NONVIOLENCE, ECOLOGY AND WAR: EXTENDING GANDHIAN THEORY

By

RAJMOHAN RAMANATHAPILLAI

A thesis

Submitted to the School of Graduate Studies
in Partial Fulfilment of the Requirements for the Degree

Doctor of Philosophy

McMaster University September 1997



DOCTOR OF PHILOSOPHY (1997)

McMaster University Hamilton, Ontario

TITLE:

Nonviolence, Ecology and War: Extending Gandhian Theory

AUTHOR:

Rajmohan Ramanathapillai

SUPERVISOR:

Professor Mark Vorobej

NUMBER OF PAGES: ix, 273

ABSTRACT

My thesis challenges the conception that Gandhi's theory and practice of nonviolence is, and must be, rooted in a particular religious perspective. I undertake to reconstruct a consistent theory of nonviolence, which starts with Gandhi's theory, but is not centred in, or expressed through, Hindu thought. My approach is based on secular moral arguments for nonviolence, and ecological ideas concerning the interconnectedness and interdependence of nature. I develop a set of principles using both Gandhi and Western environmentalists, such as Aldo Leopold and Arne Naess. In my view, what is lacking in Gandhi's theory is an environmental ethical outlook, and what is lacking in Leopold's and Naess' environmental ethics is an overall theory of nonviolence. By identifying and connecting the mutually reinforcing ethical and philosophical concepts of these thinkers, my theory integrates two significant bodies of work in order to address the morality of the institution of war and its effects on ecosystems. I develop ten principles of nonviolence and ecology which support the argument that in order to protect nature from damage it is important to resolve human conflict through nonviolence.

ACKNOWLEDGEMENTS

There are many people who I would like to thank for their help and support as I worked on this thesis. First, I give special thanks to my supervisor, Dr. Mark Vorobej, for his carefully reading and constructive criticism of my thesis at every stage. His suggestions and questions were valuable to the development of my thinking and enormously helped my sense of discipline and focus. His prompt responses to my academic-related requests provided me with even greater motivation to meet my goals for completing the thesis.

Second, I want to give heartfelt thanks to Dr. Don Stewart who read my thesis during a time when he was recovering from a physical challenge of his own. His sound criticisms and thoughtful suggestions greatly helped me improve my work. Third, I want to thank Dr. Paul Younger for his insightful comments. His extensive knowledge of Gandhi and Indian philosophy enriched my own thinking, and his attention to detail contributed to the accuracy of my work. I also want to thank Dr. Elisabeth Boetzkes and Dr. Graeme MacQueen for kindly reading of parts of my thesis and giving very useful comments.

I am deeply thankful to my wife, Mary-Beth, who all along has been an inspiration and support to my work. I appreciate her vigorous and sensitive feedback on my ideas, and I always cherish our stimulating discussions. I am also thankful to all my colleagues and friends who read some parts of my work and gave valuable responses. I am especially grateful to Ria Maricarmen Jenkins, Felix Murdoch, Sarah Todd, Tammy Fleming and Jeremy Lundholm.

Finally, I would like to thank my family members who live at a long distance, especially my mother, for their understanding and support of my work.

Dedicated to my Amma and in memory of my Appa

TABLE OF CONTENTS

NONVIOLENCE, ECOLOGY AND WAR: EXTENDING GANDHIAN THEORY

Introd	luction
PAR ^T	TONE: Gandhi, Religion and Nonviolence: A Critique
CHAI	PTER 1 The Case for a Secular Theory of Nonviolence
•	Defining Religion in Gandhi's Thought The Relationship between Religion and Politics
CHAI	PTER 2 Core Concepts in Gandhian Thought: Ahimsa, Human Nature, Self-Realization, Truth and God
•	The Religious Basis of Gandhi's Theory of Ahimsa
•	Gandhi's Theory of Human Nature
•	Self-Realization: The Goal of Humankind
•	The Path to Self-Realization
•	Self-Realization in Relation to Violence and Nonviolence
•	Truth and God
•	The Problem of Gandhi's Religious Theory of Nonviolence
CHAI	PTER 3 Relative Truth and Nonviolence
•	Untruth and Violence
•	Partial Truth and Violence
•	Partial Truth and Nonviolence
CHAF	TER 4 The Morality of Violence in Gandhian Thought

CHAP	TER 5 Gandhi's Theory of Ahimsa90
•	The Vedic and Ascetic Conceptions of Ahimsa The Positive Meanings of Ahimsa The Negative Meaning of Ahimsa
Summa	rry of Principles for a Secular Gandhian Theory of Nonviolence
PART	TWO: A New Gandhian Theory of Nonviolence and Ecology
Introdu	ction
СНАРТ	TER 6 A Critique of Anthropocentrism in Indian and Gandhian Thought 107
•	Problems of Anthropocentric Ethical Theories and War Anthropocentrism: A Conceptual Framework Anthropocentrism in Indian and Gandhian Thought The Human/Nonhuman Dichotomy in Indian Thought The Self/Body Dichotomy in Indian Thought
СНАРТ	TER 7 Gandhian Environmental Ethics and Nonviolence
•	Rta and the Broad Concept of Unity in Gandhian Thought Unity and Gandhian Environmental Ethics Gandhi on Self-Realization and Identification A Gandhian Theory of Nonviolence and Ecology
СНАРТ	TER 8 The Environmental Ethics of Aldo Leopold and Arne Naess 158
• .	Aldo Leopold's Land Ethic Leopold's Concept of Violence towards the Land Arne Naess' Deep Ecology Naess on Self-realization and Identification Naess on Violence and Nonviolence
Summa	ry of Principles of Gandhian Nonviolence and Ecology

PART THREE: Ecology, Security and the Institution of War

Introduction
CHAPTER 9 Moral Problems of National Security and Ecological Security 206
 The War System as a Source of Insecurity Redefining Security from an Ecological Point of View Can the War System Avoid Ecological Damage?
CHAPTER 10 Impacts of the Institution of War on Ecosystems and Implications for Nonviolence Theory
 Costs of the Institution of War: Monetary, Human and Ecological How Military Practices in Guerilla Warfare Damage Ecosystems Weapons and Ecological Damage Soil Damage Destruction of Plant Cover Ecocide Peace Time Military Maintenance and the Pollution of Land, Air, Rivers, Oceans and Ground Water Environmental Warfare
Conclusion: Moral Implications of the War System's Impact on Nature
Principles of Gandhian Nonviolence and Ecology
Bibliography

LIST OF DIAGRAMS

Figure 1: The Moral Continuum of Types of Nonviolence	75
Figure 2: Comparison of Unavoidable and Avoidable Types of Violence	. 82
Figure 3: A Continuum of Attitudes Regarding Human Beings' Relationship to the Rest of Nature	114

Introduction

"War is hell," says General Sherman. Such statements will be agreed upon by many, regardless of who says them. Many moral philosophers have reflected on the wrongfulness of the enormous loss and pain suffered by people in war zones. Such moral theories of war usually overlook the harm war does to nature. The impacts of war on nature, however, have major practical and moral implications. This thesis takes seriously the damage to nature by war and, on these grounds, develops moral arguments against the institution of war. It argues for nonviolence from a Gandhian perspective as an alternative approach to resolving human conflict.

The main contribution of the thesis is to develop a non-anthropocentric theory of nonviolence that accommodates ecological principles in its arguments against the institution of war. I choose to start with Gandhian theory because of Gandhi's extensive theoretical and practical work on nonviolence and his ecological concerns. I carefully broaden Gandhi's ideas on nonviolence in a secular way and merge them with the moral thinking of Aldo Leopold and Arne Naess on ecology. I find what is lacking in Gandhi is an argument against ecological destruction by the war system, and what is wanting in Leopold and Naess is a fully developed nonviolence theory. With this thesis I aim to fill these gaps.

A secular approach to nonviolence is important if the theory is to be able to address ecological problems internationally. Since nations share common ecosystems, including animal and plant life, land forms, water, air and space, and since the institution of war is transnational, with exploitation of natural resources, arms production, supplies and sales, spy networks and defence treaties taking place globally, a nonviolence theory that addresses the destructive impact of wars on ecosystems must aim to be heard and accepted by people of every nationality. A secular theory is preferable to a religious theory in this regard because it is more likely to be accessible to people of different worldviews, and adopted into those worldviews. A secular theory also can better take into account the experiences and knowledge of different cultures because it is not wedded to a particular religious perspective.

A challenging task of the thesis is to bridge some aspects of Eastern and Western philosophy by identifying comparable concepts that belong to two different worldviews and unifying them into a coherent system of thought. To meet this goal I make a great effort to accurately present certain aspects of Gandhi's, Leopold's and Naess' philosophies. Thus, much of the thesis is given to careful exposition of the works of these three thinkers, with a selective focus on ideas that are crucial to developing a new theory of nonviolence and ecology. For this theory I re-interpret, integrate and reconstruct many of these ideas into a set of moral principles that can be applicable to examining the effects of war systems on humankind and the rest of nature.

The thesis is organized into three parts. The first part deals with Gandhi's theory of nonviolence. The second part works out the implications of Gandhian nonviolence for

ecology, and articulates a set of principles constructed from the ideas of Gandhi, Leopold, Naess. The first two parts mainly involve theory building and do not deal explicitly with the problems of war. Part Three directly deals with the ecological issues concerning war and points to nonviolence as an alternative.

The first chapter of the thesis discusses the Hindu foundation of Gandhi's nonviolence and argues that religious nonviolence is problematic to his claim of universality. As an alternative I argue for a secular theory of nonviolence. Before reconstructing a secular position on nonviolence in Chapter Two, I first outline the religious underpinnings of Gandhi's theory. The second chapter allows me to show how far Gandhi's main concepts can be secularized without undermining his general intent. The third chapter works out a secular notion of relative truth based on Gandhi's ideas on truth. This chapter explains why violence and war are antithetical to finding truth. Although Gandhi made strong statements opposing violence, he did not have a coherent system of thought that explained how he differentiated between different sorts of violence. The fourth chapter constructs such a system to convey Gandhi's complex understanding of violence. The fifth chapter reinterprets a web of Gandhian concepts related to positive and negative aspects of nonviolence, lends them non-religious meanings and goals, and expands them into key concepts that will be used in further development of the theory.

To begin Part Two, the sixth chapter discusses some aspects of the problems of anthropocentrism in Eastern and Western thought, and argues that Eastern thought is characterized by weak anthropocentrism, which is also found in Gandhi's thought.

Chapter Seven constructs a Gandhian ecology by extending some of Gandhi's ideas on equality, nature and nonviolence. Chapter Eight supports and augments Gandhian ecology with ideas from Leopold's ecosystem ethics and Naess' deep ecology. I find much common ground between these thinkers as I attempt to develop a coherent set of ecological principles of nonviolence. Part Two ends with ten principles, including five developed in Part One, and one that will be later developed in Part Three.

In Chapter 9 of Part Three I argue that the traditional understanding of security and its application in the institution of war brings about insecurity. I then examine the question of whether a nation can engage in war with minimal ecological damage, and conclude that this will not be possible so long as "military necessity" overrides the security of nature. The tenth chapter uses empirical evidence to show that the path of "military necessity" brings about grave injury to nature as a whole, and how this is morally wrong. I conclude by drawing out implications of the ten principles of nonviolence and ecology developed earlier, in relation to the ecological harms caused by the institution of war.

Part I: Gandhi, Religion and Nonviolence: A Critique

Chapter 1

The Case for a Secular Theory of Nonviolence

Gandhi's theory of nonviolence incorporates spiritual, rational, moral and strategic dimensions. These dimensions are intertwined in Gandhi's writings because, for him, they are inseparable. In this thesis, however, I plan to approach Gandhian nonviolence by emphasizing the moral and rational dimensions, while downplaying the specifically Hindu religious aspects of Gandhian thought. I will argue in this chapter that de-emphasizing the Hindu religious elements in Gandhi's theory of nonviolence is important both in order to make the theory more acceptable to people who hold different world-views and to explore where it links up with other moral and political theories such as environmental ethics. I will make the case that the role of religion in Gandhi's theory changed over the course of his life, and a non-religious approach to Gandhi's thought is, indeed, consistent with the views he expressed in the latter part of his life. This will allow me to show how my attempt in this thesis to re-construct a theory of nonviolence that does not rely on Hindu symbolism is possible without undermining the spirit of Gandhian thought.

I would like to state clearly at the outset that a non-religious approach to Gandhi is by no means an anti-religious position. I do not intend to reject religion. Rather, I am interested in developing a non-religious position that focuses on the moral and rational aspects of Gandhian nonviolence. Such a focus is needed, I will argue, because any nonviolence theory based on a particular religious world-view is limited, for the most part, to the particular group of people who practice that religion. Although a nonviolence theory based on a particular religious world-view can in some measure be understood by people outside the religious faith in which it is based, there is always difficulty in understanding the underlying religious conceptual web from which such a theory is constructed. Some people from other religions or belief systems may even reject the thrust of a particular religious theory of nonviolence because they reject one or more ideas that are associated with that particular religion. Such religious disagreement has over the years unnecessarily alienated many non-Hindus from Gandhi's theory of nonviolence, with its strong Hindu emphasis. Thus, in the thesis I intend to develop an approach to nonviolence that may be more universally accepted because it does not depend on any particular religious symbolism.

I am not the first Gandhian scholar to emphasize specific aspects of his work.

Gene Sharp's theory of nonviolence, for example, is concerned specifically with the rational and strategic aspects of Gandhian thought, as opposed to the religious and moral aspects (1973). Other scholarly works have tried to approach Gandhi's theory of nonviolence specifically from a spiritual-moral point of view, focusing on the religious aspects of Gandhi's theory. Different Gandhian scholars situate Gandhi's thought in the

context of different Indian religious traditions. For example, Nicholas F. Gier places
Gandhi in the context of Buddhist thought (1994) while Indira N. Rothermund makes him
very Hindu (1994). Some interpret his writings in relation to Jainism (Ray 1970), some
in relation to Samkya thought, while others see him as an Advaitian (Roy 1984). The
divergence in these interpretations is due to the fact that Gandhi uses concepts from many
Indian religious sects and fits them within his theory of nonviolence. For example, his
theory of action takes from the Advaitian tradition the concept of self-unity and the idea
that harming others will harm our self, but he rejects the Advaitian idea of the unreality of
the world. He also uses the Jain concept of equality of souls to justify his view of social
equality, but includes in his theory his own interpretation of the Hindu *varna* hierarchy as
a set of religious goals leading through purification to perfection.

This eclecticism has led many scholars to view Gandhi's work as philosophically unsystematic, inconsistent, and at times incoherent (Rothermund 1994, p. 94). It is true that Gandhi's use of concepts belonging to different Indian traditions seems at times to reveal inconsistency. He uses these concepts in his own thought in such a way that they develop a new religious and philosophical system which he calls "inclusive Hinduism" (Gandhi 1934, CW 60, p. 106-107). He states: "I do not regard Jainism or Buddhism as separate from Hinduism" (Gandhi 1927, CW 35, p. 166-167).

¹ Gandhi states: "I am an Advaitist and yet support Dvaitism (dualism). The world is changing every moment, and is therefore unreal, it has no permanent existence. But though it is constantly changing, it has something about it which persists and it is therefore to that extent real" (cited by Roy 1984, p. 74).

² Because Gandhi views Hinduism, Buddhism, and Jainism as not differing all that much from his thought, the new Gandhian theory I intend to develop will not go further into the details of Gandhi's religious "inconsistencies." Instead, it will focus on Gandhi's own conceptually consistent religious theory in order to lay bare the root of his arguments for nonviolence and then show how they may be developed

For the most part Gandhi was not anxious to wear a religious label, and scholarship makes a mistake looking at his religious statements first. This thesis will develop a non-religious approach to Gandhi's theory of nonviolence and then seek to relate Gandhi's secular ideas to two recent ecological theories. I will then try to show how a secular theory of nonviolence and ecology may be applied to the problem of the ecological destructiveness of the institution of war in our time. I hope this approach will contribute to an understanding that Gandhian thought may be developed more systematically and applied to contemporary problems of war and ecology. I hope also that this work might provide a framework for other Gandhian scholars to link Gandhian ideas on nonviolence with other social, political and ecological problems that Gandhi did not fully address in his day.

Defining Religion in Gandhian Thought

Gandhi's conception of religion is complex and appears unsystematic unless one understands that his thinking about religion evolved over the course of his life. He uses the word "religion" to explain a variety of social and spiritual ideas at different times.

Thus, the meaning of the term must in each case be examined in the appropriate context. Among his many statements on religion, there seem to be three positions. The first type of statement specifically refers to and is framed around traditional Hinduism. Gandhi regularly bases his theories on Hindu scriptures and he accepts Hinduism as his native

into ecological theory.

religious tradition. He appears to be moved most strongly by elements of his own religious upbringing and places significance on the fact that he was born a Hindu. The second type of statement represents Gandhi's religion as a universal religion. On several occasions he argues that his Hinduism encompasses the best of all religions in the world. The third type of statement, which is of most importance for my thesis, seems to advocate secularism. At such times Gandhi uses the language of humanism in the sense that he aims to establish the unity and welfare of all beings.³ In his secularism Gandhi hopes to establish a moral government based on nonviolence in which truth will be the measure of everything. Thus, at various times in his writings on religion Gandhi presents himself in three ways: (1) as a Hindu, (2) as a universalist and (3) as a secularist.

In the first type of statement, Gandhi expresses his personal Hindu identity strongly and frequently. For example, in the statement: "I am a Hindu by birth, and upbringing, by practice and faith" (Gandhi 1947, CW 88, p. 285). Here Gandhi unequivocally identifies himself with Hinduism and, as we will see in the upcoming chapter, Gandhi's theory of nonviolence is largely based on Hindu religious thought. Even here, however, the question arises as to what Gandhi means by Hinduism, especially as one sees him edging toward a universal religion and, at the end, towards a more secular outlook.

Gandhi sometimes distinguishes two forms of Hinduism: "historical Hinduism" and the "Hinduism of the <u>Gita</u> and <u>Upanishads</u>." He states:

³ I develop the ecological implications of this position in Part Two.

There is, on the one hand, the historical Hinduism with its untouchability, superstitious worship of stocks and stones, animal sacrifice, and so on. On the other hand, we have a Hinduism of the Gita, the <u>Upanishads</u> and Patanjali's yoga sastras, which is the name of ahimsa and, oneness of all creation, pure worship of the immanently formless, imperishable God (Gandhi 1946, CW 86, p. 135).

Historical religion is a matter of customs, rituals and superstitions, and such religion does not emphasize spirituality. It involves only naming God and ritualized temple worship. Since formal, historical religion creates sectarianism, Gandhi argues, it is actually irreligion. Dogma and ritual cannot be the heart of religion, for religion cannot be fully comprehended, much less learned by rote. Religion which propagates caste discrimination, or does not concern itself with resolving social problems, is not true religion. In other words, Gandhi rejects religion which is based on superstition and corruption, and which exists in isolation from true social concerns and spiritual needs. Religion should be a social force, and provide guidance for the moral and spiritual life.

In contrast to "historical Hinduism," the "Hinduism of the <u>Gita</u> and <u>Upanishads</u>" is associated with the concept of self-realization. In his autobiography Gandhi states: "The term 'religion,' I am using in its broadest sense, meaning thereby self-realization or knowledge of the self" (Gandhi 1957, p. 31). In this sense, religion is an active process of understanding oneself. Religion cannot be interpreted as a form of belonging to any particular sect or as devotion to any particular god. Rather it is a form of knowledge which brings self-understanding, which leads to self-realization, the path to *moksha*. Almost every assumption of Gandhi's theory of *ahimsa* is based on this spiritual conception of Hinduism.

To give an example of the importance of scriptural Hinduism to Gandhi, at one time Gandhi was approached by a Muslim about conversion to Islam. He replied:

I can fully respect the Koran and the Prophet, why do you ask me to reject the Vedas and the Incarnations? They have helped me to become what I am. I find the greatest consolation from the <u>Bhagavad Gita</u> and Tulsidas's <u>Ramayana</u>. I frankly confess that the Koran, the Bible and the other scriptures of the world, in spite of my great regard for them, do not move me as the <u>Gita</u> of Krishna and the <u>Ramayana</u> of Tulsidas (Gandhi 1924, CW 25, p. 179).

Gandhi calls the <u>Gita</u> his immortal mother and spiritual dictionary, and commonly advocates the form of Hinduism that relies upon the <u>Gita</u> and <u>Upanishads</u> as opposed to historical Hinduism (Gandhi 1936, CW 63, p. 311).

Departing from these two conceptions of Hinduism, Gandhi's second type of statement on religion refers to a form of universal religion. He states: "All religions are one. They are branches of the same tree. All religions worship the same God" (Gandhi 1947, CW 88, p. 282). Gandhi argues that the ultimate goals of different Indian religious sects and other world religions—moksha, mukti, nirvana, liberation and the kingdom of heaven, for example—are similar. Even though moksha, mukti, nirvana, liberation and the kingdom of heaven are used and defined in different ways in different religions, Gandhi seems to postulate conceptual similarity between them, and identifies them with his concept of self-realization. For example, he states: "I am striving for the Kingdom of Heaven which is Moksha" (Gandhi 1924, CW 23, p. 346). And elsewhere, "I draw no distinction between Buddhistic nirvana and Brahma nirvana" (Gandhi 1926, CW 29, p. 397). He also identifies mukti with Buddhist nirvana, even though he recognizes the historical differences between these concepts (Gandhi 1921, CW 20, p. 164).

Although many different religious traditions exist, Gandhi concludes that there is a unity underlying the diversity of all religions, because all religions contain common themes such as self-realization. He sees universal religion as accommodating the best of all religions. Gandhi states: "This [universal] religion transcends [historical] Hinduism, Islam, Christianity, etc. It does not supersede them. It harmonizes them and gives them reality" (Gandhi 1940, CW 71, p. 177-178). In these statements I see two assumptions about such an ideal universal religion. First, Gandhi claims that all religions are founded on the same God and the same faith. Second, he claims that they are all equal (Gandhi 1947, CW 87, p. 45). However, he switches back and forth between trying to uphold the idea of a universal religion, and defining religion in terms of a particular religion, Hinduism. In some places he blends the two tendencies and claims that the universal religion is Hinduism. For example, he states: "My religion is Hinduism, which for me, is the religion of humanity and includes the best of all the religions known to me" (Gandhi 1935, CW 60, p. 106). Elsewhere he writes:

In addition to the Hindu scriptures, I have read the holy books of almost all other religions. I wish to raise my Hinduism higher and that is the reason why I respect other religions (Gandhi 1947, CW 88, p. 285).

The problem with this latter interpretation is that Gandhi never wrestles with the question as to why the universal religion should be called "Hinduism," but not "Judaism," "Christianity" or "Islam." Even more confusing is why a universal religion should use historically specific Hindu symbols such as *ramraj* and *hind swaraj*, or why Gandhi's universal religion also uses specifically Indian philosophical ideas such as karmic law, rebirth, celibacy, and renunciation. While he tries to make these concepts universal they

are not only often absent in other religions, but some of them (such as rebirth or karmic law) might appear to be contradictory to certain tenets in other faiths.

The central metaphysical notion guiding Gandhi's effort to formulate a universal religion is unity. He states: "Religion should unite all hearts. Only then is it true religion" (Gandhi 1947, CW 88, p. 197). However, Gandhi's concept of universal religion does not establish clear philosophical foundations for unity, and he does not develop any philosophical concepts or symbols which link all religious faiths and truths. Most importantly, he is not able to convince his opponents of the universality of his aims. Gandhi ambitiously attempts to construct a universal religion which is consistent with his theory of *ahimsa*, but he fails to provide a convincing philosophical framework for it which goes beyond Hindu concepts and symbols. Not all religions can be brought under the banner of Hinduism, and the most consistent concept of religion Gandhi holds is the one rooted in the religious ideas of the Gita and Upanishads. I will return to this problem of Gandhi's claim to hold a universal religion in the next chapter after a more detailed examination of the religious assumptions underlying his core concepts.

Now I come to the third type of statement on religion in which Gandhi begins to advocate secularism. Gandhi's thought, on the whole, cannot be described as secular, but near the end of his life he increasingly promotes secularism in politics. Exploring the

⁴ Jinnah, the leader of the Muslim Congress, who later became the first Prime Minister of Pakistan, was uncomfortable with Gandhi's use of Hindu symbols. He stated: "I received the shock of my life at the meeting of the round table conference. In the face of danger, the Hindu sentiment, the Hindu mind, the Hindu attitude, led me to the conclusion that there was no hope for unity... I felt so disappointed and depressed." Elsewhere Jinnah also stated: "We had never bargained with Mr. Gandhi to join him in any semi-religious or religio-political movement. We had joined him solely with a view to following him on any path of direct action to wage a purely political fight with a view to securing national liberty" (Majumdar 1966, p. 155-6, 60).

secular notions in Gandhi's thought is crucial to my attempt to bring together Gandhian nonviolence and ecological theory for the pragmatic reason I have already noted: namely, if the emergent theory is to have broad based appeal, its arguments must not rely on a particular religion. But the fact that Gandhi's thinking seems to have been heading in the secular direction gives us another theoretical reason for pursuing a secular Gandhian theory. I will argue that such a theory is consistent with Gandhi's own developing world view. In order to explore the secular elements in Gandhian nonviolence we have only to examine the evolution of his ideas on the relationship of religion and politics.

The Relationship Between Religion and Politics

The problem of understanding how Gandhi defines religion presents a specific challenge when interpreting his writings on religion and politics. He consistently holds as a maxim that the only acceptable religion is one which has social and political accountability. "Religion which takes no account of practical affairs and does not help to solve them, is no religion" (cited by Ramachandran 1970, p. 392). This means he holds that religion should help to solve social problems, rather than perpetuate them. The practical question is: Does religion attempt to resolve social conflict, is it indifferent to such conflict, or is it a cause? In the case of India, in the latter part of Gandhi's life thousands were killed or displaced from their homes by religious violence. Faced with this realization, Gandhi modifies his views on the desirable relationship between religion and politics, and gradually moves closer to a secular theory of ahimsa.

In most of Gandhi's writings he insists that politics is an aspect of religion and that religion and politics cannot be separated. Towards the end of his career, however, his ideas on the role of religion in politics change dramatically. Prior to the 1940s he seems to argue that religion pervades, and must pervade, every aspect of human life. Politics is not an exception: "Politics cannot be divorced from religion. Politics divorced from religion becomes debasing" (Gandhi 1915, CW 13, p. 60). Gandhi through most of his life seems to argue that the sacred and secular cannot be separated. He states at one time: "My bent is not political but religious and I take part in politics because I feel that there is no department of life which can be divorced from religion" (Gandhi 1919, CW 16, p. 5). He considers all human activity as religious activity. Ahimsa is thought of as a religious activity both because it is the means to a religious goal, and because it shares the religious dimension of all activity.

For Gandhi it is not enough to recognize the religious in the political, but he argues that religion must be constantly cultivated. The idea of "spiritualizing politics," which he borrows from Gokhale, is one of the central themes in most of his writings.

(Gandhi 1915, CW 13, p. 78). He considers unspiritualized politics as empty and without substance. The term "spiritualization" here points strongly to the Indian religious notion of renunciation. Spiritual politics involves the renunciation of personal gain. The ideal politician is a saintly leader who possesses the knowledge of divine truth, and who,

⁵ Gandhi came to politics through the influence of Professor Gokhale, who he claims as his political guru. Stanley Wolpert has noted how B.G. Tilak, Gokhales' bitter rival, used religious symbols, and it has tended to make Gokhale sound a bit secular. Gandhi saw Gokhale's politics as deeply religious.

therefore, devotes his life to the welfare of society. Such an egoless politician acts in accordance with the principle of *ahimsa* and renounces personal wealth. Presenting Gokhale as an example of his ideal, Gandhi describes the spiritual politician:

He who lives in the manner of a *sadhu*, whose desires are simple, who is the image of truth, is full of humility, who represents the very essence of truth and has wholly renounced his ego, such a one is a holy soul, whether he knows it or not (Gandhi 1916, CW 13, p. 203).

Therefore, during this early period of activity, Gandhi's ideal politician seems to be a holy person and a renouncer. But it is important to note, even before his views on the inseparability of religion and politics change, Gandhi holds that the *sadhu* (saintly) politician is not necessarily one who claims to be a religious believer or a traditional practitioner of any particular religious system. As the last part of his statement indicates, anyone who has *sadhu* qualities is an ideal politician.

In Gandhi's later writings, starting in the 1940s, he begins to argue that religion is a private matter. For example, he states:

If I were a dictator, religion and State would be separated. I swear by my religion. I will die for it. But it is my personal affair. The State has nothing to do with it. The State would look after your secular welfare, health, communications, foreign relations, currency and so on, but not your or my religion. That is everybody's personal concern! (Gandhi 1946, CW 85, p. 328).

Elsewhere Gandhi also claims:

Religion was a personal matter and if we succeeded in confining it to the personal plane, all would be well in our political life... If officers of the Government as well as members of the public undertook the

⁶ Gandhi's ideal politician at this stage is interestingly similar to Plato's ideal ruler in that spiritual perfection is thought of as leading to proper political behaviour (see MacKenzie Brown, 1953).

responsibility and worked wholeheartedly for the creation of a secular State, we could build a new India that would be the glory of the world (Gandhi 1947, CW 89, p. 79).

According to these statements, it is clear that Gandhi comes to believe that religion and politics can and must be separated.

Why does Gandhi come to such a radically different view in his later writings?

As I noted earlier, he thinks religion must have social accountability. Even though, in his earlier writing, he argues that his ideal religion would be based on the Hinduism of the Gita and Upanishads, and rejects historical Hinduism, he underestimates the destructive potential of religion in general. At that time, he would go so far as to say that religion has been used as a cover, or justification, for violence, but he does not think that religion could be a motivator of violence. For example, the early Gandhi states: "The most heinous and most cruel crimes of which history has record have been committed under cover of religion or equally other noble motives" (Gandhi 1927, CW 34, p. 130).

The problem is that scriptural religion, in reality, is not easy to separate from the historical aspect of religion. Even if scriptural Hinduism were adhered to, on a mass level it could become a form of historical religion, and people could become attached to it. The scriptures could be reduced to mere dogma, and believers could become intolerant towards other scriptures, and even be willing to fight and die for their religion. After witnessing the brutal religious riots which accompanied Independence in India, the later Gandhi finally recognizes the destructive impact religion was having in his immediate social context. He states:

Today we find ourselves in a mess and have created poison for ourselves... If you want to safeguard Hinduism, you cannot do so by treating Muslims as the enemies who have stayed on in India (Gandhi 1947, CW 90, p. 256).

Since Gandhian philosophy is based on practical considerations, when Gandhi realizes that religion has such a destructive potential, he begins to argue for a separation of religion and the politics.

This leaves us with the problem of how, when reconstructing Gandhi's theory of nonviolence, we should treat his earlier statements relating religion to the theory of *ahimsa*. The best way out of this problem is to see if we can understand Gandhi's theory of *ahimsa* in a moral and secular sense. Since Gandhi's earlier conception of religion proved incompatible with his final quest for unity, his Hindu notion of *ahimsa* should also be considered inconsistent with his unity ideal. The alternative that I wish to pursue is to try to interpret Gandhi's notion of *ahimsa* in terms of a morally based language of secularism he uses at the end of his life rather than the language of a particular religious tradition so many scholars focus on.

In the end, I argue that when it comes to social conflict, Gandhi's theory of ahimsa actually proves most consistent with this third type of secularist statement, and I aim to show that his ideas on truth and morality can remain fundamental in a secularist framework. Gandhi claims that truth is an on-going search. He states:

My aim is not to be consistent with my previous statements on a given question, but to be consistent with truth as it may present itself to me at a given moment. The result is that I have grown from truth to truth (Gandhi 1939, CW 70, p. 203).

Therefore, truth, which Gandhi also calls his religion, is subject to change and progress. In his early writings, Gandhi says religion is everything, but later he often states that love for one's religion (religious nationalism) is unworthy (Gandhi 1946, CW 86, p. 81-83). He argues that religion and politics must be separated for the sake of unity. This stance appears to be contradictory to his earlier writings, but it is an example of what Gandhi means by his growth from one truth to another. While he continuously holds that religion is important to personal life, he comes to understand that politics must be separated from religion. He always maintains, however, that political life must be accountable to moral principles, and this aspect of the argument will be discussed in different ways in the coming chapters.

If Gandhi's life had not ended abruptly at the hands of a Hindu fanatic, he undoubtedly would have done more to develop his views on the relationship between religion and politics, and reconcile his new ideas on secular nonviolence with his previous thinking on the inseparability of religion and politics. Although Gandhi was certainly a deeply religious man, my thesis takes his theory of *ahimsa* in a secular direction, a direction in which Gandhi himself seemed to have been headed before his death. In order to re-construct a non-religious theory of nonviolence based on Gandhian thought, it is important first to understand his theory in its totality, including its religious dimension. Only then can the essential principles for the new theory slowly be distilled from the complex and particular religious commitments Gandhi held to most of his life.

The next chapter presents Gandhi's core ideas concerning *ahimsa*, human nature, truth, god and self-realization and analyses the religious roots of these concepts. Later in

chapters 3 on truth, 4 on violence, and 5 on *ahimsa*, I show how these central concepts in Gandhi's theory can be understood apart from the religious ideas with which he originally associated them.

Chapter 2

Core Concepts in Gandhian Thought: Ahimsa, Human Nature, Self-Realization, Truth and God

The overall purpose of this chapter is to explore the prima facie religious tone of Gandhi's theory by briefly outlining what are usually taken to be the religious foundations of the core concepts in Gandhi's theory of *ahimsa*. The first section of the chapter briefly introduces the concept of *ahimsa* and discusses how, for Gandhi, nonviolence plays a role in the achievement of religious goals, in addition to its contributions to social life. The second section analyses Gandhi's concept of human nature. The third examines in detail Gandhi's ideas on self-realization as the ultimate religious goal. The fourth presents Gandhi's theory of truth and his ideas about the relatedness of Truth and God. It explains Gandhi's notions of absolute and relative truth, and shows how these concepts are rooted in the Hindu tradition.

I have two reasons for delving into the religious aspects of Gandhi's theory even though in the end I aim to construct a secular theory of nonviolence. First, I would like to present as closely as possible the philosophical meaning of each concept for Gandhi.

Only by doing so can I begin to analyse to what extent these core concepts depend on

religious definitions and assumptions, and to what extent they can stand on their own and be available for inclusion in my non-religious theory.

Second, I am interested in demonstrating the full extent to which Hindu religious assumptions underlie the core concepts of Gandhi's theory of *ahimsa* in order to challenge his claim that his theory of *ahimsa* as he formulated it is universal. In the first chapter I argued that a non-religious theory of nonviolence is necessary for my purpose of uniting nonviolence with ecological theory and that the late Gandhi's movement towards secularism supports my attempt to recast the major body of his work in a secular mold. I conclude the present chapter by referring to Gandhi's religious ideas to support my argument that the many entanglements of religion with the theory of *ahimsa* undermine Gandhi's claim to universality, and we are better able to understand his theory of *ahimsa* apart from the categories of religion.¹

The Religious Basis of Gandhi's Theory of Ahimsa

How can we describe what place religious thought holds in Gandhi's political theory, especially his theory of *ahimsa*? One way to summarize the major ideas in his

Another reason for a close examination of the religious foundations of Gandhi's theory is to reveal how Gandhi himself interpreted Indian religious concepts in original and in some cases radical ways to make them consistent with his overall moral and political thought. Not only did he select ideas from many different traditions, he modified long-standing religious notions to make them more relevant to contemporary truths and the particular needs of his day. Two examples I mention in the thesis are Gandhi's original interpretation of the *varna* hierarchy and his positive and negative conceptions of *ahimsa*. It is not my goal at this time to demonstrate how Gandhi differed from the religious mainstream of his day. I make this point merely to suggest that my attempt to revise Gandhi's ideas and link them to newer ecological theories does not violate the spirit of Gandhian thought, but rather is the kind of project he would likely endorse.

philosophy is to ask what, according to Gandhi, is the good life for human beings? The good life, for him, is the spiritual life. Ahimsa is a vital element of the spiritual life and as such it is an ultimate goal of human beings. In this section I will briefly introduce the concept of ahimsa and the role it plays in Gandhi's religious thought, mainly as a way of introducing his major religious notions. In chapter 5, the meanings of ahimsa will be examined more fully and re-interpreted in relation to an ecological perspective.

Ahimsa is the prime example of how, for Gandhi, social goals for human well-being are fundamentally bound up with spiritual goals. The ultimate spiritual goal is expressed in the Indian religious goal of moksha or self-realization, the liberation of the soul from the cycle of rebirth. Gandhi, on the one hand, claims that ahimsa is a universal duty. The arguments he uses to persuade people to practice ahimsa add up to a moral argument. But in addition to being a spiritual goal, ahimsa is also a social good. Gandhi sees ahimsa as a way of life, and argues that it is the only way of life which assures social well-being and social equality. It is these social virtues which result from ahimsa which make it a moral duty for all persons.

Gandhi often presents ahimsa from an instrumentalist point of view, as a spiritual tool, or a religious path to moksha. In this context, he unself-consciously takes for granted the law of karma as found in Indian religious thought, according to which one's actions determine one's rebirth and future life. In this view rebirth or, the physical embodiment of the soul, is the result of past actions and will be the source of new actions and new rebirths, so that the cycle goes on. Actions motivated by attachment or aversion prevent the immortal atman (self or soul) from attaining release from the cycle of rebirth

while, on the other hand, freedom for the *atman* will come from developing non-attachment to one's actions and the results of those actions. It is attachment to one's actions which causes conflict and violence.² *Ahimsa* is a means of rooting out attachment; it is a form of *niskama karma* (action with non-attachment). As such, nonviolent actions are not only good in themselves and socially edifying, but they also provide a path to *moksha*.

Thus, we see that Gandhi argues both that *ahimsa* is the supreme religious duty and that it should be practiced for the social good. These ideas about the goal of the *atman* and the theory of action with non-attachment are at the core of Hindu thought.

Gandhi's Theory of Human Nature

The religious aspects of Gandhi's thought can also be examined in the light of his understanding of human nature. His theory of human nature addresses fundamental questions such as whether human beings are inherently good or bad, whether they are autonomous agents, whether they have the capacity to progress, what are their limitations and what are their ultimate goals. The answers to these questions become, in turn, the major assumptions underlying Gandhi's theory of ahimsa.

