Toys and Tools in Pink
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Mothers and Medicine

Medical treatment of mothers and newborns has improved in many ways as a result of modern reproductive and lifesaving technologies such as fetal heart monitoring, ultrasound, in vitro fertilization, and drug therapy for premature infants. However, anthropologists who study cultural rituals of birth find it troubling that the management of pregnancy and childbirth in the United States is imbued with military rhetoric and that obstetricians have adopted "the model of the assembly-line production of goods as its base metaphor for hospital birth." In addition, technical improvements have not prevented an increase in the infant mortality rate in lower socioeconomic groups in the United States, nor have they offset the rising costs of health care, which limit access to prenatal care for many mothers. Despite access to innovative technologies, doctors, patients, and even some insurance executives recognize that medical practice in the United States far too often calculates costs and benefits as more valuable than caring for patients' overall health.

Post-Romantic narratives about medical theory and practice consider human dimensions of technological interventions such as those mentioned above. Nineteenth- and twentieth-century realist literature and films describe intersections of gender and medicine, identify physicians' and caregivers' "natural" and "instinctive" practices, and sympathize with the challenges faced by female physicians. Fictional narratives considered in this chapter describe gendered sentimental attitudes and practices related to pregnancy, childbirth, and children's diseases and detail the ways in which humanistic contributions, identified largely with women, improve medical care. These texts sacralize maternity and privilege the authority of parents and physicians. Their nar-
narratives reflect and reinforce the influence of the nineteenth-century popular health movement, positivism, and progressive politics that encouraged women’s medical education. That the nineteenth-century popular health adage “every man his own physician” has a counterpart in today’s image of “Dr. Mom” recognizes shifting cultural views of gender and medicine.

Viewing women as spiritual guides for husbands and children, and emphasizing good health as benefitting from sentiment on one hand and common sense on the other, fictions and films discussed here reveal disparate ideological associations. Representations of gender and medicine include not only pronouncements celebrating maternal love but also portrayals of sympathetic women doctors that point to these feminine attributes as efficacious in medicine. The narrative texts considered here recommend parental faith, patient persistence, and physician integrity as key factors in effective medical practice, as these attributes supplement innovative procedures and technical mechanisms. Zola’s novel Fécondité idealizes motherhood for the sake of nationalism, while the film Lorenzo’s Oil describes maternal persistence as encouraging medical research. Novels and stories about female doctors point to gendered characteristics that affect women’s practice of medicine. Imbricated in different historical, social, and cultural contexts, these narratives agree that feminine influence and ideals can transform medicine.

“Scientific Motherhood”: Zola’s Cure for Society

Zola’s representations of motherhood link scientific theory and social values. One of his last novels, Fécondité (1899; translated in 1900 as Fruitfulness), glorifies motherhood as a secular religion that brings progress to society. In this novel, the first of his projected quartet The Four Gospels, Zola proposes that by acting on their innate desire to procreate, women might solve the depopulation problem in France, provide economic prosperity to their families, and redeem individuals from the inevitable effects of egotism. This solution to the falling birthrate—recommending that families have more children—is founded on Zola’s acceptance of the mysterious power of female fertility as a positive natural force more powerful than science.

The dramatic consequences of the depopulation crisis in nineteenth-century France, including the decreasing fertility rate and the high infant mortality rate, persuaded Zola to employ an amended version of his naturalist program to solve a pressing national problem. Influenced by the historian Jules Michelet’s theories about women, and elated by his own experiences as a middle-aged father, Zola depicts the good mother in Fécondité as the ideal role model for French society—ideal because she provides domestic harmony and peace with-
out making demands. Bearing children becomes a political gesture for parents who create an improved national state. In Zola’s view, when mothers nurture children, the bonds of a happy family are extended to other citizens and the state, for greater numbers of children mean more soldiers to defend France, a significant concern for the country after the Franco-Prussian War (1870–71).

In “Dépopulation,” an essay published in an 1896 issue of *Figaro*, Zola admits that he was haunted for ten years about writing a book documenting the crisis, a novel that he thought of titling *Le Déchet*, a French word meaning loss with the sense of “criminal waste.” Agreeing with contemporary political scientists who argued that a declining birthrate signified the diminishing political status of the French nation, he claims, “The future belongs to fecund nations.” Zola acknowledges that the problem was severe, that it was not a natural phenomenon, and that couples voluntarily chose to restrict the number of children they would raise.

Among the possible causes for the decreasing fertility rate that he notes in “Dépopulation” are alcoholism, the great migration of people to urban areas, and the high cost of living that encourages the “egotistical calculus” of limiting family size. Today, historians of demography theorize that family limitation practices in nineteenth-century Europe effectively reduced the birthrate; that marital and non-marital fertility declined; and that in cases in which women did become pregnant, the practice of “infanticide by neglect” became common. The decreasing population alarmed some citizens of France—the European nation most severely affected—to such an extent that they formed the National Alliance for the Growth of the French Population. Like the other one hundred or so members who joined the league, Zola hoped that active discussion of the cause of depopulation would increase the rate at which women bore children.

Zola approved the league’s resolution to pass legislation that would relieve the economic burdens faced by fathers, but he asserts in his essay that social values and morality cannot be effectively legislated. Therefore, he claims, the job of encouraging families to have more children falls also on “moralists, writers, and poets” (14: 787), who must set the right tone. He points to how Schopenhauer’s and Wagner’s negative attitudes toward healthy sexuality and toward children encourage the depopulation problem. Schopenhauer’s philosophical pessimism claims that “to give life to a human being is a crime” (14: 787), and Wagner’s aesthetic exaltation of virginity, present a perverse and abnormal way of life that young women naively admire. In Zola’s view, popular writers encourage people to believe that it is better to have a love affair than a satisfying marriage, for novels describe the many favorable aspects of passionate love while demeaning the bourgeois virtues of domesticity. Even worse, he writes, are novels presenting androgynous men and women as ideals, for
“[i]t is certain that, if literature truly has an influence on manners, [then] nothing would make the depopulation problem worse than all those literary and artistic works that exalt the infecund woman while scorning the strong and powerful male” (14: 788).

According to Zola, what has been missing from literature is the depiction of a loving mother fulfilled in her relationship with her strong, equally loving husband. This ideal female character would ardently desire to bear his children, preferably in a more congenial environment than Paris, and she would inspire others to give up their pessimistic views. As Dr. Boutan in Fécondité says, “Manners and customs, our notions of what is moral and what is not, our very conceptions of the beautiful in life—all must be changed. If France is becoming depopulated, it is because she so chooses. It is simply necessary then for her to choose so no longer. But what a task—a whole world to create anew” (19). Zola argues that people would accept large families as politically and socially correct if an aesthetically attractive representation of motherhood were available.10

Zola hoped that by describing large, happy, and prosperous families, his inspirational narrative of motherhood would provide an incentive for a woman to become pregnant. Realizing that a large family can sometimes seem comic to those who observe it, he argues in his essay that authors should convince young, pretty women to be proud of their fertility. Zola asserts that people will change their behavior if beautiful examples are set before them: “one will suffer, one will fight, one will end indeed by accommodating oneself to the new social ideal in order to be strong, in order to be beautiful” (14: 787). He claims that a positive representation of motherhood can persuade families to find personal fulfillment while effecting a cure for France’s ills. Writing a novel of domestic harmony instead of the tragic story of infant mortality that he originally intended in his notes for Le Déchet, Zola presents in Fécondité “a patriotic story” in which “abundant motherhood becomes the force to bind the nation together and to enable it to fulfill its national and international destiny.”

In La Femme and L’Amour, guides on love and marriage written to teach men how to treat their wives, Michelet encourages women to accept their feminine role and admonishes men to treat their female companions with a tenderness befitting the weak. For him, woman should stand on a pedestal as a goddess of purity inspiring man to do good. In La Femme (1859), he advises his male readers, “La femme est une religion,” (“Woman is a religion”) and “La pureté c’est la femme même” (123) (“Purity is the essence of woman”). As the “douce médiateur entre la nature et l’homme, entre le père et l’enfant” (148) (“sweet mediator between nature and man, between father and child”), she creates harmony in the family. Her remarkable powers of fecundity and nurturing enable her to be connected with nature and share in the expression of universal love by procreating. Man creates woman and initiates a transformation from
As noted in the previous chapter, Michelet counseled that a husband should take care to make his wife submissive by absorbing her sexual energy into pregnancy and child-rearing. Woman’s uncontrolled sexuality, symbolized by her menstruation, would thus be managed by motherhood.

