept was interrupted by the two world wars of the twentieth century. Only in 1955, at the Princeton symposium on 'man's role in changing the face of the earth,' did a remarkable revival of Marsh's theme emerge" (Steffen 2010: 844). The only exceptions that Steffens allows in this period of silence were three men, Teilhard de Chardin, Vladimir Vernadksy, and Edouard Le Roy, who are credited with the idea of the noösphere, another sort of predecessor of the Anthropocene. Throughout this period, however, Montessori was writing about and developing Stoppani's ideas, in ways informed by secular (mostly Marxist and Nietzschean) philosophy, including the development of various versions of "supernature" and the "psychosphere" that parallel the noösphere concept and provide conceptual tools for thinking about the relationship between humans' psychological development (what Dennett has called the euprimatic revolution" (Dennett 2003: 180)) and the technological development that gave rise to the Anthropocene. I hope that my brief discussion of Montessori in his book will help establish her rightful place in the history of this important concept.

C11P32 However, though the scientific function of the Anthropozoic and Anthropocene concepts is the same—namely, to highlight the profound impact of human activity on the geology of Earth—they were developed for very different moral-political purposes and in different contexts. From the start, Crutzen and Stoermer's Anthropocene was a mobilization to environmental activism, to "develop a worldwide accepted strategy leading to sustainability of ecosystems against human induced stresses" (2000: 18). Consistent with some trends of modern environmentalism, this call to action sees human beings essentially as *threats* to an otherwise flourishing natural world. Stoppani, by contrast, developed the concept of the Anthropocene in the context of a Christian worldview according to which God creates a universe, gives it order, and establishes it as a home for human beings, who are to be the stewards of creation, exercising dominion over it.[10]

C11P33 While she was both a practicing Christian (like Stoppani) and an activist seeking through international bodies to prompt a reassessment of humans' relationship with technology (like Crutzen and Stoermer), Montessori sees humans primarily neither as stewards of creation nor as threats to it. Rather, humans exemplify something I skipped over in the quotation cited above; when Montessori describes the geological epoch now called the Anthropocene, she explains, "It can be compared only to one of those biological or geological epochs *in which new, higher, more perfect forms of life appeared*" (10: 20, emphasis added). Partly influenced by Nietzsche's concepts of the *Übermensch* (see Chapter 2, Section 2.6) and Schopenhauer's notion of the "assimilation" of "lower grades of objectification" that have "come into conflict" and give rise to "a higher Idea which prevails over . . . the less developed . . . in such a way that it allows the essence of these to continue to exist in a subordinate manner" (Schopenhauer [1818] 1891: 188–190), Montessori's teleological metaphysics sees the history of the earth as a history of higher forces overcoming tensions present at lower levels of organization (see Chapters 3 and 4). Plants, for example, have a "cosmic function" that includes "transforming carbon dioxide into . . . the one element which is indispensable for living beings (Montessori [1948] 1971: 11). And Montessori's most common example, one illuminating for her sense of the role of human beings, are corals. In one set of materials for elementary students, she considers the quantity of limestone that must be carried by rainfall to the oceans, and then asks, "Where does all that limestone go? . . . And how is it that the seawater is not saturated with all that salt? . . . Is it a miracle? No. Something happens which permits the earth to continue to exist" (12: 25).

[10] Unlike contemporary United-Statesian Creationism, which comes from a basically fundamentalist reaction against Darwinism, Stoppani's theology is more consistent with historical Christian conceptions of Creation as an affirmation of God's role in the state of the earth, but without a specific timeline for that role. For discussion of Stoppani's notion of the Anthropozoic in relation to modern environmentalism, see Luciano and Zanoni 2023.

C11P34 The cosmic problem therefore consists in causing the evacuation of all that calcium carbonate in order that the water remains unchanged. But how may what is dissolved be eliminated? . . . It is here that another active force intervenes within the sea itself. It is an energy whose task is to fix all the dissolved substances. And this energy is Life. There exist, in fact, live animals that fix the calcium carbonate. (12: 27)

C11P35 Corals contribute a new telluric force that changes the face of the planet.