Gandhi's theory of human nature is influenced by Hindu thought, as found in the Vedas, the <u>Upanishads</u> and the <u>Gita</u>. The two latter texts can be seen as revisions and

² I will expand on this idea in detail later in the thesis in relation to the role of "narrow" self-interest in ecological destruction.

more precise interpretations of the <u>Vedas</u>, but Gandhi really takes the <u>Gita</u> as his source book. The parallels between Gandhi's conception of human nature and that found in this scriptural tradition are important for understanding the development of his thinking.

One way Gandhi describes human nature is as a modification of the nature of beasts (Gandhi 1926, CW 30, p. 262). The main difference between human beings and animals is that human beings have an ability to realize the higher dimensions of *prakrti* (the natural order) through *ahimsa*, and they can thereby attain *moksha*. The law of beasts is obedience to the senses and emotions and is characterized by violence, while the law of humans is operating with reason, *samskara* or memory of past lives, and *buddhi* or divine insight, and is characterized by nonviolence. Humans who do not realize their potential nature, or the law of humans, share the same nature as beasts, but humans have the potential to transcend the law of beasts. Gandhi states: "Man as animal is violent, but as a spirit is nonviolent. The moment he awakes to the spirit within he cannot remain violent" (Gandhi 1940, CW 72, p. 350).

Gandhi believes in evolution,³ but his main interest is in the nature of the progress that goes on in individual human selves. Because humans are both social and spiritual beings, progress pertains to both the social and the spiritual realms. Human progress is moral progress or a socially discernible move from evil to goodness, but it is also the progress of spirituality or the development of the higher powers of the self.

³ Gandhi states: "We were perhaps all originally brutes. I am prepared to believe that we have become men by a slow process of evolution from the brute" (cited by Iyer 1973, p. 90).

Gandhi's theory of human nature is based on a general dichotomy in Indian thought between good and evil. His description of human beings as having a mixture of good and evil, violent and nonviolent tendencies is derived from the Vedic and Upanishadic tradition.⁴ The <u>Brhad-aranyaka Upanishad</u>, for instance, presents the mythic origins of good and evil in the following way:

There were two classes of the descendants of Praja-pati, the gods and the demons. Of these, the gods were the younger and the demons the elder ones. They were struggling with each other for (the mastery of) these worlds (Brhad-aranyaka Upanishad I. 3: 1).

Later Hindu tradition, as found in the <u>Gita</u> for instance, held that an individual human being derives a particular character from the intermixture of the gods' and asuras' (demons) qualities, and argued that the intermixture really involved three types of qualities, or gunas. The <u>Gita</u> states: "The three modes (gunas): goodness (sattva), passion (rajas) and dullness (tamas) born of nature (prakrti) bind the body" (Gita 14:5). Every individual has all three qualities in varying degrees, but in each person one guna will be naturally dominant.

Gandhi frequently refers to this theory of *gunas*, and his philosophy of human nature constantly focuses on the mixture of good and evil in every person. He states:

None has been born in this world who could exist with only one guna. Even if a man possesses a high degree of the sattvik guna, the latter still includes something of the gunas of tamas and rajas (Gandhi 1928, CW 35, p. 445).

See the <u>Rg Veda</u> (1983, pp. 36-37). In the <u>Veda</u>, gods represent the good, and demons or asuras represent the bad. Gods and their elder brothers, the asuras, are offspring of the cosmic giant, Prajapati.

Gandhi, like others in the Indian tradition, sees sattva, rajas, and tamas as a descending hierarchy, although he maintains the equality of souls. Sattva guna produces goodness, wisdom and light, rajas passion, desire and anger, and tamas ignorance, dullness and darkness. Mahadev Desai, Gandhi's secretary and close disciple, says in his introduction to Gandhi's work on the Gita, sattva refers to the human potential for self-perfection, rajas to worldly attachment and tamas to the downward movement toward imperfection. Put in moral terms he argues that sattva represents selflessness, rajas calculating selfishness, and tamas blind passion (Desai 1956, p. 29-30). Thus, everyone has the potential for good because of the presence of sattva in their nature, and the potential for evil because of the presence of rajas and tamas. Since every human possesses these three gunas in various degrees human nature is in constant inner conflict. This is the struggle between good and evil, which Gandhi metaphorically calls, "kurushestra," or "the battlefield," in reference to the battlefield on which the war described in the Mahabharata took place.

In Indian thought, the idea of moral good then is not a simple, objective attribute of a person or action. Moral good is defined in terms of the inner state of the person involved. An action based on narrow self-interest cannot be seen as a moral good. Even though a self-interested action may bring about happiness in terms of some set of immediate needs, it does not bring about spiritual advancement and cannot really be considered a moral good. Moral goodness comes only with the right spiritual orientation, which involves a renunciation of the self-interest related to the gratification of the senses and emotions and a realization of the higher goals of action. For example, Gandhi argues:

It is not enough that an act done by us is in itself good; it should have been done with the intention to do good... Two men may have done exactly the same thing; but the act of one may be moral, and that of the other the contrary. Take, for instance, a man who out of great pity feeds the poor and another who does the same, but with the motive of winning prestige or with some such selfish end. Though the action is the same, the act of the one is moral and that of the other non-moral (Gandhi 1907, CW 6, p. 285).

Gandhi holds that all humans have the potential to achieve moral good through spiritual practice. Each person is either moving up or down within a spiritual grid. As the <u>Katha Upanishad</u> said:

Both the good and the pleasant approach man. The wise man, pondering over them, discriminates. The wise chooses the good in preference to the pleasant. The simple-minded, for the sake of worldly well-being, prefers the pleasant (Katha Upanishad I, 2: 2).

The "pleasant" involves atman (self) in attachment to the senses, or the lower end of the spiritual scale. The higher good, which the individual in the world experiences as the sattva guna, takes one to the upper realm of morality and spirituality. The opposite tendency takes one downwards.

The idea of the upward and downward movement of the self is consistent with a view that there is a fluctuation between goodness and evil in human nature. This view suggests that human beings are never really stuck in evil, or an experience defined by the tamas guna. Individuals are free agents, and they can choose either evil, the pleasant, or the higher good. One who knows the nature of atman and realizes one's potential, goes upward. As the Katha Upanishad says:

A hundred and one are the arteries of the heart; one of them leads up to the crown of the head. Going upward through that, one becomes

immortal; the others serve for going in various other directions (Katha Upanishad II, 3: 17).

The <u>Gita</u> with its three *guna* analysis is more precise about the hierarchy of human types. It states: "Those who are established in goodness rise upwards, the passionate remain in the middle (region); the dull, steeped in the lower tendencies, sink downwards" (Gita 14: 18).

Gandhi's many references to human choices and the way they lead upward or downward are based on this tradition derived from the <u>Upanishads</u> and the <u>Gita</u>. The goodness of a person is an indication of how far he or she has evolved in this hierarchical order. The struggle begins in the Gandhian view when an individual is attracted to sense-based desire. He states:

Man chooses either of two courses, the upwards or downwards, but as he has brute in him he will more easily choose the downward course than the upward, especially when the downward course is presented to him in a beautiful garb (Iyer 1973, 90).

When a person is made up primarily of the lowermost *guna*, his ignorance and his attachment to satisfying bodily needs leads him or her to evil deeds. Thus, he or she is potentially violent. Nevertheless, human nature is not static, and so, humans never stagnate in this stage and are never declared to be "sinful by nature." They are subject to a long evolution involving progress from the brute. Throughout history, Gandhi argues, humankind has made steady moral progress towards *ahimsa* (Gandhi 1940, CW 72, p. 350).

⁵ Gandhi states: "I believe that nothing remains static. Human nature either goes up or goes down" (Gandhi 1947, CW 88, p. 27).

Since humans have the capacity for reason and free will, they have a constant urge to overcome tamas. This process is made possible by the constant battles that rajas and especially sattva wage against tamas. Gandhi called this process "inner cultivation," and thought of it as very complex. His emphasis on the freedom and responsibility associated with human choice does not, however, lead to a simple theory of individual perfection. The higher dimensions of sattva action involve harmonization with or realization of divine purposes and are extremely hard to achieve. Gandhi is not simply concerned with the self-realization or proper behaviour of an individual, but with discovering through human action a higher truth. The sattva quality in humans necessarily recognizes the individual's interconnectedness with all other beings. All actions of an individual, including the sattva goal of perfection, are intrinsically connected to other persons and other domains, in the end to the perfection or self-realization of all. This is why Gandhi rejects the idea that a saintly life can be led in isolation. Every act of an individual, Gandhi argues, must be directed towards the betterment of the community and harmonization with the universe.

For Gandhi, human beings have the capacity of self-direction and they can cultivate goodness and evolve towards the truth. He states: "Man has to cultivate the inner sense. It does not belong to every man as a natural gift. Its cultivation needs spiritual surroundings and constant effort" (Gandhi 1924, CW 25, p. 35). Both self-control and knowledge of reality lead one upwards, toward a moral life and an awareness of the divine. On the other hand, humans are born dependent and children are guided by parents and other authorities until their self-direction takes shape. Gandhi is very realistic

about the extent to which people are susceptible to outside influences. "Man's mind is such that it is often influenced by things which are repeatedly hammered into it, and he changes accordingly and becomes what he in fact was not" (Gandhi 1947, CW 87, p. 445). Thus, humans do not always adopt moral values through their own inclination; they also have to learn through the teaching of rules.

Human self-direction and freedom of choice implies not only that one can make moral progress oneself, but that one also has the potential to affect others. "The good men can transform a bad system into a good one... Wicked men can misuse the best system and make it defective" (Gandhi 1924, CW 25, p. 34). In other words, individuals are interconnected within society and their actions have an impact on others and on society as a whole. Therefore, individuals may contribute to either a general upliftment or degeneration of the society.

In the <u>Gita</u>, a cosmological foundation of social differentiation is taken for granted and social classes are related to the *gunas* of the individuals in the group:

There is no creature either on earth or, again, among the gods in heaven which is free from the three modes born of nature. Of *brahmins*, of *ksatriyas*, and *vaisyas*, as also of *sudras*, O Conqueror of the foe (Arjuna), the activities are distinguished, in accordance with the qualities born of their nature (Gita 18: 40-41).

The social structure is thus seen as a reflection of the quality of the individuals' atman.

Every individual has duties and obligations according to the nature of his or her atman.

The brahmins are considered sattvic, possessing wisdom and knowledge. Their duty is to guide the society. The ksatriyas fall into the rajas category. They are the earthly representation of divine rule. Their duty is to protect the society. The vaisyas are also

rajas but are lower than the ksatriyas. Their primary duty is trade. The sudras are tamas. They are the labourers.

It is imperative for every class to perform the work that is suited to its nature. Performing one's own work is defined as *svadharma*, or in other words, one's duty according to one's nature. Performing one's own duty is to obey one's own law as defined by the law of nature, and negligence of such duties is considered a violation of that law. The <u>Gita</u> states:

Better is one's own law though imperfectly carried out than the law of another carried out perfectly. One does not incur sin when one does the duty ordained by one's own nature... One should not give up the work suited to one's nature (Gita 18: 47-48).

Doing one's duty not only allows one to live in accordance with one's nature, but also potentially enables one to achieve the highest form of human nature.

Doing one's own duty serves one's spiritual goal, and it also brings harmony to the society and prevents violent conflict among individuals. The idea of *varna*, or differentiated social duty, historically evolved into what is now called the caste system of India. The system gradually came to be determined by one's birth rather than one's personal attributes, and for many the emphasis shifted as one's *varna* became a source of social status rather than an indicator of spiritual status. Gandhi rejected the idea of "caste" and its corollary of discrimination based on birth, but he did seek to reintroduce the idea of a spiritual hierarchy, although he did not agree that *varna* should be interpreted as social hierarchy. Gandhi's conception of *varna dharma* did not entail exploitation or social hierarchy, but defined a series of spiritual levels and the related

skills that individuals possess. Such skills are meant to serve society rather than to establish the hegemony of individual families (Gandhi 1930, CW 42, p. 475).

Climbing upwards from the lower *gunas* has metaphysical and ontological meaning for Gandhi. The lowest form of the *atman* is one which is predominantly *tamas*. In the stage where *tamas* is dominant the *atman* dwells in darkness. The *atman* does not realize its potential for becoming spirit, and, therefore, becoming nonviolent. It is in the stage of ignorance. Lack of knowledge of its own potential drives the *atman* into bondage to its associated body. The *atman* is involved in satisfying the uncontrolled appetites of the body. The attachment to bodily needs leads the *atman* to an endless series of selfish actions and achievements, hence, endless birth and suffering.

Furthermore, attachment to bodily needs, self-interest and desire leads the *atman* to evil deeds, including violence.

Liberation from suffering and the cycle of birth is only achieved by climbing to a state where the higher *gunas* predominate. This is a journey from darkness to light, from evil to goodness, from the force of *himsa* to *ahimsa*. It is this spiritual journey which Gandhi calls the path to *ahimsa*. Thus a nonviolent person naturally comes to realize his or her moral and spiritual potential, which Gandhi describes as the realization of a oneness with the truth and God. The *sattva guna*, which is the highest expression of *atman*, has the capacity of identifying itself with all beings in the universe.

Understanding all beings as one allows humans to relate to each other nonviolently. Only at this stage does the *atman* go beyond bodily attachments and aversions. "Freedom from attachment and aversion is the first step towards understanding one's duty. Following

this line of thinking to its logical conclusion, we would see that a non-violent man is one who is free from attachments and aversions" (Gandhi 1993, p. 100-101).

However, humans cannot become completely divine even though they are of the divine. Gandhi states: "Man is no god, but neither is he different from the light" (Iyer 1973, p. 91). The body can be a vehicle to achieve self-realization. On the other hand, the physical body is also an obstacle to complete realization because perfect *ahimsa* is impossible for an embodied *atman*.

All life in the flesh exists by some *himsa*... The world is bound in a chain of destruction. In other words, *himsa* is an inherent necessity for life in the body. That is why a votary of *ahimsa* always prays for ultimate deliverance from the bondage of flesh (Gandhi 1928, CW 37, p. 314).

The spirit is represented as pure nonviolence. Even though people cannot practice perfect ahimsa, Gandhi claims: "Ahimsa is the very nature of atman" (Gandhi 1941, CW 74, p. 371). The goal of humankind is to realize that human nature is not essentially violent, even though life in the body unavoidably necessitates violence.

Self-realization: The Goal of Humankind

"The aim of man in his life is self-realization," wrote Gandhi (Gandhi 1929, CW 41, p. 291). Self-realization is the highest value and the ultimate goal in Gandhi's religion and philosophy. The quest for self-realization provides a sense of meaning and a direction to human life. In order to understand the relationship between nonviolence and self-realization, we shall pose four questions. What is the goal of human life? What are

the obstacles for its realization? How does one overcome these obstacles? And how does the practice of nonviolence help one achieve the goal of self-realization?

In certain areas, Gandhi adheres to Samkhya philosophy, and his discussion of the principle of *prakrti* and the *gunas* is very indebted to Samkhya. When it comes to his theory of the *atman*, however, Gandhi does not accept the claim of Samkhya philosophy that there is an infinite number of souls. On this matter he follows the Advaita interpretation of the <u>Gita</u> which holds that the *atman* (self or soul) is one and is present in all creatures. The *atman*, for Gandhi, is imperishable, immortal, eternal, unborn, everlasting, all-pervading, and incarnate in the cycle of life, death and re-birth (Gandhi 1993, p. 33). The <u>Gita</u> views the body as a cage that imprisons the *atman* whose aim is self-liberation (Gandhi 1993, p. 39). Gandhi states: "The *atman* is confined in the cage of this body, held in the prison of the body like a criminal" (Gandhi 1993, p. 188). Self-liberation occurs when one realizes one's true nature and leaves bodily bondage. The true education of humankind is self-knowledge (Gandhi 1945, CW 79, p. 293), and truth liberates the self, but this self-realization is not easily achievable.

Self-knowledge, which Gandhi calls "authentic truth," helps humans to know their higher or real self. He draws a distinction between the Self and the self. The former Self with an upper-case "S" is a higher Self that is the divine and perfect Self. The lowercase "s" self is a lower self that is tied to the body. Although both selves emanate from the same divine substance, the second is socially implicated. This is a relational self that has an individual and social identity. Ignorance of its other or higher identity often leads it to identify itself exclusively with the body and the external world. For Gandhi, the lower

self must strive to go beyond the duality of body and self, and the mixture of good and evil in order to achieve unity with the higher Self. As the lower self realizes its potential and overcomes the internal battle it becomes the higher Self.

Gandhi conceives of the relationship between the higher Self (brahman or paramatman) and the lower self (atman) as that of master and slave, or the sun and its rays. He states:

The slave can never conceive of his existence without his master. A person who has the name of another on his lips for twenty-four hours will forget himself in the latter. The atman [individual self] becomes the Paramatman [Brahman or universal Self] in the same manner. The atman may be a ray of the Paramatman but a ray of the sun is the sun itself. Apart from God we have no existence at all. He who makes himself God's slave becomes one with God (Gandhi 1993, p. 49).

The self is supposed to identify with God, like the slave with its master. The lower self is ignorant when it closely identifies with the body, and its ignorance leads to rebirth.

The concept of rebirth is essential to understand Gandhi's concept of nonviolence. As we noted earlier, the ultimate goal of the self is liberation from its bodily entanglement and the external world. When the self fails to break these bonds it prolongs its sojourn in the cycle of life and death. Rebirth is, thus, an indicator of self-imperfection. The lower and higher selves in Gandhi's thought represent imperfection and perfection respectively. Thus another way to describe the goal of human life is upliftment from imperfection to perfection. When an individual self becomes attached to worldly life, its potential for self-perfection becomes diminished, and it risks permanent entanglement in the cycle of birth and death. Gandhi states: "I am a believer in previous births and rebirths. All our relationships are results of samskaras we carry from previous

births" (Iyer 1973, p. 100). In contrast, *moksha* or Self-realization only occurs when the self destroys its "shackles of birth and death" (Gandhi 1993, p. 128).

How and why do samskaras (markings) become a pitfall or obstacle to selfliberation? In order to understand the concept of samskaras and its relation to selfliberation, we must return to the doctrine of karma. Gandhi defines karma as "any action, any bodily activity or motion" (Gandhi 1993, p. 70). He compares a human being to a machine that works ceaselessly. Human beings act at every moment when they do things like eating, thinking, sleeping, dreaming, and so on. Gandhi divides actions into three categories: vikarma, karma and akarma. Vikarma and akarma are the two opposite poles on the spectrum of all karmas. Vikarma, according to Gandhi, are those forms of karma that are forbidden. Committing vikarma has both moral and spiritual consequences that affect Self-realization. Since vikarma are forbidden actions, they have been interpreted as immoral, as actions that are neither socially desirable nor acceptable. In fact, Gandhi describes vikarma as a form of "demonic" or evil action (Gandhi 1993, p. 71). He associates vikarma with the forms of violence that are harmful to oneself as well as others. The spiritual consequence of such vikarma is repetitive births, together with punishment. Punishment here can be a birth at the lower end of the spiritual spectrum. There are also ordinary karmas or actions which are performed with good motivation but which remain attached to their consequences. These karmas also lead to rebirths, but they are at least rewarded with higher spiritual standing. Akarma are actions that are decoupled from consequences. These actions strive to diminish the accumulation of karma and enable self-realization (Gandhi 1993, p. 129). Whether actions are good or

bad, then, if they are tied to consequences, they will diminish the capacity for self-understanding. In Gandhi's theory of *ahimsa*, *vikarma* are identified with violence and *akarma* with nonviolence.

Gandhi's understanding of the Gita's teachings on the hierarchy of body, senses, mind, ego, intellect and Self will help to further explain the anatomy of karma and its consequences. In this context, the role of the senses are crucial to Gandhi's theory of self-realization. Gandhi does not doubt that the body is essential for the self to journey from the lower to the higher levels of actions, but he distinguishes between basic bodily needs and luxuries. The body must engage in shariram karma, or the satisfaction of basic bodily needs and functions, in order to stay alive. Actions that are undertaken merely for bodily pleasure, however, are not necessary. Gandhi realizes that the body is constantly tempted by the promise of pleasure but argues that it is only when we treat the body and the self as identical that we lose the distinction between essential needs and luxuries. This confusion leads us to want to satisfy bodily desires endlessly, and the lower gunas then become the source of desire and bondage (Gandhi 1993, p. 98). "Every desire bears its proper fruit. So long as any desire is left in us, we cannot escape the round of birth and death" (Gandhi 1993, p. 121). Like a monkey jumping from one branch to another, the mind jumps from one desire to another, and brings about a repetitive pattern of bondage (Gandhi 1993, p. 139).

The human sense of "T" and "mine" develops in the process of satisfying sensual desires. This sense of "T" and "mine" represents the individuation of the self, or the self's egoism. Ego nurtures the lower self. Gandhi states:

Individuation is inherent in the unmanifest *prakriti*. The undeluded man is he who can cast off this individuation or ego, and having done so the shock of an inevitable thing like death and the pairs of opposites caused by sense contacts fail to affect him (Roy 1984, p. 80).

Ego is the source of violence and is an obstacle to nonviolence. When the ego becomes the primary force in an individual life, narrow self-interest dominates. Such self-interested persons do not consider the basic needs of others, and aggressively engage in the satisfaction of their own desires through endless consumption. The ego-dominated quality of mind is controlled by attachment to sense objects, and can never be at peace or free to realize the higher Self. It continuously disappoints itself in not being able to satisfy all its wants. When desires are not met, disappointment, frustration, anger, and aggression ensue. The egoistic self loses its capacity to use its intellect to make the right choices. Although the intellect is higher than the mind and would normally direct the activity of the mind and the senses, it can also become a slave to the senses, and in that sense become prone to violence and destruction. The Gita states:

When a man dwells in his mind on objects of sense, attachment to them is produced. From attachment springs desire, and from desire comes anger. From anger arises bewilderment, from bewilderment loss of memory, from loss of memory the destruction of intelligence; and from the destruction of intelligence he perishes (Gita 2: 62-63).

This means that when we become blindly attached to either a material thing or an ideology we lose our capacity to think clearly and objectively. Lack of objectivity nurtures intolerance, intolerance leads to anger, and violence follows. In other words, though the <u>Gita</u> and Gandhi view the senses, mind, self and intellect as normally interacting in a hierarchical order with the higher realms governing the lower, all realms

of activity remain vulnerable to sensual desire. When the senses and the mind are influenced by desire, they tend to develop egoistic attachments. In the long run this egoism affects the balance of the intellect and bias, confusion and lack of coordination ultimately lead to the intellect's destruction. Because the intellect is closer to the higher Self, its destruction closes the door to self-realization, and the potential for self-liberation in this life span is forfeited. For Gandhi, to be born as a human being is a rare spiritual opportunity since such a birth comes after millions of births in which the self progressed upwards. To lose an opportunity for self-realization at this stage is spiritually tragic, but the final stages to self-realization are very difficult and Gandhi advocates a path to self-realization in which nonviolence plays a key strategic role.

The Path to Self-realization

Gandhi views the attachment and aversion of the senses as an inseparable pair that systematically lead to the accumulation of *karma*. *Kama* (worldly life) is constantly bound up with likes and dislikes, attachments and aversions. Speaking metaphorically, Gandhi describes *kama* as "ever waiting, open-mouthed for its prey" (Gandhi 1993, p. 106). It is our moral and spiritual duty to fight against the accumulation of *karma*, and "freedom from attachment and aversion is the first step" (Gandhi 1993, p. 102).

Relying on the <u>Gita</u>, Gandhi is able to articulate a moral and spiritual strategy to fight against the *karma* that leads to rebirths, namely the achievement of *vigatajvara*, the overcoming of attachment and aversion. His strategy is first to recognize that the senses

and mind are vulnerable to desire and the accumulation of *karma*. Control of the senses and mind is the first step towards self-realization. The <u>Gita</u> states:

But a man of discipline of mind, who moves among the objects of sense, with the senses under control and free from attachment and aversion—he attains purity of spirit (Gita 2: 64).

If we do not guard the self against the desire for sense objects we risk becoming attached to them. Possessiveness leads inevitably to a further downward movement, for as Gandhi writes, "where there is possessiveness, there is violence" (Gandhi 1993, p. 36). Thus, he counsels that "we must turn away from everything which does not help us to attain self-realization" (Gandhi 1993, p. 87). Cultivation of the virtue of self-control is essential for mastery of the senses. The "monkey mind," blindly following the undisciplined senses, must be trained to use its intellect correctly.

One means of such training is the practice of yoga. Yoga helps to guard against the objects of desire. It helps in the development of self-control, restraint and discipline. The word "yoga" simply means practice, work or skill, but Gandhi gives it a broader meaning. Yoga, in his thinking, means self-detachment or the decoupling of desire from its object, which is, in other words, akarma (Gandhi 1993, p. 46). Yoga trains the senses and mind to enable them to seek self-realization. An ideal state of mind is called "sthitaprajna," or steadiness of mind. When the senses and mind are thus trained, the intellect is able to perceive the external world without delusion. In other words, when the senses and mind are influenced by desires and attached to objects, great emotions, likes and dislikes, pleasure and pain, anger, fear and anxiety are created. These emotions distract the intellect from perceiving the world properly. When the intellect, through the

practice of yoga, overcomes these distractions, the mind is able to focus on the Self. This is an important stage in the struggle to go beyond the dualities and lower *gunas* in order to become *nitya-sattvastha*, which means one whose mind is focused and steadfast.

Gandhi also suggests fasting as another way of controlling the senses (Gandhi 1993, p. 51). Fasting is not only restricted to physically not eating, but must begin with and include a mental form of asceticism that involves getting rid of unnecessary thoughts and fantasies as a moral practice. "If physical fasting is not accompanied by mental fasting, it is bound to end in hypocrisy and consequent disaster" (Desai 1956, p. 166). Thus the practice of fasting, for Gandhi, is an exercise in self-restraint and it helps to guard against desire.

Gandhi's ideas on self-control, self-restraint and self-discipline are connected to the concept of *brahmacarya*. The general meaning of this term is control of the senses. However, he argues, because the body and mind cannot be treated separately in that they affect each other, the concept of *brahmacarya* also includes mental discipline. "One must keep the mind, speech and body constantly engaged in morally pure activity" (1927, CW 34, p. 92). Gandhi, therefore, views idle thoughts as a violation of *brahmacarya* (1932, CW 50, p. 410). Sexual activity for reasons other than procreation is nothing but the manifestation of animal passion, according to him. Thus a vow of celibacy is an essential part of *brahmacarya*. "A sinful touch, gesture or word" is a direct violation of this vow of celibacy (1928, CW 36, p. 399). But controlling sexual or animal passion is only one aspect of *brahmacarya*. It also includes the renunciation of all luxuries and pleasures. In other words, self-control, self-restraint and self-discipline are the three

cardinal virtues of brahmacarya. When nitya-sattvastha is established through the practice of yoga and brahmacarya, and self-control becomes the nature of the mind, Gandhi argues, there will be two positive outcomes: swadeshi (one's true nature) and samadhi (the attainment of a focus on the higher Self). He derives the concept of swadeshi from the natural environment, and postulates that any being will be healthier when in its own environment where the self is better able to achieve swaraj (self-rule or freedom) (Gandhi 1993, p. 59). Nitya-sattvastha is also the stage of samadhi, a stage where the self concerns itself with knowing the Self and Truth or God.

Samadhi is also a stage where the self becomes niryogakshema, that is, where the self renounces all possessions. Unlike the Jains, Gandhi does not suggest that we must remove ourselves from worldly life. Directly opposed to an ascetic "life in the forest," he argues that we must participate in worldly life in order to improve it, while at the same time remaining self-less. Paradoxically, then, anyone who renounces worldly life must remain connected to society. Such a person cannot avoid working for the betterment of society as a whole.

Gandhi is a strong advocate of work and action. Although he views work and action as potentially paths leading to the accumulation of *karma*, he nonetheless claims that such *karma* can be overcome through service to others, and the spirit of service is not necessarily limited to other human beings. He states: "*Karma* becomes relatively *akarma* when it is undertaken for service of others" (1993, p. 131).

It is in this connection that Gandhi comes to rely heavily on the concept of yajna.

Traditionally yajna means sacrifice. However, he rejects yajnas that involve the ritual

killing and sacrificing of animals for religious purposes. His concept of yajna means actions that are carried out for the "good of others," and for the "public good" (1993, p. 86, 78). Yajna is "something which is done to serve other's good, but without causing suffering to any creature" (1993, p. 76). All actions that are motivated by the good of others are selfless. Yajna is the essence of nonviolence, and any action performed out of self-interest or selfishness is opposite to yajna. Since yajna aims at a higher good, one who engages in yajna identifies oneself with all creatures, as I will discuss in later chapters. For Gandhi, such identification implies that each creature possesses the same atman.

Service is the spirit of yajna that actualizes ahimsa. "In its essence ahimsa is a powerful emotion of the heart which finds expressions in numerous forms of service" (Gandhi 1932, CW 49, p. 431). This involves caring for or acting nonviolently towards other beings, as I will discuss further in chapter 5 on the positive dimensions of ahimsa. According to Gandhi, this nonviolent attitude necessary for self-realization is connected to the concept of rebirth.

We serve the good of the world by refraining from causing suffering to other creatures, because we shall refrain from doing so only if we cherish the lives of other creatures as we do our own, only if we believe that the body is transient (1993, p. 76).

Rebirth in Indian thought is related to the ideas of progress and freedom. Gandhi's concept of freedom is not connected to the pleasure derived from the senses. It is the freedom of the bird (self) from its cage (body). Thus Gandhi's philosophy emphasizes

the connections between personal growth, social progress and spiritual freedom. Spiritual freedom is the ultimate goal, personal growth and social freedom its vehicles.

Self-Realization in Relation to Violence and Nonviolence

Gandhi's theory of ahimsa and his ideas about violence are closely related to his ideas about self-realization. Iyer rightly points out that Gandhi inflates his notions of violence and nonviolence (Iyer 1986, p. 10). I see this as a direct outcome of Gandhi's goal of spiritual self-realization. In order to direct all human activity towards that ultimate goal, Gandhi systematically constructs two sets of concepts: those which assist self-realization and those which undermine it. He associates violence with the body, desires, attachment, egotism (Gandhi 1926, CW 30, p. 538), anger, fear (Gandhi 1940, CW 72, p. 416), fraud, deceit (Gandhi 1931, CW 48, p. 94), ignorance, untruth (Gandhi 1930, CW 44, p. 57), selfishness, self interest, possession, accumulation, cruelty, ill thoughts, unnecessary consumption, falsehood (Gandhi 1932, CW 50, p. 67) and all other sins. All these human vices are, for Gandhi, forms of violence or sources of violence. They derive from our attachment or aversion to sense objects and worldly pleasures, and they cause the accumulation of karma and perpetuate the cycle of births. Thus, I argue that violence for Gandhi in the broadest sense is that which undermines one's or others' self-realization. In contrast, the human virtues which directly or indirectly further selfliberation are aspects of ahimsa. Such virtues characterise the saintly life.

Only by living a saintly life can one obtain peace. This is the way to fulfilment in this world and the next. A saintly life is that in which we practice truth, ahimsa and restraint. (1929, CW 41, p. 229).

Thus, in Gandhi's thought, nonviolence is a supreme dharma and religious duty.

Truth and God

Gandhi describes the development of his ideas over the course of his life as his "experiments with truth." During his lifetime of writing, different ideas were emphasized at different times and in different contexts. Sometimes some of his ideas appear to contradict his previous ideas, as I have shown in the first chapter in the discussion of Gandhi's transition to a more secular outlook. Often Gandhi interchanged key concepts, and gave ideas new interpretations. I agree with T.K. Mahadevan's summary statement that the only concept in Gandhi's thought which remains completely consistent is the concept of truth (Mahadevan 1970, p. 249). Truth is the core concept that ties all Gandhi's ideas together.

Like other concepts in Gandhi's theory of *ahimsa*, the concept of truth is adopted primarily from his understanding of Indian religious thought.⁶ He describes the idea of truth as both absolute and relative. He understood these concepts less as separate categories, than as differing by degree corresponding to the continuum of perfection to

⁶ Evidence of this is Gandhi's 1905 article in <u>Indian Opinion</u> under the title, "Oriental Ideal of Truth." The article presents Gandhi's research of references to truth in all of the major scriptures of Indian religious sects (Gandhi 1905, CW 4, p. 392-394).

imperfection. Absolute Truth (indicated with an uppercase "T") is eternal Truth (Gandhi 1930, CW 44, p. 57). It is indescribable and unlimited.

Gandhi's concept of Truth is directly connected to his ideas about God. His earlier writings claim that God is Truth. However, he was not satisfied with the interpretation that Truth is merely one of God's attributes. He claims that the names and attributes with which scholars describe God are not adequate. Furthermore, he argues that Truth is the only concept which explains the totality of God. Thus, in his later writings he tends to use the phrase "Truth is God" (Gandhi 1931, CW 48, p. 404-405). Thus, absolute Truth is a religious notion.

Relative truth, in contrast, is concrete truth. It is derived from observations and beliefs, examined through reason, and held until it is refuted as false (Gandhi 1926, CW 31, p. 101). Relative truth is what people rely on for basic agreements in everyday life. Relative truth is limited truth and subject to constant change. The meanings of absolute and relative truth in Gandhian thought and their relation to the theory of nonviolence are discussed further in Chapter 3. Here we will show how Gandhi's ideas of relative and absolute truth are based in Indian religious thought.

In the <u>Vedas</u> there are many references to absolute and relative truth, and they usually link Truth with God, *dharma*, and other virtues. For example, in the <u>Rg Veda</u> Truth and *rta* (order) are described as originating from the ascetic heat of the creator, where ascetic heat represents purity (Rg Veda 10: 190. 1). Truth and *rta* are treated as equivalent concepts in some verses. Like *rta*, Truth also binds the universe and the universe is sustained by Truth (Rg Veda 10: 85. 1).

The <u>Vedas</u> also describe truth in relative terms where relative truth is opposite to falsehood. *Agni* (fire) is the metaphorical son of truth (Rg Veda 10: 5. 7). *Agni* symbolizes the capacity of truth to burn or destroy anything that is opposite to its nature. In the <u>Vedas</u>, relative truth and falsehood are in constant battle. The moral god, Varuna, favours truth and fights falsehood. Thus, relative truth is a moral concept. Anyone who practices falsehood is punished. This is because falsehood contradicts *rta*. As the <u>Rg</u> <u>Veda</u> states, the god of punishment, "King Varuna moves about, looking upon the truth and falsehood of people" (Rg Veda 7: 49. 3). The evil that is manifested in the *asuras* is portrayed as opposite to truth. The god Soma, "kills the false...he kills the demon, he kills the one who speaks lies" (Rg Veda 7: 104. 13). Untruth is metaphorically associated with the *asuras* who are associated with violence.

The <u>Upanishads</u> continue the discussion of truth. <u>Brhad-aranyaka Upanishad</u> states:

As a spider moves along the thread, as small sparks come forth from the fire, even so from this Self comes forth all breaths, all worlds, all divinities, all beings. Its secret meaning is the truth of truth. Vital breaths are the [relative] truth and their [absolute] truth is It (Self) (Brhadaranyaka Upanishad II, 2: 20).

Relative truth is vital to the day to day life of the self whose ultimate goal is to realize its full potential and know the Truth.

Relative truth is expressed in moral terms in the Upanishads. In the <u>Taittiriya</u>

<u>Upanishad</u>, for instance, "speaking truth" is considered as important (Taittiriya

Upanishad I, 2: 1). According to the <u>Brhad-aranyaka Upanishad</u>, speaking, seeing,

hearing, smelling or thinking improperly is evil. The <u>Brhad-aranyaka Upanishad</u> establishes a strong connection between truth and justice:

There is nothing higher than justice. So the weak man hopes (to defeat) a strong by means of justice as one does through a king. Verily, that which is justice is truth. Therefore they say of a man who speaks justice that he speaks the truth. Verily, both these are the same (Brhadaranyaka Upanishad I, 4: 14).

Radhakrisnan emphasizes the inseparable relationship between justice and truth in Indian philosophy: "Law or justice is not arbitrary. It is the embodiment of truth...satya and dharma, truth and justice are organically related" (1969b, p. 170). Dharma is, therefore, seen as an embodiment of truth. Gandhi too stands in this tradition and holds that justice and truth are the same.

A common interpretation of the word "truth" is that it refers to speaking truth or the truth of a particular proposition. However, Gandhi would argue that this is a very narrow meaning of the concept of truth. The Sanskrit word for "truth" is "satya." He explains that Truth as satya has a broader sense.

The word satya is derived from sat, which means, that which is. Satya means a state of being. Nothing is or exists in reality except Truth. That is why sat or satya is the right name for God (1930, CW 44, p. 40).

Truth is that which exists. Eternal Truth, to Gandhi, is the *nirguna* God, meaning the God which transcends all attributes and all relative truths. Truth is perfect and exists in the form of pure consciousness. Gandhi's theory, like that of the <u>Upanishads</u>, directly relates the idea of absolute Truth to the divine, and that of relative truth to the path to the good life (Mundaka Upanishad I, 2: 1). True knowledge, for Gandhi, comes from absolute Truth, which is the Self. He associates the Self or God with *cit*, meaning

complete knowledge of one's own existence, as well as knowledge of the universe. *Cit* is the metaphysical realization of the unity of the universe.

Absolute Truth is an ideal for which humans always ought to strive. Attaining complete Truth, however, is not always possible. Gandhi states: "Absolute Truth alone is God. It is beyond reach. At most we can say it is *neti*, *neti* [Not this, not this]... reaching it is attaining *moksha*" (1945, CW 82, p. 39). Elsewhere he discusses the perfect religious life whose goal is finding the absolute Truth:

Naturally, it is unattainable except by the very fewest. But that it is attainable by human beings, I have also no doubt. That we do not find in history evidence regarding the existence of any such person merely proves to me that all the record that we have has been prepared by imperfect beings and it is impossible for imperfect beings to gives us a faithful record of perfect ones. We have to be very nearly perfect in order to meet perfect souls such as you have described (1927, CW 33, p. 383).

Thus, Gandhi has two positions on the attainment of absolute Truth. On the one hand, he argues that it is reachable only by a few. On the other hand, he argues it is beyond human reach: "Finite human beings shall never know in its fullness Truth" (1927, CW 33, p. 247).