In Zola’s earlier novels, there are only brief glimpses of maternity as a positive natural force that redeems humanity. The last novel of his *Rougon-Macquart* series, *Doctor Pascal* (1893), ends with a portrait of Clotilde nursing her child, a serene image based on Michelet’s vision of motherhood as society’s hope for the future. Clotilde’s son was fathered by her uncle, Pascal Rougon; their baby embodies the parents’ sexual transgression and has an unknown future. Many marriages in this earlier series demonstrate how husbands fail to tame wives. Liberal women are dangerously promiscuous, and conservatives excessively authoritarian. Nana, the prostitute who symbolizes Second Empire decadence, neglects her son; he eventually dies of a childhood illness (*Nana* 1880). Bourgeois women such as Lise Macquart in *La Ventre de Paris* (1874) and Félicité Rougon in *Doctor Pascal* manipulate their children to satisfy their greed. The series as a whole traces the gradual decline of the Rougons and Macquarts that resulted from their madness, greed, and penchant for alcohol, all inherited from Adélaide Fouque. In this series, no marriages are happy, and the few relationships that satisfy both partners are adulterous and result in the death of at least one partner.

The *Rougon-Macquart* novels indicate that maternal sympathy, while welcome, does not compensate for social problems. In *Germinal* (1885), Catherine’s mother is a strong woman who suffers to protect her children, but she cannot combat her social and economic circumstances. Yet maternal love does partially ameliorate even the worst situations, for even female criminals occasionally display love for their children. Although bearing children and caring for them remain the most important feminine pursuits because maternal love creates harmony in the world, few women in the *Rougon-Macquart* novels enjoy this privilege.

Zola’s novels point out that efforts to improve the human condition are bound to fail unless they employ the scientific method. In his “Letter to young people,” he argues that youth should improve on the world of their parents by working hard and pledging faith in science, for the scientific method, as described by Claude Bernard, “seeks causes, wishes to explain them, and act on them.” The *Rougon-Macquart* novels argue that social problems faced by workers in politics, industry, banking, agriculture, and mining could be solved by application of the scientific method, while *Fécondité* endorses a political program consonant with naturalist doctrine, advocating sensible principles of health that focus on woman’s fertility.
Linking maternal love and scientific principles in *Fécondité*, Zola produces an aesthetically satisfying poem to serve as the basis of a secular faith. His view that female fertility is a balm for society is developed from Michelet’s doctrine of femininity, but Zola resists capitulating to the fear of female sexuality demonstrated in the historian’s work. In notes for the novel, Zola remarks that the world will be a healthier place if we learn to admire the fecund woman as a cult figure. The novel describes a national problem, the demise of the family in France, proposing an ideal of motherhood and illustrating examples of good mothers who embrace maternity.

The spectrum of mothers in *Fécondité* is based on Zola’s observations and extensive reading of scientific sources. Although some women are selfish, others deny their “natural” feelings as mothers in order to survive in a harsh world. Subplots reveal many unhappy circumstances: a mother and a daughter are victims of unsanitary abortions; trusting women permit doctors to perform unnecessary sterilizations; working-class women are forced to part from infants because of the high expenses of child-rearing; women waiting for a convenient time to have children risk being unable to conceive; and mothers limiting the size of their families find that their children might not survive them. While many women are unable to enact Michelet’s theory of the ideal mother, Marianne Froment is the exception and the dynamic focus in the novel. She raises her twelve children according to the healthy practices endorsed by the family physician.

The large Froment family, numbered at the novel’s end as more than 158 children, grandchildren, and great-grandchildren, attests to the common sense of the parents and their willingness to accept the “natural” roles of husband and wife. Marianne, whose name evokes the Virgin Mary and the French revolutionary representation of Liberty, embodies the virtuous woman who sublimes desire in raising her family. Like Michelet, Zola praises women who have sex for procreative purposes, believing that the fertility of women will save France. He depicts Marianne’s maternity in *Fécondité* as a positive natural force that generates love and fertility, and he thereby conflates two myths—that of the good mother and that of the good earth.

In recounting Marianne’s and her husband Mathieu’s responses to the birth of their fourth child, Zola’s novel connects expansive rhetorical passages detailing the glories of having children, didactic information concerning scientific care of a child, and matter-of-fact descriptions of family life. Daily ritual includes bathing the child, weighing him in order to check on his progress, and breastfeeding him, activities requiring both parents and a servant:

How pretty he looked in the water his pink skin shining in the sunlight! And how well-behaved he was, for it was wonderful to see how quickly he ceased wailing.
and gave signs of satisfaction when he felt the all-enveloping caress of the warm water. Never had father and mother possessed such a little treasure.

“And now,” said Mathieu, when Zoé had helped him to wipe the boy with a fine cloth, “and now we will weigh Master Gervais.”

This was a complicated operation, which was rendered the more difficult by the extreme repugnance that the child displayed. He struggled and wriggled on the platform of the weighing scales to such a degree that it was impossible to arrive at his correct weight, in order to ascertain how much this had increased since the previous occasion. As a rule, the increase varied from six to seven ounces a week. The father generally lost patience over the operation, and the mother had to intervene.

(106–7)

After noting the baby’s weight, Marianne feeds him while her husband watches with nearly religious adoration: Mathieu “came back and lingered near the bed. The sun’s rays poured over it, and life blazed there in a florescence of health and beauty. There is no more glorious blossoming, no more sacred symbol of living eternity than an infant at its mother’s breast” (108).

Other scenes of breastfeeding figure prominently in the novel. Although technology assists parents, parental love remains the dominant power in the most successful families. In one case, a woman who had given birth to her third illegitimate child is persuaded to nurse the infant even though she already declared that she will send him to a wet-nurse as she has sent her other babies. After breastfeeding her son, Norine, a reformed prostitute, undergoes a radical transformation as she begins to bond with the baby, the only child she will keep:

The poor, pale, puny infant had weighed but little the first time he took the breast. But every morning afterwards he had been weighed afresh, and on the wall at the foot of the bed had been hung the diagram indicating the daily difference of weight. At first Norine had taken little interest in the matter, but as the line gradually ascended, plainly indicating how much the child was profiting, she gave it more and more attention. All at once, as the result of an indisposition, the line had dipped down; and since then she had always feverishly awaited the weighing, eager to see if the line would once more ascend. Then, a continuous rise having set in, she laughed with delight. That little line, which ever ascended, told her that her child was saved, and that all the weight and strength he acquired was derived from her—from her milk, her blood, her flesh. She was completing the appointed work; and motherliness, at last awakened within her, was blossoming in a florescence of love. (224)

The chart measures Norine’s love and her baby’s weight, illustrating how science and maternal affection combine to improve individual lives. Although
Norine can barely afford to support herself, her maternal affection for her baby encourages her to set up a home with her sister, who has been sterilized by an unscrupulous doctor. Together the women create a family, saving themselves and the child from wretched lives. Zola’s message is blunt: fertility generates love, and love nurtures families. Connecting human fertility and marital and parental love to the fruitfulness of nature, Fécondité proposes that fertility promises progress. Science and technology are useful adjuncts that can enable healthy environments, but loving mothers are also important in determining the outcome of family life.

Fécondité contrasts the unhealthy temptations of urban life with the simple pleasures of living in the country to encourage close-knit families. Some families living in Paris seek social success, but they undermine their own efforts because they do not cultivate their greatest resource: their ability to procreate in the way that nature teaches them. The strongest example of negative motherhood in Fécondité is Constance, Marianne’s cousin, who egoistically raises one son in order to pass on an unencumbered inheritance. Although her husband spouts Malthusian principles and approves of limiting sexual relations with Constance, he indulges in extramarital affairs and impregnates his young mistresses. Constance’s misery after her beloved only son dies portrays the chaos engendered by an unfulfilled woman, for her grief turns her into a liar and a murderer when she realizes too late that her excessive contraceptive practices prevent her from enjoying a family. Her husband’s dissolute lifestyle and her selfishness could have been controlled within the guidelines outlined by Michelet and Zola if the couple had respected the power of fertility.

Mathieu Froment achieves success by harnessing the fertility of the earth, reclaiming worthless marshland. Unlike the bleak picture of agricultural life presented in La Terre, the earth is a generous mother to the Froment family. Mathieu’s transformation of the marsh into a fertile field proves that the proper application of labor and love produces miracles. His success in growing wheat on previously fallow property is described not as a great scientific feat but as a project to inseminate nature that requires respect for the earth. Farming and procreating amidst the gentle beneficence of nature, the Froments are productive and hope for an even better future for their offspring. Fécondité teaches that motherhood makes a woman complete because she becomes more beautiful and closer to nature by exuding love and procreating. To be prosperous, man should inseminate nature in both of its guises, woman and earth.

While Michelet directed his works about women and love to the male reader to persuade husbands to control their wives, Zola aimed his novel at women, for he believed that the population problem could be solved by encouraging women to believe that pregnancy and motherhood are aesthetically satisfying experiences. Numerous examples of motherhood serve as a background for
Marianne’s successful life as a pantheistic goddess, a pseudo-socialist political emblem of the proper kind of farm wife, and a modern woman who raises her children according to her best judgment of scientific principles. This fictional presentation of the good mother avoids the issue of equal political rights for women while also detailing a powerful domestic vision of how a wife-and-mother inspires her family.