C11P36 Throughout her metaphysics, Montessori transforms Stoppani's theistic teleology into a broadly Schopenhauerian view according to which what is "nature" at one stage risks devolving into chaos until new higher-order forces—what Montessori calls "supernature"—emerge: "The conception of 'supra-nature' differs greatly from that of the 'supernatural.' The latter has a metaphysical sense depending on the conception of God. 'Supra-nature' is but a superior type of nature which has been constructed" (Montessori [1948] 1971: 23). While supernature can be "constructed by the collaboration of all men" (ibid.), the general concept of supernature applies whenever any new force constructs a new nature from pre-existing forces. Other than humans' technologification of the world and corals' transformation of the seas, another paradigmatic example is the emergence of life from pre-organic molecules:

C11P37 Something similar happens in the field of chemistry, when elements such as hydrogen, carbon, oxygen, and nitrogen are captured by life in order to build organic molecules . . . Life, to compose its substances, uses the same atoms as does inorganic nature, but it gives them a new organization, imperialistic in type. And yet the elements forced into the great enterprise of constructing dynamic organisms still keep their innate tendencies, that love through which they unite to form water, carbon dioxide, and ammonia [and various detailed interactions amongst inorganic elements] . . . Compared to these modes of existence, those formed under the empire of life were "supranatural" substances. (Montessori [1948] 1971: 24)

C11P38 Just as coral is "supernatural" relative to forces of erosion and evaporation that consolidated calcareous material in the oceans, so too organic molecules are "supernatural" relative to inorganic molecules. Montessori's focus, however, is to complete the analogy to *human* supernature and thereby express its quasi-moral significance: "From this parallelism with the chemical world, one is impressed with the thought that human 'supra-nature' is destined to contribute something great and new in the history of the universe" (Montessori [1948] 1971: 25).

C11P39 With a broadly Nietzschean sense of geological epochs as episodes of planetary self-overcoming, *Montessori's* Anthropocene, what she describes as a human-caused supernature, is just the latest emergence of something "great and new." The

human being has a profound capacity to "exert a 'modifying function' upon nature" such that "he . . . is the most active of agents who are designed to modify and perfect it" (7: 105–106). Even as human technology can generate a moral crisis wherein the human individual "feels overwhelmed by the [constructed] world in which he lives" (10: 24), the built environment is also where humanity "leaves a trace of his existence" in many "enchanted" changes, such as "flowers [that] became more beautiful" or "chemical substances . . . in the earth . . . used for new compositions" (7: 105; see too Montessori [1910] 1913: 259). In that way, Montessori shifts from concerns about perils posed by technology to an attitude toward the Anthropocene more like Stoppani's, one that combines a solemn sense of responsibility for the future with an embrace of humans' vocation to beautify and improve the earth:

C11P40

> Today's books on geology and ecology are beginning to address the fact that man has the power of modification. Other living beings conserve the environment, but man's task is evidently more complex, the modification of the earth. One scientist said, "In the path of humanity on earth, the earth is transformed. The plants are more beautiful, the earth produces more; everywhere man has passed there is more beauty." This purpose of man is like that of a man who prepares a house for his bride. He does all he can to make the house beautiful . . . This is the modification of the environment which man carries out . . . His power is not the power of God—it is a limited power—but look at what he has achieved. He has domesticated animals and, in doing so, modified them . . . He modifies the soil. He has planted forests . . . Man must modify everything . . . Over thousands of years, man has been perfecting his work and spreading the progress of civilization. Man takes all that exists in nature and puts it on a higher plane, that of *Supernature*. (17: 92).