Since absolute Truth evades imperfect human reasoning, Gandhi claims that the only way to achieve it is through devotion and faith. "The pursuit of Truth is true *bhakti* (devotion)" (Gandhi 1930, CW 44, p. 41). Also he states: "I believe in faith. Also in things where reason has no place, e.g., the existence of God. No argument can move me from that faith" (1936, CW 64, p. 75). Thus, religious devotion and faith in absolute Truth provides the link between human beings and the divine in Gandhi's theory.

That human knowledge which is still far removed from the realization of the divine is not necessarily false, but it is relative truth. It is the limited truth we encounter in everyday life and consists of our knowledge of the world. Gandhi recognizes that the human mind and sensory experience has limitations and is subject to error and confusion. He describes these limitations and the idea of relative truth through a narrative:

Truth is not so simple as it appears to you. You know the story of the elephant and seven blind men who actually touched him. They all touched him at different parts. Their descriptions therefore differed from one another. They were all true from their own points of view and yet each appeared to be untrue from the points of view of the rest. The truth was beyond all the seven. We are all, you will perhaps agree, in the position of these seven sincere observers. And we are blind as they are blind. We must therefore be content with believing the truth as it appears to us" (1926, CW 31, p. 111).

The metaphor of the blind men describes how we perceive and understand only partial truth. Even the relative truth on which we depend is subject to error. What is more, truth differs from person to person. Gandhi states:

Seeing that the human mind works through innumerable media and that evolution of the human mind is not the same for all, it follows that what may be truth for one may be untruth for another and hence those who have made these experiments have come to the conclusion that there are certain conditions to making experiments (1931, CW 48, p. 405).

Since we do have the capacity to know at least relative truth, humans must strive for it, as it is the path to progress. Knowledge cannot accrue through untruth, but only through constant seeking, discipline and the rigorous practice of experimentation. Thus, human beings ought to test the facts constantly until previous untrue beliefs have been refuted.

The Shanti Parva of the <u>Mahabharata</u> points out the qualities needed to cultivate relative truth. These include: "Impartiality, restraint, magnanimity, forgiveness,

modesty, patience, tolerance, detachment, introspection, dignity, resoluteness, constancy, and harmlessness" (Ramachandran 1970, 257). The <u>Upanishads</u> also stress a list of virtues tied to truth.

Gandhi considers any negligence of truth as negligence of virtue and he holds that truth is a universal good (Gandhi 1932, CW 49, p. 81-82). The moral person seeks to differentiate truth from untruth, realizing that they may sometimes appear very close. For example, <u>Brhad-aranyaka Upanishad</u> states that truth also contains untruth in itself:

In the beginning this universe was just water. That water produced the true, Brahman is the true. Brahman produced Praja-pati and Praja-pati produced the gods. Those gods meditated on the real. That consists of three syllables, sa, ti, yam: sa is one syllable, ti is one syllable, and yam is one syllable. The first and the last syllables are the truth; in the middle is untruth. This untruth is enclosed on both sides by truth; it partakes of the nature of truth itself. Him who knows this, untruth does not injure (Brhadaranyaka Upanishad V, 5: 1).

This passage puts forward the idea that within every relative truth existing in the world, there is untruth and vice versa.

For Gandhi, a moral person or *sadhu* politician must be on guard for the untruths hidden within truths and aware of the relative truth hidden within untruth. For example, he self-critically commented:

I am not beyond indulgence in unconscious exaggeration or selfpraise or taking interest in describing my achievements. There is a shade of untruth in all these and they will not stand the test of truth (1921, CW 21, p. 473).

Relative truth has a pragmatic value. It is imperative to the good life and to social harmony. Any knowledge that is inconsistent with moral principles is contradictory to the good life and social harmony and is untruth. Human beings have imperfect

knowledge of the world and are, therefore, only capable of imperfect moral practices.

Complete knowledge, achieved through absolute Truth, though it may be beyond reach, is the ultimate goal of human beings.

Therefore, in Gandhi's thought, absolute Truth is a religious notion and relative truth is an epistemological as well as a moral concept. Gandhi believes that moral truth evolved through centuries of social practice through the process of experimentation and refutation. Since there are certain truths or rules which have not been refuted, they are accepted as moral truth. For Gandhi, truth, with its moral and factual aspects, is necessary for human spiritual development. It is the first step on the path to self-realization. Gandhi often says that *ahimsa* is the means and Truth is the end. Thus, even though Gandhi distinguishes absolute from relative truth, he implies that relative truth is the means to absolute Truth.

The Problem of Gandhi's Religious Theory of Nonviolence

It is by now evident that Gandhi's theory of *ahimsa* is deeply rooted in his Hindu religious thought. The theory has internal consistency, but only within a Hindu framework. The problem that arises now is to what extent is such a theory compatible with other religious and non-religious systems of thought? An important aim of both Gandhi's theory of *ahimsa* and the new Gandhian theory I am constructing is that nonviolence be accepted and practiced as widely as possible. Gandhi himself claimed his theory of *ahimsa* to be universally applicable. He stated: "My concept of nonviolence is

universal. It belongs to the millions" (1940, CW 71, p. 273). In fact, Gandhi's theory of *ahimsa* is so embedded in a particular religion that his claim of universality meets with practical and philosophical problems.

As I discussed in Chapter 1, Gandhi failed to convince many Muslims, such as Jinnah and his followers, of the universality of his political ideas precisely because they were so closely tied up with his religious ideals. One could argue that Jinnah and his followers were determined to separate Pakistan from India and would have done so regardless of Gandhi. However, Gandhi's attachment to Hinduism provided them with a basis for rejecting him and his unity ideal. In Gandhi's work for Hindu-Muslim unity, he came to realize that the institution of religion was contributing to the conflicts and rifts in his own society. Of course Gandhi was critical of many aspects of his own religion and he advocated respect and tolerance for people of all faiths. Even so, because of his strong Hindu identity, Muslims tended to perceive him as a Hindu partisan, while Hindu extremists regarded him as a traitor. Eventually, Gandhi became more aware of the divisive political implications of his Hindu-centred theories. He began to advocate a separation of religion and politics, and he promoted a secular constitution for India.

Gandhi's theory of *ahimsa* could only be universal if Hinduism was a universal religion, which Gandhi occasionally claimed as well. But, as we have seen, this claim is not credible either. Hinduism is a particular religion with particular beliefs and practices not necessarily found in other religions. For example, Gandhi's theory of nonviolence relies on concepts such as renunciation, celibacy, fasting, *karma*, the saintly life and selfless action which are at the heart of Hinduism but are not found in all religions. At

minimum, these specifically Hindu concepts and the general Hindu framework of Gandhi's theory of *ahimsa* might be meaningless or confusing to non-Hindus. The greater risk of Gandhi's theory is that non-Hindus may reject nonviolence because they associate it with the saintly lifestyle and spiritual demands that are specific to Hinduism. My point is not to refute religious faith as a whole, or any particular religious belief or sets of beliefs. I would go so far as to defend religious diversity. Rather I want to point out that adherents of other systems of thought may encounter difficulty with Gandhi's theory of *ahimsa* solely because of its Hindu basis. Thus, not only is his claim of universal applicability invalid, his objective of widespread applicability is jeopardized.

To illustrate the problem, let us take the example of Gandhi's notion of absolute Truth. Gandhi held that Truth is God. Not all cultures and systems of thought have a concept of absolute Truth, and of those that do, not all would agree that Truth is God. Even in Hinduism God's attributes are many and God is called by many names, as Gandhi observed (Gandhi 1931, CW 48, p. 404). Some sects of Hinduism and many other religions such as Christianity define truth as one of God's attributes rather than as God. Although the idea that Truth is God is intriguing, Gandhi shares this conviction with relatively few people.

Furthermore, when Gandhi refers to absolute Truth he often uses particular religious categories such as *karma*, *bhakti* and *moksha*. Absolute Truth is not described in an abstract sense as an ideal to which people of diverse backgrounds can relate in their day to day lives. Rather it has a particular Hindu meaning which might not be evident or

acceptable to non-Hindus. The same arguments would apply to other key concepts in Gandhi's theory such as *karma* and *varna*.

At the extreme, Gandhi was so interested in Hindu religious ideas and goals that, at times, he interpreted nonviolence entirely in religious terms and overlooked its social connotations altogether. Generally he argued that nonviolence is a means to attaining religious goals, but at certain points he went further and implied that nonviolence itself is a Hindu religious goal. For example, he states: "Nonviolence means moksha, moksha means realizing Satyanarayana [Krishna]" (Gandhi 1925, CW 28, p. 320). If nonviolence is interpreted exclusively as a Hindu religious goal in a society viciously divided by religion, as was India in Gandhi's time, nonviolence itself may contribute to conflict rather than abate it.

Gandhi wanted to construct a theory of nonviolence which could be practiced on a mass level, that is, a universally applicable nonviolence theory. He drew so much from Hinduism, however, that he came to define nonviolence in specifically Hindu terms as a religious goal. Even though he called himself a "practical idealist" (Gandhi 1920, CW 18, p. 133,) he ignored the practical problems that arise from a nonviolent theory which is based in a particular religious framework. In contrast, Gandhi's critical supporter, Nehru, took a more pragmatic and open approach. Take, for example, Nehru's view of truth. Nehru stated: "I am not talking about the ultimate truth but rather of the right step, the right direction in which to go, the right step to take, the truth for present, whatever it may be" (Iyer 1973, p. 170). Near the end of his life Gandhi began to be more pragmatic in this sense, and to emphasize the secular dimensions of his theory of ahimsa. In the next

few chapters, I shall continue in the direction he was going as I develop a secular Gandhian theory of nonviolence and its implications for ecological theory.

I am supplanting Gandhi's attempt to construct a universal theory based on a particular religious tradition with the more modest aim of developing a theory which is as comprehensible, convincing and viable as possible in a pluralistic world. I aim to separate out the specifically Hindu assumptions of Gandhi's theory from those aspects which are less partisan and, therefore, may have broader secular appeal. I do not reject religious concepts outright, but instead aim to set aside, or make "optional" the most problematic ideas in Gandhi's theory while modifying others in an effort to reconstruct a coherent non-religious theory of nonviolence. For example, I have discussed how Gandhi's idea of absolute Truth is problematic. In the next chapter, I will show how it can be replaced by the notion of relative truth. Other ideas such as the varna hierarchy, karma and rebirth are to be set aside. But the ideas of evolution, moral progress, upward and downward movements of moral development, good and evil, the human capacity of reason, free will, self-direction and the impact individuals can have on society are all important to my nonviolence theory. I do not consider a saintly lifestyle that includes celibacy and the total renunciation of pleasure as essential to the practice of nonviolence. But practices associated with self-realization-self-control, restraint, the simple life, service, satisfying needs instead of indulging in luxuries, and not causing sufferingshould remain central in my view. These ideas will be developed further in the upcoming chapters.

Chapter 3

Relative Truth and Nonviolence

The relationship between truth and nonviolence is the main focus of this chapter. I will first clarify the non-religious position I am taking on Gandhi's ideas about truth before I go on to discuss the possible relationships between violence and untruth, and nonviolence and truth. As I explained in Chapter 2, Gandhi's notion of truth has religious, moral and epistemological connotations. His ideas on truth are complex, but lack systematization. Iyer observes this as well and points out:

Gandhi... combined a metaphysical view of absolute Truth, a realistic view of relative truth, a Manichean view of the struggle between truth and falsehood, a liberal optimism and a form of spiritual Whiggery. He used the word "truth" in several senses and it is not clear which is to be taken in a particular context. He believed that there never could be any compromise with error, though there must be compromise and reconciliation between relative truth, and that error ceases to be when corrected (Iyer 1973, p. 62).

Recall that absolute Truth, for Gandhi, is complete knowledge and represents the highest religious experience of God. Relative truth, on the other hand, is the truth which human beings know and perceive through their limited experiences.

Since I am aiming for a Gandhian theory of nonviolence that could be practicable on a global level where a diversity of religious and ideological beliefs co-exist and

conflict with one another, I argue that such a theory should be based neither on a particular religious experience nor the idea of absolute Truth as Gandhi conceived it.

Hence, I am replacing the notion of absolute Truth with the ideal of complete knowledge (though this also is unattainable), and relying primarily on the Gandhian ideas of relative truth and reason. This shift away from a religious understanding of Truth is still compatible with Gandhi's position in practice, considering that absolute Truth is unrealizable. He states: "As long as I have not realized this absolute Truth, so long must I hold by the relative truth as I have conceived it" (Gandhi 1957, p. xiv).

At times there is a tendency in Gandhi's thinking to downplay the idea of reason and the role of intellectual exercise in the search for truth. This is because of his belief that reason and intellect are limited and because of his strong religious faith. In the <u>Vedas</u> and <u>Upanishads</u>, the ultimate, the *Brahman*, is held to be indescribable and beyond human comprehension. Gandhi often speaks of God or the absolute Truth as beyond reason and intellectual understanding. However, when he talks about social and political issues he once again speaks of the importance of relative truth and reason. Thus, Gandhi constantly is engaged in a spiritual-rational juggling act. Nonetheless, when it comes to worldly issues he gives more emphasis to reason over faith.

It is because reason is the basis for Gandhi's notion of relative truth that he called his own life, his "experiments with truth." Reasoning capacity is paramount to what makes us human. He states: "We are not cats and dogs but creatures who stand erect on two legs, who strive to realize the self and are endowed with the capacity to reason"

(Gandhi 1929, CW 41, p. 278). Therefore, he claims, "that which conflicts with reason must be rejected" (Gandhi 1937, CW 64, p. 398).

The search for relative truth is a process of uncovering errors and untruths in statements that we once considered to be truth, and finding partial truth in claims that we once thought to be untrue. As Gandhi notes:

Man's speech has a conventional meaning but in addition each utterance also has a specific meaning intended by the speaker which can be known from the context. Nobody has known truth in its perfection and, therefore, each person describes a thing as he sees it and that is the truth for him, even though as a matter of fact his view might be false. In like manner man's view of a thing changes from age to age and the view held in a particular age is the truth for that age. This is the meaning or idea in asato ma sadgamaya (Lead me from untruth to truth) (Gandhi 1936, CW 63, p. 214).

Relative truths, which guide our moral and social conduct, are established through historical practice and the process of trial and error. Yet these truths are not stagnant or, in Iyer's words, "cast-iron dogma" (Iyer 1973, p. 160), for even an established relative truth can be challenged and refuted. For example, in Gandhi's view the Indian caste system is established in falsehood. Reason and objectivity are the means of discerning truth. Bhikhu Parekh summarizes Gandhi's thoughts on the impediments to reason:

Self-righteousness, dogmatism, insincerity, prejudice, ill-will, self-interest, limited sympathies, moral inertia, and sheer obstinacy often distorted and blocked the operation of reason (Parekh 1989, p. 144).

In summary, relative truth is a matter dependent both on context and on the progress of human reasoning and judgment. Replying to a correspondent Gandhi states:

You, I and all others are cast in the molds [established truth] inherited from our parents. There is as much sense, or lack of sense, in rejecting it as there is in forgetting the fact and claiming ourselves to be

different. We can remain old mold and still make many changes. That is growth and progress. So assume a completely new appearance will mean a total revolution or a new religion altogether (Gandhi 1936, CW 63, p. 215).

Since relative truth is many-sided and given in time, it is impossible for a single individual to understand all the dimensions of truth. Its comprehension is a collective and cooperative process. (I will return to this idea in Part Two).

The various relationships between violence, nonviolence and untruth, partial truth and ideal truth will be examined next. Henceforth when I speak of truth I am referring to relative truth which I also call partial truth. I wish to explore two interrelated continuums of violence and nonviolence on the one hand, and untruth and ideal truth, on the other. The interaction of these continuums can be categorized as four relationships: untruth and violence, partial truth and violence, partial truth and nonviolence, and finally, ideal truth and complete nonviolence. The last category is an ideal and I will not discuss it here since it is only the first three positions which have practical importance.

Untruth and Violence

Gandhi considers that, "Truth is the first and heaviest casualty in war" (Iyer 1973, p. 162). He argues that untruth and violence are inseparable, and that truth and violence are incompatible. He states:

The way of peace is the way of truth. Truthfulness is even more important than peacefulness. Indeed, lying is the mother of violence. A truthful man cannot long remain violent (Gandhi 1926, CW 30, p. 462).

In Gandhi's view, untruth is an outcome of human selfishness, which is rooted in attachment to inner desires.¹ There are two problems in being untruthful. First, untruthfulness is a form of deceitfulness. When we deceive others (for our own protection, or even to protect them), we fail to acknowledge their potential to act nonviolently in the face of the truth. We deprive them of the opportunity to exercise their own judgment in a situation or relationship, and thereby to grow as human beings. The second problem is that untruth breaks down trust, and mistrust is one of the root causes of violence. Not only does untruth lead to violence, but the reverse also holds. Gandhi argues that violence propagates untruth. "We should do no harm to anyone, for by harming others we violate truth" (Gandhi 1908, CW 9, p. 62).

How can violence be untruth or violate the truth? Gandhi argues that every viewpoint has partial truth. When we engage in violence, we act on the assumption that our claims are right and the opponent's claims are wrong. Thus we overlook the partial truth of the opponent's position and we lose the opportunity to discover the truth together. Furthermore, preparing for violence and engaging in violence involves anger, fear, mistrust, greed or hatred, or combinations of these emotions. The emotional frame of mind associated with violence loses sight of rationality, and thereby distorts the truth. In this way violence violates truth or is untruth.

Gandhi states "Violence is simply not possible unless one can be driven by anger, by ignorant love(desire), and by hatred" (Gandhi 1925, CW 28, p. 319).

Partial Truth and Violence

Gandhi holds that we are all limited to partial truth. Even though untruth is associated with violence, our limitation to partial truth does not mean that we are inherently violent (except insofar as our bodies necessitate violence of the type that is not morally wrong). If a person or group of people are acting violently, their violence is partly a reflection of their environment. Replying to a correspondent Gandhi states:

...the rulers, if they are bad, are so, not necessarily... by reason of birth, but because of their environment... If they are dominated by their environment, they do not surely deserve to be killed, but should be changed by a change of the environment. But the environment is we — the people who make the rulers what they are (Gandhi 1934, CW 59, p. 41).

Thus, he argues that instead of focusing on a person's violent conduct we must focus on the environment which produces such a person. He stresses that an environment which produces a violent individual may be based on false values. I would suggest a good example of this is the environment that gave rise to the Nazi Youth. When ignorance is prevalent in an environment, the value of seeking truth together disappears. Thus, the continuation of violence is inevitable.

This argument leads to a question: what if a person or nation that is engaged in violence or war with another believes that the outcome of the fight is to bring the truth to light? Gandhi argues that even though the expected outcome is supposed to be finding truth, such an outcome is temporary and an illusion (Gandhi 1920, CW 18, p. 131-134). Violence only produces a chain reaction of more violence.

Violence may destroy one or more bad rulers, but like Ravana's heads, others will pop up in their places... A believer in violence will kill the murderer and boast of his act. But he never killed murder. By murdering the murderer, he added to it and probably invited more. The law of retaliation is the law of multiplying evil (Gandhi 1939, CW 59, p. 42).

For Gandhi, unnecessary violence is not something which merely exists in the external world—it lies in us. Apparently, this is a contradiction of his claim that violence is a product of the environment. However, Gandhi means that humans are the bearers of violent tendencies which they acquire from their environment. Recall that he said, "The environment is we." In other words, the psychology of violence is learned.

It is important to distinguish between two circumstances in which we engage in violence. First, there is the violence which we initiate due to our narrow self-interest, and, second, there is the violence of retaliation. This second type of violence is a response to the violence which threatens us and it follows what Gandhi calls the "law of retaliation."

The "law of retaliation" is a principle which describes the progression of one act of violence to another in a logical sequence. It is the way of thinking which is found in the war paradigm of "us versus them." Concrete enemies and their violent acts are the energy source and the justification to reciprocate with acts of violence under the law of retaliation. The aim of such a process is to defeat the will of the opponent. However, control over the chain of violence is unpredictable. Violence is the very means to continue the process and, in the meantime, escalated violence is the justification of the

process. Continuation of such violence creates fear, anxiety and instability.² Thus, a solution achieved by violence, according to Gandhi, creates a new moral environment for retaliation, where violence on a larger scale is likely to emerge. Violence inherently has the character of a chain of retaliation. Continuation of such violence creates fear, anxiety and instability, in a society or a nation. According to this reasoning, Gandhi claims that:

Hitler was "Great Britain's sin." Hitler is only an answer to British imperialism, and this I say in spite of the fact that I hate Hitlerism and its anti-semitism. England, America and Russia have all of them got their hands more or less red--not merely Germany and Japan (1945, CW 79, p. 423).

The law of retaliation depends on a way of thinking that needs an external enemy. This leads to a second level reciprocal process. In order for a state to engage in retaliation or defend itself from an expected retaliation, it is pressured to involve itself in constant preparation, military training and exploration of new technology for destructive weapons. To sustain high levels of readiness, standing armies and security forces need massive amounts of natural resources and technology. Meanwhile, military build-up cannot guarantee permanent security, because arms build-up is, again, a reciprocal process. Thus, the law of retaliation engages states in both direct war and cold war. Citizens of these states live in constant fear of the enemy states. Such fear of the other itself motivates the building up of armies and the process of retaliation. Gandhi states:

Hitlerism had only been destroyed by super-Hitlerism and this chain was endless... If one depended upon superior violence in order to destroy violence of the Hitlerism type, then small nations would have hardly a chance of survival (1946, CW 86, p. 247).

² I will connect these ideas to the problems of insecurity in international politics, the politics of fear, and the arms race in Chapter 9 of Part Three.

This statement does not mean that Gandhi sees the Axis and the Allies as the same in their moral standing. Rather Gandhi uses Hitlerism as a symbol to describe the ideology of the defenders of the institution of war, an ideology to which the law of retaliation is fundamental.

Gandhi argues that the process of violent retaliation is self-destructive. Even when violent retaliation starts with a certain justification, the process of escalation operates through the fear of the other. Reasoning based on fear has two problems. First, when people operate in fear, they may have difficulty in differentiating their own subjective fear from the real external threat. For example, state leaders' personal fears of losing power over their own citizens often leads them to engage in external wars.³

Second, violent means often become reflected in the end for which people fight. For example, if violent means are employed because of fear, then violence may be required to maintain power once the victory is accomplished. Thus, unless the end is perpetual violence, violent retaliation, which presumes truth to be on its side, defeats its own purpose.

Beyond the problem of retaliation, violent action involves two further problems which hinder the search for truth. First, those who adopt violence often mistakenly assume that they possess the truth. The assumption that one already has complete truth on one's side prevents one from recognizing that truth is partial. This prevents one from examining one's position carefully for its untruth, and thereby, growing from truth to

³ Many political philosophers have commented on how war and terror become instruments a ruler or tyrant employs in order to keep the people loyal. See Plato, <u>The Republic</u>, 566e; Aristotle, <u>Politics</u>, 1313b 10; Machiavelli, <u>The Prince</u>, XVII.

truth. The second problem is that routine accidents committed in the course of violent action can not be corrected. For example, consider an incident which I witnessed in Jaffna, Sri Lanka in 1989 during an armed conflict between the Indian Army and Tamil militants. The militants drove a vehicle full of high explosives towards the Army camp in an attempted suicide attack. The explosives detonated prematurely in a residential area killing and injuring several civilians. Another example of this type of wartime error is "friendly fire," or the mistaken attack on members of one's own side. In cases of accidental violence, the damage is always irreversible. As I will discuss in Part Three, in the twentieth century the majority of war casualties, including deliberate targets and accidental killings, have been civilians. With nonviolent action, where the emphasis is always on the search for truth and where the means are compatible with the ends, such problems can be avoided.

Partial Truth and Nonviolence

To reverse the process of the law of retaliation Gandhi offers the law of nonviolence, which is based on reconciliation and cooperation. He describes the relationship between truth and nonviolence by a metaphor:

The means may be linked to a seed, end to a tree, and there is just the same inviolable connection between the means and end as there is between the seed and tree... We reap exactly as we sow (cited by Sonnleitner 1985, p. 19).

For Gandhi, means and ends are connected in a logical progression and the consequences of means are reflected in the ends. The ends obtained by violent means

necessarily include a general condoning of violence. Thus, in order to overcome the law of retaliation, Gandhi insists that nonviolence must always be practiced as the means to resolve conflicts.

Nonviolence is based on reason which develops through experience and observation. Our comprehension of our experiences and observations comprises our knowledge, or the partial truth we all hold. This truth contributes to the formation of social and moral rules. However, these rules are subject to constant rational challenge, and thus are not permanent. Gandhi argues that if the *Shastras* are not applicable to new social developments, they should be challenged and rejected.

Acting nonviolently means acting intelligently, cooperatively and with an understanding of others' perspectives and needs in mind. It is a process of arriving at truth that is beneficial to all conflicting parties. Objectivity in seeking truth allows us to resolve conflicts more easily and with less destruction. Listening and cooperation become norms of mutual interaction. As I have argued, violence prevents cooperative dialogue and, not only leads to a new chain of retaliation, but also becomes a barrier to gaining truth.

Nonviolence is a way of life, where intellectual growth comes to entail a moral commitment to social change, rather than being something engaged in for its own sake. Another way to express this is by stressing the importance of the unity of heart and mind for Gandhi. By unity of heart and mind, he means openness and the good will to resolve a particular problem with objectivity (Gandhi 1939, CW 69, p. 199).

A moral act of nonviolence is an act of reason and intellect. To be nonviolent requires that we remain alert to the implications of our actions in order to gain a larger understanding of truth. Such alertness not only allows us to understand the viewpoint of the opponent but also gives us the power to express our own concerns to the opponent in a conflict situation. In such a process the need for retaliation disappears. Gandhi states:

When we are faced by an opponent, we should understand his viewpoint. Let us see what Jayaprakash there is saying. There is an ocean of difference between him and me. But non-violence means that we must have the patience to listen to the opponent. We should try to understand his arguments from his point of view, and accept whatever may be acceptable. If I try to understand the point of view of my opponent, it does not mean that I have accepted every thing he has said, or that I have flattered him. If we train our mind thus, we can continue to propagate truth and non-violence all through our life (Gandhi 1939, CW 69, p. 200).

Truth is in the interest of all. Participating in a genuine dialogue with the opponent allows both parties to arrive at truth. In a conflict, all parties claim that truth is on their side. Gandhi suggests that if finding the truth is our final goal, then we must find it through rational means, rather than by resorting to physical violence, for when we use violence we suppress the partial truth of the opponent. Thus, we destroy the process of finding the truth and are led into the irrational process of retaliation. Nonviolent action, on the other hand, allows all parties in conflict the freedom to express their opinions and objections to each other, which is essential to the process of finding truth.

Tolerance and patience, which are positive aspects of nonviolence, are of vital importance to the process of finding the truth. The opposites, intolerance and impatience, are the roots of anxiety, mistrust and insecurity. Such mental states create fear, anger and hatred towards the opponent. When we are attached to these emotions, impartiality and

objectivity lose their foundation. Loss of objectivity and impartiality may be followed by the rejection of the opponent and the resort to physical violence. Consequently, the opportunity to find the truth, and gain the cooperation of the opponent, is lost. In contrast, an act of nonviolence is a form of alertness against the temptation to believe that it is possible to reach truth through violence. Nonviolence and truth affirm each other. Nonviolent action is a method to find the truth and truthfulness enables the practice of nonviolence. Falsehood and error are not totally eliminated in nonviolent action but they can be reduced in the process. Gandhi states:

The root of all actions is in thought. False thoughts result in false utterance; and after that or along with it, action follows. In the same way right action has roots in right thought. If the thought is not true then that action or utterance which seems true is only false, is erroneous. That is to say if I am entirely truthful even in my thoughts falsehood will be warded off automatically (Gandhi 1933, CW 53, p. 426-427).

In conclusion, nonviolent practice can be based on relative truth and does not need to rely on religious notions of absolute Truth. In this chapter I have identified three possible relationships between violence, nonviolence and truth. First, I have argued that there is a relationship between violence and untruth that is based on irrationality and destructiveness. Second, I have shown that the combination of partial truth and violence gives rise to the law of retaliation. Third, I have argued that the more rational and constructive way of handling conflict is to strive for the mutually reinforcing attitudes of partial truth and nonviolence. As Joan Bondurant states: "[In] a genuine satyagraha campaign... insistence upon arriving at the truths of the situation, together with

persistence in exploring new and creative approaches, are fundamental" (Bondurant 1988, 43).

Chapter 4

The Morality of Violence in Gandhian Thought

A common challenge to theories of nonviolence often takes the form of questions about how a person who takes a nonviolent approach would respond in a particular situation when confronted with violence. In order to address this type of challenge it is important to first understand just what Gandhi means by violence, and under what circumstances a violent response might be justified, in his view. Gandhi often explained nonviolence with reference to forms of violence and his theory of *ahimsa* cannot be understood apart from his theory of violence. As with his theory of truth, however, Gandhi did not present his views on violence in a systematic form. This chapter attempts to systematize Gandhi's ideas on violence and make them more coherent than he himself did.¹ My purpose is not only to clarify Gandhi's assorted comments on violence, but also to reformulate them in such a way that they can usefully be related to ecological problems in later sections.

On the surface, Gandhi seems to take a contradictory position on violence. On the one hand, he claims that a world devoid of violence is not possible. Violence will always

This chapter extends my previously published article: "Gandhi on violence," <u>Peace Research:</u> <u>The Canadian Journal of Peace Studies</u> (1996).

be an aspect of reality. Violence exists between individuals, within the social order and in external phenomena, such as floods and tornadoes. He holds: "There is violence at the root of every act of living" (Gandhi 1929, CW 40, p. 92). Since violence cannot be totally eliminated, the goal of a nonviolence practitioner is to minimize violence by organizing life in ways that emphasize the nonviolent aspects of human experience. Gandhi states: "None, while in the flesh, can thus be entirely free from himsa...every seeker after the truth has to...make a ceaseless endeavour to reduce the circle of himsa" (Gandhi 1928, CW 37, p. 314). In setting out this position he appears to be taking a realist's view of violence.

On the other hand, Gandhi often makes statements such as "I object to violence," which appear to be at odds with his view that violence is inevitable. If violence is inevitable, on what grounds can one have such a categorical objection? Statements which imply the absolute immorality of violence lead many readers of Gandhi to view him as an idealist whose ultimate goal is the elimination of violence.

The apparent contradiction between the view that violence is a permanent fact of life and the idea that violence is an absolute moral blight, disappears when one realizes that Gandhi uses the concept of violence in different ways. For example, when he states that he objects to violence, he is referring to certain categories of violence, such as murder and war. He recognizes that other forms of violence, such as killing plants and animals for food, are, to some degree, inevitable. In this chapter, I develop a typology to show how Gandhi defines and conceptualizes violence in different ways. I will later use the typology in discussions of the morality of various acts of violence towards nature.

Understanding Gandhi's views on the roots of various types of violence, and the reasons he gives for objecting to some types and not others, is critical to my project of developing a Gandhian theory of nonviolence that can address ecological problems.

Gandhi nowhere gives a concise definition of violence, but in his writings about the sources of violence and war, I discern an implicit theory of violence which I aim to systematize. Gandhi's writings convey the notion of a moral continuum onto which one can place four categories of violence. (See Figure 1). At one end is unavoidable or necessary violence, which receives no moral condemnation. At the other end is avoidable or unnecessary violence, the most objectionable of which is intentional avoidable violence based purely on aggression and wrongdoing, violence which Gandhi consistently and unhesitatingly condemns. This is philosophically the least complicated category in that it is obviously morally wrong, and hence it is given the least attention in this chapter, although I discuss the moral problems of unnecessary violence at greater length in Part Three in relation to ecological destruction. In the middle, requiring more explanation, are justifiable and excusable cases of violence, and unintentional avoidable violence. As Figure 1 indicates, the principles that determine where along the moral scale Gandhi would place a given act of violence mainly have to do with the motives or intention of the actor. He states: "Violence and nonviolence are mental attitudes, they concern the feeling in our heart" (Gandhi 1928, CW 37, p. 292). Thus, ideas such as attachment, appetite, desire and narrow self-interest are key to analysing the morality of any act of violence.

Figure 1.

The Moral Continuum of Types of Violence

Unintentional (e.g. breathing, stepping on insects, and other accidents) (1) Unavoidable / Necessary violence Intentional (e.g. killing to eat) 1 (2) Justifiable violence not morally wrong (does not harm, e.g. surgery) morally wrong (3) Excusable violence (better than cowardice) Unintentional 1 (e.g. negligence) (4) Avoidable / Unnecessary violence Intentional (most objectionable) (e.g. harmful acts of aggression)

Rather than examine each category in turn, I will first explain and compare the opposite ends of the moral continuum (categories 1 and 4 in Figure 1). Figure 2 summarizes the comparison. I then go on to discuss the second and third categories which represent a gray area in the middle.

The first and least objectionable category of violence I observe in Gandhi's work is unavoidable violence, which I divide into two types: unintentional and intentional. Unintentional unavoidable violence has purely physiological, and not even psychological, sources. In Gandhi's view, the physical body itself represents violence. Human life only exists through violence, independently of the human appetite or volition. Recall Gandhi's statement mentioned in Chapter 2: "All life in the flesh exists by some himsa... In other words, himsa is an inherent necessity for life in the body" (Gandhi 1928, CW 37, p. 314). Here Gandhi is refering to violence in all its forms, which he would generally define as killing or injuring any living organism. Throughout the life cycle, starting from infancy, all human beings engage in numerous unintentional acts of violence such as breathing micro-organisms in the air and stepping on insects while walking. Not only are these acts of violence unavoidable, they often occur without the perpetrator's knowledge. Accidents are instances of this category of violence too, so long as they could not have been prevented by attention or forethought. Such violence is not committed for the sake of satisfying the appetite. It is necessary for the existence of the body, thus for life itself. Gandhi claims that it is because of their bodily existence that human beings cannot practice perfect ahimsa. Later in the thesis I will explain how this form of violence is an aspect of ecological symbiosis, or interaction that maintains the health of nature.

Gandhi shares this basic conception of unavoidable violence with the Jains. The main difference, however, is that the Jains claim that any form of violence, including unavoidable violence, is morally unacceptable. The Jain text, <u>Tattvarthadhigama Sutra</u> claims, "right conduct consists of... absolute non-injury" (Radhakrishnan and Moore 1989, p. 259). Thus the most observant sect of Jains take every precaution to avoid killing insects and micro-organisms by wearing masks over their mouths and noses, and by sweeping the ground before they step on it. Gandhi's more pragmatic position is not to advocate such absolutism, but to accept unavoidable violence as regrettable, but not morally wrong.

The second type of unavoidable violence, intentional unavoidable violence, is still based on physical needs but, unlike the first type, it *does* involve appetite and will. Such violence is committed in the act of consuming food to sustain the body, for example. According to the Jains, the violence incurred through agriculture is morally wrong because it involves the destruction of jungle and living beings—the insects, birds and animals which live in the jungle. Wrongful violence, for the Jains, also occurs in the act of cultivation because the insects, birds and animals which feed on the crops must be destroyed. However, the Jain principle that one must refrain from all acts of direct *himsa* is impossible for a whole society to practice. The Jains evade this problem by paying non-Jains to provide food for them and perform other life-sustaining services which require some degree of *himsa*.

Gandhi, however, rejects the Jains' extension of moral prohibition to acts of unavoidable violence, calling it "hypocrisy and distortion" (Gandhi 1946, CW 84, p.

231). He argues that such a definition of violence can be advocated only for monks, and is acknowledged not to be for ordinary people. He states:

If I wish to be an agriculturist and stay in the jungle, I will have to use the minimum unavoidable violence in order to protect my fields. I will have to kill monkeys, birds and insects which eat up my crops. If I do not wish to do so myself, I will have to engage someone to do it for me. There is not much difference between the two. To allow crops to be eaten up by animals in the name of *ahimsa* while there is a famine in the land is certainly a sin. Evil and good are relative terms. What is good under certain conditions can become an evil or sin under a different set of conditions (Gandhi 1946, CW 84, p. 231).

Thus, Gandhi argues that it is just, though regrettable, for farmers to kill monkeys, birds and insects in order to protect the crops which feed humankind. In other words, it is permissible to engage in a minimal level of violence to satisfy the appetites of necessity which prevent famine and death. This type of violence is not morally objectionable.

On the other hand, Gandhi discourages the killing of animals and birds for food when ample nutrition can be obtained from less complex organisms such as plants. The concept of "minimal unavoidable violence" includes, but does not go beyond, that amount of violence which is necessary to sustain the body. Gandhi does not judge such instrumental acts of violence (which I will later call "ecological instrumental" acts) to be morally wrong. Even though intention and appetite may be involved in minimal unavoidable violence, it is justifiable for the survival of humankind.

Gandhi justifies both unintentional and intentional unavoidable violence with the "doctrine of necessity" (which I will later refer to as "ecological necessity"). He considers the possibility that this justification could be stretched to defend even an act of

cannibalism, but he would disagree with such an argument (Gandhi 1925, CW 28, p. 324). He states:

The necessity that I have in my mind is a universal necessity, hence it is not permissible to take *ahimsa* beyond a limit. That is why the Shastras of custom only permit *himsa* in certain cases. It is not only lawful but obligatory upon everyone to make the least use possible of the permission and relaxation. It is unlawful to go beyond the limitation (Gandhi 1925, CW 28, p. 324).

The question then is what is the permissible limit of unavoidable violence? In other words, when does it become avoidable and, therefore, objectionable? Gandhi admits it is hard to define these limits, and they are not the same for everyone. He insists: "Ahimsa is not a mechanical matter, it is personal to everyone" (Gandhi 1925, CW 28, p. 324). For example, while encouraging the practice of vegetarianism, Gandhi maintains that vegetarianism cannot be made a rule. He states: "Meat is sin for me. Yet, for another person, who has always lived on meat and never seen anything wrong in it, to give it up simply in order to copy me will be a sin" (Gandhi 1946, CW 84, p. 231).

One distinguishing criterion between unavoidable and avoidable violence (numbered as "1" and "4" in Figure 1, see also Figure 2) is the degree to which a person profits beyond what is necessary to simply live from committing violence. For example, a hunter who lives on animals and birds kills by reason of necessity, so these acts of killing constitute unavoidable violence. However, a hunter who kills animals and birds for pleasure, sport or profit commits objectionable violence. For example, the British royal family hunting tigers for sport in India, Gandhi would consider to be committing

objectionable violence. Moreover, he would argue that any hunter who kills more animals than he needs to sustain his life also commits objectionable violence.