The image of a wise mother who relies upon love and scientific method in raising her children connects interests in motherhood and science as positive, reciprocal forces that improve individuals and societies. But the emphasis on the state’s role in encouraging births of future soldiers resembles policies endorsed by eugenicists and the Nazi state, along with the plotline of Dracula noted in the previous chapter. Harnessing woman’s procreative capacity as central to national interests constrains individual and family for state benefit, but encouraging procreation does not necessarily promote positive social and political outcomes and often restricts woman’s choices to pursue educational and career pathways.

### Stereotypes of Women Doctors

Zola praised the new mother whose fertility might keep France a world power, but American authors interested in gender displayed more interest in exploring the lives of women who entered the world of work. Responding to stereotypes of women physicians and to cultural arguments concerning the propriety of women working outside the home, William Dean Howells’s *Dr. Breen’s Practice* (1881), Elizabeth Stuart Phelps’s *Dr. Zay* (1882), Sarah Orne Jewett’s *A Country Doctor* (1884), and Charlotte Perkins Gilman’s “Mr. Peebles’ Heart” (1914) and “Dr. Clair’s Place” (1915) imagine how medicine is best served by feminine virtues. Sex roles and stereotypes in these narratives illustrate configurations of sexuality, science, and technology, inviting readers to consider the New Woman doctor who faced cultural prohibitions concerning her work.

Like Child’s story “Hilda Silfverling” and Zola’s *Fécondité*, these American realist narratives perform cultural work. The fictions of Howells, Phelps, Jewett, and Gilman invite readers to accept, reject, or negotiate characters’ choices regarding whether women should practice medicine, while also acknowledging the ways in which a female doctor’s partner, family, and society benefit from her interventions. Medical doctors are characterized as helping individuals and society in ways that are consonant with woman’s traditional role as caregiver. Thus, *Dr. Breen’s Practice, Dr. Zay, A Country Doctor*, and Gilman’s stories illustrate what some historians consider to be a golden age of women’s participation in U.S. medicine.
From 1848, when the New England Female Medical College, the first women’s medical college, was founded, until 1910, when the Carnegie Foundation published Abraham Flexner’s report on medical education in the United States, women’s medical colleges and female students’ matriculation in coeducational medical schools flourished. During this period, Sue Wells points out, “women entered a large, loose profession in relatively ample numbers, participated in its work as it developed scientifically, formed their own institutions, [and] were accepted into the male institutions as scientific medicine achieved its greatest triumphs.” This era ended with Flexner’s recommendations to promote uniform standards for medical education for college graduates. The reconfiguration of medical schools into graduate programs limited the participation of women, who “then were both marginalized and dispersed.”

Writing their fictions in the 1880s, before women’s medical colleges were put out of business, Howells, Phelps, Jewett, and Gilman acknowledge the ways in which female physicians were affected by conflicting ideologies promoting and constraining their participation in medicine. Rosemary Pringle reports that many women chose medicine because they regarded independent, self-supporting careers as a positive alternative to marriage and not as a necessary fall back in the event they failed to marry. . . . Some married women also embraced the ideology of financial independence and self-reliance. At a time when salaried jobs for married women were almost impossible to obtain, there were great hopes that medicine would offer more flexibility and permit women to combine family and career.

These fictions about women doctors illustrate their struggles to combine personal and professional responsibilities and to be accepted as competent caregivers in ways that still resonate with readers.

Recognizing the ethical power of realism to convey social problems and solutions, Howells acknowledges, “Realism is nothing more and nothing less than the truthful depiction of the material.” Phelps’s memoir *Chapters from a Life* similarly defines moral realism as an effort both “to tell the truth about the world [she] live[d] in” and to write “with ethical purpose.” Jewett also accepts that fiction ought to have a “point of view” and that in selecting material, an author should develop a moral perspective. Gilman’s short stories are moral parables exploring how sex role constraints can be overturned by innovations often related to science and technology. *Dr. Breen’s Practice, Dr. Zay, The Country Doctor,* and Gilman’s stories dramatize real-life dilemmas by illustrating unconventional women surrounded by admirers and critics. Narrators resist sermonizing about the propriety of women working outside the home in favor of creating scenes that invite readers in as direct observers.
of how the protagonists’ work helps others. These narratives do not offer elaborate plots, preferring instead to document how various characters judge women doctors and to incorporate extended dialogues among those commenting on the talents and shortcomings of female doctors. Narrators also guide readers’ interpretations to ensure that female doctors emerge as sympathetic innovators.

Protagonists sacrifice personal relationships to pursue medical careers. The first American novel about a woman physician, *Dr. Breen’s Practice*, has an ironic title, for Grace is most often referred to as Miss Breen by the women who board at her mother’s seaside resort on the coast of Massachusetts south of Boston. Many guests are convinced that this form of address is more polite than “doctor” in that it acknowledges that she is a woman. The confusion over Grace’s title signals her ambivalence about being a physician. Grace decided to attend medical school after being jilted by a lover. After graduation, she begins her career by treating her friend Mrs. Louise Maynard, who is estranged from her husband and staying at the Breen resort. Mrs. Maynard tries to convince Grace that she is wrong about everything, although Grace pays her bills and provides her with free medical care. When Grace asks Louise to stop complaining about her marital troubles to other guests because such talk encourages criticism, Louise laughs and tells Grace, “[Y]ou defy public opinion a good deal more than I do, every minute . . . [by] being a doctor.”

Other characters also criticize Grace for becoming a doctor or for practicing homeopathy. Some guests do not understand why Grace went to medical school at all. As Mrs. Scott suggests, “But they say Miss Breen wasn’t obliged to do it for a living” (64). Dr. Mulbridge, the town’s allopathic physician, refuses to consult Grace when he treats Mrs. Maynard, who appears to have contracted pneumonia, and he demands that Grace agree to act as a nurse on the case and not as a doctor (55). Dr. Mulbridge’s mother approves this plan, telling her son, “If one half the bold things that are running about the country had masters it would be the best thing” (115).

Fewer characters offer favorable opinions of Grace’s work. Grace’s mother is supportive, although she believes that her daughter is wasting her time caring for the passive-aggressive Mrs. Maynard. The feminist Miss Gleason, a resort guest, offers unqualified, public praise about Grace’s actions, whether Grace is caring for Mrs. Maynard or turning the case over to Dr. Mulbridge; but Howells represents Miss Gleason as a “heroine worshipper” who admires Grace unconditionally and not objectively (28). Mrs. Breen confirms that Miss Gleason “is a fool” (98). According to the narrator, Miss Gleason’s feminist politics make her oblivious to what happens around her; for example, she is unaware of romantic intrigues brewing and is incapable of understanding Grace’s feelings and preferences.
Readers enter a social world that prefers to regard Grace as a marriageable young woman rather than respect her status as a doctor. Resort guests prefer to speculate about romance and fashion, differing on whether Mrs. Maynard will get a divorce and which man Grace might marry. Readers know more than the guests do because readers can observe the comfortable intimacy between Grace and Walter Libby that contrasts with her strained meetings with Dr. Mulbridge. Confessing he loves Grace, Mr. Libby reveals he understands her professional predicament: “You were always thinking, because you had studied a man’s profession, that no one would think of you as a woman, as if that could make any difference to a man that had the soul of a man in him!” (90). There is little doubt which man Grace prefers, even though her confusion about her career delays her decision about marriage.

Grace refuses Mr. Libby’s first proposal, but she almost instantly regrets this response and admits to her mother she does like him. Meanwhile, Miss Gleason promotes Dr. Mulbridge’s suit, proclaiming that “the perfect mastery of the man-physician constitutes the highest usefulness of the woman-physician. The advancement of women must be as women” (102). Grace appears tentative because it is impossible for her to live up to Miss Gleason’s ideal of a female physician. Nor can Grace follow her mother’s advice to cast off the annoying Mrs. Maynard.

Contrasting Grace’s lack of professional experience and submissiveness with Dr. Mulbridge’s confidence, Mrs. Maynard reminds her friend, “You’re not fit to be a doctor. You’re too nervous, and you’re too conscientious,” and she advises Grace that “what you want to do is to get married. You would be a good wife, and you would be a good mother” (121–22). The tables turn, however, for after Mr. Maynard shows up and lets Dr. Breen know that he will “take care” of his wife, Mrs. Maynard’s domination of Grace comes to an end (109).