C11P41

Montessori situates the empirical fact of the Anthropocene into a teleological metaphysical vision that values creativity and change over tenuous stability. Moreover, drawing from Marxist concepts of work (e.g. his concept of human "species-being" (Marx [1844] 1988: 77)), she sees human work in changing the world as positive self-expression. She rejects "slogans" like "return to nature" or "become one with nature" (10: 62). Rather than an environmental ethics that treats humans and their hubris essentially as threats, she sees humans and their creativity as an amazing emergence on a planet with a history of amazing emergences. Rather than reining in or opposing human work so that we stop destroying the world, she seeks to inspire us to find our cosmic tasks and thereby make the world even better.

C11S4

10.4 Technology, Education, and the Vocation of Humanity

C11P42

At the start of Chapter 10 (Section 10.1), I emphasized Montessori's concept of the "psychosphere," that "new energy" that human beings contribute to the evolution

of the earth. As we have seen in Section 11.3, this new energy is closely connected with the transformation of the earth by technology. Just as psychological forces are "supranatural" relative to merely biological forces, the technological world is a supernature relative to the world prior to human processes of world-construction. The built environment—what we might call the technosphere—is the actualization of humans' psychological energies on the face of the earth, and this actualization is one of the ultimate reasons (both as cause and as teleologically ordered effect) for the emergence of those psychological energies. In Section 11.2, I highlighted how Montessori agrees with technology skeptics who avoid classrooms overloaded with screens and gadgets. At the same time, however, given the essential role of technology in humans' cosmic task, her overall assessment of the relationship between technology and education is essentially positive, and positive in some unexpected ways.[11]

C11P43 Some who reject technoskepticism emphasize ways technology can promote a wide range of educational goods. In non-Montessori contexts, these goods often include increased literacies of various kinds and/or improved performance on standardized tests, but one can also apply this instrumentalist approach to technology in support of many Montessorian values. Montessori educator John McNamara, for example, after emphasizing that Montessorians "want to help the child to become a fully functioning human being adapted to his time and place," goes on to argue that we can use technology carefully to promote the "unchanging basic needs of the child" (McNamara 2020: 224, 229):

C11P44 > Technology becomes a means, not an end. A real key is balance. We would be foolish to ignore existing and developing technologies and we would be just as foolish to abandon all that we are doing now. (McNamara 2020: 227)

C11P45 The American Academy of Pediatricians echoes this advice, pointing out a range of ways that, particularly for older children, "New digital and social media facilitate and promote social interactions as well as participation and engagement that involve both viewing and creating content" (Reid Chassiakos et al. 2016: 12).

C11P46 Like these proponents of technology in the classroom, Montessori sometimes affirms the use of technology toward accomplishing educational goals, albeit within careful limits. In a recently discovered document in Montessori's archives, she writes about "the use of mechanical aids in education," specifically focusing on the way that "gramophone records, lantern slides, [and] films" can be used to give access to cultural resources that children might not otherwise be able to access (Montessori [n.d.] 2015: 5). As she explains,

C11P47 > In my opinion the advantage of mechanical aids of instruction in the schools of the future would be the following: the material, discourses, and visual

[11] Some of this section borrows from Frierson 2024.

> representations could be prepared by fascinating speakers and . . . the slides and films could be prepared by specialists who would dedicate themselves to the task of rendering clear and interesting to the children the many cultural subjects thus presented. (Montessori [n.d.] 2015: 6)

C11P48 While she did not have access to anything like the modern internet or the mass distribution of digitized education resources, Montessori already envisions the possibilities for education to be enriched through high-quality media that can introduce topics children might not otherwise access or present subjects in ways that might be more polished and compelling than the presentations of their teachers. She does warn educators, of course, that "these mechanical aids are insufficient to bring about the totality of education" (Montessori [n.d.] 2015: 7), but in line with recommendations like those of McNamara and others, she affirms the value of technology for learning.

C11P49 This balanced approach to technology as a mere means, however, grossly understates the role of technology in a Montessori classroom. Given the centrality of technologification for humans' cosmic task, technology is not merely a *means* to other educational goals; rather, technological proficiency and even technological development are among the primary *ends* of education.

