Summary

Sandra Harding's view of science as a social activity leads her to propose critical interpretation as a mode of knowledge-seeking particularly useful for theorizing "the effects on the natural sciences of gender symbolism, gender structure, and individual gender." I have chosen Piercy's novel, Woman on the Edge of Time, with a view

toward discovering how

Epistemology in

Feminist

a contemporary American feminist writer envisions a non-

gendered society. Specifically, I

y. specifically, I will examine some of the

Piercy's Woman on

ways in which Piercy's

imaginary culture relates to

Harding's discussion

the Edge of Time

of feminist epistemologies that are emerging as a

response to sexist, classist and racist policies in science.

Resumo

Epistemologia Feminista em Woman on the Edge of Time de Piercy

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A visão de Sandra Harding da ciência como uma atividade social, leva-a a propor uma interpretação crítica como um modo de conhecimento particularmente útil para teorizar "os efeitos nas ciências naturais de simbolismo de gênero, estrutura de gênero, e gênero individual." Escolhi o romance de Piercy, Woman on the Edge of Time, com o objetivo de descobrir como a escritora feminista contem-

porânea vê uma sociedade isenta de gênero. Especificamente, examinei algumas formas em que a cultura imaginária de Piercy relaciona-se com a discussão das epistemologias feministas de Harding, que estão emergindo como uma resposta a políticas sexistas, classistas e racistas.

or Harding, science-as-usual, while functioning under cover of a supposed value-neutral ethics, is inherently sexist, racist and classist. She identifies three types of feminist epistemologies whose nascent practice has the potential for producing "a politics of knowledgeseeking that would show us the conditions necessary to transer control from the 'haves' to the 'have-nots." 2 Harding labels these epistemologies feminist empiricism, the feminist standpoint, and feminist postmodernism.

Feminist empiricism, working for the reform of "bad science," reveals the incoherencies of empiricist epistemologies by subverting the notion that the social identity of the observer is irrelevant to the results of the research. Harding points out, for example, that women in science are "more likely than men to notice androcentric bias."3 In spite of their commitment to empiricist principles feminist empiricists argue that "as a group [they] are more likely to produce unbiased and objetive results than are men (or nonfeminists) as a group."

The second type of feminist epistemology, the feminist standpoint, is based in Hegelian "thinking about the relationship between the master and the slave" 4 as elaborated in the

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V. 10

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writings of Marx, Engels, and Lukacs. The proposal of the feminist standpoint is that subjugated knowledge provides the grounds for unravelling the "partial and perverse understandings" of a science based on the interests of dominant groups. Unlike feminist empiricism, the feminist standpoint regards the social identity of the inquirer as a variable.

The third type of feminist epistemology, feminist postmodernism, would begin from the perspective of inevitable fragmentation. As a part of the general postmodernist movement, feminist postmodernism would seek a solidarity of oppositions to the myth of an essential human being that has been conceptualized in fact by historical males. Feminist postmodernism shares with the feminist standpoint the view that the fiction of the "uniquely human" has generated distorted and exploitative policies. However, post-modern suspicion of holistic epistemologies precludes acceptance of a single feminist standpoint.

For Harding, the epistemological foundations of our present science practices are history-specific. She divides the emergence of the "New Science Movement" of the fourteenth century into stages. The final stage, the "moment of mythologizing." coincides with the development of Descartes' method for the production of a "value-neutral" science. Instrumentalist in its outlook, Cartesian science "compromised the political goals of the New Science Movement,"5 whose organization of social labor stood in opposition to church dogma. As Harding herself points out, her argument follows that of Thomas Kuhn in The Structure of Scientific Revolutions in which Kuhn shows how "normal science" and its methods are merely the after-effects of revolutionary paradigm shifts. Moreover, defenders of "normal

science" "rewrite its history in a way that often hides the nature of its early struggles." 6

Harding compares the practices of women scientists (presumably feminist empiricists) to the practices of those artisans of the New Science Movement. Their "new kind of labor made possible the ensuing widespread appreciation of the virtues of experimental observation." She lists five kinds of critiques which have helped in forming an emancipatory theory in response to normal science. They are:

- 1) equity studies that identify and document the ways that *de facto* discrimination is maintained even after formal barriers have broken down. Motivation studies, for example, show a difference between boys' and girls' interest in excelling in such subjects as science, engineering, and mathematics. To the point, Harding asks why women would want to be "just like men" in interesting themselves in questions "skewed toward men's perception of what they find puzzling."
- 2) studies documenting the abu-ses of scientific technologies in biology and the social sciences. Such abuses include the perpetration of reproductive policies that are oppressive to women (doubly so in the case of poor women, including women of color). As an example of such abuse Harding mentions

the resuscitation of scientifically supported sentimental images of motherhood and nuclear forms of family life for some at the same time that social supports for mothers and non-nuclear families are systematically withdrawn for others.⁹

3) challenges to the idea of the possibility of a "pure science". Harding relates this challenge to the process of selection of problems to be solved by science. The hierarchical structure of the science profession assures that a white male elite ("less than 0.01 percent of scientific workers" 10) is privileged with decision-making, while technicians and domestic staff who carry out the work are composed for the most part of white middle class women (in the upper ranks of technicians) and minority men and women (among the lower ranks of technicians and domestic staff). The case for value-neutral results is damaged when one considers the gap in knowledge between "the scientist" in his search for truth and the workforce that implements the research into problems deemed worthy of inquiry. 11

Harding questions whether the selection of problems to be solved will not always reflect the interests of dominant groups. But given this necessarily value-laden bias she considers whether some value-laden research projects may not be "maximally objective" within the structure of an already existing overtly sexist, racist, and classist program. For example, would not self-consciously anti-sexist and/or antiracist inquiries be more objective than "sex-blind" ones?

- 4) "[T]he related techniques of literaty criticism, historical interpretation and psychoanalysis" have unveiled the social meanings of metaphors used in the founding of modern science. In addition, the familiar dichotomies, reason vs. emotion, mind vs. body, etc., are related to masculinity and femininity, especially in the context of a supposed necessity to control emotions, the body, and "the feminine" in the interest of human progress.
- 5) Finally, as mentioned, feminist epistemologies have emerged that reflect more accuratelly "shifting configurations of gender, race, and class..." 13

Marge Piercy's novel, published in 1976, offers constrasting visions between the present world view (perhaps the early 1960's) and a "possible" future (2137) in which the feminist epistemologies described by Harding help to form the world view. This possible future can emerge only through the imagination and intentional actions of Connie, a 37 year old Chicana mental patient. Connie's visions take her into the world of Luciente, who may be imagined as a possible version of Connie herself, given a world in which gender socialization and the concurrent division of labor along gender and/ or class lines is abolished. Luciente is a plant geneticist whose work involves reconstructing species of plants that have been destroyed by pollution, as well as creating plants that are useful for food and other human needs. Most of the other characters in Piercy's novel also mirror each other in terms of present and future. For example, Sybil, who is confined to the hospital for being a witch, is mirrored by Erzulia, a black woman in the future who practices both witchcraft and traditional surgery.

When Luciente first appears to Connie she is mistaken for a man. The narrator says

Luciente spoke, she moved with that air of brisk unselfconscious authority Connie associated with men. Luciente sat down, taking up more space than women ever did. She squatted, she sprawled, she strolled, never thinking about how her body was displayed. ¹⁴

By contrast, women in Connie's world are absurdly socialized according to men's conceptions of their reality. Connie's niece, Dolly, for example, is a prostitute who changes her appearance so that she will look more like the white male's idea of a beautiful woman. She says

l got to stay skinny, carlta. The money is with the Anglos and they like you skinny and American-looking. It pays more if you look Anglo, you know. 15 The nightmare of such a reality is glaringly shown in Piercy's image of another possible world into which Connie stumbles by accident while trying to contact Luciente. In the near future Connie encounters Gildina, Dolly's exaggerated double. Gildina is "a built-up contract.... [c]osmetically fixed for sex use." 16

Piercy shows. too, the contradiction inherent in the socialization of women strictly for motherhood. Connie and her niece can afford to raise their children only at the cost of dependence on men who are for the most part abusive. At the same time, the women in Connie's world are subject to the abusive technology connected with reproductive policies that deny them the achievement of the ideal of motherhood. Both Connie and her mother, for example, after being admitted to the hospital for other reasons, were given hysterectomies "because the residents wanted practice."17 Connie's sister is given sugar pills instead of birth control pills after her sixth child because of an experiment. Her seventh child is then born with deficiences that require costly treatment, "All because Inez thought she had a doctor, but she got a scientist."18