Grace is then free to do as she pleases, which means choosing a husband who suits her and her career choice. Walter Libby treats Grace as a peer, but Dr. Mulbridge courts her by asserting his power and authority over women: “He saw that rude moral force alone seemed to have a charm with his lady patients,—women who had been bred to ease and wealth, and who had cultivated, if not disciplined, minds” (111). Dr. Mulbridge wants to convince Grace to marry him and give up her medical practice to become part of his, but Grace wants to become more independent, not less, by marrying.

Muddling through her confusion about men and medicine, Dr. Grace Breen determines that she must do as she wishes—not what Miss Gleason, her mother, Mrs. Maynard, or Dr. Mulbridge sees fit. Grace tells Mr. Libby she loves him, affirming, “Nothing is easy that men have to do” (145). After marrying, Grace continues to practice medicine; she cares for the children of her husband’s mill workers because he has asked her to do so. The novel ends
by emphasizing Grace's happiness in her marriage: she “trusts [her husband's] sense with the same completeness that she trusts his love. On the other hand, when it is felt that she ought to have done for the sake of woman what she could not do for herself, she is regarded as sacrificed in her marriage” (158). Dr. Grace Breen attains respectability in marriage and practices medicine in a way she finds comfortable.

Howells was midway through serializing his novel in the Atlantic Monthly when he received a manuscript of the second American novel about a female physician, Elizabeth Stuart Phelps's Dr. Zay. As the journal's editor, he decided to publish Dr. Zay after Dr. Breen's Practice concluded, and he invited readers to compare the fictions. While Howells's novel focuses on a woman physician who establishes a professional practice after marrying, Dr. Zay considers how an already successful female doctor contemplates marriage.

Aware that approximately two thousand female physicians practiced in the late-nineteenth-century United States, Phelps begins her novel from the patient's point of view. The novel details the perspective of a young man of society, the wealthy, indolent Waldo Yorke, who comes to know a female physician in rural Maine. Waldo surprises his mother when he tells her that he will leave their Boston home to execute his recently deceased uncle's estate in Maine. Whatever the reader learns about the title character, Dr. Zaidee Atlantanta Lloyd (Zay), is filtered through the comments of other characters and the hazy perceptions of Waldo, an effete, narrow-minded Bostonian lawyer who, at the beginning of the book, is without a law practice. On his second day in Maine, Waldo has a carriage accident, loses consciousness, and awakens to realize he has serious injuries and is being treated by a young woman who he assumes is his nurse. Until Waldo's health improves, all those around him withhold the shocking information that his doctor is a woman. Waldo quizzes Zay about her experience and expertise, at first distrusting her advice and prescriptions as possibly misguided or naive.

Mrs. Butterwell, who is landlady to both the doctor and her patient, tells Waldo that Dr. Zay is wealthy, which surprises him: “Was it possible that this young woman had practice enough to keep two horses? He knew nothing of the natural history of doctresses. He had thought of them chiefly as a species of a higher nurse,—poor women, who wore unbecoming clothes, took the horse-cars, and probably dropped their ‘g’s,’ or said, ‘Is that so?” (63). Asking Zay why she became a doctor, Waldo is surprised to learn her the depth of her sacrifices to cope with what she describes as a “terrible . . . need of a woman by a woman, in country towns” (75). The narrative plot describes how Waldo learns to trust Zay's authority as he becomes more sympathetic toward Zay as a person, more understanding of her life choices, more personally interested in her, and more mature about his own
career. Mrs. Butterwell explicates the doctor’s virtues to the bedridden Waldo, testifying to Dr. Zay’s important role in the community and the challenges of practicing medicine in a rural location:

“She will be worked half out of her wits,” proceeded Mrs. Butterwell. . . . “East Sherman has the scarlet fever. . . . Doctor will be up and down day and night, now, you'll see. She has no more consideration for herself than a seraphim. She'll be one, if she don't mind. The poorer they are, the more nobody else goes near 'em, the more they get of her. . . . She has such a spirit! You'd expect it, if she wasn't smart. When a woman ain't good for anything else she falls back on her spirit! You don't look for it when she's got bigger fish to fry. But there! There's more woman to our doctor than to the rest of us, just as there's more brains. Seems to me as if there was love enough invested in her for half the world to live on the interest, and never know they hadn't touched the principal. If she didn't give so much, she'd be rich on her own account before now.” (85–86)

Mrs. Butterwell appreciates Dr. Zay’s superior feminine and medical attributes, explaining that the doctor’s homeopathic medical knowledge sustains the community.11

Nonfictional accounts of women doctors in the mid- and late nineteenth century also elaborate Victorian values characterizing woman as the sensitive angel of the house.32 Historian Regina Markell Morantz-Sanchez notes that in the 1850s, Elizabeth Blackwell and others “always used the concern about the potential compromise of female delicacy generated by male treatment as an argument in favor of training women in medicine.”33 Women physicians in the 1880s differentiated their treatments from those done in masculine style, claiming that women “had more patience and insight” and arguing that women “practiced a more nurturing, milder, and more holistic brand of therapeutics” (211, 210). Educators urged their students, in the words of Dean Clara Marshall of the Woman’s Medical College of Pennsylvania, to “reach patients and cure them too, by a scientific use of your humanity” (210).

Waldo witnesses the close relationships Dr. Zay has with her patients and her strong idealism when he accompanies her during rounds. In one case, he must sit idly by when a worker named Jim is nearly drowned in a mill accident (142), while Dr. Zay and a number of healthy men on the scene work hard to ensure that Jim will cheat death. After Jim is saved, Dr. Zay wastes not a minute in arranging for a minister to marry him to her patient Molly, the woman he recently impregnated (146). Dr. Zay imposes her values concerning the sanctity of marriage and motherhood on Molly and Jim as a natural extension of her authority as a physician.

The doctor believes that a vulnerable, unwed, expectant mother like Molly
will find affection, social approval, and financial stability only by marrying the father of her baby. Although Dr. Zay fears that marriage would constrain her own life and would conflict with the demands of her practice, Phelps has other plans for the doctor and connects the professional story of Dr. Zay with the romantic plot Yorke initiates. The novel thereby optimistically blends career and personal growth for both parties in a romantic relationship.

Although at first Waldo does not enjoy Dr. Zay’s being “in charge,” he learns to admire her authoritative confidence as a doctor and her other, more feminine virtues. After leaving Zay’s care, Waldo eventually gains power as architect of their sentimental attachment. Mrs. Butterwell’s observation that Dr. Zay is a perfect doctor who knows nothing of men and Zay’s claim that she must sacrifice sympathetic relations to practice her scientific profession encourage Waldo’s attentions. While the first part of the novel develops how Waldo’s views on professional development are enlarged, the second part concentrates on his enlightening Dr. Zay regarding the value of sentimental attachments.

Dr. Zay acknowledges to Waldo that she recognizes it is a natural mode of human behavior to marry and have a family but that she must resist such personal indulgences because of her professional position and because she has not seen many true marriages. After Waldo proposes for the second time, Zay tells him:

You have been so unfortunate as to become interested in a new kind of woman. The trouble is that a happy marriage with such a woman demands a new type of man. By and by you would chafe under this transitional position. . . . You would need me when I was called somewhere urgently. You would reflect, and react, and waver, and then it would seem to you that you were neglected, that you were wronged. You would think of the other men, whose wives were always punctual at dinner in long dresses, and could play to them in the evening, and accept invitations, and always be on hand, like the kitten. I should not blame you. (244)

Zay admits that she had almost engaged in a Boston marriage, a living arrangement with another woman that might have fulfilled her need for intimacy, but she is married to her work.

Since Waldo cannot logically convince Zay, whose scientific training gives her the upper hand, over time he uses sentiment to persuade her to marry him. Zay objects that an equitable marital arrangement is rarely achieved and that she doubts whether even he, who has managed to say things she had not expected any man to say to her, can live up to what he describes. Instead of giving up his pursuit of her, Waldo celebrates the miracle of their love and argues that he loves all of her: “the strong-minded doctor” and “the sweet-hearted woman” (254).
Medicine appears a suitably feminine project in Phelps’s novel as women appear natural healers. At the same time, the novel revises the roles assigned to men and women in marriage, celebrating two lovers who revise conventional sex roles to achieve a potentially happy marriage. The cultural history of neurasthenia supports Phelps’s portrait of Waldo as an effeminate man who takes on feminist as well as feminine attributes. According to Jackson Lears, the contradictory demands of Victorian values concerning gender-appropriate behavior created “problematic expectations”: “The tendency to define autonomy as male and dependence as female made ambivalence especially severe among those for whom gender identity was most problematic: women who sought ‘masculine’ careers in public life, men who nurtured ‘feminine’ aspirations toward literature, art, or the increasingly ‘feminized’ ministry” (221). The schizophrenic demands of culture, Lears argues, permits an escape into neurasthenia that invalids could use to justify both autonomy and dependence.