C11P50

> Through machinery, man can exert tremendous power . . . If education does not help a man to take part in this "supra-natural" world, he must remain an "extra-social" being. The "supra-natural" man . . . penetrates into the secrets of life, growing new flowers and breeding new animals that are super creations, increasing through chemistry the natural powers of the earth, transforming things as though by magical powers. These are all proofs of the greatness of collective humanity; each may add something to them . . . These and similar ideas that will awaken a realization of the power of man and the greatness of civilization should be presented in a form that will stir genuine emotion, for feelings of this kind should exist today together with feelings of religion and patriotism. For in our times, science has created a new world in which the whole of humanity is joined together by a universal scientific culture. Thus, children should learn to use machines habitually as part of their education. (12: 73–74)

C11P51 Montessori is well aware of how technology can inhibit development and oppress the human spirit, but rather than reject technology, she says, "The secret is this: making it possible for man to become the master of the mechanical environment that oppresses him today" (10: 27).

C11P52 Once we recognize that human development is intrinsically ordered toward technological development, we can think differently about the relationship between education and technology. McNamara often speaks as though children's essential needs are given *prior* to any technology, and in the general sense laid out

in Chapters 5 and 6 that is true, but human children are unique among animals in that their basic needs are constructed in relation to ever-changing environments that humans themselves construct. "Every human being must prepare in himself an adaptation that is not hereditary. He must prepare his own adaptation," where even "the muscles of man are not directed . . . by instinct, as are those of other creatures. The individual himself must animate his motor powers . . . [to] . . . prepare for his own individuality" (17: 91, 7: 95). Even in forms of education that we might consider technology-light, children develop capacities that are not innately human; reading, writing, and arithmetic, and even more basic (preschool) skills like tying a shoelace or buttoning a jacket, are cultural-specific skills of using particular *technologies*. Humans are essentially technological creatures.

C11P53 Montessori classrooms are designed to teach children *toward* technologies, though this does not always require that children learn *with* those technologies. Montessori designed materials to cultivate bodily skills needed to make use of pencil (or pen) and paper, which were the primary writing technologies of the early twentieth century. Writing provides an excellent example of how Montessori thinks about technology in the classroom. Though writing contributes to other ends, the capacity to write (and read) is itself one of the more important ends of education, an essential adaptation of children to an environment defined, in part, by technologies of writing. One of her most important pedagogical principles is that of "indirect preparation," whereby materials cultivate skills—especially physical skills—needed to perform other tasks well. Pencil-sized grips and sandpaper letters cultivate muscular memory, dexterity, and strength to use pencils well. While McNamara and others emphasize how technology can be used to foster other educational goals, Montessorian indirect preparation often makes use of children's innate needs and interests as means for cultivating technological skill.

C11P54 The technologies children must grow up to use well are not limited to pencils and paper. Children's capacities to master technologies of their culture provide foundations from which they can and should develop further technologies for improving the supranatural world in which we live. Thus each generation of children will have a new set of technologies to which it must adapt. Children today should know not merely how to write, but how to program a computer.[12] They need (often) to know how to drive a car, send a text message, use google search strings, create TikToks or other video content (and engage with such content intelligently), and ask ChatGPT the right kinds of questions. These technologies are part of the world children inhabit, and proficient use in them is part of the adaptation to environment that the absorbent mind seeks. But children also grow up in an environment that overwhelms them with technology in a disordered and chaotic way, a way that fosters passive consumption and submission to technology

[12] See Rushkoff 2011 for an easy-to-read manifesto on the importance of such literacy, along with some principles to avoid being controlled by computing and internet technologies.

rather than able use of it. Douglass Rushkoff has aptly described the more radical leaps in media technology, but his point applies to other technologies (e.g. transportation or agriculture) as well:

C11P55

> Each media revolution offers people an entirely new perspective through which to relate to their world. Language led to shared learning, cumulative experience, and the possibility for progress. The alphabet led to accountability, abstract thinking, monotheism, and contractual law. The printing press and private reading led to a new experience of individuality, a personal relationship to God, the Protestant Revolution, human rights, and the Enlightenment. With the advent of a new medium, the status quo not only comes under scrutiny; it is revised and rewritten by those who have gained new access to the tools of creation. (Rushkoff 2010: 18)