For Piercy, egalitarianism necessitates women giving up their exclusive right to bear children, in order that men may participate in the community as mothers (children are laboratory created; men are administered hormones so that they can nurse their children). Luciente explains

It was part of women's long revolution. When we were breaking all the old hierarchies. Finally there was that one thing we had to give up too, the only power we ever had, in return for no more power for anyone. The original production: the power to give birth. Because as long as we were biologically enchained, we'd never be equal. And males never would be humanized to be

loving and tender. So we all became mothers. 19

In this instance, Piercy imagines a future whose grounding is in feminist postmodernism. Feminist postmodernism does not ostensibly seek to reform science or to raise subjugated forms of knowledge to higher status. Rather, like postmodernist theories in general, it seeks an end to globalizing discourses in which an elite avant-garde is empowered to define and administer the tenets of "truth." One type of feminist postmodernist theory is object-relations theory. Objectrelations theory considers philosophy to be the site of the problematization of "the relationships between subject and object, mind and body, inner and outer, reason and sense..."20 It proposes that men's preoccupation with objectivity stems from infantile separation from the mother. Men. more than women, remain frozen in a defensive infantile need to dominate and/or repress others in order to retain... individual identity." Women's experience thereby becomes the opposite pole of the duality by which men "take their own experience as paradigmatically human rather than merely as typically masculine."21 Mothering (caring work), then, must be incorporated as a human experience and located at the center of culture, rather than remaining at the margins of culture as "women's work, undervalued and/or sentimentalized."

Feminist postmodernism, as Harding notes, proposes reciprocity as a more desirable way of knowing than defensive gendering. In *Woman on the Edge of Time* Piercy imagines a world in which interpersonal relations are valued as a form of community activity. Members of this intentional community participate in "wormings" in order to discover and eliminate the sources of hostility between individuals. Connie, visiting from the past, complains, "Don't you people

have nothing to worry about besides personal stuff?" One of the community members then points out the connection between individual and national warfare:

[W]e believe many actions fail because of inner tensions. To get revenge against someone an individual thinks wronged per, individuals have offered up nations to conquest. ²²

Thieves in this society are given presents to relieve feelings of neglect and poverty (there is no private property). Likewise, crimes of violence are regarded as treatable by healing. However, if a person commits such a crime for a second time, they are executed. Parra, the Hispanic woman who is selected as referee (judge) for a worming explains, "We don't want to watch each other or to imprison each other. We aren't willing to live with people who choose to use violence. We execute them." 23

Piercy's valuation of interpersonal relations (to the point of an absolute intolerance for violence) reflects the feminist standpoint epistemology in which relational forms of knowing are regarded as morally preferable to the objectification of individuals and groups. In opposition to Cartesian dualisms, interpersonal caring as community work unites the "manual, mental, and emotional (hand, brain, and heart') activity characteristic of women's work..."24 It also recalls the craft labor necessary for the emergence of the "New Science Movement" of the fourteenth century. As Harding points out

The organizational forms of the women's movement, unlike those of capitalist production relations and its science, resist dividing mental, manual, and caring activity among different classes of persons. And its project is to provide the knowledge women need to understand and manage our own bodies: subject and object of inquiry are one. ²⁵

The intolerance of violence in the possible future can be read as Piercy's reaction to the disproportionate

number of violent crimes committed by men in our present society, particularly when many of the most violent are committed as a matter of course by men against women.²⁶ Piercy shows a parallel berween violent crimes against women and the practices of science-as-usual. The white male doctors privileged to define Connie's reality on the ward label her as violent. The description, however, is ironic since Connie's violence consists in her defending herself against physical abuse by her niece's pimp, referred to as the niece's "fiancé" by the doctors. 27 The interpretation of Connie's actions as "violent" is used to justify forms of research into behavior control, called "treatment," such as forced isolation, administration of soporific drugs, shock therapy, and brain implants for the control of "patient's" emotions by electrical impulses administered from outside.