Phelps describes Waldo’s neurasthenia (his masculine invalidism) as a counterpoint to her characterization of the feminine aspects of science. The novel reverses gender roles and depicts how a female physician and a male patient converse. Because Waldo sees his resignation to his illness as courageous, he is taken aback to hear Dr. Zay reply that “he had received a nervous strain,” using a term more often applied to women. The demystification of neurasthenia as a typically masculine propensity develops a romance that reverses sex stereotypes.

The narrative takes the occasion of Waldo’s lengthy convalescence as an opportunity for a good deal of interaction between him and Zay. The contrast between the hardworking, socially activist Zay and the neurasthenic Waldo could hardly be greater at the beginning of the novel, but their differences encourage their mutual attraction. It is only when Waldo observes how attentive Zay is to her work, to her patients and their health, that he realizes how significant an occupation can be. By discarding his preexisting ideas and admitting that women can achieve professional authority even in nontraditional fields, Waldo works harder at his profession, law, and becomes a sympathetic companion for Dr. Zay.

Waldo and Zay enter a relationship defined according to their terms. Resisting stereotypical roles, each develops a sense of self combining attributes of both genders, for Waldo’s experience as an invalid has raised his consciousness about what it means to be socialized as feminine. Like Grace Breen’s assuming the role of assertive lover and giving up a nascent independent medical practice to marry, Zay moves toward Waldo, agreeing that she must also change if they are to have a relationship. Phelps’s novel offers a more radical solution than Howells’s in suggesting that Zay might move to Boston to set up practice, while Jewett’s novel both describes a heroine whose temperament resembles...
Dr. Zay's and also details the experiences of a young woman determined to go to medical school regardless of what people think.

Jewett’s father was a country doctor, and for a time she also considered becoming one. As a young child she accompanied her father on his rounds to see patients on surrounding farms, and these visits to patients provided a foundation for the relationship of the orphaned Nan Prince and her guardian Dr. Leslie in *A Country Doctor*. Familiarity with a doctor’s life also helps to explain why Jewett might have chosen the female physician as the subject of her first novel, even though Howells and Phelps had just published their books. Like *Dr. Zay*, Jewett's novel is set in rural Maine. It begins by describing how Nan's mother Addy contemplates suicide as she struggles to get home to her own mother, walking and then crawling to the family farm while carrying the young Nan in her arms. Addy begs Dr. Leslie to watch over Nan and then dies within hours of making this request. Addy's mother raises the girl and lets her visit Dr. Leslie, but Mrs. Thacher resists the entreaties of Nan's father's family to adopt or support her granddaughter because the Princes' treatment of Addy was partly responsible for her daughter's decline. Two years after taking Nan in, Mrs. Thacher dies, and the girl goes to live with Dr. Leslie and his housekeeper Marilla.

Hoping to guide her, the doctor takes her on his rounds and asks her, “What are you going to do when you grow up, Nan?” to which she answered gravely, as if it were the one great question of her life, “I should like best to be a doctor” (202). Information about Nan's family background emerges from dialogues between Dr. Leslie and his peers. The doctor's conversation with a college classmate, a ship captain, reveals that Nan's father was a ship's surgeon and that her mother worked in Dunport as a dressmaker. Addy offended her soon-to-be husband's sister, and the women feud even after Addy becomes her brother's wife. Addy is described as “ambitious” and “impatient” (209), and Dr. Leslie thinks she could have been consumptive and insane, for he heard she had been drinking and begging in the streets in her last days before returning to her family home in Oldfields.

Dr. Leslie and Nan agree that medical school and practice suit Nan's abilities. He unwaveringly supports Nan's decision to become a doctor:

“I want you to be a good woman, and I want you to be all the use you can,” he said. “It seems to me like stealing for men and women to live in the world and do nothing to make it better. You have thought a great deal about this, and so have I, and now we will do the best we can at making a good doctor of you. I don't care whether people think it is a proper education for women or not. It seems to me that it is more than proper for you, and God has given you a fitness for it which it is shame to waste. And if you ever hesitate and regret what you have said, you
won't have done yourself any harm by learning how to take care of your own
health and other people's." (261–62)

The doctor expresses the most liberal attitudes in the novel toward women
training as physicians, whereas other adults who attempt to influence Nan,
including Dr. Leslie's friend Mrs. Graham, differ on whether being a physician
is respectable for a woman. But no one shakes Nan from the belief that she was
born to do something important, for she has all her mother's ambition along
with her father's medical talent and interest in doing good.

Taking a break from medical school, Nan visits her father's sister in the city
and learns firsthand of her aunt's bitterness toward her mother, who was blamed
for stealing Jack Prince away from his family. Nan's aunt, Miss Prince, thinks
highly of Nan's gentle nature and courtesy, nurtured by her grandmother, Dr.
Leslie, and by Mrs. Graham in turn, but her aunt objects to Nan's professional
plans. Miss Prince tells her that medical school is a ridiculous notion Dr. Leslie
has mistakenly encouraged. Miss Prince presses Nan to marry George Gerry,
the son of Miss Prince's own former beau.

Although Nan likes George, their relationship does not flourish because
George is uncomfortable with her skills. During a boating party, as George and
Nan seek refreshments for the young people taking the excursion, he witnesses
Nan's medical abilities as he observes her tending to an injured farmer who has
dislocated his shoulder:

Nan pulled the spectators into the doorway of the kitchen, and quickly stooped
and unbuttoned her right boot, and then planted her foot on the damaged shoul-
der and caught up the hand and gave a quick pull, the secret of which nobody
understood; but there was an unpleasant cluck as the bone went back into its
socket, and a yell from the sufferer, who scrambled to his feet. (316)

Her heroism confuses George, who "somehow wished it had been he who could
play the doctor" (317). Unlike Waldo Yorke and Walter Libby, who admire the
abilities of the women they love, George is troubled by Nan's expertise.

Other Dunport residents are also disturbed by Nan's ambition to become
a physician. The aging Mrs. Fraley, the reigning social arbiter, criticizes Nan
for insisting she will be a doctor. Responding to Nan's argument that boys and
girls with talents should be equally encouraged ("I don't see why it should be
a shame and dishonor to a girl who is trying to do the same thing and be of
equal use in the world"), Mrs. Fraley tells her:

"My dear, it is quite unnatural you see, . . . Here you are less than twenty-five
years old, and I shall hear of your being married next thing,—at least I hope
I shall,—and you will laugh at this nonsense. A woman’s place is at home. Of course, I know there have been some women physicians who have attained eminence, and some artists, and all that. But I would rather see a daughter of mine take a more retired place.” (327–28)

Nan patiently listens to such criticism, but she lets nothing, not even George’s proposal of marriage and her aunt’s intimidation, dissuade her from following her life’s ambition. At the end of the novel, Nan anticipates completing medical school and practicing medicine in Oldfields.

Charlotte Perkins Gilman’s stories about female physicians similarly highlight their wisdom and independence. In “Mr. Peebles’s Heart,” Dr. Joan Bascom develops an unusual prescription for her brother-in-law, Mr. Arthur Peebles, when she suggests that “for his health” he should sell his store and take the proceeds to travel without his wife, her sister Emma (275). Although Emma worries about what people think of such a plan, Dr. Joan proposes it to her sister only after buying the store and establishing vacation plans for Arthur. When all arrangements are in place, Emma cannot oppose what her sister and husband support.

Joan also prescribes a more enlarged life for Emma, and during the husband’s absence she stays with her sister, whose children are grown and married. Freeing Arthur from his business so that he can explore his interests, Dr. Joan introduces Emma to independence during Arthur’s two-year trip abroad and encourages her sister to learn about art and music. Dr. Joan’s medical prescription improves the store’s business when she hires a more adept manager, encourages the healthy development of husband and wife, saves her sister’s marriage, and turns a profit for the doctor. Like Zay, Joan effects social engineering through her “prescriptions.”

The first-person narrator of “Dr. Clair’s Place” attributes scientific expertise to Dr. Willy Clair, a female physician who has established a Southern California mountain spa where men and women can relax and reinvigorate their minds. The narrator is a former spa guest and at the story’s outset serves as an “associate” who helps others learn to be happy. The facility is less medical than a sanatorium and more stimulating than a friend’s country place might be; Dr. Clair’s place is a calm, peaceful retreat where patients, friends, and associates can interact for everyone’s good. The story’s ending is idyllic: the narrator explains that she now makes a living “by knitting and teaching it to others. And out of the waste and wreck of my life—which is of no small consequence to me, I can myself serve to help new-comers. I am an Associate—even I! And I am so Happy!” (303).

*Dr. Breen’s Practice, Dr. Zay, A Country Doctor,* and Gilman’s stories describe intersections of medicine and femininity that reconfigure readers’ ideas of
appropriate roles for women by making it appear “natural” in these fictional worlds for women to become physicians, exercise authority over others’ lives, and serve as role models. Narrators present doctors (and mothers) as well-intended, thoughtful caregivers who encounter unfair criticism from those who deem medicine an inappropriate profession for women. The New Woman and the New Woman doctor appear as competent, caring, and rational in resolving individual and social problems.