C11P56

As Rushkoff rightly notes, this new access to the tools of creation is not always (and historically, has never been) available to all human beings, instead typically being reserved for a small elite (Rushkoff 2010: 18–27; see too Rushkoff 2019). Part of Montessori's pedagogical vision involved education as a means for expanding human capacities, both intensively within each individual and extensively across the species as a whole. As new technologies emerge, not only is she willing to use them where they can help her pedagogical goals (as with the gramophone and films), but she also makes competence in new technologies into a further goal of education. Thus, for instance, she experimented with designing movable letters that would be arranged as on a qwerty keyboard, so that children could indirectly prepare for keyboard use while directly focused on finding cut-out letters to assemble words.[13] Strikingly, however, once one comes to see technology as an end, and especially once one comes to see it as an end toward which indirect preparation is appropriate, the use of technology in the classroom must become more rather than less circumspect. Montessori did not aim to teach writing by immediately putting pencil and paper in the hands of children. Such "free drawing," as we saw in Chapter 7, does not allow the precision needed to engage with pencil and paper well. Instead, she had children gradually build up the constituent capacities—especially physical capacities—so that they could exercise precise control over the technologies they would use. In that way, both Montessori's limitations on technology and her uses of it are ordered toward equipping children to master—rather than to be mastered by—technology. Ultimately, any given technology should become part of an "external world" that serves as the "fulcrum which sustains one's own æsthetical creation" (9: 159).

[13] This experiment is mentioned in a footnote that does not appear in the English translation of Montessori's *Advanced Montessori Method*, volume II. It can be found in Montessori 2018: 268n1 (location 1093). For a more recent Montessorian attempt with a similar overall philosophy, see the Vision Board developed by K. T. Korngold, described in Korngold 2024 and at https://www.treasuresfromjennifer.com/products/keyboard-vision-board?variant=43968416645375.

C11S5

10.5 Technology and the Child

C11P57 Like many environmentalists, Montessori recognizes that human hubris can be harmful—even catastrophic—for life on this planet. Like many educators, she emphasizes how wrongful reliance on technology in education can erode rather than facilitate children's development. And like many philosophers of technology, she sees how technology can prevent authentic human flourishing in the world. However, Montessori's recognition of the problems with modern technology is combined with a commitment to technology as an essential feature of what she calls humans' cosmic task. Our task is neither to pollute and destroy the planet *nor to leave it alone*, but rather to beautify and improve it. Education should not use technology to displace children's effort and agency, but it should give them technology-specific skills that equip them with the agency to use and create technology. In coming to more and more transform the world into a properly human—which is a properly technological—world, we enable and fulfill authentic flourishing.

C11P58 For Montessori, the key to transforming humans' relationship with technology is a reorientation of adult attention toward the lives of children. As noted in Chapter 9 (Section 9.4), she distinguishes between two fundamentally different stages in human life, characterized by different tasks. Children are predominately focused on constructing their *selves*, making themselves into the adults they will become, adapting themselves to their world (including their technological world). Adults, by contrast, are primarily focused on constructing their *environments*, expressing themselves into and onto the world, making the world adapt to their visions, including through developing and applying new technologies. These different tasks give adults and children power over one another. Children have complete power over adults in that the adults of today are who they are by virtue of the work of the children they once were. But adults have considerable power over children in that the adults of today create the environments to which children must adapt.