The underlying reason for Gandhi's objection to violence in these examples is his principle of voluntary poverty, or the simple life, according to which one must only possess that which is essential to one's life. The possession of goods beyond necessity Gandhi sees as theft. Over-accumulation always involves objectionable violence because it is the point at which unavoidable violence becomes avoidable. In sum, any act which intentionally kills or inflicts harm on another living being for a reason other than sheer physical necessity is objectionable violence.

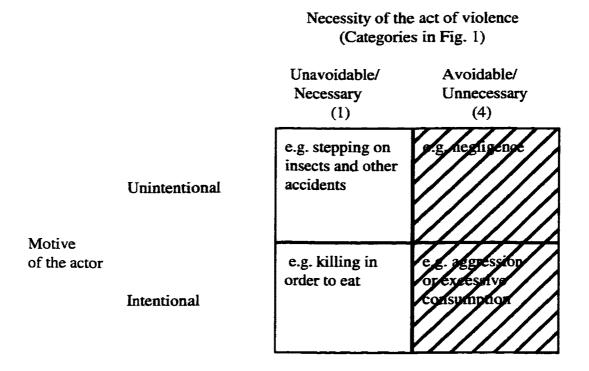
By this reasoning Gandhi also regards all forms of exploitation as objectionable violence. He states: "An armed conflict between nations horrifies us. But the economic war is no better than an armed conflict... An economic war is prolonged torture. And its ravages are no less terrible than those depicted in the literature on war properly so called" (Gandhi 1926, CW 31, p. 142). By exploitation Gandhi means satisfying one's own appetite through taking more goods than one needs, at others' expense. This can occur directly, through stealing another's belongings. Thus, theft is a form of violence. Exploitation can also mean simply accumulating and consuming goods in excess of one's needs while others go without. Thus, Gandhi considers having too many possessions as a form of violence.

There is an aspect of the fourth category of violence which Gandhi did not discuss, but which is important to my thinking about violence and easily follows from Gandhi's ideas. I call it unintentional avoidable violence. I have established that, for

Gandhi, acts that cause unnecessary harm to others are morally wrong, and that the wrongfulness of violence is related to the intentions of the actor. (I will say more on this presently). What if an unnecessary harmful act was unintentional, and occurred through thoughtless, absent-minded or otherwise negligent behaviour? Such acts, though not as serious as intentional avoidable violence, are nevertheless wrong. Gandhi's concept of truth plays a key role here. Knowing truth is a form of *ahimsa* and a moral duty, and one aspect of truth is awareness of the consequences of our acts for others. The less we seek the truth, the less attention we pay to how our acts impact on others, the more we engage in unnecessary, wrongful acts of violence. This type of violence is particularly significant for my upcoming discussion of the harmful impact of military activity on nature.

Figure 2.

Summary of Comparison of Unavoidable and Avoidable Types of Violence



In Figure 2, the marked boxes indicate acts that are morally wrong. Note that the two categories "unavoidable/necessary" and "avoidable/unnecessary" are not intended to be exhaustive, and that this diagram is a simplification of some aspects of Figure 1.

There are instances of violence not covered under these categories, as I have indicated in Figure 1, and I will turn to these now.

Between the two ends of the moral continuum represented by unavoidable and avoidable types of violence are numerous acts of harming or killing which are more difficult to judge. These acts belong in the moral categories of justifiable and excusable

violence (numbered as "2" and "3" in Figure 1). It is primarily in these cases where Gandhi applies criteria based on inner spiritual or psychological states and motives to judge the acts on a case by case basis.

The categories of justifiable and excusable violence can only be understood by examining the basis for Gandhi's thinking about the morality of violence in more detail.

Of central importance are the ideas of attachment and desire. As noted in Chapter 2, according to the Gita, an inflated level of narrow self-interest leads to a state of imbalance and chaos in the mind, which leads to violence and destruction. Violence is minimized or avoided by the practice of disciplining the senses through self-examination and renunciation. In accordance with the Gita's emphasis on inner states, Gandhi determines the wrongfulness of a violent act by the extent to which it is motivated by attachment and desire.

There is violence always in the attachment to one's ego. When doing anything, one must ask oneself this question: 'Is my action inspired by egoistic attachment?' If there is no such attachment, then there is no violence (Gandhi 1926, CW 30, p. 538).

Because Gandhi is more interested in the intention behind the act than the act itself, the same act can have different moral meanings. Take for instance, Gandhi's example of the two men who feed the poor, one motivated by pity and the other seeking prestige (Gandhi 1907, CW 6, p. 285). In the same way, the same act of violence may have a different moral status depending on the intent behind it. Gandhi argues: "The essence of violence is that there must be a violent intention behind a thought, word, or act, i.e., an intention to do harm to the opponent so called" (Gandhi 1936, CW 64, p.

152). He goes so far as to justify or excuse some acts of killing and harming, as well as to label other acts as "violence," even though they do not cause physical harm. In other words, Gandhi called almost all immoral acts "violence," but he did not consider all injurious acts as immoral.

Justifiable violence includes all cases of killing or inflicting pain which are committed with good intentions and which do no ultimate harm. To emphasize that such acts are not morally wrong, Gandhi sometimes denies that they should even be called "violence." He states:

It is violence to cause suffering to others out of our selfishness or just for the sake of doing so. If, however, it becomes necessary to cause suffering to anyone in order to make someone else happy, to do so dispassionately and unselfishly can be nonviolence (Gandhi 1924, CW 24, p. 379).

Justifiable acts of violence arise from good intentions. For example, Gandhi argues that a surgeon is justified in inflicting pain on a patient during an operation because he does so for the patient's own good. Another example is the euthanasia of a calf on Gandhi's ashram. Gandhi wrote:

Some days back a calf having been maimed lay in agony in the ashram. Whatever treatment and nursing was possible was given to it. The surgeon whose advice was sought in the matter declared the case to be past help and past hope. The suffering of the animal was so great that it could not even turn its side without excruciating pain. In these circumstances I felt that humanity demanded that the agony should be ended by ending life itself... With the clearest of convictions I got in my presence a doctor kindly to administer the calf a quietus by means of a poison injection (Gandhi 1928, CW 37, p. 310).

Thus, the killing of a calf for the sake of releasing it from the pain and suffering of an incurable injury is also considered as justifiable violence.²

There is yet a final category of violence, which is unmistakably violence, but which is, nonetheless, morally sanctioned. In Gandhi's moral theory, violence is excusable only if it is done without wrongful motives, if nonviolence is not possible under the circumstances, and if the only alternative to violence involves committing a greater evil. Gandhi sums up these criteria for excusable violence with the following example:

If ever our sister or any helpless person is assaulted by someone, we should try to save her even at the cost of our life. Whenever one can kill, one can also lay down one's own life instead. If, however, we do not have the strength to lay down our life, we should help even by using violence. Such violence does not cease to be violence. It remains evil. But cowardice is worse than violence (Gandhi 1932, CW 49, p. 320-321).

Following from this example of the assault of a woman, Gandhi argues that not only may onlookers use violence to help her, but she also may use violence in self-defence. Such use of violence is excusable if it is an unpremeditated, spontaneous response to an attack or if one does not have the courage or training to act nonviolently.

A reporter once quoted Gandhi in a speech in which he suggested that it is permissible for women to arm themselves in preparation for an assault:

They [women] could keep a dagger for self-defence if they wish to. But a dagger was no use against overwhelming odds (Gandhi 1946, CW 86, p. 27).

² Gandhi does not advocate euthanasia for human beings (or animals) unless the following conditions apply: "1. The disease from which the patient is suffering should be incurable. 2. All concerned have despaired of the life of the patient. 3. The case should be beyond all help or service. 4. It should be impossible for the patient in question to express his or its wish" (Gandhi 1928, CW 37, p. 410).

In the same speech Gandhi is also reported to have discouraged women from arming themselves. His main point is that women should be prepared fearlessly to fight their attacker and risk losing their lives rather than passively to submit to the violation of rape. The principle is clear: nonviolence is always the best way of responding to an injustice; however, if a woman believes that she will not be able to carry out a nonviolent defence, it is better that she be prepared to use violence. Hence, on one occasion, Gandhi reluctantly admitted that carrying a dagger is excusable for some women.

Justice or *dharma* has uppermost importance for Gandhi in his discussions of excusable violence. Fighting for justice is the ultimate duty of human beings. Evading this duty because of cowardice is itself a form of violence because it nurtures and perpetuates the injustice and violence in the world. Therefore, Gandhi argues that, although nonviolence is always the best course of action, it is better to fight with violence for a just cause than not to act because of fear. Fearlessness is a form of *dharma*.

When Gandhi's son asked what would be his duty if someone attacked his father—should he violently confront the attacker or run away from him?—Gandhi answered that using violence is far better than being cowardly and running away. In Gandhi's moral scheme, fear of injury or death comes from attachment. Cowardice is wrong because a coward acts from self-interested attachment to his or her life, under circumstances where there is a higher duty than protecting one's own life.

Why does Gandhi believe that fear is worse than violence? Gandhi argues that fear is an impediment to individual and societal progress, and a source of social chaos.

He argues that social order and civil conduct cannot be brought about by the sword. A violent approach by the state to the establishment of social order only cultivates fear of the law among citizens (whether the laws are just or unjust). A coercive state uses violence against its own citizens and prevents them from fighting against unjust laws. People in fear of the sword thus passively sustain the cycle of violence. It is for this reason that, given the choice between being cowardly or violent, Gandhi suggests violence.

As a final example, Gandhi argues that a nation which does not believe in nonviolence, when faced with a violent aggressor, would be more justified to go to war than to allow itself to be violated by the enemy.

My nonviolence is not an academic principle to be enunciated on favourable occasions... If India has no faith in nonviolence, no patience for it to work its way, then it is better for her to attain her freedom from the present misrule even by violence than that she should helplessly submit to a continuing rape of her belongings and her honour (Gandhi 1928, CW 36, p. 72).

Thus, Gandhi consistently argues that violence undertaken for a just cause is better than cowardice. When nonviolence is impossible, the violence undertaken to uphold one's duty or honour is highly regrettable, but nevertheless, excusable.

Even though such cases of excusable violence exist, the fundamental principle still holds, that nonviolence is superior to violence because it minimizes harm in the long run. The major thrust of Gandhi's writings consists of strong arguments against violence-for example, the statement: "I object to violence because when it appears to do good, the good is only temporary; the evil it does is permanent" (Gandhi 1925, CW 27, p. 133-

134). In comparison, discussions of justifiable and excusable violence are important, but they receive relatively little attention.

In sum, Gandhi's unsystematic statements and arguments on violence suggest a fourfold typology. On one end of the moral continuum there is unavoidable or necessary violence, such as killing for food and basic needs. At the opposite end is avoidable or unnecessary violence, which is either motivated by attachment and narrow self-interest, or results from the failure to be alert to how one's actions affect others. The cases of violence which are most controversial are classed either as justifiable violence or excusable violence. Both of these types of violence are motivated by good intentions. For the former, violence seems to be the right response without qualification. For the latter, violence is never the best action, but is better than acting cowardly.

Thus, Gandhi's moral views on violence are not simplistic dogma; they can be developed into a complex, nuanced theory of violence which maintains a strong position against intentional aggressive violence while making allowance for unavoidable and well-intentioned violence. The strength of my reformulated Gandhian theory of violence is that it upholds the moral force of nonviolence without imposing a rigid, impractical, blanket condemnation of all acts of violence. The typology I have constructed here will serve as a tool as I analyse the morality of violence as it relates to ecology in upcoming chapters. In Part Three, especially, I will discuss and provide evidence of instances of unnecessary violence against living beings and their ecosystems committed during war and preparation for war.

Chapter 5

Gandhi's Theory of Ahimsa

Gandhi's concept of ahimsa is generally translated as nonviolence, but he often argues that the word "nonviolence" does not adequately express the complete meaning of ahimsa. The word "ahimsa," does not merely refer to a set of prohibitions, and it is not merely the negation of violence. Not harming or killing other beings is a minimum expression of ahimsa. Gandhi gives more emphasis to the positive aspects of ahimsa, which include love, truthfulness, charity and many other concepts. In effect, then, Gandhi has a two part definition of ahimsa, negative and positive. In its negative connotation, ahimsa refers to certain prohibited actions of the body and the mind which are violent. It means refraining from physical acts of killing or harming other beings, as well as refraining from mental acts of ill thought towards others. In its positive connotation, ahimsa refers to sets of actions and ideas which promote a constructive, symbiotic relationship with others.

In Indian scriptures, *ahimsa* does not explicitly have the positive and negative categories which Gandhi sees in it. Categorizing nonviolence as positive and negative is Gandhi's original contribution to the discussion, but he does derive the concepts and

ideas upon which the positive and negative categories are set out from the scriptures of the Hindu tradition, as I will show next.

The Vedic and Ascetic Conceptions of Ahimsa

In Indian religious thought there are arguments justifying violence in certain circumstances. Tahtinen differentiates two schools of thinking on *ahimsa*. The first is the Vedic conception of *ahimsa* which he develops based on references from the <u>Vedas</u>, <u>Upanishads</u> and <u>Dharmashastras</u>, and the second is the ascetic conception based on references in Jainism, Buddhism, and to some extent the <u>Puranas</u> and <u>Upanishads</u>. He makes the distinction between these two schools of thought on the basis of what kinds of violence are forbidden in their conceptions of *ahimsa*. He states:

The ascetic conception of *ahimsa* differs from the Vedic conception by not including any form of justified violence into the idea of *ahimsa*. Nor does it imply that any type of *himsa* is morally good (Tahtinen 1976, p. 8).

In the <u>Vedas</u>, for example, sacrificing animals to God is not seen as morally wrong.

Another example of justified violence comes from the <u>Mahabharata</u>, which states: "The violence done to an evil-doer for maintaining worldly affairs is *ahimsa*" (Tahtinen 1976, p. 5). Thus, the Vedic conception of *ahimsa* includes some forms of violence. On the other hand, the ascetic conception of *ahimsa*, holds that any act which causes suffering, either mental or physical, is *himsa* (violence), whereas *ahimsa* is strictly understood as compassion, truth, forgiveness, love, charity, sacrifice, service and other moral virtues.

Does Gandhi's theory of *ahimsa* belong to the Vedic or ascetic conception as defined by Tahtinen? Gandhi's position would be to accept some aspects of each conception. Gandhi differs from the Vedic conception, in that he opposes both animal sacrifice and the use of violence as a means to maintain world order. At the same time, he accepts the minimal definition of *ahimsa* from the <u>Vedas</u> that one must refrain from injury and hatred, and he also takes the Vedic position that there are some situations in which violence is justifiable. For example, he suggests that using violence for a just cause, is far better than lapsing into cowardice.

On the other hand, Gandhi's emphasis on the positive definition of *ahimsa* closely fits the ascetic conception of *ahimsa*. As we will see, most of the constituent concepts of his theory of *ahimsa* are found in the ascetic conception of *ahimsa*. However, Gandhi departs from the ascetic conception of *ahimsa* when he strongly argues that the practice of *ahimsa* cannot involve a withdrawal from worldly affairs. *Ahimsa* does not entail living in the woods as a monk. Such saintly practices of *ahimsa* are a form of dogma. *Ahimsa* must be involved in social justice and also used as active resistance to evil. Thus, even though he departs from some aspects of the ascetic school of *ahimsa*, generally Gandhi's conception of *ahimsa* can be seen as ascetic, combining social obligations with spiritual goals.

In the next sections I will introduce the concepts of positive and negative ahimsa without religious connotations, and for some, show how they can be further extended beyond human relationships to include human beings' relationship to nature, in preparation for the major work of Part Two.

The Positive Meanings of Ahimsa: Truth, Compassion, Forgiveness, Love, Sacrifice, Service, Fearlessness, Simplicity, Action

I have already discussed how truth is a core concept in Gandhi's philosophy, how he discussed truth in its absolute and relative senses, and how untruth, even when it arises from ignorance, is the primary cause of conflict and violence. The concept of truth is also key to Gandhi's positive description of *ahimsa*, and the two concepts, truth and *ahimsa*, are closely connected. "When I look for *ahimsa*, truth says, 'Find it out through me.' When I look for truth, *ahimsa* says, 'Find it out through me.'" (Gandhi 1925, CW 27, p. 144). Truth is the foundation of *ahimsa* and without truth, *ahimsa* cannot be practised.

Compassion, or *daya*, is another key element of *ahimsa*. A compassionate act is a concrete form of *ahimsa*. Gandhi uses the metaphor that *ahimsa* is gold and compassion is its shape (Gandhi 1929, CW 40, p. 191-192). Compassion is a form of *dharma*, or disciplined behaviour (Gandhi 1932, CW 49, p. 429-432).

I would take Gandhi's position further and point out that humans have unique traits like reason; however, the power of reason can be used against others and nature to meet narrow ends without consideration for the well-being of others. Compassion is a way of moderating relationships where power is unequal and checking intentional or unintentional abuses of power. Compassion is a strong emotion that, guided by reason, directs one to be considerate of others. Compassion provides a rational and emotional understanding of the pain and suffering of others by relating it to our own experiences

through a process of identification. Thus compassion inhibits violence and encourages acts of aid and comfort to suffering beings or damaged ecosystems.

In Part Two I will mainly focus on a form of compassion that extends to others, but also includes oneself, in the realization that all beings are connected to each other within larger units (including ecosystems) and these units are nested in larger units that ultimately comprise a single whole (the ecosphere). Since every being is connected and part of a greater whole, causing pain to another being is to cause pain to oneself. This form of compassion is based on an awareness of interconnectedness, and a sense of the equality and intrinsic value of all beings. It allows humans to overcome narrow, self-interested attachments and to refrain from unnecessary violence towards others and nature.

The compassionate person does not punish wrongdoers but forgives them. Thus, forgiveness is an aspect of compassion and another positive expression of *ahimsa*. By calling for forgiveness of wrongdoers, the compassionate person advocates nonviolent alternatives to punishment (Gandhi 1927, CW 35, p. 159-160). Forgiveness differs from compassion, in my view, however, because it does not require identification with the one who committed wrong. Such identification would insult the suffering of the victim. Rather forgiveness opens up possibilities for personal change, maturity and growth in the person who committed the harm, allowing him or her to confront the suffering he or she caused others, take responsibility for their injury and accept their forgiveness.

potentials in themselves for nonviolence. At the same time, it also allows victims to go through a process of healing and reconciliation.

Love is another important concept in the positive theory of *ahimsa*. Like other concepts that make up Gandhi's system of mutually reinforcing ideas, love builds on compassion, and it is not necessarily restricted to human beings. "Nonviolence means universal love, it implies compassion for all living beings and the resultant strength to sacrifice oneself" (Gandhi 1928, CW 38, p. 22). Gandhi claims that compassion is beyond intellect, meaning that compassion stems from loving and identifying with other beings.

Gandhi's ideas on love were influenced by his contact with Christianity, and he claims to define love in the Pauline sense (Gandhi 1936, CW 62, p. 201-202), particularly following St. Paul's famous passage:

Love is patient, love is kind. It does not envy, it does not boast, it is not proud. It is not rude, it is not self seeking, it is not easily angered, it keeps no record of wrongs. Love does not delight with evil but rejoices with the truth. It always protects, always trusts, always hopes, always perseveres (1 Corinthians, 13: 4-7).

Such love, for Gandhi, is a pure expression of *ahimsa*. He differentiates between strong love, which is universally applied, and a weak form of love, which is exclusively reserved for members of one's own group. Such exclusive love can falter under slight pressure as group boundaries and definitions of friends and enemies change. Love cannot be restricted to personal, family and national relationships, especially when it is accompanied by hatred of others. Such love is antithetical to the cultivation of strong love (Gandhi 1927, CW 35, p. 164). The kind of love that is ecologically affirming goes

beyond direct personal relationships and applies to all beings who may not be personally known to us but are nevertheless connected in relations of interdependence.

I wish to further break down the concept of love by defining the minimal requirement for universal love and showing its relevance for ecological theory. The form of love I have in mind is not simply sentimental affection. I define the minimal requirement for love as a state of mind that provides a positive space for deeper relationships with others. Again, the loving state of mind is not necessarily restricted to human relationships but can extend to other beings and nature as a whole. A loving state of mind is open to being transformed by social relationships and the natural environment and leads to a deeper relationship with them.

The loving attitude is crucial because it allows us to explore the complexities of our mutual relationships with others and nature, including the conflicts that arise in the course of meeting our needs. Unnecessary destruction of living beings and nature, as I argue all through this thesis, have short and long-term negative consequences. A positive relationship with others enables us to make responsible, sensitive decisions because it minimizes bias and hostile attitudes towards others. A reasonable consideration for the well-being of others emerges.

Again, Gandhi considers love and truth as related concepts, and he claims that truth cannot exist without love (Gandhi 1921, CW 21, p. 474). If, as I argued earlier, love is a mental state that provides a positive space for our relationships with others, loving persons will more easily avoid hostility and be more open to listening to others' point of view. Gandhi's demand to love one's opponent as a prerequisite for conflict resolution is

not simply a gesture of goodness, it also creates the working condition for a reasonable, objective, unbiased dialogue. The search for truth is impossible in the absence of such conditions.

Fearlessness is an other essential component of ahimsa. I relate the notion of fear or cowardice to Gandhi's ideas on truth and justice. Fear arises from physical or psychological insecurity, sometimes based on the unknown, and fear prevents one from clearly seeing truth. Thus, truth-seeking and overcoming fear go hand in hand. As I pointed out earlier, when asked to chose between the wrongfulness of cowardice and violence, Gandhi argues that cowardice is worse. Cowardice is more harmful than using violence to fight for justice, first, because it allows the violator to go unconfronted, and second, because the silence of fear perpetuates injustice. Gandhi, of course, generally stresses the limitations of violence, for example, in his statement: "I object to violence because, when it appears to do good, the good is only temporary; the evil it does is permanent" (Gandhi 1925, CW 27, p. 133-134). His preference of violence over cowardice applies more to spontaneous than to organized violence, because organized violence is tempted to engage in retaliation. "Ahimsa calls for the strength and courage to suffer without retaliation, to receive blows without returning any" (Gandhi 1946, CW 83, p. 242). Such courageous nonviolent resistance has the potential to achieve both truth and justice. Thus, the Gandhian soldier of ahimsa, or satyagrahi, does not run away from challenges, and considers it a moral duty to fight nonviolently in circumstances of injustice, in the conviction that to die is more courageous than to kill. The selfless

satyagrahi is willing to fearlessly sacrifices him- or herself for a just cause. This notion of fearlessness is, thus, no less than the military virtue of courage.

Sacrifice is another important positive aspect of *ahimsa*, for without self-sacrifice *ahimsa* loses its force. Gandhi uses the notion of sacrifice in two ways. First, there is the *satyagrahi's* fearless sacrifice of his or her own life to a cause. Gandhi thinks of *satyagrahi* like any other military combatants who are obliged to sacrifice their lives, except that they refuse to combat with arms or to kill. *Satyagrahi* are not passive witnesses, but active participants in social and political struggles, and sacrifice is their highest virtue.

Second, there is the sacrifice of desires, attachments and consumption as a social and religious practice. In this sense, all work must be done in a spirit of sacrifice.

Gandhi uses the notion of sacrifice in the religious sense of Hindu asceticism for the goal of *moksha*, which we have already discussed in detail. Here I would like to focus on forms of social sacrifice, and how they relate to ecology. Sacrifice in this context can be a social mechanism for sharing resources with others. Gandhi does not advocate sacrifices of vital needs; rather he argues that luxury levels of consumption by some human beings often take away the means for others to meet their own vital needs. Although Gandhi makes this argument on behalf of the poor, I extend it to other living beings. Sacrifice of luxuries does not harm the sacrificer, but has great potential to guarantee others' well-being. It should not be interpreted negatively as a demand to give up things. Rather sacrifice is a positive act of consideration for others. The fullest form of *ahimsa* can only be practised in a sacrificial attitude.

The simple life incorporates practices of sacrifice for larger social (and ecological) goods, and is another expression of positive *ahimsa* (Gandhi 1947, CW 88, 222). Gandhi argues that one must live simply, first, in one's manner of conduct, and second, in terms of the possessions one holds. The mental attribute of simplicity is described in Gandhi's concept of humility, which is opposite to egotism:

If a man who keeps observances is proud of keeping them, they will lose so much, if not all, of their value. And a man who is proud of his virtue often becomes a curse to society...True humility means most strenuous and constant endeavour entirely directed towards the services of humanity (Gandhi 1930, CW 44, p. 206).

Here Gandhi argues for simplicity of mind in our relationships with other human beings. The same principle also can be applied to other living beings and nature. Attitudes of simplicity could include non-anthropocentrism, or the idea that the special traits humans possess do not imply the right to dominate the rest of nature, but are better seen as skills for living in a healthy symbiotic relationship with all other beings. Such a relationship allows other beings the right to flourish.

The simple life entails accumulating only those possessions which meet one's needs. For Gandhi, possessing food or property in excess of one's need is a form of theft. It only serves one's desires for sensual pleasures and nurtures the *tamas guna*.

Possessions are a source of attachment and narrow self-interest which lead to aggression and conflict. Thus the simple life requires moderation in consumption and the renunciation of unnecessary possessions.

Selfless action and service are yet two more positive forms of *ahimsa*. These concepts are variations on the notion of sacrifice. Gandhi took the notion of selfless

action directly from the <u>Gita</u> where it is described as action without expectation of gain. In the <u>Gita</u>, selfless action has a strictly spiritual connotation. Even though Gandhi thinks of selfless action in a strict sense as a path to spiritual goals, he also applies it more generally to aspects of our relationships with others. In its essence selfless action avoids using others only as means to one's own ends, but regards relationships with others as ends in themselves. Perceiving nature only as means to human ends is an anthropocentric attitude, as I will discuss in the next chapter.

The notion of selfless action is further developed in the idea of service. Gandhi states: "In its essence ahimsa is a powerful emotion of the heart which finds expressions in numerous forms of service" (Gandhi 1932, CW 49, p. 431). He recognizes that life is possible only through the multiple mutual services of all living beings and non-living things. Here the word service is not used in the traditional sense of virtuous act or religious rite, but simply refers to the contribution of each being according to its nature. All living and non-living entities in nature have certain roles and functions that contribute not only to their own well-being but to the health of whole ecosystems, and these contributions may be seen as a form of service, and even a duty, in the case of humans.

Finally, ceaseless action is an important aspect of the positive conception of ahimsa. "Ahimsa without action is an impossibility" (Gandhi 1929, CW 40, p. 192).

Such action must be both physical as well as mental. In this regard, Gandhi follows the path of karma yoga. A karma yogin is a person of action. In the Gita, Krishna states:

There is not for me, O Partha, any work in the three worlds which has to be done or anything to be obtained which has not been obtained; yet

I am engaged in work. If I should cease to work, these worlds would fall in ruin (Gita 3: 2).

Human beings may engage in action or inaction but generally action is better than inaction. Action is not, however, restricted to the human realm. In Gandhian thought, causal, biological, social and political action is the essence of life, and in the broadest sense explains all functions in nature. Gandhi argues that idleness or fearful inaction are opposites of *ahimsa* (Gandhi 1929 CW 40, p. 134). In nature, where means and ends are indivisible, action and service symbiotically support all life.

The Negative Meaning of Ahimsa

Gandhi considered the negative forms of *ahimsa* as less important than the positive forms. According to his definition, *ahimsa*, "in its negative form...means not injuring any living being, whether by body or mind" (Gandhi 1916, CW 13, p. 295). Even the negative form of *ahimsa*, however, involves more than refraining from physical acts of violence.

Ahimsa is not the crude thing it has been made to appear. Not to hurt living beings is no doubt a part of ahimsa. But it is its least expression. The principle of ahimsa is hurt by every evil thought, by undue haste, by lying, by hatred, by wishing ill of any body (Gandhi 1930, CW 44, p. 58).

Thus, the negative aspect of *ahimsa* entails not killing and not inflicting pain on others, through physical or mental acts of violence. It also includes not having ill thoughts towards others.

References to Gandhi's negative conception of *ahimsa* can be found even in the <u>Upanishads</u> and the <u>Rg Veda</u>. For example, the <u>Rg Veda</u> mentions that hatred has the capacity to injure; that harmful speech is also a form of violence; that men should be free from harmful deeds; and that mischief, wine, anger, dice, and carelessness lead one astray (Rg Veda 7: 104.7; 8: 48.14; 7: 86.5). Non-stealing and non-coveting, for Gandhi, are *ahimsa*, and in <u>Isa Upanishad</u> it is said: "Whatever moves in this moving world, is enveloped by God. Therefore find enjoyment in renunciation; do not covet what belongs to others" (Isa Upanishad I, 1).

Negative *ahimsa* strictly involves rules or guidelines that have an "ought-not" emphasis. They prescribe what kinds of actions are morally permissible, and particularly, impose restrictions on actions that harm or injure others. Positive *ahimsa* is based on the awareness of the unity of life and its implications for our relationships with others and with nature. While negative *ahimsa* emerges from concern not to cause unnecessary pain and suffering, positive *ahimsa* promotes a set of values that affirms the intrinsic worth of others and accommodates their needs. The double-sided definition of positive and negative *ahimsa*, therefore, is useful for demonstrating the range of nonviolent actions that are possible for guaranteeing the security and health of all beings and promoting their welfare.

Summary of Principles for a Secular Gandhian Theory of Nonviolence

I will conclude Part One with a summary of five principles I have drawn from my discussion of Gandhian nonviolence to this point. These are not the only conclusions I could take from Part One, and I will continue to refer to much of the material presented here, but these are the five major points I will develop in the remainder of the thesis. At the conclusion to Part Two I will re-state these principles in expanded form, adding the implications I take from ecological theory.

- 1) Nonviolence theory should be as widely applicable as possible and, therefore, it should not be based on a particular religious worldview.
- 2) Nonviolence and relative truth are mutually reinforcing. Nonviolence is a method to understand the truth, and truthfulness enables the practice of nonviolence.
- 3) Unavoidable violence, that is, violence which is necessary for fulfilling vital needs, is not morally wrong. Avoidable violence, whether intentional or unintentional, is morally wrong.
- 4) Nonviolence has negative and positive aspects. Positive nonviolence includes truth, compassion, forgiveness, love, sacrifice, service, fearlessness, simplicity and action.
- 5) The simple life is important to the practice of nonviolence because taking more than one needs ultimately harms others and may be seen as a form of theft and as a form of violence.

NOTE TO USERS

Page(s) not included in the original manuscript are unavailable from the author or university. The manuscript was microfilmed as received.

103

This reproduction is the best copy available.

UMI

Part II: A New Gandhian Theory of Nonviolence and Ecology

Introduction

Part One proposed a framework for understanding Gandhi's views regarding truth, the morality of violence, and the alternative of nonviolence. The main goal there was to demonstrate that there are ethical implications of Gandhi's ideas concerning violence, truth, and nonviolent action in social practice, and that they do not require any particular religious assumptions, but may proceed instead from a secular point of view. The next two parts of the thesis will continue to adapt and apply Gandhian ideas in a new moral theory that seeks not to be restricted to particular religious and cultural views, but instead is committed to broader applications. In this part, I propose to broaden the theory of nonviolence of Part One by linking principles of nonviolence and ecology drawn from Gandhian thought with the environmental ethics of Aldo Leopold and Arne Naess.

As my argument proceeds I will mainly focus on one type of objectionable violence: war, because ethical theories commonly treat war and the effects of war solely as a human problem. This treatment is especially evident in Just War theories, as well as in theories that oppose war. To approach war solely as a human issue is to take a narrow ethical stance which ignores the effects of war on nature as a whole. Looking at the

effects of war and its ethical implications from an environmental point of view invokes a larger ethical perspective, one in which all species who live in war zones, including humans, are given moral consideration. It will be my contention that while Gandhi was not often asked about environmental issues in his day, his philosophical position fits well into the larger framework environmental ethicists have opened up.

In the chapters to come I will attempt to develop an ecological approach to the ethical problems of war, and provide justification from that perspective for a nonviolent approach to conflicts. I will argue that war not only harms human beings but also the ecosystems where wars occur and where the military institutions prepare for war. In Part Two, I will provide reasons why violence against nature is morally unacceptable, and in Part Three, I will focus specifically on the destructive effects of war on ecosystems.

In Chapter 6 of Part Two I will discuss the problem of anthropocentrism in Indian thought and identify the differences between Indian and Western anthropocentrisms.

Chapter 6 will argue that the type of anthropocentrism Gandhi upholds is not as problematic as might appear from the point of view of environmental ethics. Chapter 7 goes on to examine the roots of environmental thought in Indian philosophy and Gandhian thought. It develops a possible Gandhian environmental ethic based on these ideas.

Chapter 8 of Part Two examines the common ground between Gandhian thought and the environmental ethics of Leopold and Naess which comprises the foundation for the new Gandhian theory of nonviolence. In Chapter 8 I present the ideas of Leopold and Naess and compare their thinking to Gandhi's theory of nonviolence and the human

relationship to nature. The cornerstone of Leopold's theory is the "land ethic" and my discussion of Leopold focuses on his ideas about violence towards the land. I explore how the notions of interconnectedness and interdependence are useful for making explicit a nonviolent ethic towards nature which is implicit in Leopold's land ethic. I then go on to outline Naess' deep ecology theory and show how Naess' central concepts of self-realization and identification have parallels in Gandhian thought. As with Gandhi's related concepts, Naess' concepts of self-realization and identification have metaphysical connotations. I will show that such concepts can be used in a secular way, and it will identify the links between a Naess' environmental ethical theory and the secular nonviolence in Gandhi's thought. I conclude Part Two with a summary of the major ecological and nonviolence principles I have developed in the thesis.

Chapter 6

A Critique of Anthropocentrism in Indian and Gandhian Thought

Problems of Anthropocentric Ethical Theories and War

This chapter examines how Gandhi's theory of nonviolence compares to the presently dominant anthropocentric tendency in ethical theory generally.

Anthropocentrism is defined as "a belief, doctrine or attitude in which the universe is regarded as centred about [humankind], or in terms of [humankind]." An anthropocentric view presents human beings "as a central fact, and their existence and welfare as the ultimate aim of the universe" and it also views "all things in the universe in terms of [humankind] and [its] values" (World Book Dictionary 1982). The anthropocentricism of currently dominant ethical theories is evident in their treatment of human beings as the only moral agents and as the only beings having moral worth. Such theories overlook the general effect of humans on natural ecosystems, and the ethical implications of that effect. James Sterba terms such ethical theories as "human ethical theories," where "human ethics" are "those forms of ethics that assume without argument that only human beings count morally" (Sterba 1994, p. 242).

In particular, anthropocentric approaches to ethical problems of war neglect the ethical implications of this human activity for nature as a whole. What is wrong with anthropocentric approaches to war? First of all, many wars are fought for territory and natural resources. Fighting for such reasons assumes that natural resources exist only for the consumption and welfare of the human species. This is a problematic assumption when one takes the position that all living beings have equal intrinsic value in principle, which is the basis for their right to live and flourish, as I will argue in the upcoming chapters. Second, when human beings engage in war they not only kill human enemies but also destroy many other living beings and their habitats. Anthropocentric justifications of war ignore the right of non-human beings to grow and develop their potential in their natural environment. Third, war damage to natural environments not only harms living beings in the present but also destroys conditions for the existence of future beings. When the ecosystems are destroyed, some species face loss of habitat and possible extinction.

Theories that ignore the effects of war on other beings and their natural habitat, and consider the effects of war only in terms of human benefits or losses, falsely assume that nature does not have moral significance. Such an attitude towards nature implies, in part, that human beings have a degree of independence from nature and that nature does not always matter for human well-being. It also implies that nature in itself does not matter, a position I reject. I will argue, following Aldo Leopold, that the interdependent relationships of human beings to nature is always relevant, and rather than a human/nature separation it makes more sense to understand humans and all living beings

as members of one community, which Leopold calls the "biotic community." All members of the community have moral significance, by virtue of their intrinsic value and their contribution to the whole.

Any comprehensive moral approach to the problem of war in this century must, therefore, begin from the premise that nature does matter morally, and that human beings are a part of nature and in no way independent of it. I will argue that a recognition of human-nature interdependence leads to the view that human beings are morally accountable, not only to their fellow humans, but also to other living things and to nature as a whole.

A new moral theory of nonviolence must, therefore, extend its moral language beyond the bounds of human ethics in order to accommodate the broader moral implications of human action. This does not mean that the traditional ethical theories should be seen as irrelevant to or exempt from the moral discourse on war. Instead, the theory of nonviolence presented here extends and modifies the moral language of certain types of anthropocentric ethics of nonviolence until they are encompassed by the broader category of environmental ethics. In doing so, the ethical theory can locate itself on ground that is common to Gandhi's nonviolence and Western environmental ethics.

In order to explore the possibility of Gandhian environmental ethics the crucial question is whether Gandhi's theory of nonviolence, which he constructed in terms of "human ethics" in Sterba's sense, can be extended so that it articulates what is an ethical relationship with nature? A cursory examination of Gandhi's writings makes it appear that his theory of nonviolence is anthropocentric. Gandhi, in his writings and speeches,

specifically used the language of traditional human ethics, and addressed the concerns of his day. He was not aware of the limits this kind of ethical discourse placed on the expression of his concern regarding the effects of human activity on nature. These limitations, however, should not be allowed to be the basis for judging whether Gandhi's theory cannot be broadened to an environmental ethic. Hence we will have to discuss the style of anthropocentrism found in Indian thought and its effect on Gandhi's moral thinking, and then discuss the type of anthropocentrism found in Gandhi's thought.

Anthropocentrism: A Conceptual Framework

A standard procedure in the environmental literature of the West is to seek the root of Western anthropocentric thought in the Judeo-Christian-Platonic-Aristotelian tradition. John Passmore, for instance, gives a major account of the development of Western anthropocentrism by analysing the history of Western thought from Biblical times to the present (Passmore 1974, pp. 3-27). He begins with the book of Genesis, where it is stated that the Lord God created man for,

dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth and over every creeping thing that creepeth upon the earth (Genesis 1:26).

According to some interpretations of Genesis, all living beings and nonliving things in the world were created in order to serve the purposes of humankind. This idea is often then taken as a justification of human domination of nature.

Another critical theory makes a connection between Western anthropocentrism and a form of dualism in the West that distinguishes human beings from nature and mind from body. Such thinking tends to elevate human beings over all other life forms and especially the material world, and also elevates rational capabilities over physical ones. This dichotomizing is consistent with anthropocentrism because the categories of non-human and non-rational are only given significance in relation to the more highly valued categories of human and rational.