In order to avoid "treatment" Connie tries to prove her normalcy by volunteering to do housework on the ward. Likewise, in order to persuade her brother (who has committed her) to let her visit him, Connie must agree to do the housework for him and his Anglo wife. Thus Connie's labor is extracted on the basis of definitions of normalcy for women that posit a natural genesis for women's caring, as opposed to a social one. These definitions of women and their reality help to naturalize their victimization. In Piercy's book, Connie is aware of the connection:

[The pressure was to say please and put on lipstick and sit at a table playing cards, to obey and work for nothing, cleaning the houses of the staff. To look away from graft and abuse. To keep quiet as you watched them beat other patients. To pretend that the rape in the linen room was a patient's fantasy. ²⁸

Reading the above passage from a feminist standpoint, it is easy to see that the rape fantasy is that of the white male doctors. The parallel drawn

earlier between the division of labor in the sciences and in society makes clear that ruling conceptual schemes do not include categories adequate for defining women's reality, although the attempt is nevertheless made, with an arrogance that is both ignorant and invasive. Regarding women's work of personal maintenance Harding says,

Men who are relieved of the need to maintain their own bodies and the local places where they exist can... see as real only what corresponds to their abstracted mental world. ²⁹

Piercy's novel is hopeful in its images of a possible future in which the revolutionary feminist epistemologies described by Harding are instrumental in creating a more egalitarian world. As Harding suggests, change is a labor intensive activity. The emergence of the "New Science Movement" in the early Renaissance required a new type of individual who was both educated and willing to perform manual labor: artisans, shipbuilders, mariners, foundrymen. miners. carpenters."30 When Connie imagines revolution as "Hon-chos marching around in imitation uniforms," she is informed that

It's the people who worked out the laborand land-intensive farming we do. It's all the people who changed how people bought food, raised children, went to school!³¹

Sybil, the mental ward image of Erzulia, the healer, manages to make contact with the future in such a concrete way. Near the conclusion of the book Sybil notes that some of the college girl volunteers on the ward are interested in the healing properties of herbs. Although Sybil could not go to college, much less study witchcraft there, she is told by the college girls about "a class in a women's school" where they learned, among other things, to cure infections with lovage compresses. 32 Thus, Sybil can be seen as a "foremother" of the emerging

movement in which forms of medicine that have been suppressed as "voodoo" and "witchcraft" are practiced along with surgery and genetic engineering. One of the most renowned "healers" in Piercy's possible future is a black woman, Erzulia, who is famous for developing a method of setting bone fractures in the aged and who practices mental telepathy in the control of physical processes. Connie asks, "How can anybody be into voodoo and medicine? It doesn't make sense!" Luciente, her guide, responds, "Each makes a different kind of sense, no?"33 Piercy's vision reflects the emergence of feminist epistemologies in that forms of subjugated knowledge stemming from suppressed practices are accepted in her future world. In addition, the valorization of a black woman as a professional healer indicates an interest in redressing the imbalance of the division of labor discussed by Harding as the position of feminist empiricists. In this instance, Piercy is imagining a reform of science such that the presence of women scientists works to eliminate androcentric bias that prohibits useful forms of medicine. Further, the character of Erzulia addresses the issue of the absence of black women (and men) in the upper strata of the science profession's hierarchy and the forms of knowledge consequently lacking in science for any sort of "objetive" knowledge about the world we inhabit.

Piercy's novel reveals the emergenge of the three feminist epistemologies as detailed by Harding. It does not, however, offer a Utopian vision, nor does it show an "intuitive grasp" of any emancipatory theory. Piercy simply imagines a possible world given the intentionality of people receptive to change. Connie's "receptivity" in contacting Luciente is a metaphor for

the ability to comprehend and implement change for those whose ways of knowing and forms of knowledge have been denied reality. Piercy's metaphor for implementing these changes, however, is war. She concludes her book with the certainty that Connie will be forced to undergo a brain implant in spite of her model behavior. Such an event bodes the emergence of Gildina's world and the possibility of melding human and machine for use and control by the empowered.