C11P59 In the technologification of the world, adults have failed to recognize the importance and dignity of children. Adults construct artificial environments primarily to serve their own needs, and "By constructing an environment that is further and further removed from nature . . . the adult has increased his own powers and thereby tightened his hold on the child" (10: 12–13). As in the classic Marxist paradox of alienated labor, as children (as a class) construct adults (as a class), their own labor is used against them, for adults make a fast-paced, efficiency-oriented world full of objects too big and dangerous for children to handle, and then replace children's agency with their own in order to keep them safe. Montessori tells a poignant parable to illustrate the world we adults have created:

C11P60 > Suppose that we should find ourselves among a race of giants, with legs immensely long and bodies enormously large in comparison with ours, and also

> with powers of rapid movement infinitely greater than ours, people extraordinarily agile and intelligent compared with ourselves. We should want to go into their houses; the steps would be each as high as our knees, and yet we should have to try to mount them . . . we should want to sit down, but the seats would be almost as high as our shoulders; clambering painfully upon them, we should at last succeed in perching upon them . . . We should perhaps be glad to take a bath in one of the washstand basins; but the weight of these would make it impossible for us to lift them. If we knew that these giants had been expecting us, we should be obliged to say: they have made no preparations for receiving us, or for making our lives among them agreeable . . .

C11P61

> What should we do if we were to become the slaves of a people incapable of understanding our feelings, a gigantic people, very much stronger than ourselves? When we were quietly eating our soup, enjoying it at our leisure (and we know that enjoyment depends upon being at liberty), suppose a giant appeared and snatching the spoon from our hand, made us swallow it in such haste that we were almost choked. Our protest: "For mercy's sake, slowly," would be accompanied by an oppression of the heart . . . If again, thinking of something pleasant, we should be slowly putting on an overcoat with all the sense of well-being and liberty we enjoy in our own houses, and some giant should suddenly throw it upon us, and having dressed us, should in the twinkling of an eye, carry us out to some distance from the door, we should feel our dignity so wounded, that all the expected pleasure of the walk would be lost. (9: 13–15)

C11P62

Since Montessori's day, and partly due to her influence, the world contains many more child-sized brushes and tables and chairs, but this parable also points to a deeper issue, namely that technology is built largely around adult needs, and even adult vices of "greed" and "sloth," which are thereby perpetuated in children (10: 10–11).

C11P63

One of Montessori's great discoveries is the centrality of character—that is, agency-directed *work*—for human flourishing. For adults, work is typically end-directed; insofar as we seek to effect changes in the world, efficiency can be a legitimate aspect of doing our work well. For children, at least when in conditions of freedom conducive to flourishing, work itself is of pre-eminent value. In the parable above, the giant/adult cares only whether the child's coat is put on before they go out into the cold; the young child wants and needs to put their coat on for themselves. The child engages in "exercises" to "learn to co-ordinate his movements and absorbs from the outer world the emotions that give concreteness to his intelligence" (22: 170). A child's repetition of works, with its emphasis on effort and activity, conflicts with the adults' "law of the least effort by which man seeks to produce the most he can" (22: 167). The logic of efficiency built into adult technological progress fosters the sloth and greed that corrupt our societies, and it conflicts

with the task of self-creation in which children are engaged.[14] For just one example, Montessori highlights how "objects made carefully by hand," which could well be "entrusted to young people" to make, "have today been replaced by articles mass-produced by machines" (10: 64–65). As Arendt (1958) and Heidegger ([1953] 1977) pointed out in other contexts, the "more and more frantic pace" of our lives and related efficiency-driven imperatives of technology preclude the sort of slow work by which we—and especially our children—build the human spirit.

C11P64 At the same time, because adults ultimately depend upon children to form human character, psychological and spiritual development does not keep pace with technological progress:

C11P65

> [H]umanity has made great progress outwardly, but none whatsoever inwardly . . . This human being who has harnessed every kind of physical power must now tame and tap his own inner powers, become the master of himself and the ruler of his own period of history. (10: 39, 42))

C11P66 By failing to provide an environment within which children can engage in persistent and self-chosen work at the pace appropriate for them, we have let technology and efficiency govern us rather than enable us to express our own agency. For Montessori, the solution to this spiritual-psychological crisis of our time is the child: adults must "construct the supernature necessary for the life of children and young people," and then let those children construct the "new man" who can redeem the massive power over nature that humanity has already achieved (10: 63).