There is, however, no consensus regarding either the origin of anthropocentrism in Western thought or the origin of the West's tendency for domination and exploitation of nature. As Alan Drengson points out, some critical theorists even associate the exploitation and the degradation of nature with the rise of empire and capitalist development, while other theorists deny that the exploitation of nature is necessarily associated with particular political or economic systems (Drengson 1989, p. 40). There is, however, a general agreement among eco-philosophers that in more recent times Western techno-industrial culture, mass production, and large-scale consumption have played a major role in the degradation of nature. The anthropocentric attitude of humankind, many have argued, has been the major underlying reason for this devastation. I do not challenge this claim regarding the contribution of Western civilization to environmental degradation, but since anthropocentrism is the central point of discussion

¹ Drengson also gives a detailed analysis of Western civilization and its impact on nature from the point of view of the history of Western philosophy.

in many Western ecophilosophical works, by way of comparison I will analyse the role of anthropocentrism in Indian ethical thought and attitudes towards nature.

In order to explore this line of analysis, I will consider the issue from the perspective of two main types of anthropocentricism which were outlined by Warwick Fox and elaborated by Andrew Dobson: "weak" and "strong" anthropocentrism (Dobson 1995, pp. 61-62). Dobson describes "weak" anthropocentrism as simply a "human-centred" perspective, and "strong" anthropocentrism as a "human-instrumental" anthropocentrism.

The human-centred or weak anthropocentrism is represented by the view that human beings are the centre of the universe and all aspects of the universe are understood in terms of how they relate to human beings, a definition consistent with the one presented earlier. Fox describes human-instrumental or strong anthropocentrism as a view of "the non-human world purely as a means to human ends" (cited by Dobson 1995, p. 61). Dobson points out that the weak type of anthropocentrism is more "neutral" and is almost unavoidable because of the way human beings are conditioned to perceive the world. This view, Dobson argues, is not really inconsistent with moral arguments for respecting nature. It is possible for human beings to consider themselves at the centre of the universe without dominating nature or valuing it solely for their own purposes. For Dobson, it is the strong type of anthropocentrism that views the non-human world as merely an instrument for human use which is a mistaken attitude. Strong anthropocentrism, he holds, has an element of "injustice and unfairness" in the way it views the nonhuman world (Dobson 1995, p. 62).

Though this distinction is helpful in identifying differences in anthropocentric perspectives, Dobson is probably mistaken in thinking that weak anthropocentrism is as "neutral" as he suggests. Weak anthropocentrism does not necessarily imply respect for nature; it can also imply indifference. It is not necessarily a perspective that takes moral responsibility for the direct and indirect impacts of human activities on other living beings and nature as a whole. Even if weak anthropocentrists do not view nature only as a means to their own ends, they may still be motivated to dominate nature simply because they value themselves and their needs and goals as a species more highly. Without consciously and explicitly valuing nature for its own sake, it is difficult to curb destructive human activity and assure the overall health of nature.

Rather than maintain the categories of weak and strong anthropocentrism, it would be more useful to describe anthropocentric attitudes on a continuum where we can more easily recognize differences of degree in respect for nature and the valuation of nature. Using a continuum, I propose a more complex model of anthropocentrism and its opposite, ecocentrism. (See Figure 3). The ecocentric position, as I will discuss in the chapter on Leopold and Naess, considers all beings to have equal intrinsic value. Its ideal is for human beings to respect, care for and love nature and treat it in a morally responsible way, as they would behave towards their own human communities.

In Figure 3, I have arranged three anthropocentric perspectives in a continuum from weak to strong (left to right). That is not to say there are three distinct anthropocentric positions. As Figure 3 indicates, these positions can overlap, and various combinations of attitudes can be held. The point is that there are not only two

anthropocentric positions, weak and strong, but that there is a spectrum. A very weak anthropocentric perspective may even verge on ecocentrism.

Figure 3.

A Continuum of Attitudes Regarding Human Beings' Relationship to the Rest of Nature*

	<u>Ecocentric</u>	Anthropocentric		
Attitudes		human-exceptionalist	-supremacist	-instrumentalist
humans at the centre of the universe	n	у	Y	Y
humans valued above other species	n	y	Y	Y
nature has human instrumental value	: N	y	y	Y
nature has intrinsic value	Y	y	Ω	N
all species equally valued	Y	n	N	N
moral responsibility for nature	Y	V	y	N
respect, caring, love for nature	Y	ý	n	N

^{*} Y (Yes) and N (No) indicate that the attitude is strongly held or strongly rejected, whereas y (yes) and n (no) indicate less strongly held views.

The weakest anthropocentric position I have identified, I call "human exceptionalism." Common to all anthropocentric perspectives, the human-exceptionalist view holds that human beings are a special species, set apart from and superior to all others. Human-exceptionalists consider nature to have intrinsic as well as instrumental value, as I will further explain in Chapter 8. They respect nature and consider themselves to have moral obligations to care for it, but it is often a paternalistic caring.

Human-supremacism is a stronger form of anthropocentrism. As the label suggests, this perspective holds more strongly that humans are the supreme beings.

Nature is thought to have only instrumental value for human beings. There is moral

responsibility for nature, but it tends to be motivated by instrumental reasons. Nature should be preserved and managed as a resource, according to this perspective, so humans can continue to enjoy its benefits.

Human-instrumentalism is the most extreme form of anthropocentrism. It is an attitude that justifies human exploitation of nature for any human purpose, from consumption of luxury goods to carrying out wars. It must be noted that some cultures may have strong anthropocentric attitudes but do less damage than other cultures, perhaps because they are less industrially driven or consumer-oriented or have lower population density. The highly industrialized countries in recent centuries have caused much damage, but that is not to say they are the only strong anthropocentrists.

The valuation of nature is one of the issues that clearly differentiates ecocentrists, and anthropocentrists of the various shades I have just described. As I have noted, ecocentrists firmly hold up the intrinsic value of nature. That is, they value nature and living beings in themselves. I will further discuss the meaning of this concept, and variations in its use by different environmental philosophers in Chapter 8. Here I will briefly consider the issue of instrumental value, which I define as "serving as a means to something." Every entity in nature, whether living or non-living, has multiple instrumental values to humans and to other beings to sustain life within ecosystems. Here I will introduce the concepts of "ecological-instrumental value" and "anthropocentric-instrumental value" (which I sometimes refer to as "human-instrumental value"). I define a being or entity as having ecological-instrumental value if it contributes to the welfare of other beings and the ecosystem as a whole. Human beings have ecological-instrumental

value for nature, and vice versa. That is to say, human beings are part of nature, and to the extent that they participate in natural processes that sustain life in ecosystems, they have ecological-instrumental value for those ecosystems. At the same time, those beings and entities within nature that contribute to human basic needs have ecological-instrumental value for human beings. Anthropocentric-instrumental value, in contrast, is the value humans attribute to beings and entities according to their contribution to non-vital human wants.

To give an example, a dead tree may serve multiple ends for humans, such as building material, fuel, etc., and for millions of other organisms which use the tree as a food source, breeding site, etc. The human-instrumentalist anthropocentric position would be to value the fallen tree only according to its usefulness for non-vital human purposes. They would see it as having only anthropocentric-instrumental value. Weak anthropocentrists of the human-supremacist persuasion would likely take into account the ecological importance of the decaying tree for humans, recognizing that humans depend on healthy ecosystems. (Naess refers to this position as "shallow ecology"). In other words, they would recognize one aspect of the tree's ecological-instrumental value. The human-exceptionalist anthropocentric and the ecocentric position would both be aware of the many ends the tree serves within its ecosystem and would try to weigh these ecological-instrumental values in relation to human needs, but for the humanexceptionalist, human needs would take precedence. In general then the difference between anthropocentrists and ecocentrists is that anthropocentrists perceive the instrumental value of nature from a human point of view, and so their exploitation of

nature varies as human-instrumental priorities shift, whereas ecocentrists view all things and beings in nature first from the point of view of ecological-instrumental value, which for them is the highest value.

The various degrees of anthropocentrism I have just discussed will serve as a guide for my analysis of anthropocentric elements in traditional Indian thought. Weaker versions of anthropocentrism are most common and influential in India. Strong anthropocentrism is almost impossible because of the widely held principle of renunciation.²

Anthropocentrism in Indian and Gandhian Thought

Gandhi rejects the type of anthropocentrism given in the Genesis story of creation.

He states:

It seems to me to be atheistical to think that God has created some life only to be destroyed by man, either for his pleasure or for sustaining a body, which he knows after all is doomed to death any moment (1927, CW 34, p. 131).

For Gandhi, the human body and human life are part of the non-permanent. Like other living beings, humans die and are re-born. Human life is not more important than other forms of life, nor was the universe arranged for human purposes, not even human vital needs. According to Gandhi's theology, all forms of life evolved for their own sake and

² It should be acknowledged, however, that after the independence of India under Nehru, India was committed to large scale industrial revolution modelled after that in the Soviet Union and in the West. Gandhi vigorously criticized this model. He proposed an alternative economic model in opposition to the urban lifestyle, that of Sarvodaya, which was based on village and household production.

to realize their own ends, which are at the same time divine ends. There is, therefore, no justification for sustaining human life at a level or style that is highly destructive to other forms of life.

Gandhi is, of course, not the only one to object to the Genesis world view. It also has Western critics. For example, Elizabeth Dobson Gray, an ecofeminist theologian, is critical of the Genesis creationist view and suggests that there is a need to re-mythologize Genesis so that Western culture will value all aspects of nature and respect its diversity (Gray 1981). In opposition to the Genesis creationist view, some suggest that Westerners should learn from the Hindu and Buddhist faiths in order to find an alternative perspective on the human relationship to nature.3 The question that arises here is whether Indian thought is truly free from anthropocentrism. I would argue that the type of anthropocentrism which has been dominant in the West, a view that sees nature as a store house, is not characteristic of the East. In other words strong anthropocentrism is not influential in Eastern thought. Hinduism and Buddhism have traditionally discouraged the love of possession, and placed the highest value on renunciation. This should not, however, be taken to mean that Hinduism and Buddhism were non-anthropocentric, or that they were thoroughly ecocentric. I will argue that weak anthropocentrism, to different degrees, has always been present in Indian thought.

As I have noted, many have argued that the dualistic paradigms of human/nonhuman and mind/body are major contributors to Western anthropocentrism.

³ This idea was promoted by a leader from a group called "New Scientist" (Passmore, 1974, p. 4).

These dualisms are not unique to the West, but are also important features of Indian thought. The anthropocentric views in Indian thought will be examined in terms of these two traditional philosophical dualisms.

The Human/Non-human Dichotomy in Indian Thought

The human/non-human dichotomy is evident in the <u>Vedas</u> and the <u>Upanishads</u>, which use physical and nonphysical human attributes as powerful metaphors for constructing a world view where humans are at the centre of the universe. For example, the myth of the cosmic giant, Purusa, in the <u>Rg Veda</u> is a Hindu anthropomorphic story of the creation of the world emphasizing Purusa's human attributes. According to this version of creation, *brahmins* (teachers) were born from his mouth, *kshatriyas* (warriors) were born from his arms, *vaisyas* (traders and agriculturists) were born from his thigh and, finally, *sudras* (labourers) were born from his feet (Radhakrishnan and Moore 1989, p. 19).

In the Rg Veda there are many references that describe humanity's anxiety about nature and its tense relation with it. There is an element of fear about nature expressed in these writings. Since humans are dependent on nature for nourishment, fear is a common response to humanity's vulnerability, and their limitedness in the face of natural disasters such as droughts, floods and diseases. Such fear, however, does not necessarily generate a human hostility towards nature, nor does it lead to the impulse to control or dominate nature. By attributing human characteristics to nature in the Vedas and Upanishads,

human beings actually assure themselves that nature is not hostile. This reduces the tension and fear human beings experience when considering their essential dependence on nature.

Sometimes nature is seen as a mother who looks after her children and must be accorded respect. This feminine image of nature occurs in the <u>Vedas</u> in the person of Prthivi who represents the earth (Radhakrishnan and Moore 1989, p. 11). In relation to Prthivi, fear of nature is accompanied by expressions of respect for nature's care and giving, rather than expressions of a desire to control nature. Gandhi also uses the image of mother when speaking of the earth (Gandhi 1936 CW 63, p. 388-389). The analogy of nature as mother again indicates an anthropomorphic conception of nature.

Even though Indian thought may not be hostile towards nature and may accord it respect, there is a clear tendency to view human beings as superior to other beings. For example, in Santi Parva of Mahabharata, Vyasa describes a hierarchical system of beings and things. In this hierarchy, Vyasa attributes superiority according to mobility, intelligence, living place (land or other), number of legs, food (cooked or uncooked), and so on. Among all beings, two legged, intelligent human beings are seen as occupying the highest position in the natural order as a result of their qualities and abilities (The Mahabharata of Krishna-Dwaipayana Vyasa, p. 188). This position of superiority, however, does not entail privilege or dominance because, as Vyasa argues, the beings who are in the highest position have moral and social duties to perform for other beings and are required to renounce privileges. Thus, the notion of superiority relates only to exceptional qualities and does not apply to issues of domination. This example clearly

demonstrates the notion, commonly occurring in Indian thought, of both a human-centred world and the exceptional nature of humankind. Thus, in these examples we see an attitude towards nature characterized by the human-exceptionalist type of weak anthropocentrism.

A stronger degree of anthropocentrism, approaching the human-supremacist view described earlier, is also evident in the Hindu system of *varnadharma*, the system which explains human hierarchies in terms of caste. Two differing conceptions of the doctrine of *varnadharma* are the ahistoric and the historic interpretations. The former supports only the weakest human-exceptionalist level of anthropocentrism, whereas the latter supports a stronger level.

The ahistoric version of *varnadharma*, as I discussed in Chapter 2, sees hierarchy as a feature of spiritual reality. It explains and justifies the fact that some human beings have a superior position over others and over nonhumans. The justification for the hierarchy is based on the notion of the spiritual potential of the self or *atman*. Hinduism attributes spiritual status to all life forms, but it acknowledges that human beings have higher spiritual qualities than nonhuman beings because to be born human one must have performed good actions in a previous non-human life.

The qualities of the superior human self are often contrasted with animal qualities on the one hand and divine qualities on the other. The higher one is in the spiritual hierarchy, the closer one is to the divine and, thus, the further away from animal characteristics. The *brahmins*, for example, are progressing from merely human qualities towards divine qualities. The term "animal" is used here metaphorically because

Hinduism and Buddhism recognize the divine potential of all beings, including non-humans. In this sense "animal" refers to the characteristics of brute force, lack of discipline, amorality, dangerousness, evil, and attachment to the body.

Among human beings the upper three castes are also held to be superior to the lower *sudras* because the upper castes are considered to have been born twice, body and spirit, and among twice-born humans, *brahmins* are considered to have the highest spiritual potential. Again, this superiority is based on superior moral qualities, and does not lead to the argument that these humans should dominate others, including non-humans.

As a defender of ahistoric *varnadharma*, Gandhi subscribes to this weak human-exceptionalist type of anthropocentrism. As noted in Part One, Gandhi's views of human nature typically follow the Hindu doctrine which holds that an individual's *gunas* correspond with their *varnadharma* or social positions. He argues that humankind is exceptional because human beings may progress towards a greater embodiment of moral, rational and spiritual qualities, and he views this progression as less evident in nonhumans, even though he acknowledges that they too have spiritual potential. But Gandhi's ideal human being is not restricted to any particular socially ascribed caste. One's *varna* is a matter of the quality of the self, which he feels can be cultivated by anyone regardless of caste origin. *Brahmin* status is not a right of birth nor a justification for holding a position of power.

If a brahmin has knowledge, those that are without will respect him as a matter of course. But if he is puffed up by the respect thus shown to him and imagines himself to belong to a high class, he directly ceases to be a brahmin. Virtue will always command respect, but when the man of virtue thinks much of himself, his virtue ceases to have any significance for the world (Gandhi 1926 CW 50, p. 226).

Gandhi recognizes the exceptional human ability to develop knowledge and be virtuous, but he believes that this ability can be abused. Thus, *varnadharma* not only describes the spiritual position of human beings, but also their potential to be ethical.

According to the historical interpretation, varnadharma refers to the social practice of caste. Historical varnadharma can also be described as a weak anthropocentric view, though it is stronger than ahistorical varnadharma. Here varna is interpreted as egoistical birthright, and human beings are represented as the highest and most privileged species, with brahmins portrayed as truly superior human beings.

Brahmins use nature for their spiritual rituals, which include the sacrifice of animals. The Buddha in his day and Gandhi in recent years rejected the anthropocentric logic underlying this religious practice.

According to Gandhi, *varnadharma* represents the potential for the ethical and spiritual development of the human self rather than the right to domination of particular social classes or nature. Oppressive and authoritative social practices of any particular individual or caste on the basis of birth are not acceptable to him (Gandhi 1928, CW 36, p. 401). Gandhi objects to this strongly hierarchical view of *varna* and states, "[i]t is sinful to regard anybody as higher or lower. All of us are equal" (Gandhi 1932, CW 50, p. 369). In this statement he is clearly referring to equality between human beings. He did not give as clear expression to his views about the equality of non-human life. In the same article, he continues:

There is an ever increasing realization that all are equal as human souls. The fact that we are all the creatures of one God rules out all ideas of high and low. When we say that no-one is high-born or low-born, it does not mean that all have or ought to have equal talents. All have not equal talents, equal property or equal opportunities. Still all are equal like brothers and sisters of different dispositions, abilities and ages (Gandhi 1932, CW 50, p. 226).

In spite of the overtly human focus of these passages, it is easy to hear a potential for ecocentrism in Gandhi's tone. His belief in egalitarianism between people of different abilities, could easily be extended to an argument for egalitarianism between different species. Consider that, in Gandhi's thinking, the special traits and talents of some human beings do not give them the right to dominate others. He could have extended this line of thought to argue that human distinctiveness does not imply that human beings have the right to dominate other species.

On some occasions Gandhi does, in fact, take an overtly ecocentric position, for example, in his statement: "The nature of my nonviolence towards my brother cannot be different from that of my nonviolence to the universe" (Gandhi 1922, CW 23, p. 25). On the whole, however, he would have to be regarded as an anthropocentrist in the weakest sense in that he regards human beings as exceptional in their rational, ethical and spiritual capacities. By rejecting historical *varnadharma*, he positioned himself away from the human-supremacist anthropocentric world view and social practices that can be found in Indian thought. In the end, he argues strongly for the equality of all humans, but he does not as strongly or as consistently extend those egalitarian arguments to non-human beings. Gandhi's firm egalitarian stance towards humans, however, is a springboard I will use to develop his theory further towards ecocentrism.

The Self/Body Dichotomy in Indian Thought

Another feature of anthropocentrism as it occurs in Western thought is the mind/body dichotomy. Here, the body is seen as part of nature and as lower than the mind, whereas the mind is seen as apart from nature and as superior to the body.

Descartes' writings on mind and body, according to Alan Drengson, crystallized this dichotomy in Western philosophy. Drengson states:

Descartes, as I have noted, did not create this philosophy. He merely stated an orientation that increasingly came to dominate Western thought and attitudes towards Nature. The body was seen as part of Nature, and as such was a machine, an instrument—to be sure, a most magnificent one reflecting its Maker's power, but an artifact just the same. The mind was something apart, neither spatial nor temporal. Descartes' separation of the mind from the body, and the mind's withdrawal from Nature is part of the *aporia* of our modern context. Modern philosophy has been dominated by this problem (Drengson 1989, p. 41).

A similar dualism and hierarchy between body and self (atman) is evident in Hindu and Buddhist texts. In the East, the higher self is constantly contrasted with the lower body. The self/body dichotomy is important to analyze because the body is associated with nature in both Western and Indian though, and the relationship between self and body may be seen as representing the relationship between human beings and nature. Descartes' view of body and mind is not quite the same as the dichotomy in Indian thought. Even though there is a hierarchy of body and self in Indian thought, the body or nature is not portrayed as subject to domination or exploitation by the self.

In Hinduism, the body is viewed in two different ways. On the one hand, the body is described as a tool or servant of the self. On the other hand, the body is seen as an obstacle to the liberation of the self. In the first use, the body is seen as being attached to a spiritual purpose and is an instrument in attaining religious goals. There are many references in Hindu texts to the body as a ladder which the *atman* uses to climb toward the ultimate goal of *moksha*. The <u>Upanishads</u> view the body as a chariot with the *atman* as its driver (The Thirteen Principal Upanishads 1969, p. 354). In the <u>Gita</u>, Krishna compares the body to a cloth within which the self lives. When the body dies, the self takes another cloth in order to continue its journey toward its final goal (Gita 2:17-22). In all these analogies, the body aids the self, and the body has no purpose of its own except to help in the liberation of the self.

The second notion of the body refers to it as an obstacle to the development of the self. Since the body is attached to its sensual pleasures, there is always an element of fear that the body will not cooperate with the goals of the self. Thus, the <u>Gita</u> argues that the one who has mastered the body is a true *brahmin* or *yogi*. To master the body's sensual desires, Hinduism and Buddhism prescribe detachment. Detachment is achieved only through renouncing the possession of goods as well as the desire for goods. Thus, Indian thought encourages control and supremacy over the body. It is important to note here that the mastery over the body which is prescribed in Indian thought is distinct from the Western idea of mastery over nature. When one gains mastery over one's own body in the above sense, one is practising the principle of renunciation, and actually withdrawing from nature and the exploitation of nature.

When the body is viewed as a barrier to the liberation of the self, it is experienced negatively. Maitri Upanishad expresses this negativity toward body as follows:

This body arises from sexual intercourse. It passes to development in hell (darkness) niraya (womb). Then it comes forth through the urinary opening. It is built up with bones; smeared over with flesh; covered with skin; filled full with feces, urine, bile, phlegm, marrow, fat, grease, and also with many diseases, like a treasure-house with wealth (The Thirteen Principal Upanishads 1969, p. 419).

This passage indicates how the body is seen as repulsive. The body pollutes, deteriorates and dies, but this mortal body is also the carrier of the immortal—the self. This naturally poses a problem for the immortal self because in order to achieve its goal it must rely on the unreliable, deceptive, impure, mortal body for its needs, and, at the same time, the immortal self must not be attached to the body. When the self becomes attached to the body, it is distracted by the body's sensual pleasures. This is not helpful in achieving the liberation of the self. Thus, many Hindu and Buddhist scriptures present the body as a cage in which the self is an imprisoned bird, or else present the body as a prison and the self as a prisoner. The implicit message in these analogies is that the body is dangerous, painful and a threat to the development of the self. In this context Hindu and Buddhist scriptures clearly view the body as less valuable than the self.

On this basis the body is seen as a negative part of the human experience. It is associated with animals which represent qualities in opposition to those of the self. The selves of non-human beings and women are represented in Hindu writings as more attached to the body (The Mahabharatha of Krishna-Dwaipayana Vyasa, Vol. X, p. 426).

The Buddhist text <u>Therigatha</u>, for example, shows how some nuns have a desperately negative image of their bodies.⁴

The influence of this aspect of Indian thought led Gandhi too to conceive of the body as negative, lower than the self and an obstacle to self-realization.

The soul is omnipresent; why should she care to be confined within the cage-like body, or do evil and even kill for the sake of that cage? We thus arrive at the ideal of total renunciation and learn the use of the body for the purpose of service so long as it exists, so much that service, and not bread, becomes for us the staff of life (Gandhi 1930, CW 44, p. 104).

In this context, Gandhi often associates the body with violence and the self with nonviolence. Since his concern is with the moral and spiritual development of the self rather than the appetites of the body, he states: "To know the *atman* means to forget the body" (Gandhi 1932, CW 50, p. 330).

This does not mean, however, that Gandhi undervalues either the body or nature to an extreme degree. Gandhi also considers the body in the positive sense, presented above, as a tool or servant of the spirit. He frequently argues that the body is a companion to the self and its realization. For example, he argues: "All laws which hold

⁴ The following dialogue is an example:

^{1.} Nanda: Nanda sees the body, diseased, impure, rotten (v.19).

^{2.} Addhakasi: ...I became disgusted with my figure, and being disgusted I was disinterested [in it] (v. 26).

^{3.} Abhayamata: Mother, upwards from the head and hair, consider this impure, evil-smelling body (v.33)

^{4.} Abbhayattheri: Abbya, fragile is the body, to which ordinary individuals are attracted. Attentive and possessed of mindfulness, I shall throw down this body.

^{5.} Vimala: Intoxicated by my (good) complexion, my figure, beauty... Having decorated this body, very variegated, deceiving fools, I stood at the brothel door, like a hunter having spread out a snare (v.72-3).

^{6.} Ambapali: Formerly both my breasts looked beautiful, swelling, round, closer together, lofty, [now] they hang down like waterless bags (v. 265).

^{7.} Sumedha: Let 300 new [-ly sharpened] swords fall on my body... even if the striking lasts 100 years... (v. 473).

⁽The Elder's Verses II Therigatha 1969, p. 79).

in the spiritual world hold also in the phenomenal world. All the rules which concern the physical body's welfare have the welfare of the *atman* as their aim. That should be our primary aim in all our activities" (Gandhi 1993, p. 87). The body is an instrument in the service of the world, aiding in the upliftment of the poor and nonhuman beings. In order to undertake this task, the body must always be well maintained and carefully regulated. Thus, the body is not totally negative because, besides playing a role in the liberation of the self, it has the goal of *yajna*, that is, of service to other beings.

Hinduism and Buddhism never viewed the body or nature as a commodity or as existing for human consumption or pleasure. Gandhi shares this view without reservation. Denial of the value of the body is a common feature of Indian thought, but both spiritual realization and duties towards the world through sacrifice and *yajna* are appropriate functions for the body. Such *yajna* includes refraining from killing other creatures as much as possible. Gandhi states:

We serve the good of the world by refraining from causing suffering to other creatures, because we shall refrain from doing so only if we cherish the lives of other creatures as we do our own, only if we believe the body is transient (Gandhi 1993, p. 76).

Thus, the body and nature are given dignity in Gandhian thought, but pure enjoyment of them is not accepted.

In summary, only weak levels of anthropocentrism occur in Indian thought that range from the weakest type of human exceptionalist anthropocentrism to somewhat stronger views that might be termed human-supremacist. The strong or human-instrumentalist version of anthropocentrism is, however, not present in traditional Indian

renunciation. The perception of the natural world as a storehouse for human exploitation and domination is not found. Even though both Hinduism and Buddhism argue that the human self is superior to the body and nature, they do not permit this belief in the superiority of the human self to justify exploitation or domination of the body or nature. Gandhi's argument, in many ways, follows a similar line to that of traditional Hinduism and Buddhism. Thus, Gandhi's notions of the dualisms of body/self and human/nonhuman are not the same as those presented in Western thought. The weak anthropocentrism that occurs in his thought comes from his understanding that human beings are progressing towards fulfilling their rational, ethical and spiritual potential. He sees humankind as exceptional to other beings but to the extent that they have some superior qualities, this superiority does not allow human beings to exploit or dominate others. On the contrary, he holds that humans have moral responsibility for the non-human world.

Chapter 7

Gandhian Environmental Ethics and Nonviolence

In the previous chapter I presented Gandhi as a weak anthropocentrist with potential to move in the direction of ecocentrism. In this chapter I will examine other specific aspects of Gandhian thought that approach ecological theory. I start with the Indian concept of *rta*, which is usually seen as a religious concept, but I focus on and develop its secular meanings. The concept of *rta* is important because of its close links to Gandhi's notion of unity, and I will show how a broad concept of unity found in Gandhi's writings not only reveals his latent ecological thinking, but can be used to reinterpret more anthropocentric parts of his writing. Likewise, I will examine ideas in Gandhi's work, such as genuine self-interest, mutual service, interconnectedness and interdependence, which have important implications for ecology and nonviolence. In this way I will strengthen the case for a Gandhian ecology which will allow me to relate Gandhi's work to the environmental ethics of Western philosophers, Arne Naess and Aldo Leopold, in the following chapter.

Rta and the Broad Concept of Unity in Gandhian Thought

The concept of unity is central to Gandhi's moral arguments for nonviolence and his thoughts on nature. He was influenced by the notion of unity in traditional Indian thought, although he uses it in a unique sense. Before analysing Gandhi's notion of unity, I will first explore the roots of the idea in the concept of *rta* as found in the <u>Rg Veda</u>, how it relates to attitudes towards nature in traditional Indian thought, as well as the particular non-religious sense in which I use the term.

Rudolf Otto states: "The word *rita* comes from the root *ar*, to arrange, to order, to regulate" (Varma 1974, p. 115). *Rta* is described in the <u>Rg Veda</u> as an eternal law that regulates the universe. In the early versions of the <u>Rg Veda</u> especially, this eternal law is usually attributed to a deity, and at other times is seen as a philosophical principle. This secular notion of *rta* is that of a law which governs the universe. Bhikhu Parekh states: "[*Rta*] is not a Being but a Law, an active and self-powered Law, an intelligent principle of order" (Parekh 1989, p. 72). Gandhi, like many other Indian philosophers, argues that there is a governing principle or order in the universe which produces and sustains the unity and connectedness of all life. He states: "There can be no manner of doubt that this universe of sentient beings is governed by a law" (Parekh 1989, p. 72).

There is a tendency among many philosophers to describe *rta* as an abstract principle which operates in a mystical sense. Such a mystification of *rta*, however, is unnecessary in order to understand its relevance to the world. Radhakrishnan points out that *rta* literally means "the course of things" (Radhakrishnan and Moore 1989, p. 27).

Rta simply represents the order in nature. It expresses the changes that occur in the natural world as having a sequence. The Vedic community observed the regular processes of nature and understood that there is order in these processes. Jacob Kattackal states:

The Vedic Indians, like their Hellennist brothers, were struck by the law and order, rhythm and harmony, prevailing in the universe. Behind the rhythmic occurrences of natural phenomena such as day and night, full moon and new moon, high tide and low tide, heat and cold, sunshine and rain, summer and winter, spring and autumn, the Vedic Indians detected the Eternal Law or Perennial Order which they called *rta*. The universe itself is said to be founded on *rta* and moving according to it (Kattackal 1982, p. 43).

In the universe living beings and non-living things go through processes in which they emerge, grow, evolve and deteriorate. Many of these processes occur in regular predictable patterns which are dependent on each other. They are unified and function symbiotically as a whole system. Contrary to many interpretations, I view *rta* not as an abstract mystical force, but as a description of the orderliness and regularity of natural processes. *Rta* represents the interconnectedness of a well-ordered whole.

Radhakrishnan offers one interpretation of *rta* that comes close to my meaning. He

One of the special forms in which the doctrine of the unity of reality appeared was in the recognition of a universal and eternal law, *Rta*. *Rta* represents the law, unity, or rightness underlying the orderliness of the universe (Radhakrishnan and Moore 1989, p. 25).

states:

A. L. Basham states that *rta* coordinates universal processes: "The world takes a regular course, day follows night and season succeeds season, because of *Rta*; man must live according to *Rta*" (Basham 1959, p. 236). When Basham says, "man must live

according to *Rta*," he suggests that our lives are part of *rta* (or nature's processes) and, therefore, interruption of its laws will have harmful consequences for us. All living beings are bound to nature's order and any violation of *rta* may cause serious harm to the violator because his or her well-being is inseparably related to its laws.

Rta not only represents nature in terms of processes, interconnectedness, order and unity, but it also dictates the natural regularities upon which human beings constantly interact and reflect. The individual self grows through its interaction with nature when it tries to comprehend its experience and its relationship to nature. The Rg Veda's description of light, darkness, dawn, dusk, storm, rivers, mountains, trees and living beings reveals human beings' fascination with nature and understanding of their place in it (Raja 1964). Human beings experience multiple emotions such as fear, insecurity, anxiety, anger, vulnerability, joy, happiness and peace encountered through their interaction with nature. The authors of the Rg Veda understood their vulnerability towards nature, but they also understood the inseparable and dependent relationship with nature required for their well-being. Nature, according to their understanding, is not hostile to human beings, nor does it represent otherness to them. Rather, awareness of nature helps connect the individual self to the broader unity of all life. Thus, human self-development is also a process of rta.

An extension of the meaning of *rta* in Indian thought is moral law. In the concept of *rta*, Indian moral thinking reflects the order of the natural world. Max Muller explains:

[Rta is a] straight line which, in spite of many momentary deviations, was discovered to run through the whole realm of nature. We call that Rita, that straight, direct or right line, when we apply it in a more general sense, the Law of Nature; and when we apply it in the moral sense, we try to express the same idea again by speaking of the Moral Law, the law on which our life is founded, the eternal Law of Right and Reason, or it may be that which makes for righteousness both within us and without (Varma 1974, p. 115).

Human beings observe that there is order in nature's processes, and that order brings harmony to the world. They also observe that disorder in nature brings about chaos and they associate order with good and chaos with bad. In other words, they experience order and disorder in nature as having good and bad consequences. Radhakrishnan states: "Orderly and consistent conduct is the essential feature of the good life. Disorder, often represented in the form of falsehood, is the greatest evil. Virtue is conformity to the cosmic law" (Radhakrishnan and Moore 1989, p. 27).

In this sense, the moral development of human beings is inseparable from their interactions with and experiences of nature. *Rta* is not only present in the processes and order of nature, it also provides a structure for the development of the self and moral thinking. Morality is a creation of people's interaction with each other and with nature. In other words, moral thinking is an outcome and expression of the unity of all entities in nature. In turn, respect for and responsibility towards nature is a basic ethical precept in Indian thought.

Gandhi's environmental thought cannot be linked directly to the notion of rta because he does not often use the word rta in his moral writing, but I trace the notion of rta through his use of concepts such as unity. Like his other key concepts, the word

"unity" has a range of meanings. I will discuss four connotations that appear in his writings: religious and non-religious, narrow and broad.

Gandhi uses the word "unity" in a religious sense to refer to the divine quality of oneness which connects all things in the universe. The *atman* is the essence of this oneness, as I have mentioned in discussions of religious self-realization. A non-religious notion of unity is not forcefully developed in Gandhi's thought and, for the most part, remains implicit. Such a notion can be identified, however, in his cosmology which is based on his empirical observations. In its non-religious sense, "unity" refers to the causal as well as reciprocal relationships of things and beings in the world. In these relationships, Gandhi was able to recognize the ecological interconnectedness of all life.

In other discussions of unity, Gandhi uses the concept anthropocentrically to refer to communal arrangements and consensus, cooperation and harmony within human groups. On the other hand, he also speaks about a broader notion of unity, which goes beyond particular human groups to other beings. For example, he states: "[The process of going] from unity of national life to the unity of all life... must be the goal of us all" (Fischer 1962, p. 79). The narrow concept refers to the unity within the human realm. The broader concept of unity in Gandhian thought extends the notion of unity, as harmony and cooperation, to all life forms and things, beyond and including the human realm. Developed to its fullest, this understanding of unity is an ecocentric attitude towards all beings and things. The broad notion of unity is consistent with the non-religious sense of unity as ecological interconnectedness discussed above. Gandhi's moral argument for nonviolence begins with the narrow concept of unity, but he invokes

a broader concept of unity on occasion when he argues that nonviolence must extend to all beings. Many scholars restrict their focus to Gandhi's religious and narrow notions of unity that are weakly anthropocentric, for these are the most dominant threads in his writings on unity. Since my aim is to extend Gandhi's thought further in a secular and environmental direction, I will draw on the non-religious and broad senses of unity that are evident or at least strongly implied in his work.

Unity and Gandhian Environmental Ethics

Gandhi's secular and broad notions of unity are features of his cosmology. As we have seen in the previous section, the idea of unity is a strong theme in Indian thought.

Gandhi, too, claims that there is an inseparability of all things in the cosmos. He argues that everything in the cosmos is interconnected and interdependent, and this fact is the basis for the condition of unity.

Our earth is surrounded by infinite space. The blue which we see extending over us in all directions is akash (space). The earth has poles. It is a solid sphere, and its axis is 7,900 miles long. But akash is empty space... In infinite space the earth is like a mere particle of sand, and on this particle of sand each one of us is a particle, of such infinitesimal size that it is impossible to explain how small it is. There is, therefore, no exaggeration at all in saying that, as bodies, we are mere ciphers.... What little we know tells us beyond the shadow of a doubt that if the sun-God rested even for a day from his ever ceaseless tapascharya, we would perish. Likewise, if the moon stopped raining down her cool rays, we would meet with the same fate. And we can also infer that countless stars which we see in the sky at night have some role in maintaining this world in existence. Thus we are most intimately connected with every living creature in the world and with everything that exists; everything depends

for its existence on everything else... Nature can do nothing but good (Gandhi 1932, CW 49, p. 296-298).

Gandhi's ideas of interconnectedness and interdependence in nature follow from his interest in understanding the world as it is. His observations of the external world shaped his knowledge of the forces in nature and many of his conclusions correspond to the findings of modern science.

One of Gandhi's observations was the high degree of regularity in nature. His statements on regularity bring to mind the concept of *rta*, or the idea that the universe is regulated by invariable laws. The regularity of nature's processes creates order which provides for the stability of the human social world.

The sun, the moon and other heavenly bodies move with unerring regularity. Were it not so, human affairs would come to a standstill. But we know that the sun has been rising regularly at its fixed time for countless ages in the past and will continue to do so in future. The cooling orb of the moon will continue always to wax and wane as it has done for ages with a clock work regularity. That is why we call the sun and the moon to be witness to our affairs. We base our calendar on their movements, we regulate our time by their rising and setting (Gandhi 1929, CW 41, p. 273).

Gandhi is able to identify a fundamental order or regularity in natural cycles, evolution, and interactions between living beings and things in the universe, and human life depends on this order.

Another of Gandhi's observations is the fact of ecological interdependence, which includes the human species. He states: "[Humankind] is born dependent and dies dependent... [Humankind] is thus dependent on all things" (Gandhi 1993, p. 81). This dependence is not negative and restrictive but positive and broadening, as Gandhi

explains in the following passage. Here he is speaking of interdependence and cooperation in society, but his meaning could be extended to a larger community of all beings.

When dependence becomes necessary in order to keep society in good order it is no longer dependence but becomes co-operation. There is a fragrance in co-operation and there is no one weak or strong among the co-operators. Everyone is equal (Gandhi 1945, CW 82, p. 133).

Clearly Gandhi's ethical views were influenced by his observations of nature, but he did not have the benefit of modern ecological science. Turning more to the language of ecology, I will try to further develop my arguments for how the Gandhian notion of unity (as interconnectedness and interdependence) fits with ecological theory.