These fictions also broadly engage readers by reconfiguring sex role stereotypes to suggest that women should be more assertive than social conventions allow. Gilman’s stories and novels by Howells, Phelps, and Jewett demonstrate how women pursue education, work as physicians, and, in some cases, marry according to what might seem unconventional paths. While sketching different personal prospects for women physicians, the authors suggest that it is the inevitable lot of competent professional women to cope with harsh critics who believe that women’s roles should be more limited. Their fictions observe dilemmas for women seeking professional roles and establish possibilities for feminine and feminist interventions in medicine that promote positive social change. In our own day, film performs such cultural work, as the next section and chapter explore.

Science and Parental Love in _Lorenzo’s Oil_

The critically acclaimed 1992 film _Lorenzo’s Oil_, directed by George Miller and starring Susan Sarandon and Nick Nolte, was not a box-office hit, perhaps because the subject of terminal illness kept away viewers more interested in happy endings or blockbuster special effects. Yet the film has achieved a cult status as indicated by numerous high ratings on the Internet Movie Database, references to it in Internet chat-room discussions concerning rare diseases, and Web sites about it. From the perspective of science studies, the film deserves attention as a political manifesto for families affected by orphan diseases and as a depiction of female medical heroism. Influenced by cultural responses to medicine, illness, and death, _Lorenzo’s Oil_ adapts conventions of biographical films describing a hero’s scientific discovery by delineating how Lorenzo Odone’s parents, who were not physicians, contributed to scientific research.

Based on a true story, _Lorenzo’s Oil_ melds family documentary and scientific history within a fictionalized narrative to reveal how the collaboration of doctors and those affected by a disease results in scientific progress. As a medical case study, the film links Lorenzo and his parents with tenacity and persistence, connecting these traits with their travel in Africa and their interest in crossing cultural boundaries. Miller stages Augusto and Michaela Odone’s
struggle to understand their son Lorenzo’s adrenoleukodystrophy as a heroic battle in which the family’s weapons include cultural adaptability, willingness to synthesize information from unfamiliar technical disciplines, parental love, and patient fortitude.

Lorenzo’s Oil opens with an epigraph emphasizing heroism, a quotation from a Swahili warrior’s song: “Life has meaning only in the struggle / Triumph or defeat is in the hands of the Gods.” The credits unroll over opening shots set in the visually stunning Comoros Islands depicting a healthy five-year-old Lorenzo whose social, linguistic, and cultural skills provide evidence of his intelligence and maturity. The prologue records Lorenzo’s July 1983 leave-taking of his African friends, particularly Omouri, a farewell marked by their exchange of homemade gifts (a kite to Omouri and his sword to Lorenzo). The kite Lorenzo made for his friend depicts the Odone family; his explanation of the figures reveals his family history, encoded in his name “Lorenzo Michael Murphy Odone,” son of an Irish-American mother who is a linguist (Michaela Murphy Odone) and an Italian father who works as an international economist with the World Bank (Augusto Odone).

The film follows the chronology of Lorenzo’s illness, diagnosis, and therapies. Three months after returning from Africa with his parents to their home in Washington, DC, Lorenzo exhibits behavior that puts his well-educated, culturally savvy parents at odds with schoolteachers and administrators who suggest assigning the boy to special education. Lorenzo’s physical abilities dramatically degenerate in late 1983 when he falls first from his bicycle and later from a chair while taking an ornament off the Christmas tree. Puzzled by his inexplicable physical and mental lapses, Lorenzo’s parents and doctors arrange to have him intensively tested in a hospital. The Easter (April) 1984 diagnosis of adrenoleukodystrophy (ALD) is tragic news to the Odones, for the physician indicates that Lorenzo’s decline will be rapid, inexorable, and painful. The doctor delivers this diagnosis, explaining that myelin surrounding Lorenzo’s nerves is eroding and that there is no therapy known to prevent or forestall degeneration.

The dates of onset and diagnosis (Christmas and Easter) relate the progression of Lorenzo’s disease to the family’s Catholic faith. The settings of Lorenzo’s school and the hospital where he is diagnosed appear in the film as cathedrals. The camera frames his parents’ conversations with authority figures in these settings against the backgrounds of soaring ceilings. The library where Augusto (Nick Nolte) first looks up the medical research on ALD is a large space with a high ceiling resembling a church. Michaela (Susan Sarandon) prays in a cathedral during a mass, tearfully but silently imploring God to save her son. Augusto flees the cathedral-like library, where he has been reading in medical journals about the painful fate awaiting his son,
to go scream in a library stairwell where he is wracked by sobbing. As Anne Hudson Jones argues, “Even while these scenes reinforce Lorenzo’s identity as substitute Christ, other scenes in the cathedral sequence prepare for the substitution that soon comes of scientific research for religious faith.” During their son’s illness, the Odones move from despair to optimistic hope and determined curiosity to learn all they can about this disease and what they can do to fight it. The sacralized settings of the library and hospital highlight the Odones’ resistance to their son’s illness. Instead, they choose an active course: putting faith in science by prodding individuals and institutions to develop a therapy that might treat Lorenzo.

In May 1984, shortly after Lorenzo’s diagnosis, his parents enroll him in a clinical trial at the Johns Hopkins University in Baltimore to test the effect of a low-fat diet on ALD patients. The trial’s director, Dr. Gus Nikolais, makes it clear that the study’s diet might not prove a therapy for Lorenzo; however, its results could lead to the development of a more sophisticated understanding of ALD, only recognized as a disease in the 1970s. Augusto and Michaela know already that ALD is a genetic disorder, but they learn from Dr. Nikolais that it is a sex-linked disorder transmitted via mothers who pass on the genetic defect to their sons. Augusto asks Dr. Nikolais about the biochemical processes of ALD, but Michaela seems stricken as she contemplates that her genes have caused Lorenzo’s illness. Dr. Nikolais patiently answers Augusto’s questions and tries to comfort Michaela by telling her that “you have nothing to blame yourself for.” Nikolais’s office is another seemingly sacred space, for the backdrop to the conversation between doctor and parents is dominated by a large, semicircular, translucent window revealing no view, only light. Lorenzo’s parents—Augusto by breaking down during Nikolais’s explanation and Michaela by maintaining stoicism—assert their primary concern as their son’s health, not the doctor’s opinion of them.

The Odones recognize that their interests and the doctor’s do not coincide. Their experience in the Comoros has shown them that acquiring information about another culture and appreciating its different values and conventions can be challenging, worthwhile processes, and they adapt these lessons to battling Lorenzo’s illness in constructing medicine as a foreign culture. Having bridged cultural differences of the West and Africa, they refuse to be intimidated by medical experts or resign themselves to Lorenzo’s predicted fate. Instead, they collaborate with each other, with researchers, and with anyone else who will partner in creating new knowledge and establishing more effective therapies as part of winning the war against ALD.

Cultural sensitivity and empowerment through education bind the family and structure their days. Lorenzo’s parents interrogate doctors who recommend only the most conservative therapies and who guard against experi-
mental or innovative approaches, but the Odones establish their own rules, for example, deciding when Lorenzo’s other relatives might visit, at first limiting such opportunities and then having a large birthday party to celebrate his sixth birthday in May 1984. When the low-fat diet required by Dr. Nikolais’s study does not appear to control the level of fats in Lorenzo’s bloodstream, his parents are perplexed and begin to investigate other means to alleviate their son’s degenerative illness, going so far as to have him embark on a radically experimental three-week course of chemotherapy in Boston in June 1984. But until they figure out why the recommended diet does not work, Augusto is reluctant for Lorenzo to stop following it, for he refuses to be unscientific in his objections to standard scientific practices.

The Odones’ willingness to challenge existing medical research puts them at odds with medical professionals and parents, notably Ellard and Loretta Muscatine, the couple leading the parents’ foundation. The Muscatines’ experiences with their sons with ALD and their witnessing of the devastating effects of ALD on many other families make them submissive; in their view, parents cannot change the course of the disease and should unquestioningly support the doctors who are working to understand it and create possible therapies. Michaela and Augusto attend one parents’ foundation conference in July 1984 but become frustrated by what they see as a misplaced focus on caring for parents rather than for children. When Michaela asks the participants to discuss whether Dr. Nikolais’s diet benefits the boys enrolled in the research study, the Muscatines and the nutritionist state that such information is anecdotal and that parents should simply follow the directives of Dr. Nikolais and other experts. Although Michaela stops arguing her case at the conference, the Odones do not change their focus on children, seeking Lorenzo’s improvement by any means necessary. Caring for him at home, they valiantly speak first of his recovery and later of prolonging and enhancing his life. They envision him as a warrior against the disease. At bedtime in August 1984, they tell him the Italian story of the night of the shooting stars to encourage him to have hope; having heard it many times, he knows its triumphant end. The camera frames the family in a window as they fix their gaze on stars beyond, affirming their courage and their recognition of the mysteries of nature.