At the conclusion of Piercy's story, as at the beginning, Connie's choice is to defend herself against violence with violence. After losing her appeal to the doctors that she be allowed to forego the brain implant, Connie poisons four of the doctors with a pesticide that she has stolen from her brother's nursery. Her method of murder underscores the tragedy of her being thwarted in her potential development as a member of a caring community. As mentioned, her mirror image in the future, Luciente, is a plant geneticist who is concerned to create and use plants for the growth of the community, not its destruction. Moreover, Sybil and her future counterpart, Erzulia, show how the development of their knowledge of plants can lead to cures. Connie's solution of murder with the very tools that could be used for good reflects the dominant culture's own misuse of technology in its objectifying view of the environment.

As soon as Connie has poisoned the doctors, she understands that she is no longer receptive to Luciente's world. Piercy thus seems to conclude that the possibility of the world that she imagines is closed off by violence. Although Connie was receptive to change, she could not escape the confines of the reality defined for her by the dominant white male culture.

But neither was she active in the political struggles (like Sybil, for example) that would have created a more ambiguous relationship with that culture than definitions of mother and/or mental patient could provide. Instead, Connie's resistance is confined to conforming to her doctors' expectations of her in order to buy time and gain privileges, attempting to escape, and finally committing murder.

While this paper is unable to address in detail all of the issues raised in Harding's and Piercy's books, it is hoped that it nonetheless demonstrates the relationship between sexist, classist, and racist policies in science and in society at large. For Harding, such policies are not a science-as-usual, whose epistemological foundation of valueneutral, objective inquiry is skewed toward the needs of a white male elite. As both Harding's and Piercy's texts argue, feminist epistemologies indicate revolutionary changes in knowers, ways of knowing, and the world to be known. They ought to and do show us "the conditions necessary to transfer control from the 'haves' to the 'have-nots.'"

NOTES

- ¹ HARDING, S. *The Science Question in Feminism*. Ithaca: Cornell UP, 1986. p.33.

 ² Ibidem, p.20.

 ³ Ibidem, p.25.
- ⁴ Ibidem, p.26.
- ⁵ Ibidem, p217.
- ⁶ Ibidem, p.202.
- ⁷ Ibdem, p.139.
- ⁸ Ibidem, p.22.
- ⁹ Ibidem. The "withdrawal" of social support includes programs for controlling reproduction, including withholding of state funds for abortion for the poor, as well as sterilization of the poor.
- ¹⁰ HARDING, Sandra. Op. cit., p.73.
- ¹¹ Harding's example of the selective revival of sentimental images of motherhood suggests the division of labor within the nuclear family that corresponds to the hierarchical structure of the science industry. In the nuclear family, the woman's work is essentialized as a labor of love and is unpaid. At the same time, women's work may be classified as "leisure" activity in studies that separate leisure and work on the basis of money earned.
- 12 HARDING, Sandra. Op. cit., p.23.
- ¹³ Ibidem, p.28.
- ¹⁴ PIERCY, Marge. Woman on the Edge of Time. New York; Fawcett Crest, 1976, p.67.
- ¹⁵ Ibidem, p.218.
- ¹⁶ Ibidem, p.299.
- ¹⁷ Ibidem, p.45.
- ¹⁸ Ibidem, p.275.
- ¹⁹ Ibidem, p.105.
- ²⁰ HARDING, Sandra. Op. cit., p.152.
- ²¹ Ibidem, p.153.
- ²² PIERCY, Marge. Op. cit., p.207.
- ²³ Ibidem, p.209.
- ²⁴ HARDING, Sandra. Op. cit., p.142. (HARDING cites Hilary Rose, "Hand, Brain and Heart: A Feminist Epistemology for the Natural Sciences." Signs: Journal of Women in Culture and Society 9 (1983)).
- ²⁵ HARDING, S. Op. cit., p.144.
- 26 Rape, as disgusting to this future community as cannibalism is to us, is virtually unknown.

²⁷ PIERCY concludes her book with excerpts from the Official History of Consuelo Camacho Ramos, presumably an actual "clinical summary" of a woman's confinement to Bellevue Hospital in New York. This history is telling in its objectification of, "This 35-year-old Mexican-American Catholic woman separated from her husband Edward..."

²⁸ PIERCY, Marge. Op. cit., p. 194.

²⁹ HARDING, Sandra. Op. cit., p.156.

³⁰ Ibidem, p.218.

³¹ PIERCY, Marge. Op. cit., p. 198.

³² Ibidem, p.342.

³³ Ibidem, p.159.