The interdependence of all entities in nature is manifest in the reciprocal interactions within ecosystems which contribute to the stability and nourishment of the "biotic community" and symbiotically benefit all living beings. These interactions allow living beings to grow and fulfill their potential. At the same time, every living being effectively participates in, and in some way contributes to, the whole system. On the surface, it may appear that one being's contribution to others in nature has only instrumental value, or in other words, is only a means to others' well-being. I have referred to this as "ecological-instrumental value." However, since all entities are interconnected in complex symbiotic relationships, means and ends cannot be concretely separated. In symbiotic processes means are simultaneously ends, and ends are means. That is, one's contribution to another's well-being is intricately connected to one's own well-being and fulfilment of potential. This is because the well-being enjoyed by others

from one's contribution enables these same beings or others, in the long run, to contribute to one's well-being. Thus, contributions to others and fulfilment of one's own potential are linked, and both are good in themselves, as well as being instrumental goods. This may be taken as the basis for Gandhi's claim, "Nature can do nothing but good."

Here I relate this symbiotic interaction in nature to Gandhi's concept of yajna, or service. When Gandhi proposes goals such as "welfare for all" (Gandhi 1908, CW 8, p. 241) or the "common good," I extend these ideas to include all living beings, and take them as basic precepts in Gandhian environmental ethics. Such goals, Gandhi argues, cannot be achieved without mutual service. I would now also extend the notion of service so it encompasses not only acts performed by rational human agents, but the contributions of all beings and things in nature. In the sense described above, each living entity can be said to perform a service to others, knowingly or unknowingly, according to its own nature. This idea corresponds to Gandhi's concept of swadeshi, or performance of duty according to one's nature. Each biotic and abiotic contribution or service to others, taken together, establishes the well-being of all. These individual contributions may involve self-suffering, pain, sacrifice, and unavoidable violence. In the meantime, they also bring life and health to larger units and other individuals within them. As Gandhi states:

When a lump of earth is broken into dust, it mixes with water and nourishes plant life. It is by sacrificing themselves that plants sustain every kind of animal life. Animals sacrifice themselves for the good of their progeny. The mother suffers unbearable pain at the time of childbirth. Both mother and father undergo hardships in bringing up their children. Whenever communities and nations exist, individual members

of those communities or nations have endured hardships for the common good (1907, CW 7, p. 122).

Here "sacrifice" can be seen as a form of ecosystem service which establishes the common good. In this respect, the Gandhian perspective that I am putting forward recognizes that the relationships within ecosystems, including the relationships of individual human beings to the rest of nature, have moral significance. I understand interactions in nature as not only chemical or biological, but also as having an ethical content, and I consider service an environmental ethical precept which is actualized through interconnectedness and interdependence.

Gandhi was also aware of how an impact on one aspect of nature affects others, and he drew conclusions about the moral implications of human interdependence with nature:

All living beings are members one of another so that a person's every act has a beneficial or harmful influence on the whole world. We cannot see this, near-sighted as we are. The influence of a single act of an individual on the world may be negligible. But that influence is there all the same, and an awareness of this truth should make us realize our responsibility (Gandhi 1932, CW 49).

Since every act of human beings has consequences for the rest of the world, whether those consequences are discernible or indiscernible, we are morally responsible for them.

Human beings have the unique ability to reason and to understand the causal as well as moral significance of our interdependent relationships with all things. Humans are able to consciously choose the services we perform (or the harm we do), in contrast to most other species. This ability entails an obligation to learn about the ecological requirements of other beings to better serve them and minimize human harm. The

successful interdependent co-existence of humankind with the rest of nature requires moral responsibility and respect for all beings' right to fulfill their potentials. For Gandhi, it follows that, "[humankind's] triumph will consist in substituting the struggle for existence by the struggle for mutual service" (Gandhi 1935, CW 61, p. 212). He also argues that "true humility requires us to dedicate ourselves to the service of all living creatures" (Gandhi 1930, CW 44, p. 206).

The idea of humility runs through Gandhi's work, and he argues that human beings should remain "humble actors" that play their part in the functioning of nature. Every being in this world, Gandhi noted, is relatively small in comparison with the universe. Thus, human beings should not imagine themselves to be greater than any other species. Human beings may possess different traits and capabilities but this does not grant them any supreme power or privileged position in relation to other beings. This idea of humbleness incorporates the idea of treating other beings and nature as a whole with respect and not dominating them.

In this context, Bhikhu Parekh makes a case for Gandhi as leaning toward the ecocentric end of the continuum. He states:

As man for him was not the centre of the universe, Gandhi did not divide it into the human and non-human world of man and 'nature,' indeed, such a classification struck him as arrogant and blasphemous. Since, further, man did not occupy a supremely privileged position, Gandhi did not see the need radically to mark him off from the rest of the universe and lay excessive stress on his uniqueness (Parekh 1989, p. 86).

Parekh is only right if the notion of unity is understood, as I have argued, in its broad sense, where indeed, Gandhi did not divide the world into human and non-human realms.

Such divisions between human and non-human beings are absurd in the final analysis because of our close interdependence.

The spirit of service and humility is not necessarily automatic, but must be cultivated. Gandhi recognizes that these impulses are sometimes counteracted by narrow self-interest. Some scholars misunderstand Gandhi as viewing self-interest in itself as morally repulsive and undesirable, but his concept of self-interest is actually broader and more complex. Parekh shows how Gandhi distinguishes self-interest from selfishness.

The former referred to legitimate needs, that is, to those material and other opportunities all [people] needed in order to realize their human potential and to which they were entitled to make legitimate claims; the latter referred to illegitimate greed, that is, to those opportunities that far exceeded the level of legitimate needs, could not be universalized and could only be secured at the expense of others (Parekh 1989, p. 59).

Thus, self-interest can be good or bad, depending on how it contributes to the common good. Genuine self-interest, which Gandhi refers to as "the true interest," involves respecting the legitimate needs of others and cooperating to see that mutual needs are met. He claims that one's true self-interest consists in the good of all. Again, this claim is a basic theme in Gandhi's writings and can be understood broadly, not only as a social principle, but as an ecological principle as well. It can be taken to mean that human beings have moral duties towards each other and the rest of nature.

Narrow, false or injurious self-interest is associated with selfishness. I have already argued in Part One that serving non-vital "wants" is morally wrong, because it often takes away from others' vital needs. Gandhi claims that, "The earth provides 'enough for everybody's needs but not enough for anybody's greeds." (Parekh 1989, p.

59). In this regard, false self-interest is detrimental to other's lives, and it violates the principle of service which upholds the collective interest. Actions that are based on false self-interest negatively affect the well-being of others, and destroy the healthy cooperative unfolding of potentials in nature.

Since human beings are part of nature, we enjoy the contributions of other living beings for our growth, health and well-being. Such benefits and enjoyment from nature, in turn, imply an obligation not to harm other beings and nature as a whole. Thus, human beings must adopt a lifestyle that includes ecological service and does not involve unnecessary harm to other beings (Gandhi 1925, CW 28, p. 3). Such a lifestyle can be achieved by first understanding the principle of interconnectedness and interdependence in nature, and then being as aware as possible of the impacts of our acts on ecosystems.

Gandhi on Self-realization and Identification

The concepts of self-realization and identification are important to the environmental ethics of Arne Naess, whose views I will discuss in the next chapter. I will here outline Gandhi's ideas on self-realization so as to be able to compare him to Naess later on.

Gandhian scholars, Suman Khanna and Bhikhu Parekh, observe two notions of self in Gandhi's thought, although their readings of Gandhi differ somewhat. Khanna distinguishes between the higher, spiritual self and the lower, psychological self. The higher self is closer to the divine, while the lower self is attached to the ego and

selfishness. She states that this lower self is, "unenlightened, claims identity with body, dances in tune with sensual and passionate demands" (Khanna 1985, p. 145). Parekh makes a similar distinction but he reserves the term "atman" for the higher, spiritual Self, and he does not take such a disparaging view of the self. He argues that the atman is a manifestation of "cosmic spirit" (Brahman), whereas the self is historically constituted in individuals (Parekh 1989, p. 92). He states:

For Gandhi neither the *atman*, nor the body, but the self was the basis of individuality... The self, a unique historical product of the individual's own efforts and choices and linking the past, present and future in a single temporal continuum, was the basis of his individuality and personal identity. While man *qua* man was constituted by the *atman*, a man was constituted and defined by his self (Parekh 1989, p. 92).

While the *atman*, which Gandhi sometimes refers to as the "Self" (with a capital S), represents God or the ultimate reality or oneness, Parekh points out that the notion of the self as individual is the basis for Gandhi's epistemological, moral and social pluralism and his emphasis on freedom (Parekh 1989, p. 94). Since I am here interested in a secular theory of nonviolence I will pay more attention to the notion of the self rather than to that of the *atman* or Self.

The content of the self, in Gandhian thought, is formed through historical experience. As I discussed in Part One, the notion of relative truth is essential to human development, and thus to the way in which humans attain their goals. Everyone strives for his or her understanding of truth, and lives accordingly. Such a struggle for truth, Parekh argues, ensures freedom, individuality and self-development. According to Gandhi, relative truth is not static, but is in a state of flux. Everyone struggles to find the

truth that is relevant to his or her search, and such truth changes as new developments and insights into truth are found. Thus, the search for truth demands love (openness) and non-attachment (objectivity). This constant search for truth allows the self to mature as it gains understanding and clarity. Although this process of finding truth guarantees individual freedom and individuality, Gandhi sees it as a collective and cooperative effort, since truth searching invites open dialogue and unbiased understanding of others. Thus, relative truth in Gandhian thought is not merely restricted to individual striving but extends to the collective striving of a community. In this way, the development and growth of the self is inseparably dependent on others. Thus, cooperation is fundamental to the Gandhian search for truth and contributes to self-development.

Besides the epistemological and social nature of the self, Gandhi also views the self as having moral content. He argues that *dharma* is a quality of the soul, and through *dharma* we can achieve self-understanding (Gandhi 1926, CW 32, p. 11). Explaining the relation between morality and truth, Iyer states: "As truth is the substance of morality, man is a moral agent only to the extent that he embodies and seeks truth" (Iyer 1973, p. 157). The moral content of the self derives from the human ability to strive for truth. Moral rules and conduct should be based on the daily experience and rational truth-seeking efforts of humankind as opposed to taboos and irrationality. From this line of thought, Gandhi challenges many traditional Indian *dharmas*. An ethical law or code of conduct, he argues, cannot be grounded in untruth. It follows that moral conduct is inseparable from one's understanding and application of truth. In this regard, it is also the case that truth is not merely an epistemological concept but also a moral concept

(Bondurant 1988, pp. 108-111). Gandhi states: "A seeker of truth will say, 'I will be what I ought to be'... All our philosophy is vain, if it does not enable us to rejoice in the company of fellow-beings and their service" (Gandhi 1932, CW 50, p. 364). Thus, the makeup of the human self is inseparable from the collective struggle for both truth and moral conduct.

In this light I would argue that dichotomous notions of the self, such as those presented by Khanna and Parekh (higher versus lower; self versus atman), are not sufficient for understanding Gandhi's ideas about self-development. I propose that we need a third, intermediate notion of the "enlarged self" to better understand Gandhian thought. As I noted earlier, the human self has the potential to evolve from one end of a spectrum where it is the lower, imperfect self, to the other end, where it is the perfect, higher self which has a quality of the divine. The "enlarged self" describes an individual who has brought him- or herself closer to the higher experience of self. The enlarged self has achieved an increased awareness and realization of its connection with others, and has expanded its role and contribution to the well-being of all. This achievement is not really a form of religious self-realization which, according to Gandhi, can only be attained by a few people. It amounts to having gained an understanding of the need to treat other entities with love and respect. With greater self-realization, the enlarged self is increasingly open to truth, including what I would refer to as "ecological truths." The enlarged self identifies with and embraces all beings and nature as a whole. This self is not attached to narrow, false or injurious self-interest that undermines the vital needs of others. It understands the interconnectedness and interdependence of all entities in

nature, and realizes that its own being is interwoven with that of all other entities. Moral concern towards others follows from this realization of interconnectedness and interdependence. Gandhi states: "As the individual, so the Universe" (Gandhi 1927, CW 35, p. 183). Self-realized human beings recognize themselves as inseparable from nature. Moral action emerges from such an enlarged self-awareness. False self-interest is not only an obstacle to self-realization but is also the root of anthropocentrism.

A Gandhian Theory of Nonviolence and Ecology

Gandhi's cosmology emphasizes unity in diversity (Gandhi 1940, CW 71, p. 323-324). As we saw in the earlier section, ideas like *rta*, unity, interconnectedness, interdependence, service, sacrifice, cooperation, truth, and self-realization are intimately related in Gandhian thought and contribute to an emergent environmental ethic. That is, all these concepts contribute to an argument for human moral responsibility towards nature as a whole.

An individual is interconnected with and interdependent on the other members of its own species, as is an individual species on the other species of the ecosystem, and an individual ecosystem on the whole ecosphere. The health of the ecosphere, therefore, is inseparable from the health of an ecosystem, a species or an individual. Every organism strives to realize its maximum potential, or in Gandhi's terms, to experience its *swadeshi*. The healthy development of an individual organism both depends on and contributes to the health of the ecosystem in which it grows. The cyclical and interwoven processes of

growth and decomposition provide the conditions in which all beings can realize their potentials simultaneously. The continuity of reciprocal interaction or, in Gandhian terms, service, within ecosystems contributes to the well-being of each individual, as well as to the well-being of the ecosystem as a whole, giving it stability and harmony. Such activity also ensures the survival of future generations.

Human impacts may be beneficial to other organisms and give stability to nature, or they may be detrimental and produce immediate harm to nature. Unwarranted interruptions of nature's processes which cause large scale pain, suffering or violent death to other organisms undermine the stability of nature as a whole and also have the larger implication of doing harm to future generations. Inflicting unnecessary harm on others may have many unknown and unintended impacts that extend beyond the direct harm inflicted on the object of violence. Violence often indirectly harms many other organisms who are connected to and dependent on the organisms who were directly harmed. Harmful impacts, like chain reactions, may ultimately affect entire ecosystems. Such harmful actions, whether they affect a single organism or an ecosystem, are acts of unnecessary violence which are categorically wrong, as I explained in Chapter 4, whether they are intentional or not. For example, studies show that divers who watch marine life for pleasure often disturb and damage sea coral colonies. In this case, the pleasure diving is a direct and serious harm that undermines the coral's growth and life. When sea coral is harmed, harm is also done to the many other species which are dependent on the coral colony. The unintentional secondary violence still counts as negligence. One conclusion I would now draw is that the genuine self-interest of any particular individual is the

interest of all. This proposition is the working out of Gandhi's position that, "One's true self-interest consists in the good of all."

The discussion above does not mean I assume that there is no violence in nature. Of course I recognize, as does Gandhi, that violence is part of nature's processes.

Volcanic eruptions, earthquakes, hurricanes, lightning storms, floods, droughts and meteor showers are examples of natural events which sometimes cause great harm. Such events, however, are rarely catastrophic, and it is usually well within the capacity of ecosystems to adjust to their impacts. Even when such events do have far-reaching impacts and disrupt entire ecosystems, it is never appropriate to assess them in moral terms. This is because moral arguments are only applicable to moral actors who have consciousness, intentionality and knowledge of right and wrong. Obviously human beings are the only moral beings. It follows that violence occurring in nature is not relevant to the moral arguments I am making.

My concern is with forms of unnecessary violence that are committed by human beings against each other and against nature that have long-term consequences and serious moral implications. Such violent acts are detrimental to humankind, as well as nature. They are most often committed for the sake of levels of consumption in excess of needsor for conquest and war, and they often place an enormous strain on ecosystems, to the extent that they sometimes cause permanent damage. Human beings do have moral choice and control over actions which interfere with or disrupt nature's processes, but they often act in ways that are detrimental to nature. As Gandhi states: "It is violence to cause suffering to others out of our selfishness or just for the sake of doing so" (Gandhi

1924, CW 24, p. 377). Human beings should aim to do as little harm as possible to their fellow humans, other living beings and nature as a whole.

For Gandhi, there are two major contexts in which systematic violence by human beings directly harms nature: industrialism and militarism. The first type of systematic violence occurs in times of peace through destructive development which alters, manipulates and exploits nature and other beings. Gandhi's vigorous criticism of industrialization provides a basis for arguments against ecological destruction. Gandhi categorically objected to large-scale, mechanized industrialization because it compels human beings to dominate and exploit the earth for their own purposes without considering the possible repercussions. He argues that mass industrialization inevitably violates moral standards (Gandhi 1916, CW 13, pp. 310-317).

A Gandhian ecological view sees nature as a system which works unceasingly for the welfare of all beings. Human beings violate natural systems by altering and controlling nature with machines. Nature has adequate resources for meeting basic human needs. Taking more than is necessary for meeting basic needs is a form of theft because it eliminates those resources necessary for meeting the basic needs of other beings either now or in the future.

If I take anything that I do not need for my own immediate use, and keep it, I thieve it from somebody else [including non-human beings]. I venture to suggest that it is the fundamental law of Nature, without exception, that Nature produces enough for our wants from day to day, and if only everybody took enough for himself and nothing more, there would be no pauperism in this world, there would be no man dying of starvation in this world. But so long as we have got this inequality, so long we are thieving (Gandhi 1916, CW 13, p. 230-231).

Highly mechanized mass industrialization takes from nature more than humans need and, thus, it harms other beings. Gandhi sees industrialization as the result of the unlimited exercise of false self-interest. Industrialization and the mass production of goods is unlikely to satisfy human wants because wants tend to increase in accordance with the capacity to produce ever more products on a large scale. Further, as production increases on a large scale in every country, over-production often results, which can lead to ecological destruction and the destruction of surplus products (as the Americans did with grain surpluses in the late forties and fifties). Gandhi views material-based, large-scale industrial, hierarchical society and the domination and exploitation of nature for social aggrandizement as mutually reinforcing. This vicious cycle can only be prevented through a return to a non-materialistic, simple life. As an alternative to industrialization, Gandhi proposes local industry based on the decentralized model of village life where people live close to nature. This model was promoted in detail in his social philosophy called "Sarvodaya" (literally: welfare of all).

The second context in which massive destruction of nature occurs systematically is the war system. Although Gandhi explicitly and persistently objected to the institution of war from a moral point of view and from the perspective of human concerns, his objection to the institution of war from an environmental point of view is only implicit. Gandhi was very concerned about the horror of events of war, but he was not aware of the damage and waste caused by war industries during peace time. In other words, he was not in a position to analyse the violence done by the military institution as a whole. I will now try to fill out this gap in Gandhian thought. The violence of the institution of war

happens both in times of peace, when a country is preparing for war, and in the actual time of war, when conventional weapons and weapons of mass destruction directly cause harm to all beings in their path and indirectly cause harm by altering ecosystems and sometimes making them unsuitable for life. Both types of human violence are destructive to nature, as I will demonstrate in Part 3. The line of argument developed here is meant to extend Gandhi's theory of nonviolence further into the area of ecology.

Human choice, for Gandhi, allows for moral reasoning. The human capacity to act nonviolently is the result of this ability to exercise moral reasoning and search for truth. Moral reasoning evolves through growth from a narrower to a broader self-understanding about one's place in nature. Nonviolence, from a Gandhian point of view, means not intentionally inflicting harm on other beings or altering the course of nature. "A man who believes in *ahimsa* carefully refrains from every act that leads to injury" (Gandhi 1925, CW 28, p. 4). Elsewhere Gandhi comments: "Nature works unceasingly according to her Laws, but man violates them constantly" (Gandhi 1910, CW 10, p. 148). Since an act of nonviolence involves no injury to others and respects the "laws of nature," it does not interrupt the balance and health of ecosystems. Nonviolent action is not destructive and it tends to be constructive. For this reason, Gandhi proposes nonviolence as an ethical principle guiding our relationship to nature.

My study and experience of non-violence have proved to me that it is the greatest force in the world... It [nonviolence] is the one constructive process of Nature in the midst of the incessant destruction going on about us (Gandhi 1924, CW 25, p. 322).

Gandhi's ethic of nonviolence belongs to the category of human-exceptionalist weak anthropocentrism. From this point of view, he makes a distinction between the "Law of the Jungle" (inferior nature) and the "Law of Humanity" (exceptional humans). Nonviolence, he argues, is the law of the human species whereas violence is the law of the brutes (Gandhi 1920, CW 18, p. 133). Such a distinction implies a hierarchy which places humans above non-human beings. Gandhi argues, however, that human superiority does not confer on humans power or a privileged position over non-human beings. Since human beings have the potential of reasoning and being moral, they are unique in having the power of choosing between violence and nonviolence. Because of their moral capacity, they ought to act responsibly. He states:

I too have seen many a lizard going after cockroaches and have watched cockroaches going for lesser forms but I have not felt called upon to prevent the operation of the law of the larger living on the smaller. I do not claim to penetrate into the awful mystery but from watching these very operations, I learned the law of the beast is not the law of man... Man must, therefore, cease to take part in the destruction and refuse to prey upon his weaker fellow creatures (Gandhi 1926, CW 30, p. 262).

Gandhi recognizes that humankind has many exceptional capacities in comparison with other beings, and being moral is among humanity's highest potentialities. "The right thing is for everyone to live according to his or her nature" (Gandhi 1929, CW 40, p. 255). Human superiority comes from the cultivation of a nonviolent attitude and patterns of action rather than an attitude of conquest and a pattern of militant action. He states: "That which distinguishes man from all other animals is his capacity to be non-violent" (Gandhi 1926, CW 31, p. 141). It is for this reason that human superiority is not the traditional concept of strong anthropocentrism implying

human dominance. Rather, weak anthropocentrism is a consistent feature of Gandhian environmental ethics.

Nonviolence is motivated by moral sensitivity to the pain which we are capable of causing in others (Gandhi 1928, CW 37, p. 393). This moral sensitivity derives from the enlarged self's potential for experiencing and understanding the fullness of its relationship to others.

The use of force is soul-destroying and it affects not only the person who uses it but also his descendants and the environment as whole. We should examine the total effect of the use of force, and over a long period of time (Gandhi 1924, CW 24, p. 380).

Since human beings have the capability of foreseeing the potentially destructive consequences of their acts, they have a moral obligation to avoid doing harm to others.

Gandhi also makes a parallel argument that our lack of knowledge of the consequences of our violent acts provides another reason why we ought to act nonviolently.

We have no right to destroy life that we cannot create....We do not know what part the many so-called noxious creatures play in the economy of nature. We shall never know the laws of nature by destruction (Gandhi 1927, CW 34, p. 131).

Human beings do not have complete knowledge of nature. Any unnecessary violence towards non-human beings and their ecosystems is wrong because such acts may cause harm on different levels which we cannot foresee. Thus, we have a moral obligation to act nonviolently towards other non-human beings and nature as a whole. Such an obligation cannot be performed if human beings act selfishly, motivated by the narrow ego-self. Nonviolence allows its practitioners to cultivate a larger self so they can more

fully understand their interconnectedness and interdependence with other humans, nonhuman beings and nature. Furthermore, Gandhi argues, nonviolence reinforces unity in nature.

He [humankind] must merge himself into the whole, which includes snakes, scorpions, tigers, wolves, etc. There are instances on record of innocent men whose innocence even wild beasts have recognized. We must all strive to reach that stage (Gandhi 1925, CW 28, p. 3).

Reaching such a "stage" is achieving self-realization. At this stage, the enlarged, mature self identifies with others, understands and accommodates the well-being of all. Gandhi persistently argues that human beings have the capacity to develop such an enlarged self. This notion of self-realization makes Gandhi's attitudes toward nature akin to the deep ecological tradition, as I will show next. An enlarged self realizes that unnecessarily killing other beings for its narrow interest is immoral. "To kill any living being or thing save for his or its own interest is himsa, however noble the motive may otherwise be" (Gandhi 1928, CW 37, p. 362). Moral acts include protecting other beings from harm. Thus, the progression of moral conduct is realized through the expansion of the self from the narrow self into the enlarged self. This process accompanies the practise of nonviolence.

In conclusion, the theory of nonviolence I am developing is based on the notion of the interconnectedness and interdependence of all life. Its argument against violence is as follows: Every organism struggles for health and growth and strives to realize its maximum potential. Maximum potential is realized through and enables service to nature by individual organisms. This ecosystem service is an end in itself and contributes to the

health of nature as a whole, including future generations. Violence destabilizes the growth of the individual organism and causes harm in the short or long-run. In other words, any unwarranted act of violence disrupts the struggle for health and for maximal realization of potential, undermining the well-being of the individual organism. Since everything is connected to everything else and nature's processes rely on cooperation, harming one entity may have an unknowable effect on many others. This may cause a harmful chain reaction in nature. Thus, unnecessary violence against any organism or ecosystem is categorically wrong.

The alternative to violence is nonviolence. It is not only consistent with the health of nature as a whole, but also preserves the integrity and the balance of nature.

Nonviolence allows all beings to realize their maximum potential, to live and grow, because it does not interrupt natural processes, nor does it overlook the interconnectedness of nature.

Chapter 8

The Environmental Ethics of Aldo Leopold and Arne Naess

The aim of Part Two has been to extend the secular Gandhian theory of nonviolence developed in Part One so that it incorporates ideas about the relationship of human beings to nature. This chapter brings together important aspects of Gandhi's theory of nonviolence and his environmental thought on the one hand, and the ideas of Aldo Leopold and Arne Naess, on the other. Its purpose is carefully to lay out Leopold's and Naess' ecology and identify parallels with Gandhi's theory to develop a set of principles unifying ecology and nonviolence. I have chosen to complement Gandhian nonviolence with the ideas of these two scholars because their works are considered foundational to Western environmental thought. Leopold is well-known as one of the first environmental thinkers to base his arguments on the idea that nature as a whole has intrinsic value. Naess founded a tradition known as "deep ecology," which is sometimes called "transpersonal ecology" because its core idea is that individual human identity should extend beyond the personal to embrace all of nature.

I chose Leopold and Naess also because of the ideas they hold in common with Gandhi, particularly ideas relating to the interdependence of all beings and the interconnectedness of everything in nature. There is an even greater commonalty

between Naess and Gandhi in terms of core concepts like identification and self-realization. I differ from Naess, however, in that I argue in this chapter for a re-definition of his concept of self-realization on a more public level, just as I re-defined many of Gandhi's concepts to make them secular. Naess acknowledges Gandhi's influence on his thinking. His nonviolent activism against the Nazis in Norway was inspired by Gandhi, and he has written books about Gandhian thought (Naess 1965; Naess 1974).

By drawing from the philosophical tradition of Gandhi, Leopold and Naess I aim to build a bridge between Eastern and Western environmental thought. I have discussed how Gandhi's arguments against war and in support of nonviolence come from the "human ethical" or anthropocentric point of view common in his day even though Gandhi had an unusual degree of concern for nature. The anthropocentric perspective is common to many who have written about nonviolence from the Gandhian perspective. Even Naess' books on Gandhian nonviolence deal with nonviolence in relation to human conflict. In later works on ecology, he also refers to the idea of nonviolence as a way of life. In these later works on ecology, however, he does not focus on integrating nonviolence and ecological theory. Although he advocates nonviolence in the human relationship to nature as a norm, he does not explicitly make an argument for nonviolence. Nor does he, or other deep ecologists, relate ecological theory to the problem of the impact of war on ecosystems. One contribution of my work will be to bring together Gandhian nonviolence and Western ecology and integrate them in a set of principles in order to provide a moral argument for nonviolence and against the institution of war.

Before turning to Leopold's ideas, I will first briefly describe where Leopold and Naess stand on an important issue in environmental ethics: the intrinsic value of nature, and I will also explain my own position. Leopold's and Naess' works are two examples of intrinsic value theories. There are several such theories in ecology, and they tend to differ widely in their definitions of and criteria for intrinsic value, and consequently, in the types of beings or entities which they consider to have intrinsic value. Warwick Fox identifies four types of intrinsic value theories and describes the sets of properties which confer intrinsic value according to each. (1) The first set of theories Fox refers to as "ethical sentientism or awareness-based ethics." These theories attribute intrinsic value to certain beings by virtue of their,

"special relationship with God, the possession of soul, rationality, free will, the capacity for symbolic communication, the capacity to enter into arrangements involving reciprocal duties and obligations, and the capacity to anticipate and symbolically represent the future and thereby to have knowledge of [their] own morality" (p. 163), the "capacity for sense perception, interests" (p. 163), "beliefs and desires, memory,... sense of the future, including their own future,... emotional life,... [and] psychophysical identity over time" (p. 165).

(2) The second position, "biological ethics, autopoietic ethics or life-based ethics" attributes intrinsic value to beings by virtue of their "being alive, striving to produce and sustain their own organizational activity and structure" (pp. 168-9). (3) "Ecosystem ethics and ecosphere ethics," of which Leopold's work is the leading example, attribute intrinsic value to entire ecosystems or the ecosphere by virtue of "the organismic nature of ecosystems and the ecosphere as a whole... that exhibits self-sustaining organization and integration in the face of pressures toward high entropy" (pp. 176-7), and their self-

regulating and self-regenerating capacities. (4) Finally, "cosmic purpose ethics" attribute intrinsic value to nature by virtue of God's purposes and cosmic interests (Fox 1995, p. 179).

I will mention Naess' position on intrinsic value here as a fifth type. His use of the concept is intentionally informal and so his theory does not neatly fit into the scheme above. He "intuitively" attributes intrinsic value to all living beings, but sometimes he also refers to the intrinsic value of larger entities such as forests or meadows. He uses "intrinsic value" in an everyday sense to make the point that humans should not use nature only as a means to our own purposes. Rather we should regard entities in nature "like friends" and treat them as such (Rothenberg 1989, p. 11). This reasoning will become clearer when we come to my exposition of Naess' ideas in the next section.

According to the first four theories, beings or entities have intrinsic value only if (and because) they possess the specified properties. The first position on intrinsic value is anthropocentric in that it tends to apply only to humans, and maybe a few of the higher primates and other intelligent species. The fourth position makes a religious argument which I do not employ here for reasons provided in Part One. The second type of theory extends intrinsic value to all living beings, and the third broadens the criteria so that ecosystems and the ecosphere are also accorded intrinsic value. My thesis advances the third position, ecosystem ethics, which encompasses the second, autopoietic, set of arguments.

For the purposes of this study, I take as axiomatic that in nature all living beings have equal intrinsic value (as well as a vast range of ecological-instrumental values).

Ecosystems and the ecosphere are not living beings in a strict sense, but they have many of the same properties for which intrinsic value is attributed to living beings; that is, they are self-regulating, self-organizing, self-regenerating and self-sustaining. Some human-built machines with feedback mechanisms also have the property of self-regulation, but these are not capable of repairing damage or reconfiguring themselves to adapt to external change, and so do not fit into the same intrinsic value category. Only living beings, ecosystems and the ecosphere can maintain stability and balance, heal or repair themselves and reproduce themselves over time, and for these reasons I see them as intrinsically valuable.

The position of ecosystem ethics has important implications for a nonviolence theory that aims to pose strong moral objections to war. The war system operates by anthropocentric instrumental logic towards nature, and in times of war, it tends to see nature and non-human lives as either irrelevant to its instrumental calculus, or strictly of military-instrumental value. For example, weapons of war do not differentiate human and human-built targets from the surrounding natural environment, and they often use the natural environment to attack these targets. The more humans come to value nature for its own sake, the less justification we will have to destroy it in war. Moral arguments against the institution of war can be made more effective, therefore, by acknowledging the intrinsic value of living beings and their ecosystems.

Aldo Leopold's Land Ethic

Leopold's most influential ideas were presented in his classic article, "The Land Ethic" in A Sand County Almanac (1966). This article proposes that human beings return to a view of themselves as members of large, inclusive biotic communities. Such a perspective was lost, Leopold argues, when human beings came to regard themselves as a species that is uniquely separate from nature. The "land ethic" calls on humans beings to respect all members of their biotic communities, as they would fellow members of human communities on the premise that such communities and their members have intrinsic value (Leopold 1966, p. 220). He states: "The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively, the land" (Leopold 1966, p. 219). "The land" is conceived of as an interdependent community comprised of all biotic and abiotic entities. This land ethic has a parallel in Gandhi's argument that: "He [humankind] must merge himself into the whole" (Gandhi 1925, CW 28, p. 223).

On what basis can "the land" be said to constitute a community? The bonds of community arise from interdependence and co-operation among members. For Leopold, the conditions that produce communal relationships among humans also can be observed in the symbiotic relationships in nature. Through symbiosis, the biotic community is able to reproduce itself through the food chain. All beings and things are so interdependent in nature, they form an integrated whole such that the disappearance of one biotic species or

abiotic entity would threaten the existence of others and, perhaps, the entire biotic community.

The notions of interdependence and co-operation in Gandhi and Leopold are similar. As I have noted Gandhi based his notion of an interdependent cosmos on his empirical observations, while Leopold based the notion of interdependence on his understanding of evolution and how land pyramids work. Both agree that the interdependence of all beings is based on mutual needs, from food to habitat and other means of survival, and that all living beings, from the smallest organisms in the soil to the largest mammals, are interdependent on various biotic levels in seeking to fulfill their biological or evolutionary potential.

Leopold notes two different drives found among animals: individualistic and community instincts. He understands instincts generally as "modes of guidance" for individuals confronting new situations in which they could not otherwise, as individuals, discern the best course of action for their own or their species' survival (Leopold 1966, p. 219). Community instincts evolve among interdependent groups and individuals which require mechanisms for cooperation. For rational human beings, ethics are the equivalent of instincts, and as humans become more alert to their interdependent relationship with the "land," appropriate cooperative ethics will emerge. Such ethics, Leopold writes, "are possibly a kind of community instinct in the making" (Leopold 1966, p. 219). There is a clear parallel between Leopold's idea of individualistic and community instincts and the Gandhian concepts of narrow and genuine self-interest. An individual guided by individualistic instincts seeks competitively to satisfy his or her narrow self-interest.

Community instincts, on the other hand, prompt cooperative behaviour in the larger interest of all members of the interdependent community.

Leopold's "land pyramid" model portrays the interrelationship between things and beings, and highlights how the lives of each affects the life and health of all. The land pyramid consists of layers. At the bottom is a layer of soil. Each subsequent layer represents a set of species grouped according to what they eat. "A plant layer rests on the soil, and an insect layer on the plants, a bird and rodent layer on the insects, and so on up through various animal groups to the apex layer, which consists of the larger carnivores" (Leopold 1966, p. 230). Ascending the pyramid the number of species in each layer decreases. The layers are connected through a complex array of food chains. In the course of evolution the height of the pyramid and length of the food chains increases. Complexity also increases with the height of the pyramid and species at the top are dependent on hundreds of species in each layer below.

The pyramid model does not portray the land as merely a resource or storehouse of goods. Rather, the land is conceived as "a fountain of energy flowing through a circuit of soil, plants and animals" (Leopold 1966, p. 231). The land pyramid is a model of interdependence from which Leopold draws his ethic of co-operation. Co-operation on the part of human beings is a social, political and moral action that requires an awareness of the interdependent relationships one has with others, and a willingness to limit one's pursuit of individual interests.

The land ethic emerges from an examination of the evolutionary process and from the "ecological necessity" to limit human violence to the land (Leopold 1966, p. 218).

The argument that Leopold's land ethic is an ecological necessity arises from three ideas:

- (1) That land is not merely soil.
- (2) That the native plants and animals kept the energy circuit open; others may or may not.
- (3) That man-made changes are of a different order than evolutionary changes, and have effects more comprehensive than is intended or foreseen (Leopold 1966, p. 234).

Leopold argues that the land has the capacity to adjust to changes that take place within an evolutionary time scale. Changes that occur through cooperative or symbiotic mechanisms do not obstruct or divert the flow of energy within the land pyramid, which is not to say the composition of the land pyramid remains the same; species appear and disappear over an evolutionary time frame. Rapid changes brought about by human beings' use of tools, however, are destabilizing and potentially devastating, and that is the main concern of Leopold's theory.

Some argue that Leopold's holistic approach places too great an emphasis on the biotic community, and, as a result the individual interest is undermined. Tom Regan, for example, criticizes Leopold's "ethical holism" by arguing that concern for the well-being of the whole above the well-being of the individual will ultimately lead to sacrifice of individuals for the sake of the whole. In his view, this amounts to "environmental fascism."

¹ For discussions of these debates see Joseph R. Des Jardins (1993, pp. 195-208) and John N. Moline (1986).

² Cited by Warwick Fox (1995, pp. 177-178). Also cited by Mary Anne Warren (1989, p. 60).

While it is true that Leopold insists upon the integrity, stability and beauty of the biotic community and presents it as the highest moral value, this does not mean that he denies the moral significance of the individual. Warwick Fox and Robyn Eckersley suggest that charges such as Regan's show a basic misunderstanding of Leopold's intent (Eckersley 1992; Fox 1995). They argue that Leopold was trying to establish that the biotic community (or ecosystem or ecosphere, i.e., the whole) can be said to have an intrinsic interest in its own self-renewal, which they term an "autopoietic interest." It is on the basis of the biotic community's capacity for self-regeneration that Leopold argues it has intrinsic value. It follows, therefore, that all things which have autopoietic interests, including individual beings, also have intrinsic value and are also worthy of moral consideration.

Furthermore, concerning the problem of the individual's relationship to the whole, Leopold views all things as interconnected. He considers the health of the individual organism as dependent on the health of the land, and the health of the land cannot be sustained without the contribution of all members of the "biotic community." An emphasis on the interests of the whole is, therefore, not incompatible with a concern for individual interests. Leopold considers self-interested motivations as essential for the survival and functioning of all beings. But, he also argues that, while every individual instinctively competes for his or her place in the community, there is also a "community instinct" which allows for cooperation and sets up an overarching framework in which orderly competition can take place (Leopold 1966, pp. 218-219). This "community instinct" is just as important as individual instincts because the cooperative mechanisms

that spring from it also help guarantee the individual's survival. Gandhi and Leopold share the general position, that the protection of the individual interest is based on the protection of the interest of all.

Leopold does not deny that there is tension between individual and community interests, but he argues that this tension is necessary and mutually beneficial. The land must place limits on how far otherwise free individual organisms can impact on the whole in the pursuit of their own interests. He states:

An ethic, ecologically, is a limitation on freedom of action in the struggle for existence. An ethic, philosophically, is a differentiation of social from anti-social conduct. These are two definitions of one thing (Leopold 1966, p. 217-218).³

Fox also defends the land ethic by reiterating the need for limits on individual behaviour:

The practical upshot of ecosystem ethics and ecosphere ethics is not that considerations regarding the good of the ecosystem or the ecosphere should rigidly dictate the lives of individual biological organisms but only that these considerations should set certain limits on the otherwise diverse behavior of such organisms. In other words, individual biological organisms should be free to follow their diverse individual and evolutionary paths to the extent that this does not involve seriously damaging the autopoietic (i.e., self-regenerating) functioning of their ecosystem or the ecosphere (Fox 1995, pp. 178-179).