C11P67

> The child is both a hope and a promise for mankind . . . The men we educate [well] will be able to use divine powers to outstrip the men of today who have entrusted their fate to machines. What is needed is faith in the grandeur and superiority of man. If he has managed to master the cosmic energies circulating in the atmosphere, he will be able to understand the fire of genius, the value of intelligence, the light of conscience are also energies to be organized, to be regulated, to be treasured and put to good use in human social life. (10: 28)

C11P68 Ultimately, the lessons Montessori learned from children—lessons about the nature of intellectual and moral virtues and the right structure of political organization—provide a framework for rethinking the way adults shape their environments. Rather than technology designed for speed and efficiency on the one side with consumption, pleasure, and distraction on the other, we can and

[14] Unlike theorists like Heidegger or Marcuse, Montessori does not see this logic as historically contingent, but she also does not see it as universally human; the orientation toward efficiency is an *adult* orientation, one that we can and should subordinate to the needs, insights, and orientation of the child.

should create environments that promote meaningful and persistent work, norm-governed choice, artistic creativity, and social solidarity. Children need these environments, not only in carefully prepared classrooms for young children but also in a world that is safe and inspiring for older children to explore. If adults can focus more attention on making a technological world in which children can develop in freedom, we will also succeed in making a technological world that enables meaningful lives of purpose for ourselves. As Montessori explains, "The goal we have set ourselves is to help the adult world know, love, and serve the child better, thereby helping all mankind reach a higher stage of development" (10: 33).

C12

12
Conclusion

C12P1 Maria Montessori was buried in 1952 in a small Catholic cemetery in Noordwijk aan Zee in the Netherlands. The epitaph on her tombstone, written in Italian, translates to "I beg the dear, all-powerful children to join me in creating peace in man and in the world." In her writings on peace, she had gone so far as to say that "We must have faith in the child as a messiah, as a savior capable of regenerating the human race and society" (10: 12). By the time of her death, and for most of her life, Montessori's hope in the child permeated every aspect of her life, not merely in her pedagogy and educational practice but in her politics, activism, psychological and anthropological work, and—most importantly for this book—in her philosophy. Montessori's was a philosophy that sought to give voice to the revelations of children placed in conditions of freedom and carefully observed with a loving, philosophically engaged, attention. She sought, in other words, to "follow the child" (22: 166).

C12P2 In following children, Montessori sought to discern the laws of life and ultimately even the nature of the universe itself, finding in the emergence of consciousness in individual children a key to understanding the nature and role of consciousness in the universe. In observing children, she attended to the nature of human cognition and our epistemic engagement with the world, developing a pragmatic empiricist epistemology and identifying important intellectual virtues for human flourishing. Observing children, Montessori discovered the innate human love of work and especially the crucial importance for flourishing of character, understood as persistent and attentive work on self-chosen activities. She came to see the natural connections between character and mutual respect, and discovered the power of social solidarity. Children taught Montessori the centrality of beauty as a motive to activity and the role of precision and truth in artistic creation. The "child as messiah" brought Montessori closer to the Child as Messiah, to encounters with God in religious and spiritual life. Older children revealed the ways that pre-rational character, respect, solidarity, and understanding develop through abstraction into reflective forms of ethical and epistemic life. Children showed her the way to peace and unity among human beings, and helped her see the ways that technology can and should be brought to serve human developmental needs rather than to replace human meaning.

C12P3 Montessori's description of children as "all-powerful" reflects her recognition of children's power to absorb their world and rise higher and higher, expanding human potential beyond anything we can currently even imagine. Her call on

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children to join her is the echo of her own lifelong commitment to join them, to philosophize with them and to advocate for them. And her aspiration toward peace both in humanity and in the world—the cosmos itself—reflects the unwavering humanistic hope she brought to all of her work. With this brief introduction to her philosophical vision, I contribute my own small part to that hope.

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