Later, Michaela and Augusto’s persistence provokes new medical research. They subsidize and reconfigure standard medical procedures related to clinical trials, to funding of research, and to experimental protocols that will help their son and other afflicted boys. They review medical research, raise funds to support collaborative conferences and scientific research, and serve as home caregivers because they believe that their continuing involvement on all fronts can help them better understand the disease and that consistently nurturing Lorenzo’s mind will help him recover from the disease.
Michaela and Augusto learn biochemistry and begin constructing alternative hypotheses of etiology and treatment to prod researchers to speed up scientific discoveries. Augusto’s “simple-minded” approach to the understanding ALD encourages him to use commonplace methods of visualization to describe it, including the image of a kitchen sink with its faucets and drains to represent the inputs and outputs of Lorenzo’s blood. The Odones puzzle over “the paradox” of why the low-fat diet appears to increase the levels of fat in his system, and Michaela assiduously looks through the medical research about biosynthesis of fats, finding in October 1984 a Polish study on rats that demonstrates fatty acid manipulation as a possible mechanism in ALD.

Recognizing that scientific researchers are isolated from each other by national and disciplinary boundaries, the Odones convince Dr. Nikolais to help establish an international conference on ALD. The ALD parents’ foundation would also sponsor the international symposium bringing together researchers from around the world, but only if Michaela links it with the parents’ conference to be held in nine months. Instead, the Odones proceed quickly, conscious that every minute delays the possibility of helping Lorenzo, and they find funding and arrange for the event to take place in five weeks. Michaela insists that a Washington Post reporter meet Lorenzo, which results in publication of an article about the symposium, but by the date of the meeting, Lorenzo can no longer speak clearly, and Michaela finds it difficult to determine what he wants.

The November 10, 1984, symposium developed by the Odones was the first devoted to ALD and related biochemical processes, and it is represented in the film as taking place in another cathedral-like setting. Although not professional scientists, the Odones insist on participating in the meeting, at which they help piece together what might be a promising therapy. Dr. Nikolais reports on the paradox of the low-fat diet resulting in higher fat levels. A Japanese scientist asks about inhibiting biosynthesis by fatty acid manipulation, and in response to this inquiry Michaela distributes findings of the Polish rat study. An American researcher remarks he has used oleic acid (olive oil) in ALD cells to affect fat levels, but he questions whether it will work in human beings. The scientists suggest that it might be hard to find the right chemical, for commercial applications of the oil are limited and indicate that scientists should do more research before testing human subjects (“Science has its own time”). Unwilling to wait, Michaela immediately calls various chemical companies to find pure oleic acid that would be safe for Lorenzo. After Petrochem Labs in Cleveland sends the Odones a bottle, Augusto and Dr. Nikolais come to a tense agreement on November 21, 1984, that Lorenzo can ingest the oil. One month later, Lorenzo’s blood levels reveal a decrease in fats, but his physical condition continues to degenerate, and he begins to experience convulsions. The oleic
acid has its limits; over the course of a few weeks, his blood levels plateau.

Lorenzo’s tenacity to endure despite his pain is honored by parents, who unstintingly care for him and seek to learn more about ALD from medical research. They represent his interests to physicians, nurses who assist in caring for him, and researchers who are working on solutions. Medical authorities and the general public’s submissive reliance on the professional wisdom of research scientists and doctors are regarded as suspect within Miller’s film, for the source of strength and nurturing deemed most significant for the patient is the force of parental love, especially the love of a mother for her child.

Michaela embraces Lorenzo as he suffers terrible fits; this mother and child imitate the configuration of the Pietà in these moments, for the doctor has indicated Lorenzo might understand that his involuntary spasms are temporary. In one scene, after Lorenzo has been brought to the hospital because the severity of his convulsions indicate that extreme measures might be needed, Michaela holds Lorenzo on her lap and tells him that he can let go and “fly to baby Jesus” if it is too hard for him to go on. Although she has been accused of hanging on to Lorenzo beyond the bounds of any reasonable hope, a sobbing Michaela assures her son that “Mommy and Papi will be okay without you.” When the doctor suggests that placement in hospice might be better than home care, Augusto acknowledges Lorenzo’s perseverance by saying, “It would not honor Lorenzo.” Although the Muscatines characterize a shorter illness and quicker death as “a blessing,” the Odones refuse to accept Lorenzo’s imminent death; instead, they work to stop his degeneration and improve his condition.

Michaela never loses sight of this goal, as she prays, fights, and studies on his behalf. Her life, her home, and her attitude toward the world focus on Lorenzo. She becomes more resilient and less inclined to accept death after she sees her son weather several crises, although each stage of the disease brings new challenges in caring for him. She earns the title of “mother tiger” from her sister Deirdre for dismissing everyone who diminishes hopes for her son. She fires two nurses and asks Deirdre to move out because they all are unwilling to follow Michaela’s regimen for Lorenzo, which includes speaking and reading to him as if he were a normal boy.

Augusto concentrates on research that might help his son, bringing home copies of relevant studies for Michaela to analyze as she manages Lorenzo’s home care. Augusto spends long hours in the National Institutes of Health Library in Washington trying to figure out why the oleic acid appears to be of limited benefit in that Lorenzo’s levels of very-long-chain fatty acids (VLCFAs) plateau in early 1985. Augusto tinkers with paper-clip chains as models to figure out the paradox of the VLCFAs input and output, finally concluding, after a dream in which Lorenzo appears holding both chains, that they are “the same
bloody enzyme.” Building on existing knowledge about high levels of saturated VLCFAs that are the “hallmark” of ALD, Augusto offers a new twist on the hypothesis of the disease and suggests that a dietary therapy introducing certain fats, notably purified versions of olive and rapeseed oils, would decrease the levels of VLCFAs and would fight the degenerative effects of the disease. Since monounsaturated fatty acids inhibit the synthesis of saturated VLCFAs and reduce their accumulation in cells from ALD patients, Augusto argues that a diet rich in monounsaturated fats could decrease the saturated VLCFAs, which are toxic at high levels. Although impressed by Augusto’s theorizing, Dr. Nikolais remains cautious about publicizing the therapy until it is adequately tested.

The Odones proceed with courage. With the same efficiency she demonstrated in locating the oleic acid, Michaela finds a chemist willing to synthesize erucic acid to mix with the oleic acid. Don Suddaby accepts the project six months before his retirement (he plays himself in the film) and succeeds in synthesizing erucic acid in September 1985, seventeen months after Lorenzo was initially diagnosed with ALD. The Odones conduct their own home-study, first allowing Deirdre (Michaela’s sister, who is also a carrier) to be the guinea pig testing the combination of oleic and erucic acids before administering this new therapy to Lorenzo. Over a short period, the Odones and the doctors observe that Lorenzo’s blood levels improve and that his physiological condition stops deteriorating. Another advance represented in the film concerns Lorenzo’s ability to communicate via blinking and raising a little finger, demonstrating that his mother’s faithful efforts to minister to his mental capacities have positive outcomes.

The Odones understand that their sacrifice for their son might more significantly benefit other children whose illnesses could be diagnosed and treated earlier than Lorenzo’s was. The final conflict represented in the film between the family and the medical establishment depicts the Odones’ discussions with Lorenzo’s doctor about releasing information about the new therapy to the public. Although the Odones are convinced of the efficacy of the blend of acids they now call “Lorenzo’s oil,” Dr. Nikolais and the Muscatines resist publicizing the Odones’ discovery as a solution for all patients until more tests and studies determine its effectiveness. Augusto and Michaela privately share the oil with another family whose son’s symptoms also decrease, but they can’t subvert existing protocols.

Near the end of the film, at an ALD parents’ foundation meeting, other ALD parents begin to complain that the American medical establishment prevents them from accessing what the Odones represent as a moderately successful treatment for ALD. Angry mothers and fathers shout at Dr. Nikolais and the Muscatines, as Michaela did at her first foundation meeting. This time
a number of parents vociferously demand action, and the meeting erupts in a chaos of voices. One parent claims that the U.S. government made it difficult for persons with AIDS to obtain AZT until AIDS activists succeeded in changing policies, promoting research, and calling for therapies. Although the ALD parents’ foundation board defers to the medical doctors, these angry parents of children with ALD take up the Odones’ call for more research. Parents confront medical researchers and recommend that therapies be quickly investigated and approved, for new therapies might save current patients if treatments are affordable and efficaciously administered. Following the example of AIDS activists whose public demonstrations had an impact, ALD parents hope to induce the medical establishment to produce effective research and therapies.