As members of the biotic community, human beings too are linked to the land in an intimate connection of interdependence. Because humans have an underdeveloped community instinct, they must develop an ethic of restraint towards the biotic community and agree not always to act on their narrow individualistic interests, just as their human

³ J. Baird Callicot sees this as Leopold's central point (Callicot 1989, p. 64).

ethics dictate restraint and cooperation with respect to their behaviour in human communities.

Gandhian thought is generally in accord with Leopold's ethics of restraint, particularly Gandhi's ideas about the simple life. Restraint can be seen as a negative expression of *ahimsa*, where the simple life is its positive analogue. When it comes to human communities, Gandhi suggests that the simple life is a must, both for individual well-being and for the health of the whole community. This argument could be extended to the biotic community as well. He states:

I do not for a moment suggest that there should be no restriction about food and drink or about marital relations. I do not myself regard it a duty to eat whatever is offered... Strict restraint is the law of life and must, therefore, govern these relations no less than others (Gandhi 1934, CW 59, p. 65).

Gandhi promotes restraint based on the idea that we should act out of consideration for others. Since all beings are in interdependent relationships, and since resources are limited, restraint on excessive consumption is absolutely necessary for the survival and health of all. In this regard, Gandhian thought supports Leopold's land ethic.

To summarize, the land ethic extends the idea of community from human beings to other species and abiotic entities. The justification for this extended use of the term "community" is that everything is connected through biotic interactions, since actions from one part of the land pyramid have an impact on the other parts (Leopold 1966, p. 220). The idea of cooperation in Leopold's pyramid community, like the idea of mutual service in Gandhian thought, are moral necessities as they promote the well-being of all.

Leopold's Concept of Violence Towards the Land

Leopold discusses violence towards the land, but he gives no formal definition of violence. I see an implicit notion of violence, however, in the idea of ecological interruption. Leopold's discussion treats major human alterations of the land pyramid's chains of interdependence as violence. A definition of violence in an ecological context consistent with Leopold, then, would be a dramatic obstruction in the flow of energy through the circuits of the land pyramid.

When a change occurs in one part of the circuit, many other parts must adjust themselves to it. Change does not necessarily obstruct or divert the flow of energy; evolution is a long series of self-induced changes, the net result of which has been to elaborate the flow mechanism and to lengthen the circuit. Evolutionary changes, however, are usually slow and local. Man's invention of tools has enabled him to make changes of unprecedented violence, rapidity, and scope (Leopold 1966, p. 232).]

Evolutionary changes ultimately lead to greater complexity, diversity, and interdependence, which enhances the stability of the biotic community. Short-sighted human changes, on the other hand, often reverse these processes.

The process of altering the pyramid for human occupation releases stored energy, and this often gives rise, during the pioneering period, to a deceptive exuberance of plant and animal life, both wild and tame. These releases of biotic capital tend to becloud or postpone the penalties of violence (Leopold 1966, p. 233).

Interventions that initially benefit humans turn out to cause harm in the long run because such changes undermine the stability of the biotic community and its capacity to adjust to

change in the future. As I have already noted, Gandhi similarly argues that short term violence may have long run consequences.

I would point to mega-projects, such as damming up waterways for hydroelectrical power, as examples of massive harm caused by large-scale human manipulation
of nature. The Aswan dam project in Egypt turned into an environmental and economic
disaster when soil from the river bed of the Nile filled the dam and prevented water from
flowing through the turbines. Other large dam projects, such as the Narmatha dam in
India and the James Bay II project in northern Quebec have had to be halted in midconstruction as a result of local and international pressures related to the potential damage
to "biotic communities," which include human communities. Drastic ecological
disturbances, and human and animal dislocation on a massive scale was experienced
during the construction of the Victoria dam in Sri Lanka, and is predicted when the Three
Gorges dam is built in China.

The vast and rapid changes brought about by projects such as building dams may harm the "land" in two ways. First, the living space of many individual organisms may be polluted or taken over by huge water reserves or concrete structures. Second, the surviving organisms may not have enough time to adapt to the drastically altered conditions of soil, water, food sources, and so on, on which they depend. Leopold states: "Waters, like soil, are part of the energy circuit. Industry, by polluting waters or obstructing them with dams, may exclude the plants and animals necessary to keep energy in circulation (Leopold 1966, p. 233)." Where there is extensive change, entire species may become extinct, resulting in damage to a vast interacting chain of life. Third,

such massive interventions can easily lead to even more drastic changes, as I will discuss in Part Three when I describe the effects on biotic communities when destruction of dams is used as a military strategy. Any such rapid manipulation of nature counts as violence in my interpretation of Leopold.

Leopold maintains that the knowledge which enabled the creation of tools and science also created cleavages in the human relationship to the land. Violence became crystallized in three types of cleavages which he defines as: "Man the conqueror versus man the biotic citizen; science the sharpener of his sword versus science the searchlight on his universe; land the slave and servant versus land the collective organism" (Leopold 1966, p. 238).

Violence tends to occur when human beings act solely on the basis of economic self-interest and are neglectful of the natural processes of change and the interdependence of all living and non-living things. Being master of tools, *homo sapiens* has gained more and more power over land, emerging as a conqueror of the biotic community rather than a "plain member" of it (Leopold 1966, p. 220). This conqueror attitude has led to the exploitation of the land, since it denies any obligation to maintaining the stability, integrity and beauty of the land for its own sake, apart from other instrumental values the land has for humans. The current human attitude towards the rest of nature expresses a master-slave relationship in which the land is merely property, an object to be used and expended at the whim of its owners (Leopold 1966, p. 217).

Treating land as merely property is, however, self-defeating in the long run because when human beings have only an instrumental relationship to the land, they part. Such an attitude underlies an economy that treats the land as having only instrumental and commercial value. The destruction of natural entities that are not commercially valuable is sanctioned, even though every member of the biotic community plays an important role in the process of self-renewal of the land pyramid by supplying food to other members. The Gandhian view sees the unnecessary destruction of any non-human entity, including so-called weeds and pests, as violence, while for Leopold such interventions also cause harm to the entire interdependent biotic community.

The speed of damage of an economy based solely on human self-interest accelerates as human population density increases.

The combined evidence of history and ecology seem [sic] to support one general deduction: the less violent man made changes, the greater the probability of successful readjustment in the pyramid. Violence, in turn, varies with human population density; a dense population requires a more violent conversion (Leopold 1966, p. 235).

Increasing the human population results in exploitation of land on a larger scale as consumption of basic and luxury goods increases. Eventually the impact may exceed the capacity of the land pyramid to convert to a new shape.

All members of the biotic community, and that community as a whole, have moral worth in themselves, beyond the commercial value attributed to them by humans.

Leopold concludes from this that human beings have a moral duty toward the land (Leopold 1966, p. 240). He defines an act as right, "when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise" (Leopold 1966, p. 240). Integrity, stability, and beauty are aspects of an even

larger notion, the health of the land, which is also defined as "the capacity of the land for self-renewal" (Leopold 1966, p. 236). Human beings must take individual moral responsibility for the health of the land, and this duty must be undertaken for the sake of the integrity, stability and beauty of the biotic community itself, rather than for human self-interest or economic goals.

An ethical relationship towards the land must have many dimensions. Leopold states: "We can be ethical only in relation to something we can see, feel, understand, love, or otherwise have faith in" (Leopold 1966, p. 230). Notice that the land ethic is not simply an intellectual stance, but an emotional commitment to support the interconnection and cooperation in the biotic community (Leopold 1966, p. 241)

Leopold's emphasis on emotion is not intended to be in opposition to reason, but to stress the importance of a moral quality of goodwill. If we are to change our current violent attitude to the land, he argues, the change cannot happen through reason alone.

Emotional attachment to the land is an essential element in our decision to accept moral responsibility for the consequences of our actions toward the land. Gandhi put forward a parallel argument that societal change does not happen through reason alone, but depends on heartfelt action. Inner change is also important to Leopold: "No important change in ethics was ever accomplished without an internal change in our intellectual emphasis, loyalties, affection and convictions" (Leopold 1966, p. 225).

⁴ I would add here that Leopold's ideas about the conditions for an ethical relation to "something" are close to Naess' ideas about the importance of identification with nature which I will discuss in the next section of this chapter.

A change in human attitude requires developing an "ecological conscience" towards the land (Leopold 1966, p. 222). An ecological conscience entails, at minimum, convictions about our "individual responsibility for the health of the land" (Leopold 1966, p. 236). But Leopold expects the attitude to extend further.

It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I of course mean something far broader than mere economic value; I mean value in the philosophical sense (Leopold 1966, p. 239).

Thus, in his view, every part of the biotic community has value apart from the instrumental value attributed to it by humans, and this is what I have been referring to as "intrinsic value."

Leopold does not explicitly state that humankind ought to take a nonviolent attitude towards the land. There is, however, an implicit argument here to the effect that the only way to preserve the land is to be nonviolent towards it. Speaking of war, he does not discuss the frightfulness or immorality of it. Instead, he argues that the conqueror mind-set, as it gets expressed in war, is also at work in our attitudes toward the land. He points out that human's view of history is generally centred around their own experiences, particularly events involving power and domination. This anthropocentric emphasis does not accurately reflect the broader scope of history as a record of earth-related, not just human-related events. He argues: "Many historical events, hitherto explained solely in terms of human enterprise, were actually biotic interactions between people and land. The characteristics of the land determined the facts quite as potently as the characteristics of the men who lived on it" (Leopold 1966, p. 220). Rather than think of ourselves as

powerful conquerors, he urges a more modest attitude that acknowledges how the land has shaped our experiences as ordinary members of biotic communities.

Leopold might have gone further to point out that many wars have been fought for land, particularly when land is thought of as "natural resources." He did not, however, discuss the reasons for war in human history or the impact of human war-making on the land. I will take up these themes in Part Three where I examine the direct impact of violent destruction through military activity and the secondary impacts of war on nature. One example of a secondary impact that I will point out here is the introduction of new species, from domesticated animals to exotic plants and even viruses, after the land has been conquered, such as took place after many wars of colonization. These introduced species often do unpredictable harm to native species. Mary Ann Warren, for example, discusses how the introduction of certain foreign mammals into Australia during colonial times has been detrimental to native vegetation (Warren 1989, pp. 59-60). Such secondary impacts of war have far-reaching consequences for the health of biotic communities.

To return to Leopold, his response to this problem would be to argue that human beings must act as "plain members" and as citizens of the land, and not as its conquerors. "Plain members" of the biotic community do not cause unnecessary disruption or damage to the land. Leopold's concept of the plain member of the biotic community and his land ethic can be seen as a model for nonviolence. In the ecological Gandhian framework that I am developing, not interrupting the land pyramid corresponds to negative nonviolence (not harming), while Leopold's argument that there should be an emotional content to our

relationship to the land that includes love, respect and admiration, has a parallel in the idea of positive nonviolence.

To sum up, short-sighted, man-made changes to the land, such as occur in wars or the construction of mega-projects, disrupt ecological processes and undermine the interdependent and cooperative functioning of biotic communities. Such interruption is violence. These actions stem from human beings' "conqueror" relationship with the land. It follows that an ethical alternative would be a nonviolent approach towards the land that includes a positive relationship to it.

Leopold's land ethic is not a well developed nonviolence approach, but it shares much in common with Gandhian nonviolence theory. As I have shown, both place a strong emphasis on ideas about interdependence, community, cooperation and ethical restraint. Leopold's ethic of not doing violence to the integrity, stability and beauty of the land because of its intrinsic value would receive full support from Gandhi's theory of negative nonviolence. Likewise, his call to love the land fully expresses Gandhi's positive nonviolence, while redirecting and enlarging its focus.

Arne Naess' Deep Ecology

Norwegian philosopher, Arne Naess, founded a tradition known as "deep ecology" that takes a more psychological approach to the relationship of human beings to nature. While Leopold's ecosystem ethics focus on the general requirements for maintaining the health and integrity of whole biotic communities, ecosystems or the

ecosphere, Naess is more interested in the ethics and psychology of the individual in relation to these wholes. More specifically, his focus is on how the often environmentally degrading and destructive lifestyles of humans are linked to the nature of the self, the self's relationship to other beings, and to nature.

Though Leopold's and Naess' approaches to ecology clearly differ, both are important to my attempt to apply Gandhian nonviolence to the problem of the ecological impact of the institution of war. Since war is a systemic problem, but is also motivated and sustained by practices linked to individual human psychology, I would argue that critiques of war are most effective which use both individual and systemic levels of analysis. For this reason, I see Leopold's and Naess' work as complementary.

The goal of deep ecology is to transform ecologically destructive lifestyles through a transformation of individual selves. For this reason, deep ecology is sometimes referred to as "transpersonal ecology." As Fox states:

Since [Naess' deep ecological] approach is one that involves the realization of a sense of self that extends beyond (or that is *trans*-) one's egoic, biographical, or personal sense of self, the clearest, most accurate, and most informative term for this sense of deep ecology is, in my view, *transpersonal ecology* (Fox 1995, p. 197).

Transpersonal ecology argues that as human beings we need to change our perceptions and attitudes towards nature, and not see nature as a mere object or commercial resource, but as a dimension of our very selves. When we recognize that we are a part of nature and deeply dependent on it, nature becomes a part of our identity, and we experience a violation of nature as a violation of ourselves.

Naess argues that the required change in our perception and attitude towards nature cannot be achieved through moral law alone. This is because the standard, rule-driven approach includes elements of force, manipulation, demand and sometimes even abuse, which often makes people feel unduly pressured and resistant (Fox 1995, pp. 220-221). In other words, moral "oughts" have a potential to coerce or manipulate people to act in ways in which they would prefer not to act. It is counter-productive to coerce or compel people through moral demands to care for nature. A genuine commitment to nature is one that is consistent with internalized values. Naess does put forward several norms, but he urges readers to interpret these as guiding values rather than as moral rules.

As an alternative to the moral code of "oughts," obligations and duties, Naess proposes that we voluntarily respect, care for and love nature through identification with all beings.⁵ This identification with others is realized through an expansion of the self. Developing this larger sense of self is a process of growing to maturity. Thus, instead of moral injunctions and rules, he prefers to speak of fostering an "inclination" in people to love and care for nature through their identification with it. Although he is generally critical of the Kantian language of moral "oughts," he is attracted to Kant's term "beautiful action" from which he derives his view of "inclination."

Inspired by Kant, one may speak of 'beautiful' and of 'moral' action. Moral actions are motivated by acceptance of a moral law, and manifest themselves clearly when acting against inclination. A person acts beautifully when acting benevolently from inclination. Environment is then not felt to be something strange or hostile which we must unfortunately adapt ourselves to, but something valuable which we are

⁵ This resonates with Leopold's position that "We can only be ethical in relation to something we can see, feel, understand, love or otherwise have faith in" (1966, p. 230).

inclined to treat with joy and respect, and the overwhelming richness of which we are inclined to use to satisfy our vital needs... [T]he most comprehensive and deep maturity of the human personality guarantees beautiful action... It results in acting more consistently from oneself as a whole (Naess 1989, pp. 85-86).

Through inclination we can act and relate to other beings without moral rules. Citing Kant again, Naess expands on the idea that we can act towards others either out of a sense of duty, or inclination. Caring for another being is a type of action and a way of relating that need not be based on duty. It is an example of "beautiful action." He states:

I have somewhat extreme appreciation of what Kant calls beautiful actions (good actions based on inclination), in contrast to dutiful ones. The choice of the formulation 'Self-realization!' is in part motivated by the belief that the maturity of humans can be measured along a scale from selfishness to Selfishness, that is, broadening and deepening the self, rather than measures of dutiful altruism. I see joyful sharing and caring as a natural process (which, I regret, is somewhat retarded in myself) (Naess 1986, p. 29).

The transpersonal Self, which expands beyond the narrow self, is inclined towards benevolent and beautiful acts of caring for the external world voluntarily and does not require any moral code to act. Naess' concept of the growth from "selfishness" to "Selfishness" has its parallel in Gandhi's idea of the growth from narrow to genuine self-interest.

While Naess is right to address the repressive aspect of moral "oughts," perhaps his desire to avoid moral rules altogether goes too far. For one thing, his critique does not distinguish between moral ideas and principles and the ways they may be enforced or applied. That is to say, he overlooks that the sanctions for following moral rules can be positive as well as negative. For example, in obedience to a set of rules, one may refrain

from destructive behaviour towards nature simply because one wishes to think of oneself as a responsible member of the biotic community in Leopold's sense. Also, following rules can be an expression of cooperation, agreement and consideration of others.

Moreover, I agree with Naess that it would be ideal if people were willingly and spontaneously benevolent towards nature, but not everyone has such maturity. Naess recognizes that the deepening of the self's identification with others may be a long, slow process. Just as it is important to introduce children to rules at a certain state of their self-development, so too it may be necessary for people to begin to follow moral rules in their behaviour towards nature until their "ecological consciousness" deepens. If Naess' maxims, such as, "You shall never use any living being only as a means," are not being followed as core values, I would argue that they should take on the status of moral rules.

Naess' first contribution was to distinguish between two ecology movements, which he labelled the "shallow" and the "deep." In one of his early articles, he defines the "shallow ecology movement" as the "Fight against pollution and resource depletion.

Central objective: the health and affluence of people in the developed countries" (Naess 1973, p. 95). He criticizes shallow ecology as a thought system since it only concentrates on the problem of depletion of natural resources without asking the deeper questions of why and how the ecological crisis came about in the first place. Deep ecology, on the other hand, is not only concerned about resource depletion, but also asks why and how questions, and argues for a new philosophical outlook and change in lifestyle so that the health of nature will be preserved.

Naess has offered a number of formulations for describing deep ecology theory and there has been a progression of ideas since which have further clarified the theory. In an early summary he described three key ideas characteristic of deep ecology: First, the ideas and general direction of deep ecology are not derived from ecological science alone. The experience of ecological field workers all over the world is an important source of knowledge that has converged in the perspective of deep ecology. The lifestyle of ecological field workers has inspired new thinking on what is a desirable relationship of human beings to nature. Second, the tenets of the deep ecology movement are normative. Deep ecologists promote a set of values which they hope will guide a widespread movement. Third, deep ecology is better described as "ecophilosophical" than ecological, since it is just as much concerned with life style changes as it is with finding scientific methods to reverse the environmental damage that our current life style caused in the first place.

By an *ecosophy* I mean a philosophy of ecological harmony or equilibrium. A philosophy as a kind of *sofia* wisdom, is openly normative, it contains *both* norms, rules, postulates, value priority announcements *and* hypotheses concerning the state of affairs in our universe (Naess 1973, p. 99).

Later Naess and his American colleague George Sessions reformulated the basic ideas of deep ecology into eight principles:

- (1) The well-being and flourishing of human and non-human Life on Earth have value in themselves (synonyms: intrinsic value, inherent value). These values are independent of the usefulness of the non-human world for human purposes.
- (2) Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.
- (3) Humans have no right to reduce this richness and diversity except to satisfy vital needs.

- (4) The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of non-human life requires such a decrease.
- (5) Present human interference with the non-human world is excessive, and the situation is rapidly worsening.
- (6) Policies must therefore be changed. These policies will affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.
- (7) The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
- (8) Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes (Naess 1986, p. 14).

Naess' ideas extend beyond these minimal elements of deep ecology. From these general principles, he develops his own version of deep ecology that he calls "ecosophy T" in acknowledgement that there will be multiple versions of deep ecology. For example, he states:

I call my philosophy "Ecosophy T", using the character T just to emphasize that other people in the movement would, if motivated to formulate their world view and general value priorities, arrive at different ecosophies; Ecosophy 'A,' 'B,'... 'T,'... 'Z (Naess 1993, p. 26).

Ecosophy T develops the eight principles and introduces two other core ideas which I consider central to Gandhian ecology: self-realization and identification. The new Gandhian theory I am developing also ascribes to the basic formulations of deep ecology, with modifications, but it is primarily interested in re-interpreting Naess' concepts of self-realization and identification. These will be important elements in my argument for nonviolence towards non-human beings and nature as a whole.

Like Leopold and Gandhi, Naess accepts as a fundamental principle of ecology that "everything is interconnected" (Naess 1989, p. 164). Also, like Leopold and Gandhi,

he builds his ethics around the idea that the way to maximally protect the interests of the individual is to ensure the interests of all (Naess 1993, p. 168). Given Naess' view that "all things hang together" and "all things are intimately connected," unnecessarily harming one being has an effect, direct or indirect, on other beings (Naess 1990, pp. 36, 38). Naess points out the significant correlation between the suffering of other animals, especially mammals, and the life styles of human beings in the richest countries (Naess 1979, p. 231). This fact motivates many of the principles above (particularly principles one, three, and five). The pursuit of luxurious life styles leads some human communities to consume more resources than are necessary to satisfy vital needs. Such luxurious consumption arguably results not only in the taking of lives or destruction of the habitat of particular species, but also in harming other species who are dependent on large populations of that species. The first principle of deep ecology (above) is that all beings have value in themselves, independently of their usefulness to humankind. When a being is killed for non-vital reasons, its right to live and flourish is unnecessarily violated. In addition, a high level of luxurious consumption causes some species to become extinct and undermines the present diversity and balance of eco-systems.6 In other words, a life style that includes fulfilling a large number of non-basic wants inflicts injury on nonhuman lives and on nature as a whole. This argument against non-vital consumption is the same as Gandhi's opposition to consumption of luxuries.

⁶ There is the possibility that some species go extinct due to the basic needs of increased human populations. Naess recognizes this problem and argues for both substantial decreases in human population and limitations on killing.

The stability and the health of an ecosystem depend on biological and genetic diversity and complexity so that the food chain can withstand fluctuations of population, disease and minor climatic change. Naess argues that the luxurious life style of humankind undermines the diversity and complexity, and thereby increases the fragility of living systems. A fragile ecosystem can easily collapse. Therefore, a simple way of life based on caring for and preserving the ecosystem for its own sake increases its stability and decreases the risk of collapse. Naess' ecosophy proposes an alternative life style that is based on the, "economic ideal of simplicity of means and richness of ends" (Naess 1989, p. 33). This idea of an ecophilosophical life style is consistent with Leopold's idea of human's acting as "plain members" of biotic communities, as well as Gandhi's notion of a simple life. It should be noted, however, that Gandhi sometimes encourages an extreme form of voluntary poverty in contrast to Naess' proposal of moderation in consumption. On this point my version of Gandhian ecology is closer to Naess' thought, but I share their stance on the simple life and rejection of luxury consumption.

Naess on Self-realization and Identification

Self-realization and identification are the two key concepts that define Naess' ecosophy. Again, he emphasizes that there may be many versions of deep ecology theory and that these concepts are not common to all versions. He uses self-realization and identification to explain why we should minimize violence against nature, and to argue

for nonviolence in general. Gandhi also uses the same two key concepts in his arguments for respect and nonviolence towards all living beings.

Naess' concept of self-realization was influenced by both Spinoza and Gandhi (Fox 1995, pp. 103-114). The idea of self-realization, as Naess uses it, is similar to Spinoza's notion of "conatus" (Latin, conari: to try or to strive). Fox points out that while the basic conatus of all organisms is often interpreted merely as "self-preservation" in a narrow, individualistic sense, Spinoza's concept can be taken to have a much broader meaning. For Spinoza, "conatus" simply refers to an organism's basic striving to be itself, or to experience the essence of its being. Spinoza also holds that there is a fundamental unity in reality, and that all beings are ultimately one. So to be fully oneself is to experience oneself as part of the whole and to be identified with the whole. With this in mind, the concept of conatus takes on a deeper meaning. The striving of the self is seen as expansive and developmental, rather than static as implied by the term "self-preservation." That is why Naess prefers to interpret conatus as "self-realization."

The traditional way of expressing what is common to all species of life, and more generally to all forms of life, is to point to a basic striving, that of self-preservation. This term is misleading, however, in so far as it does not account for the dynamics of expansion and modification... In view of the defensive passivity suggested by the term self-preservation, I favour Self-realization or Self-unfolding. Historically I trace the conception back to Spinoza's perseverate in suo esse, to preserve in one's own (way of) being, not mere keeping alive. Ecosophy T concentrates especially upon the aspect of general unfolding in suo esse (Naess 1989, p. 166).

Thus, *conatus* is not simply the tendency to survive, rather it is the progressive realization of the essence of one's being as identified with the whole. The striving of the self in

Naess' thought is also close in meaning to the Gandhian notion of the struggle for selfrealization, as I will explain shortly.

The most important aspect of the striving of the human self, as I see it, is the development of ecological consciousness. Naess states:

The emergence of human ecological consciousness is a philosophically important idea: a life form has developed on Earth which is capable of understanding and appreciating its relations with all other life forms and to the Earth as a whole (Naess 1989, p. 166).

Humankind has evolved with a unique potential to realize the self and its relationship with nature. Although Leopold did not talk about self-realization, he recognizes humankind's uniqueness with his notion of ecological conscience. The idea that human beings can consciously change their attitude and develop love, respect, and admiration for nature is the closest parallel in Leopold to Naess' notion of ecological consciousness.

In Naess' philosophical system, the goals of self-realization and identification of the self with nature are closely related. A deeper and wider identification of the self with others is a necessary condition for self-realization. It is required in order for the self to mature and fulfill its potential, and is also a means of stepping towards self-realization. It occurs in the process of understanding more deeply one's interconnectedness with nature.

The construction of self-identity does not occur in isolation. It involves interaction with many others and one's environment on many levels. A child's development of self evolves on multiple levels of interaction with his or her surroundings, including the natural world. It is not restricted to interactions with parents

or other humans. Encounters with different animals, birds, and fish, landscapes and seascapes, seasons and weather all play an important role in the formation of the self by giving children a sense of belonging, mutual dependence, individuality and self.

Relationships with others and with nature are inseparable from our self-growth, as they contribute to the formation of our identity. In other words, selves develop in a relational context with nature. The self is, therefore, dependent on others and on nature.

'To have a home', 'to belong', 'to live' and many other similar expressions suggest fundamental milieu factors involved in the shaping of an individual's sense of self and self-respect. The identity of the individual, 'that I am something', is developed through interaction with a broad manifold, organic and inorganic. There is no completely isolatable I, no isolatable social unit. To distance oneself from nature and the 'natural' is to distance oneself from a part of that which 'I' is built up of. Its 'identity', 'what the I is', and thereby sense of self and self-respect, are broken down (Naess 1989, p. 164).

When one is separated from nature and from others, a form of alienation—not only from the world, but from one's own self—is created at the same time. Such alienation not only

⁷ To give a personal example, the self of my childhood and youth was not simply formed by my relationship with family, community, language and culture, but it also developed in relation to the particular natural environment where I lived and grew up. The regular and unchanged timing of the dusk and dawn; the heavy mosquito bites during the unbearable rainy season of Trincomalee; the gentle breeze from the Indian ocean touching my oily skin; the persistent waves that slap on the sandy white beach and the ten foot high splashes on Koneswaram rock; the peacock dance that the elders said would bring rain; the waves of the green paddy fields and the tall swinging coconut and palmyra trees; seasons that brought millions of butterflies to the plains and jellyfish to the ocean shore, all played significant roles in my self-formation. I identify with these images and events in my natural environment in that they are part of me and partly determine who I am.

Now that I am living in southern Ontario, my self is growing and expanding in a new human culture, with a different language and social mores, and in a new natural environment. The snow is no longer the imagination that it was when I was a child. The dry skin and broken lips of the winter season are a new experience of my self. Complex, metropolitan cities and high technology partly enforce a new lifestyle. A bus without conductors and a forest without elephants can now exist in my new expanded self. My successful identification with this new society and environment allows me to overcome the alienation of a new cultural and physical space. The pine trees and the wild geese are not alien to me any more. They are a part of my expanded self and its relationship with the new environment. My constant interaction and communication with other people and nature allows me to construct and expand my self. The more fully the self expands, the more it reflects the unity of nature.

hinders the one who experiences it, but also hinders others with whom one is in relationship. Thus, identification with others is fundamental to one's self-development and lack of identification with others limits full realization of the self.

Naess, like Gandhi, views self-realization as an active process moving towards perfection. As I interpret Naess, perfection is not meant in the sense of "purity," as Gandhi holds, rather it is an ideal that only reflects human limitations. It serves as a standard for gauging how well human beings understand their complex relationships with others or the depth of their relationship with nature. This is consistent with the way I use the concept of self-realization, as an ideal.

Growth towards maturity is a process that evolves from individual to community, and, finally, to the collective experience of the "unfolding of reality as a totality," as one (Naess 1989, p. 84). Total identification with all life-forms and with nature as a whole constitutes complete self-realization. This perfect self-realization can only be a cultural achievement rather than an individual achievement because an individual's degree of self-realization is dependent on the level of self-realization of others with whom he or she identifies, and vice versa. Collective self-realization, however, does not obliterate individual identity. As Naess puts it: "The identification process leads deeper into nature as a whole, but also deeper into unique features of particular beings" (Naess 1977, p. 422).

Naess' use of the word "self-realization" has many levels of meaning, the result of which is a great deal of misunderstanding and controversy among deep ecologists and their critics concerning whether Naess' theory could be described as religious or mystical.

By providing an outline of the levels of meaning in his use of "self-realization," I will try to resolve some of the misunderstanding. First, however, it must be noted that Naess intentionally leaves the meaning of the concept imprecise so that his work would be open to a number of interpretations. He states:

Vagueness and ambiguity of important key terms like 'Self-realisation' make derivation in any exact sense impossible. It is therefore necessary to clarify which direction of interpretation, or, better, precisation, is chosen. But in spite of the importance of this one single term, it may not be so wise to assign to it too definite a meaning. The interpretation of the top norm sentence and of the others should be a continuous process (Naess 1989, p. 84).

Naess is more concerned with the "direction of interpretation" of his theory than that it have a single correct interpretation. It appears that his ideas about self-realization may be compatible with a number of perspectives—religious and non-religious—and indeed, that this was his intention.

Naess' concept of self-realization is best understood through his four point schema for describing progress towards ultimate Self-realization: T₀ self-realization (one's current state of realization), T₁ ego-self-realization, T₂ self-realization, and T₃ Self-realization (Naess 1989, pp. 84-85). The main idea is that one can progress from T₀, one's current state of self-realization, to the other three levels of self-realization.

Ego-realization is based on narrow self-interest. Individuals at the level of egorealization are not considerate of others' interests, and so their actions are often incompatible with the interests or further self-realization of others.⁸ When self-

⁸ Naess underscores this notion of narrow self-interest by using a Norwegian proverb: "One man's bread is another man's dead" (Naess 1989, p. 85).

development is limited to ego-realization, people are able to cultivate their personality only narrowly; they are prevented from realizing a broader sense of self, and restricted in their identification with others. The ego-self focuses on the idea of winning its own interest, rather than growing with others towards a deeper understanding of itself as part of a community.

By contrast, a broader level of self-realization begins to incorporate an awareness of individuals' interconnectedness with others and with nature as a whole. There are individuals, Naess argues, who act with increased maturity, compatible with others' needs and interests. Such actions are based on a broader sense of self and are realizations of solidarity with other beings. The notion of self-realization (with a small-s) implies that the narrow ego-self may evolve into a more expansive self, which begins to cultivate a broader identification with all beings, human and non-human. At this stage, a person begins to act benevolently toward nature by inclination without relying on moral oughts.

Naess' definition of self-realization and its position in relation to ego-realization and Self-realization are not explicit. It becomes clearer, however, if we consider that he relates Self-realization to a state of "perfection," and he describes self-realization as a process that grows out of the extreme imperfection of the ego-self. So self-realization, in Naess' system, is a stage between extreme imperfection (the ego-self) and perfection (the Self). A fair interpretation of Naess' notion of self-realization might be an imperfect self that attempts to grow toward perfection.

For Naess, a many sided and high-level Self-realization is the ultimate goal (Naess 1979, p. 241). He derived this concept of Self-realization from the Gandhian notion of

ultimate Self-realization, which views all beings as one (Naess 1979, p. 241). In the Gandhian sense, Self-realization is a religious concept that describes the liberation of the individual atman from worldly bondage and the atman's realization of itself as one with the great self, Brahman. Identifying one's self with other beings is an important goal in Hinduism and Buddhism, and is motivated by a belief in what Gandhi describes as the "unity of all life" (Gandhi 1936, CW 64, p. 141). Naess cites the Gita to emphasize this point in his own work: "He whose self is harmonised by yoga seeth the Self abiding in all beings and all beings in the Self" (Naess 1989, p. 194).

Bill Devall's and George Sessions' interpretation of Naess' notion of Self-realization recognizes its spiritual dimension. They suggest that Self-realization is a higher level of spiritual growth:

Spiritual growth, or unfolding, begins when we cease to understand or see ourselves as isolated and narrow competing egos and begin to identify with other humans from our family and friends to, eventually, our species. But deep ecology's sense of self requires a further maturity and growth, an identification which goes beyond humanity to include the non-human world... A nurturing non-dominating society can help in the 'real work' of becoming a whole person. The 'real work' can be summarized symbolically as the realization of 'self-in-Self' where 'Self' stands for organic wholeness (Devall and Sessions 1985, p. 67).

Given that ecosophy T heavily relies on the concept of Self-realization, the question arises whether the notion of Self-realization is absolutely necessary to the goals of all deep ecologies? Some ecologists vigorously criticize Naess' "ecosophy T of Self-realization" as mystical and religious (Watson 1983, p. 255). While this is a valid criticism, it is also possible to interpret Naess' thought in ways that do not emphasize mystical or religious notions of oneness, since he intentionally left his theory imprecise.

All interpretations would agree, however, that Naess' theory involves an abstract level of realization, beyond most people's everyday experience, which is difficult to achieve, and this in itself is problematic. Naess points out this difficulty when he says that the abstract, absolutely high level of Self-realization, "cannot be reached by anybody without all others also reaching that level" (Naess 1979, p. 236). He does not propose, therefore, that Self-realization be a primary goal of all deep ecologies. Instead, he says that "Self-realization is an ultimate norm in only one kind of ecosophy exemplified by Ecosophy T. Ecosophy T is not to be identified as 'the philosophy of deep ecology'" (Naess 1990, p. 186). Similarly, Gandhi held that until there is general moral and spiritual progress, ultimate Self-realization will remain realizable only by a few.

Since I am only interested in Naess' thesis with respect to the relationship between environmental ethics (in this case, deep ecology) and war, I will not extend my analysis to the role of ultimate Self-realization in nonviolence. Instead, I will focus on self-realization (with a small-s) as the basis for a nonviolent environmental ethic. The self-realization of Naess or Gandhi can be developed without religious or mystical assumptions. This concept of self-realization is based simply on the premise that human beings are not perfect, that is, they have a greater capacity than they have yet realized. Further, they are dependent on each other and on nature to maximize their potentials. One's self-realization is not simply limited to identifying oneself with one's own ego-self. Instead, a larger sense of self is realized through identification with other beings and with nature as a whole, and this is what I mean by self-realization. The goal is to cultivate a broader sense of self (an enlarged self) that is fully aware of its interconnectedness and

interdependence, as opposed to the ego-self, while the perfect "Self" remains an unattainable ideal.

In Naess' system, the concepts of diversity, complexity, and symbiosis contribute to self-realization, just as, for Leopold, these concepts are important to the health of the biotic community. Diversity and complexity result when every being is allowed to "act out its own particular *conatus* [striving]"(Naess 1979, p. 234). Diversity implies rich and abundant modes of life and the strong chance for new forms to arise. Complexity refers to "a quality of organisms and their relation to their environment... characterized by intimate interrelations, deep interdependence of a manifold of factors or elements" (Naess 1989, p.202). Complexity expresses the idea of many-sidedness in life and the multiple strivings of organisms for growth, health, self-renewal, reproduction, and so on.

Living organisms do not live in isolation; their survival and unfolding of potential depends on their complex relationships with other beings and their environment. It is only when these complex relationships are intact that beings are able to maximize their potential. Diversity and complexity, therefore, are necessary conditions for actualizing self-realization potentialities, because one individual's self-realization depends on others' self-realization. As Naess phrases it: "Maximal realization of potential implies maximal diversity," and maximal complexity (Naess 1989, p. 233).

Symbiosis, "knits the bond between complexity and diversity" (Naess 1989, p. 201). By symbiosis he means, "an interdependence for the benefit of all" (Naess 1989, p. 168), similar to Gandhi's concept of cooperation. For example, the fertility of the earth depends on the complex intricate interactions of small living beings like protozoa, fungi,

algae and bacteria, whose activity is symbiotic for plants and other species. Symbiosis is, arguably, the second most important concept in Naess' theory, next to self-realization.

Indeed, the two are closely related since maximal self-realization could also be understood as realizing symbiosis.

If I had to give up the term [Self-realization] fearing its inevitable misunderstanding, I would use the term 'symbiosis.' 'Maximize Self-realization!' could be interpreted in the direction of colossal ego-trips. But 'Maximize symbiosis!' could be interpreted in the opposite direction, that of the elimination of individuality in favour of collectivity (Naess 1986, p. 28).

Naess argues that the symbiosis which ecologists have observed, especially in mature ecosystems, provides human beings with, "a cognitive basis for a sense of belonging" (Naess 1989, p. 168). That sense of belonging or larger identification is the feeling that arises from a deep awareness of our interdependence and interconnectedness with other beings.

Naess on Violence and Nonviolence

Naess takes a position on nonviolence in his ecosophy T that is based largely on his metaphysical "philosophy of oneness" (Naess 1989, p. 193). This particular metaphysics was heavily influenced by the Gandhian notion of oneness, and Naess builds on the Gandhian assumption that all beings have the same self (in Gandhi's language, atman) (Naess 1974, pp. 37-56; Naess 1989, p. 194). The fundamental moral objection to

violence is that, since all living beings are one, violence against another being amounts to violence against oneself.

I do not take this route in my argument for nonviolence, since, unlike Naess, I do not wish to rely on religious notions of oneness or Self-realization. I prefer instead another of Naess' arguments for nonviolence which follows from his maxim: "Every living being should have an equal right to live and flourish" (Naess 1979, p. 232). This maxim follows from the primordial striving of every living organism to fully experience its being, and the principle that every being has equal intrinsic value. It is the foundation for Naess', Sessions' and Devall's egalitarian ecocentrism. Naess states: "The right of all the forms to live is a universal right which cannot be quantified" (Naess 1989, p. 166). He admits, however, that granting an equal right to every being is an "expensive egalitarianism" which can be upheld only in principle.