Representing parents who try anything to help their afflicted son, Lorenzo's Oil demonstrates that patients and relatives should undertake scientific investigation and explore the efficacy of new treatments that might not yet be approved by the medical establishment. Lorenzo's Oil incorporates the history of AIDS as an object lesson in medical activism, alluding to racial categories in referencing Omouri’s talents as caregiver to demonstrate the cultural representations of orphan diseases, specifically ALD.

Lorenzo's Oil sketches the plight of families with boys with ALD as a version of the AIDS narrative, recommending that heroic measures support further investigations into etiologies and therapies. ALD is described as “orphan disease,” according to Dr. Nikolais: “You see, ours is what is known as an orphan disease. Too small to be noticed, too small to be funded, especially with the iron hand of Reaganomics.” Lorenzo and other ALD sufferers share certain symptoms with full-blown AIDS patients (progressive loss of bodily functions, tendency to become depressed and angry, infections, critical need for nursing). ALD is a sex-linked disorder, inherited like hemophilia, a disease culturally associated with AIDS. The film commends AIDS activists and the Odones for rebelling by necessity and enabling a new medical discourse that acknowledges the rights of patients and families to direct the progress of medical research.

Shifts in the cultural imaginary indicate that HIV/AIDS was the dominant cultural metaphor of the late twentieth and early twenty-first centuries. Enumerating the various aesthetic endeavors inspired by AIDS, Richard Goldstein argues that the influence of AIDS on high art and popular culture can be productively distinguished: “Popular culture gave voice to the fear and rage of the majority, while the arts helped dispel stigma by deconstructing it.” In the early 1980s, AIDS activists fought medical authorities, including the government bureaucracy, individual and corporate caregivers, insurance companies, and the pharmaceutical industry, dramatically using performances and exhibitions to which the popular media gave voice.
According to *Lorenzo’s Oil*, the Odones and other parents of ALD children recognize that in seeking alternative therapies, they have been directly inspired by the precedents set by AIDS activists. An interviewer agrees that “the Odones see themselves . . . as doing what the doctors couldn’t do[:] . . . exerting pressure on the medical world to speed up research, much as AIDS activists have done.” Carefully noting that “we have never fought the medical establishment,” Michaela claimed, “During the ’80s, there were only AIDS activists and the Odones out there.”

The historical record bears out Mrs. Odone’s recollection. The formerly complicated, lengthy process of approving experimental drug therapies in the United States was revised because of the interventions of AIDS activists, who recognized that unregulated, unapproved drugs could supplement accepted therapies endorsed by physicians.

Surveying AIDS activism, the cultural critic Paula Treichler explains, “A remarkable development in the evolution of the AIDS epidemic is the crusade of AIDS activists for the testing and release of experimental drugs by the U.S. Food and Drug Administration (FDA) and for participation in the design and implementation of clinical drug trials.” Her analysis of AIDS activism notes strategies designed to battle government, media, and social apathy, specifically their “commitments to civil disobedience, self-empowerment, technological expertise, and action outside the law” (78–79). Activist strategies listed by Treichler incorporate the American ideological privileging of dissent as a necessary phase of political improvement that is often identified with a marginalized social group working to battle injustice.

Popular culture narratives represent persons with AIDS as either “isolated sufferers” or those lucky enough to have or to create a loving family. Whether the person with AIDS (PWA) is depicted as a marginalized figure living in opposition to dominant social values or as a member of a supportive family that resists ignorance and social bigotry, the representation of the PWA demonstrates the significance of sentiment and its relation to medical care. Dramatic conflicts in popular AIDS narratives such as Jonathan Demme’s film *Philadelphia* pit the enlightened against the prejudiced, those who accept the disease as a biological fact versus those who see AIDS as a sign of moral decay. Fictional and journalistic narratives describing persons with AIDS are frequently built on assumptions about sexuality, disease, and drug use that involve questions of fate and choice and that are inflected with stereotypes about race, class, and gender.

*Lorenzo’s Oil* consciously blends elements of tragedy and of heroic epics into its allusions, building on ideas about disease as a sign of God’s testing of humanity and humanity’s understanding of fate. The redemption narrative of Lorenzo as a substitute Christ in the film demonstrates that representing another disease as being similar to AIDS can provide a transcendent experi-
ence for subjects and observers, patients and caregivers, and can make possible wider social sympathy for all affected. The deaths of vulnerable, aged parents and fragile children (particularly orphans) in realistic fiction similarly serve as signs that their social worlds are out of joint and that their families pay the price.\textsuperscript{90}

\textit{Lorenzo’s Oil} alludes to cultural prejudices against race and persons with AIDs as a means of defining, and investing pathos in, Lorenzo’s dilemma and the tragic circumstances faced by children who suffer from ALD and similar conditions. The film’s representation of the Odones’ experiences in Africa and their friendship with Omouri reinforce associations of AIDS and ALD, connecting medical narrow-mindedness with racism. While Mr. and Mrs. Odone demonstrate remarkable willpower and patience in fighting battles with Lorenzo’s physicians to open the minds of scientists to new theories of and treatments for ALD, the boy’s improving health is also associated with the arrival of Omouri, who has been invited by Michaela to come to his friend Lorenzo’s aid. Augusto at first disapproves of having Omouri visit, questioning the wisdom of inviting this black, Muslim friend who does not speak English to live in a “racist culture,” but his fears are not realized. Some American nurses employed by the family had difficulty accepting that Lorenzo’s mind might still be intact despite his physical degeneration, but Omouri immediately sings to the boy when they are reunited, making their relationship a bridge between two cultures.

Living with the Odones, Omouri demonstrates his generous affection for their son by becoming one of Lorenzo’s primary caregivers. Director Miller invests the African and the image of Africa with stereotypical attributes of exoticism and primitivism as a means of pointing out the benefits of incorporating African healing techniques, all the while showing the insufficiencies of traditional Western medicine. Omouri’s chanting and spiritual presence correspond with the Odones’ wish to surround their son with healthy interactions. A gifted nurse to Lorenzo and a healing presence in the extended family who welcomes Deirdre’s return, Omouri reveals to Michaela a short time after he moves in, after the combination of oleic and erucic acids is administered, that he has been able to disconnect a suction machine assisting Lorenzo’s breathing because the boy has regained the ability to breathe on his own, an improvement that astonishes Lorenzo’s doctors.

On May 30, 2008, one day after his thirtieth birthday, Lorenzo Odone died from aspirative pneumonia with his father and his friend Omouri Hassane at his side.\textsuperscript{91} His parents’ faith and diligence to improve his environment by stimulating his mind, and their discovery of the oil, lengthened his lifespan far beyond what doctors had predicted at the onset of his disease. His mother’s death on June 10, 2000, was reported in a \textit{New York Times} obituary that affirms
the efficacy of the Odones’ treatment of olive and rapeseed oil and the power of Michaela’s care.52 Reading to Lorenzo and encouraging him to communicate by moving his eyelids and fingers, his parents and other caregivers hoped for his improvement and the possibility that myelin might be reintroduced to reverse his physical degeneration.53 The last frames of the film show how Lorenzo used a computer to communicate and indicate that other children improved by following the dietary therapy first recommended by his parents.

Despite these claims, doctors wondered whether Lorenzo’s progress could be duplicated in others. For some years, “Lorenzo’s oil,” the combination of oleic and erucic acids first pointed out as a possible therapy by Augusto Odone, was not sufficiently described in medical studies as being clearly efficacious for most ALD patients, just as Lorenzo’s doctors had warned.54 A ray of hope appeared in the late 1990s when European and American researchers agreed to investigate the oil’s benefits by pooling their collective data. In October 2002, news media reported that a ten-year study found that other boys also benefited from a diet including Lorenzo’s oil. The study found that if young boys take the oil early and follow a low-fat diet, their symptoms could be delayed.55 By fall 2002 Dr. Moser cautiously affirmed that the oil could prevent degeneration, at least for a prolonged period, in a number of boys with ALD: “It’s not an absolute preventive. It reduces the chance of developing the symptoms, but . . . [t] he need to pursue other treatments remains critical.”56

Developments at the time of this writing confirm that continuing research is likely to yield more promising results for ALD patients. On November 5, 2009, Gina Kolata reported in the New York Times that gene therapy developed for two ALD children was successful and their illnesses did not progress after the therapy.57 Hollywood’s version of Lorenzo’s medical case history becomes more realistic as science progresses and as social forces promote the development of medical research on orphan diseases.

The fictions and film discussed in this chapter identify gendered interventions in medicine, particularly those depending on motherly contributions, as effective, persistent attempts to offer care despite the reluctance and resistance of those identified with traditional social conventions and established interests. These narratives represent science and technology as accessible in productive, socially beneficial ways to both women and men.