Another aspect of Naess' notion of right is his maxim that every being's "potential ought to be maximally realized" (Naess 1979, p. 232). This egalitarian principle introduces a problem for his position on nonviolence. If realization of potential is a right for every being and killing another being violates the right of that being, how is one to meet one's vital needs? Naess admits that realization of potential, may require, include, or permit killing other beings for vital or basic needs. Thus, he qualifies his maxim:

Equal right to unfold potentials as a principle is not a practical norm about equal conduct towards all life forms. It suggests a guideline limiting killing, and more generally limiting obstruction of the unfolding of potentialities in others (Naess 1989, p. 167).

Killing, for Naess, is only permissible if it is done for the sake of satisfying basic needs; it cannot be justified on the basis of hierarchically intrinsic values. Naess maintains, as I do, that all beings have equal intrinsic value. If a being, X, has intrinsic value, it is morally wrong to unnecessarily kill X because, in my view, to be moral means to act in ways that preserve things of intrinsic value and not eliminate them, or diminish them in any way. It is wrong to unnecessarily kill X because then X would no longer exist as an intrinsic value. It is also wrong to unnecessarily harm X, not because its intrinsic value would diminish, but because X itself would be diminished. As Naess would put it, the closeness of X to realization of its potential would be reduced.

Of course, beings do injure and kill other beings in order to satisfy their vital needs, and such actions hinder or obstruct the unfolding potential of other beings, but this is not objectionable. This is because X does not only have intrinsic value; it also has ecological-instrumental value since it contributes in some way to the health of the whole. It is not wrong to kill X for necessary ecological-instrumental symbiotic processes, but humans must minimize killing to only that necessary for meeting basic needs.

Naess suggests an approach that comes close to the framework developed in Part One (Chapter 4), which places different acts of violence in different moral categories: unintentional and intentional unavoidable violence, justifiable and excusable violence, and unintentional and intentional avoidable (objectionable) violence. There I described killing for vital needs as intentional unavoidable violence and as not morally wrong. Naess recognizes the usefulness of such a framework although he does not develop one himself.

A different approach is to specify under which circumstances it is justifiable to hunt or kill other living beings. We might agree upon rules, such as will imply different behaviour towards different kinds of living beings without negating that there is a value inherent in living beings which is the same value for all. But it is against my intuition of unity to say 'I can kill you because I am more valuable' but not against the intuition to say 'I will kill you because I am hungry.' In the latter case, there would be an implicit regret: 'Sorry, I am now going to kill you because I am hungry.' In short, I find obviously right, but often difficult to justify, different sorts of behaviour with different sorts of living beings. But this does not imply that we classify some as intrinsically more valuable than others (Naess 1989, p. 168).

Naess does not go further than to make a very general distinction between two kinds of violence: violence that does not interrupt maximal diversity, complexity and symbiosis, and violence that does. Like Gandhi, he also recognizes that the first kind of violence is part of ecological necessity, and this violence does not usually contribute to ecological destruction. Killing another being for one's basic needs is part of the ecological process even though it sometimes takes away an individual being's right to realization of potential (Naess 1989, p. 171).

The second kind of violence for Naess is of the type that is disruptive to nature. This violence can range from directly killing other beings to destroying ecosystems by building industrial societies (Naess 1989, p. 170). Such violence disrupts the diversity, complexity and symbiosis that are necessary for the survival and unfolding of potential of all beings in the ecosystem, and threatens the survival of current and future generations of beings. In this regard, Naess submits the maxim: "You shall not inflict unnecessary suffering upon other living beings!" (Naess 1989, p. 171).

Biospheric egalitarianism means that human needs do not have priority over non-human needs. As Gandhi states: "The nature of my nonviolence towards my brother cannot be different from that of my nonviolence to the universe" (Gandhi 1922, CW 23, p. 25). Taking a position similar to Leopold's, Naess argues that the idea of community may be extended to include non-human life. In practical life, he reasons,

...animals cannot be citizens [i.e., members of a human moral community]. But animals may, as far as I can understand, be members of *life communities* on a par with babies, lunatics, and others who do not cooperate as citizens but are cared for in part for their own good (Watson 1983 p. 250).

Being distinctive as members of moral communities should not give human beings any special status or privilege. Nor should it diminish the moral standings of other beings. Rather, for Naess, it gives humans extra responsibilities towards other beings who also belong to our "life communities," simply because we are aware that they have moral worth and cannot be used as means for our non-vital ends.

Even though all beings have equal intrinsic value as a matter of principle, in practice humans treat them differently. Naess recognizes this it is morally right, but he cannot justify that, when it is necessary to kill, we chose to kill some beings rather than others. I would argue that the decision to kill one type of being and not another depends on a whole range of values these things have for us, besides their intrinsic value. For example, on a biological level, some beings have more ecological-instrumental value for us as food sources.

If two beings of different species, call them X and Y, have equal intrinsic value and equal ecological-instrumental value as a food source, and if it is necessary to kill for

basic needs, the questions is, how do we determine whether to kill X or Y? There is a human tendency to value other beings based on criteria such as closeness in evolutionary development and familiarity. For example, humans do not kill fellow humans for food because they closely identify with them compared to other species. This identification is actually an important moral impediment to killing, which Naess argues we should also cultivate for beings of other species. Humans usually chose to kill those beings for food which are more distant in evolutionary terms, less complex and lower on the food chain. To some extent, cultural preferences determine human choices of food source. There are grey areas regarding the moral aspects of choice of species killed for food. Further analysis is needed to clarify these moral fine points. The importance of granting equal intrinsic value to all beings, however, is that it does not allow humans to kill any other being without first giving moral consideration to whether the killing is absolutely necessary. The equal intrinsic value principle is, therefore, a strong check on humaninstrumental impulses to kill other beings. For Naess, also, the necessity to kill other beings only justifies a minimal amount of killing and he advocates avoiding unnecessary pain, suffering and death of other beings. This is the theoretical basis for Naess' maxim: "You shall never use any living being only as a means," that is, as if it has only instrumental value (Naess 1989, p. 174).

Naess' perspective on nonviolence is overtly Gandhian. For example, he advocates nonviolent direct action, stating: "Nonviolent direct actions must be a part of sound ecopolitics" (Naess 1989, p. 148). Nonviolence and self-realization are as inseparable in Naess' thought as they are in Gandhi's. Self-realization necessarily builds

on our identification with others by broadening our awareness of the equal intrinsic value and ecological-instrumental value of other living beings, the ecosystem and the ecosphere. Such a process is only achieved through not using other beings as means. For Naess, nonviolence is a constructive force that is based on collective action (Watson 1983, pp. 146-150). In other words, the uniqueness of humankind amounts to a responsibility, one that should guide human beings to act nonviolently towards other beings as much as possible. Reflecting a point of Gandhian principle, Naess states: "Short term violence contradicts long-term universal reduction of violence" (Naess 1989, p. 148). In summary, maximal reduction of violence allows beings to achieve their maximal potentials, or self-realization, by maximizing diversity, complexity, and symbiosis.

Summary of Principles of Gandhian Nonviolence and Ecology

I will now briefly re-state the main conclusions I have drawn from Part One, adding ecological implications based on the foregoing discussion in Part Two. I will also offer four more principles drawn from my examination of Leopold and Naess and my comparison of their work with Gandhi's. The tenth principle I state here is developed in the first chapter of the next part of the thesis. Part Three will apply these principles in an analysis of the effects of war, and the institution of war, on nature.

- 1) Nonviolence theory should be as widely applicable as possible and, therefore, it should not be based on a particular religious worldview.
- 2) Nonviolence and truth are mutually reinforcing. Nonviolence is a method to understand the truth, and truthfulness enables the practice of nonviolence. In the context of ecology, nonviolence is a method to understand the ecological truth of our interconnected and interdependent relationship with nature. In turn, awareness of this truth will encourage the practice of nonviolence towards nature.
- 3) Unavoidable violence, or violence which is necessary for fulfilling vital needs, is not morally wrong, whereas unnecessary violence towards any part of nature is morally wrong. Unnecessary acts which undermine the balance or health of ecosystems are wrong.
- 4) Nonviolence has negative and positive aspects in dialectical relationship. Both aspects are necessary for maintaining the health of nature. Negative nonviolence instructs us not to harm nature. Positive nonviolence fosters an inclination to treat all beings and nature as a whole with love, compassion, respect, and service. It calls for a lifestyle based on simplicity and the search for relative truth.

- 5) The simple life and the ecocentric perspective are important to the practice of nonviolence because they compel humans to minimize their impacts on nature.
- 6) All living beings, ecosystems and the ecosphere as a whole have intrinsic value independently of the other values attributed them by humans.
- 7) Symbiotic relationships in nature demonstrate the inseparability of means and ends. For humans to behave symbiotically they must cooperate with each other, live harmoniously with nature, and avoid relationships that are merely human-instrumental.
- 8) The ultimate aim of ecological nonviolence is to maintain the integrity and stability of nature so that living beings can maximize their potentials. This depends on maximal diversity and complexity within ecosystems.
- 9) Genuine self-interest includes the interest of all. Identification with others and nature as a whole, allows one to realize one's genuine self-interest. Broadening one's identification is a process of developing an expanded sense of self, or self-realization.
- 10) An enhanced notion of security includes ecological security, which relies on self-realization and not merely self-preservation. (To be discussed in Part Three).

Part III: Ecology, Security and the Institution of War

Introduction

In Part Two I considered three important arguments. First, all living beings, as well as their ecosystems and the whole ecosphere, have intrinsic and ecological-instrumental values. Second, with self-realization we gain a broader understanding of our relationship with nature that includes an awareness of our moral responsibility not to unnecessarily harm anything that has intrinsic and ecological-instrumental value. Ecological necessity is a third reason we should not unnecessarily harm entities within nature. In Part Three I will argue that any attempt to achieve a form of security for a particular human group or nation militarily cannot undermine ecological security, which is an ecological necessity.

In contemporary times, security cannot be realized without understanding the interrelationship between the institution of war and ecology, and I aim to make these links explicit in this third part of the thesis. Many would agree with a basic premise of nonviolence theory that war is wrong and must be feared. However, war between nation states and the threat of war has become a perpetual problem and this threat of future war assures continued insecurity. In the remainder of the thesis, my focus will be on the

institution of war and its impacts on ecosystems, both in times of peace and war, including the moral implications of those impacts from the point of view of the nonviolence and ecological theory presented in Parts One and Two.¹ The analysis will differ from anthropocentric anti-war arguments which focus exclusively on how war impacts on human beings.

¹ My project in this thesis has not been to explore concrete examples of nonviolent alternatives to national security. This has been discussed in many works, for example, see Klare and Thomas (1991). My task here is to argue for the importance of ecological security through nonviolent means.

Chapter 9

The Problems of National Security and Ecological Security

In the realm of national and international politics, the idea of security is of the utmost importance since wars are fought and military institutions created and justified in the name of security. Defending a nation's citizens, territory, resources and other interests is often perceived as the paramount duty of every government, and national security is seen not just as a political but a moral duty. Despite the disagreement between opposing warring parties, both sides in a conflict typically justify defensive and offensive wars by appealing to security reasons. This calls for some serious attention to the concept of security in political and moral thought.

In this chapter, I will explore the moral, practical and ecological problems involved in the pursuit of national security through military means. The overall purpose of this chapter is to re-define the meaning of security by introducing the idea of the security of nature, while the next chapter more closely examines the neglected factor of the impact of the institution of war on ecosystems.

The institution of war, which I also refer to as the "war system," is an integral part of international relations and the security of states. It consists of the whole array of warmaking efforts that include armed forces, research laboratories and weapons testing, raw materials, military industries, the international arms trade, diplomacy, espionage, mercenary work and propaganda. "War is justified by fear alone," comments Michael Walzer (Walzer 1977, p. 77). Fear of the "other" is at the heart of national security concerns, and international politics have seemed to follow the maxim: If you want peace, prepare for war! (Johansen 1991, p. 401). I will begin with a synopsis of recent international politics, focusing my arguments and examples in the next two chapters mainly on the Cold War period. The Cold War is particularly important to analyse at this time because we are now living through its "aftermath."

Although international political institutions were set up after 1945, fear, uncertainty and unpredictability have marked international relations during the Cold War period and since. Victorious nations from World War II were caught up in a situation of constant competition. They feared the potential for another world war. Mutual suspicion and fear between the Warsaw Pact and NATO powers resulted in constant preparation and upgrading of their military capability and nuclear arsenals. In the Cold War context, the politics of fear and desire for security fed on each other. Falk explains how the state's imperative of maintaining national security actually induced a high level of fear during the Cold War:

To generate popular backing for a peace time approach to national security that insisted on military preparedness depended upon widespread perception of a threatening enemy holding an alien ideology. Mobilizing the American people on behalf of this undertaking helped produce an atmosphere of tension and anxiety that hardened into cold war. (Falk 1991, p. 16).

This construction of an "atmosphere of tension and anxiety" institutionalized the politics of fear in international politics.

The Cold War and the arms race led many to fear that relying on moral principles and international law for the protection of national security would be highly dangerous. There came to be less hesitance about the use of military power as a foreign policy (Falk 1991, pp. 16-18). This reflects the popular Hobbesian notion that without a social contract and a powerful "sovereign" to enforce it, nations in the "state of nature" of the international realm must rely on their own military resources for security.

Many governments still maintain that national security is the fundamental duty of the state, and it is this duty that gives them legitimacy and public loyalty (Mangold 1990, p. 2). The perception of national security risks, which are partly subjective, is the rationale of many states for adopting a foreign policy that relies on strong armies and arsenals. The military weaknesses of a state seriously reduce its perceived security, and it often responds by attempting to increase its armaments. This leads to military buildup and a nation's coercive power becoming its means of ensuring its security.² The fear of the other consequently becomes real.

² Noam Chomsky and Edward S. Herman examine how the US uses its coercive power to fulfil its foreign policy objectives in <u>The Washington Connection and Third World Fascism</u> (1979). See also Noam Chomsky (1993).

The logic of preemptive war is, especially, based on the politics of fear. Walzer outlines a formula for such wars based on his case study of Israel's first strike that set off the Six Day War against Egypt in 1967. As a general proposition he holds that: "States may use military force in the face of threats of war, whenever the failure to do so would seriously risk their territorial integrity or political independence" (Walzer 1977, p. 85). The Soviet invasions of Czechoslovakia and Afghanistan, the Chinese occupation of Tibet, and the Indian government's military interference in Kashmir are other examples of preemptive wars fought in the interests of security. The countless interventions in Latin American countries by the United States for over a century were also justified in terms of the United States' national security interests. Thus, even for relatively powerful states, the fear of loss of security is used as a justification for engaging in war.

The War System as a Source of Insecurity

Many have come to recognize that the arms race and the fear it generates is actually an obstacle to a more permanent state of security. David P. Gauthier is one critic of attempts to achieve security militarily.

Each new effort we undertake to increase our security merely increases the insecurity of others, and thus leads them to new efforts which reciprocally increase our insecurity. This is the natural history of an arms race--a history which bids fair to conclude, later if not sooner, in mutual annihilation (Gauthier 1969, p. 208).

Fear of others and the search for perfect security feeds the insecurity of every other party in international politics. Competition between nations over the size of their arsenals creates perpetual fear.

Michael Renner also argues that the notion of national security is an "out-moded concept" because military means of achieving national security have become the leading threat to security on a more fundamental level (Renner 1989, p. 132). He points out that the notion of security is obscure because there is no widely accepted system to measure it and thereby gauge whether a person's or a nation's right to security is being violated. He claims that the military system cannot guarantee national security because a state is either too weak to defend itself or too strong to avoid becoming a threat to its enemy and causing the enemy to build up its military capability.

Peter Mangold provides a useful conceptual framework to understand the problems inherent in both weak and strong security arrangements. States with a weak military system due to lack of resources and other factors have a security status Mangold calls "underinsurance." The security status of strong states with abundant resources and a powerful military Mangold calls "overinsurance." (Mangold 1990, chapters 2, 3). "Overinsurance" often escalates when states come to mutual fear of each other. The politics of fear between the strong "overinsured" states is, therefore, a significant part of super-power and regional-power politics, and drives the arms race. Mangold points to

³ Henry Kissinger expresses metaphorically the condition of rampant escalation of the politics of fear and overinsurance: "The super powers often behave like two heavily armed blind men feeling their way around a room, each believing himself in mortal peril from the other whom he assumes to have perfect vision" (Power and Tremain 1988, p. 81).

historical studies which show that neither under- nor overinsurance within the military system is able to provide a comprehensive sense of security.

Arguments critical of military security arrangements of this type are valid in themselves, but they do not go far enough. As they stand, such arguments overlook ecological aspects of security. Where nature is deemed relevant to anthropocentric critiques of the military systems, it tends to be in relation to the fact that competition for resources is a driving factor in war. Historical analyses of state formation, for example, give considerable attention to the importance of states securing or conquering natural resources. Westing states: "The rise of the state might not have occurred without a combination of natural resource limitations and the acceptance of war as an appropriate means for achieving social aims" (Westing 1988, p. 4). Matthias Finger also points out how "the military has historically played a role in the development of the nation state by securing access to natural resources for national industrial development" (Finger 1991, p. 222). The idea that military power is often used by the state either to protect or to conquer natural resources (Stockholm International Peace Research Institute 1980) is related to states' concerns to achieve political and economic security, and their attempts to pursue a policy of "overinsurance," if possible. The decision that "overinsurance" is preferable to "underinsurance," however, reveals a narrow understanding of the requirements for security because it fails to consider the effects of ecological damage by the war system. This is also the missing factor in many scholars' assessments of international political reality.

In thinking about national security, self-preservation, whether of individuals or state entities or ideologies, appears to be a key concept. Political thought that is focused narrowly on the notion of self-preservation on the national level is likely to lend support to the idea of military preparedness of states which is the basis for the institution of war. Narrow self-preservation requires competition and may be thought to require the conquest of natural resources, while it does not lead to an understanding of the larger picture of the interconnectedness of human beings with the rest of nature, as I argued in Part Two.

I would argue that security means more than mere self-preservation, or a state's capability of defending itself militarily against the physical or political threat of an enemy state. If it were widely recognized that the meaning of security has multiple dimensions, including the physical, economic and ecological well-being of humans and non-humans as well, it would be clear that national security has broader requirements than military strength. That is to say, a full sense of national security can only result from reasonable guarantees for the basic physical, economic and ecological requirements for a healthy life. Economic security, or secure access to resources, and physical security, or preservation of life, are mutually dependent. Physical security may appear to be more basic than economic security in the sense that without it, economic security cannot be enjoyed. But, economic security is a prerequisite to physical security in the sense that many communities and states are dependent on trade flows even for basic subsistence. When

states seek to establish security of resources, this intention can lead to competition and even war, whereupon physical security is again threatened.

Ecological security, however, is absolutely basic to a comprehensive notion of security, since it must be present before any other security requirements can be fulfilled. Ecological security cannot be achieved through a narrow focus on the welfare of a particular group of human beings, but only through protecting and preserving the health of nature as a whole. Furthermore, ecological security requires an orientation towards the more positive goal of self-realization, in the sense of an active understanding of our symbiotic relationship with others and respect for others' right to flourish, as opposed to the goal of mere self-preservation that drives more narrow pursuits of security. National security arrangements based on military institutions are not only themselves producing military insecurity through the arms race, they are also undermining ecological security. The following chapter will provide empirical data to illustrate the dangerous and destructive consequences of aspiring to a narrow definition of national security and embracing the military means supposed to achieve it. This is the most important reason to move beyond the politics, institutions and ways of thinking that are preoccupied with national security as defined by physical and economic self-preservation, to a more comprehensive understanding of security that sees ecological well-being as the primary goal.

As I have been arguing, reliance on the institution of war to provide national security has resulted in increased political insecurity and, as I will document in the next chapter, it has, more seriously, jeopardized the security of ecosystems' ability to support a wide diversity of living beings. The question I wish to raise in this section is: given the latest technologies and sophisticated weapons, can the institution of war be used to maintain national security without harming or endangering ecosystems? I will argue that the military system cannot be maintained and wars cannot be fought without damaging nature because so many aspects of the war system rely on exploiting and manipulating nature. In unnecessarily harming nature, the war system violates the intrinsic value of beings, ecosystems and the ecosphere.

A prominent military philosopher who takes the opposite position is Merrit P.

Drucker, a major in the US Army. He argues that it is possible to maintain the war system and conduct wars with minimal damage to nature, and that this is morally and rationally permissible. He sets forth the moral responsibilities for preserving nature that military commanders should have, both in times of peace and war.

Drucker argues that, with respect to nature, the military takes a utilitarian attitude, which he defines as the view that "the environment is valuable insofar as it contributes to human well-being" (Drucker 1989, p. 137). His use of the concept of "utilitarianism" is

nothing more than what I have been referring to as "anthropocentric instrumental value."4 Military commanders typically view nature "as a resource to be exploited for tactical, strategic, or economic reasons" (Drucker 1989, p. 135). In actual times of war, moral judgements based on this form of "utilitarianism" tend to be skewed in favour of one's own soldiers and civilians over enemy soldiers and civilians and other considerations such as the protection of nature. Drucker rejects the military's utilitarian ethical codes that assess the value of non-humans entities according to how valuable they are to humans. Such assessments, he argues, are especially "vulnerable to manipulation and perversion by the unscrupulous" (Drucker 1989, p. 138). He prefers instead that military ethical codes for the protection of nature be based upon an "inherent worth" argument, according to which: "The environment does not derive its value or worth from its value or worth for human beings; rather it is valuable in its own right" (Drucker 1989, p. 138). Again, I have been referring to the "inherent worth" argument as "intrinsic value theory."5 Although Drucker subscribes to the "inherent worth" perspective, his views on ethical obligations towards nature are tinged with anthropocentrism. For example, he states: "Like it or not, we are now effectively in charge of nature, and the Earth has almost become another piece of man's art" (Drucker 1989, p. 139).

⁴ Although the philosophy of "utilitarianism" can be defined more broadly than instrumental valuation, Drucker tends to use the term only in this sense to describe a method of valuing nature. In the following discussion I will use his term for convenience, even though it conveys only the idea of anthropocentric instrumental value which I have been discussing all along in the thesis.

⁵ Some philosophers draw a distinction between "inherent worth" and "intrinsic value" (Des Jardins, 1993, pp 144-147), but for my purposes the two terms are interchangeable. In this section only I will use Drucker's expression.

On the basis of nature's inherent worth, Drucker argues that military commanders have moral obligations not to damage ecosystems either in peacetime or in wartime. In peacetime, he proposes, a military commander should have two sets of duties. First are those duties that pertain to maintaining military sites. In this area, it is a commander's duty to pay attention:

...to environmental issues related to air and water quality, to waste and sewage collection and disposal, the generation of electricity, recycling, storage and disposal of hazardous substances, wildlife management, harvesting of timber and extraction of minerals, grazing rights, shoreline protection, soil and water conservation and a host of other environmental issues (Drucker 1989, p. 141).

Drucker covers a huge array of human impacts and environmental concerns without considering whether a single commander can practically handle such activities in addition to his military duties. Moreover, he does not take into account the level of state military, administrative and legal support for such environmental initiatives. Renner points out, for example, the lack of cooperation among American governmental agencies in regards to environmental protection: "Under the Reagan and Bush administrations the Justice Department has prevented the EPA from suing other federal agencies, from imposing cleanup orders on them without their consent, or from fining them" (Renner 1991b, p. 24). A military commander is relatively low in the chain of command, he does not set policy, and his best efforts to protect nature can be hampered by unfavourable directives or restrictions imposed by higher-ups. Another example is the exposure of 9,000 navy servicemen to radioactivity after nuclear testing in the Bikini Islands. The doctor responsible for safety requested manuals giving guidelines for protection from exposure

and decontamination, but his higher-in-command would not release the required documents because they were classified as military secrets (Sorenson 1990, p. 99).

The second set of duties of the commander in peacetime pertains to conducting military training in a manner that does not damage the ecosystem. As a general principle, Drucker advises that, "When a commander trains his troops, he should damage the environment minimally, and only when no other method of training can be substituted" (Drucker 1989, p. 141). Some training practices commonly cause "destruction of vegetation and habitats, forest fires, soil erosion, pollution and loss of wildlife," resulting in short-term, long-term and even permanent damage to ecosystems (Drucker 1989, p. 141). Drucker argues that it is possible to engage in military training without damaging nature and he suggests the German army's environmentally conscious military training during World War II as a model. In the upcoming chapter I will argue that, under the current war system, this goal is unrealizable in any country.

In wartime military commanders have different sets of moral obligations towards nature. Drucker argues that during warfare, the ecosystem should be given a status similar to noncombatants. Just war theory specifies that people who choose not to take the side of any of the warring parties and who do not pose a threat to the combatants should not be harmed, particularly special groups in the war zone like medical or religious personnel, who perform physical and spiritual duties of healing and nurturing. Drucker draws a parallel between the life-saving role of these groups and the life-sustaining role of nature, and concludes that nature should be given the same kind of

protection. Armed forces must refrain from contaminating soil, destroying plants, poisoning water, flooding land and killing wildlife, and so on.

Drucker suggests that commanders should have responsibilities towards nature on the global, strategic and tactical levels (Drucker 1989, p. 148). Global responsibilities amount to avoiding wars of mass destruction which cause global environmental change. For example, deployment of nuclear and long-range non-nuclear weapons would destroy whole ecosystems and, from the point of view of human beings, probably would be suicidal. Strategic responsibilities are met by avoiding unnecessary and massive damage to ecosystems. For example, it is strategically irresponsible to use chemical weapons (eg. agent orange) that cause defoliation in rainforest areas. Wars conducted in fragile ecosystems are bound to inflict long-term damage. Tactical responsibilities are met by avoiding environmental vandalism, for example, by not using incendiary munitions, not destroying croplands, forest, dams and nuclear power plants, and not poisoning water reserves.

Drucker recognizes that in wartime protection of nature may come into conflict with military goals. He outlines a range of four positions a military commander might take relating to military action and the protection of nature. First is the scenario that a military commander disregards nature and only takes consideration of the lives of soldiers and military objects. This position does not entail respect for nature. The second position relates to rules in international law aimed at protecting cultural artifacts from destruction during war. Drucker argues that such rules can be extended to protect nature as well. This position, however, does not bind a military commander to protect nature.

The third position is based on the premise that nature has inherent worth. A military commander who takes this position would allow soldiers to take "minimal risks" to protect nature. This is the position that Drucker advocates. The final position demands that a commander take great measures to protect nature, including risking the lives of soldiers. Drucker dismisses this position as "immoral and irrational."

Drucker rejects the first and last positions. Although he prefers the third position over the second, he acknowledges that both positions face the problem that "military necessity" may come into conflict with the protection of nature. He cites Eisenhower who stated: "Nothing can stand against the argument of military necessity. That is an acceptable principle" (Drucker 1989, p. 151). If it came to a choice between preserving a soldier's life and protecting historical buildings Eisenhower would choose the soldier's life, and Drucker would agree. Between the soldier's life and protection of nature, however, Drucker would expose the soldier to at least some risk.

Although Drucker is genuinely concerned about the preservation of nature, his position has some serious philosophical and practical problems. His parallel between cultural artifacts and nature in wartime is open to challenge. The relationship of the military institution with nature is fundamentally different from its relationship to cultural artifacts. Nature has multiple instrumental uses for the military in contrast to cultural artifacts. Nature provides raw materials, sites for military exercises and experiments, targets for offensive purposes and cover for defence, from one's own side's point of view and the opponent's. I will discuss military uses of nature in greater detail in the next chapter. This means that nature plays a significant role in military strategies and the very

existence of the military establishment itself. On the other hand, cultural artifacts do not have any significant military value, except perhaps as landmarks or symbols of the opponent's culture. Thus, the military has even less incentive to refrain from damaging nature in its offensives than it has to preserve cultural artifacts.

In a military crisis one could not expect that the military would do whatever they could to protect nature unless they accepted that protection as an inviolable principle based on nature's inherent worth, and were prepared to act on it. This leads to a second problem relating to the level of risk Drucker would suggest his ideal military commander be prepared to take for the sake of nature in a crisis situation. He argues:

The amount of risk they should allow is difficult to specify and is situationally variable. Each commander will have to decide in each case. When he decides, the commander must weight his moral responsibilities to achieve victory, protect his soldiers, and protect noncombatants (Drucker 1989, p. 151).

Here Drucker seems to suggest a kind of calculation based on military utility. But such a move undermines his earlier position against utilitarian calculation and contradicts his warning that utilitarianism "is especially vulnerable to manipulation and perversion by the unscrupulous. Even well-intentioned utilitarians can devalue nature to the point where almost any environmental damage becomes acceptable" (Drucker 1989, p. 138). "Military necessity" has a final veto over other considerations. Thus, even Drucker's prescriptions, that are at first based on "inherent worth" principles, appear to leave nature vulnerable to an unscrupulous military commander.

Drucker's example of the environmentally responsible army, the WWII German army, is called into doubt as well, given Russian reports of severe environmental harm

when the German army retreated from the front lines. In the history of warfare, armies have often laid waste to nature believing that this action gives them protection.

The main error in Drucker's suggested environmental ethical codes is the assumption that the commanders of army camps or those in charge in a war zone have the freedom to meet their environmental obligations. The military system is much broader, more rigid, and more complex than the narrowly placed army commander's relationship with his camp or area of the war zone. While Drucker emphasizes the reduction of environmental damages, he argues that a commander should not make an extraordinary effort to protect nature when it would cost the lives of soldiers. He maintains that the commander must follow the imperative of "military necessity" above all. Faced with these restrictions and pressures, the conscientious commander has very little scope for action in defence of nature. To take the case of the dropping of atomic bombs on Hiroshima and Nagasaki, the argument commonly put forward in defence of these acts is that they prevented thousands of American soldiers being killed, as they would have if the war had been allowed to continue. Although the validity of this claim is debatable, the dropping of these bombs caused tremendous damage to human life and nature. This is a clear example of how "military necessity" took precedence over the lives of civilians and nature in the utilitarian calculation of the US army.

When military goals routinely and powerfully override other considerations, it is difficult to expect, as Drucker does, that it will be possible within the military system to introduce environmental principles based on inherent worth. As I have been arguing following Naess and Leopold, the only type of human relationship with nature that would

ensure nature's protection and the health of all beings is a relationship strictly based on nature's inherent worth. Drucker begins with this recognition, but he slips back into utilitarian thinking when he applies his ideas about environmental protection in a military context. Furthermore, as long as the military functions on the basis of utilitarian logic governed by military necessity, it will have a very limited capacity to protect nature. This will only change when a new doctrine of "ecological necessity" overrides military necessity. Ecological necessity would not favour the human groups within particular humanly-defined geographical boundaries, but would provide the basic condition for lasting security to the benefit of all beings inhabiting areas unrelated to national borders.

In summary, although I share Drucker's environmental ethical concerns, I find that his analysis does not take into account the large, complex military establishment which is uncompromising in its objectives and necessarily operates on a utilitarian basis. The war system has multiple dangerous effects on ecosystems and poses a threat to nature as a whole, as in our time civilians and nature have become the major targets of war. Olof Palme concluded the report of his 1982 Commission on Disarmament and Security Issues stating:

War is losing its meaning as an instrument of national policy, becoming instead an engine of senseless destruction that leaves the root causes of conflict unresolved... true security requires a cooperative effort, a partnership in the struggle against war (Johansen 1991, p. 402).

Military means of achieving national security cannot guarantee ecological security, even through the type of environmentally-friendly limited war that Drucker envisages, and certainly not though wars of mass destruction. Without ecological security there can be

no physical or economic security. Besides engagement in actual war, preparation for war in peacetime also endangers ecosystems. In the next chapter I will describe the past and potential dangers of the war system in an attempt to convey through empirical fact the seriousness of the ethical and ecological problems that humankind now faces, and the importance of including ecological considerations in arguments for nonviolence.

Chapter 10

Impacts of the Institution of War on Ecosystems And Implications for Nonviolence Theory

This final chapter draws extensively on empirical evidence to support and illustrate the main arguments I have been making in the thesis. The facts I present here are little-known and important in themselves, but they also show the relevance of my general assertions in Parts One and Two to a particular context: the institution of war. I aim to show how the moral positions I have developed can be applied to the war system, and demonstrate the usefulness of my efforts to integrate nonviolence and environmental ethics.

The material in this chapter directly addresses six major arguments: (1) that the cost of the war system represents theft and is morally wrong; (2) that the war system uses nature only as a means, which is morally wrong; (3) that the war system harms nature, and that this harm is avoidable and morally objectionable; (4) that the war system, which is justified by arguments about security, actually creates insecurity through ecological damage; (5) that reform of the war system along the lines Drucker proposes would be extremely difficult; and (6) that ecological considerations should be included in any nonviolence critique of the war system. These arguments will be articulated at various

points in the chapter, but almost all of the material in the chapter supports each of the arguments. The chapter is structured around the concrete ways in which the institution of war impacts nature, rather than around the arguments I have listed. I conclude the chapter with a discussion of these and other implications of the impact of the war system on nature, corresponding to each of the principles I developed in parts One and Two. The information I provide in this chapter is aimed at revealing truths about the impact of the institution of war, which, as I argued in Chapter 3, are fundamental to the search for moral alternatives to violence.

The first section of the chapter deals with the issue of the costs of the institution of war. Costs here include not only the enormous amount of money spent on armaments, but also the cost of human lives and effort, and the cost of exploiting nature for resources. The facts presented are linked to the moral issue of whether such financial, human and natural resources should have been spent on providing for the basic needs of people and restoring damaged ecosystems. The second section examines the impact of guerrilla warfare on nature since this type of warfare has been widespread and particularly damaging in this century. It also considers the general relationship of the military to nature. The third section is on specific types of impacts of weapon systems. It discusses three kinds of harm--soil damage, plant cover and ecocide--that can be caused by conventional and chemical weapons, and weapons of mass destruction. Such injury inflicted by weapons or other military methods can potentially undermine the stability and health of ecosystems and the ecosphere, and violate their intrinsic and ecological-instrumental value. The fourth section discusses non-biodegradable radiological and

chemical toxic waste dumped on the land and into the air, rivers, lakes and oceans by military industries that cause short- or long-term or, in some cases, permanent damage to ecosystems. Finally, I briefly discuss the direct manipulation of nature for military assault purposes. Although many of these techniques are not yet fully developed, a few of them have been practised in actual wars. The major threat of these military practices is their ability to alter the climate and our lack of knowledge about how these techniques may affect ecosystems or cause global climate change.

Costs of the Institution of War: Monetary, Human and Ecological

From World War II to the end of the Cold War, all of the world's nations spent a total of \$16 trillion on military infrastructure (Renner 1989, p. 133), and massive levels of military spending continue to this day. The military institutions of all the world's nations still spend approximately two million dollars every minute (Thomas 1995, p. 7). Predictably, security is commonly given as the justification for such high levels of military spending.

An informal conversation between Khrushchev and Eisenhower reveals how the politics of fear and concern for security has allowed military generals and national leaders to exploit national wealth for military ends.

As of 1989, superpowers and their allies spent three quarters of all military spending globally. They had bases in 68 foreign countries with 1.8 million military personnel, where they engaged in military training and joint manoeuvres (Renner 1989, p. 134).

Eisenhower: Tell me, Mr. Khrushchev, how do you

decide on funds for military expenditures?

Khrushchev: Well, how is it with you?

Eisenhower: It's like this. My military leaders come to

me and say, 'If we don't get the funds we need, we'll fall behind the Soviet Union.' So I invariably give in. That's how they wring money out of me... Now tell me, how is it

with you?

Khrushchev: It is just the same...

Eisenhower: Yes... You know, we really should come to

some sort of an agreement in order to stop

this fruitless, really wasteful rivalry.

Khrushchev: That's one of our dreams. (Power and Tremain 1988, p. 91)

Although Khrushchev and Eisenhower agreed on the wastefulness of their enormous expenditures, they were both vulnerable to the seductive and compelling arguments of fear and security. The leaders of both superpowers perceived commitment to national security as their highest duty. Although traditional public morality insists that national security is an absolute moral obligation, the private morality of these world leaders (which could be expressed as their "dreams") brings to light the moral dilemma of the waste of resources. Of course, world leaders still face this disturbing moral dilemma today.

I would argue that such an enormous amount of money would be more justifiably spent on meeting vital human needs and protecting nature, rather than on military institutions and war-making. This is because there are nonviolent alternatives to the war system and the extreme levels of military consumption I have just described are avoidable. As I argued earlier, consumption that does not go towards meeting basic needs, directly or indirectly, denies the basic needs of others, including non-human

beings. Renner juxtaposes military spending against human need globally. In 1989, he reports, there were: "770 million people malnourished, 14 million children dying of hunger-related causes each year, some 1.3 billion people without access to safe drinking water, 100 million people without adequate shelter, and 800 million people unable to read or write" (Renner 1989, p. 137). Concerning ecological needs, in 1989 the US General Accounting Office projected the cost of clean-up of nuclear waste from weapons manufacturing plants and the cost of modernizing the aging weapons industry so that it no longer pollutes to be \$175 billion (Resnikoff 1990, p. 33).

Eisenhower was not unaware of the moral cost of military expenditures. He stated: "Every gun that is made, every warship launched, every rocket fired represents, in the final analysis a theft from those who hunger and are not fed, who are cold and are not clothed" (Renner 1989, p. 137). Eisenhower's use of the word "theft" indicates that he maintained, as I have been arguing, that the choice of military expenditures over meeting the basic needs of people is morally wrong. I would add that it is also "theft" to divert financial resources away from measures to clean up and protect ecosystems heavily hit by industrial and military pollution.

In terms of the human costs of the war system, a common impression in the West is that the post World War II period has been relatively peaceful. As true as this may be for the industrialized states, for many others it has not been the case. According to the Red Cross, in wars "since 1945, at least 20 million people have died and 60 million people were wounded" (Benchiey 1991). The number of war casualties since WWII exceeds the number of people who were killed in WWII. Most of these wars occurred in

Third World states and the greater portion of the weapons used were purchased from the USA, the USSR or former Soviet Republics, Great Britain, Canada and China. The primary target in wars of the twentieth century are not the combatants but civilians. Fifty-two percent of all deaths in war in the fifties, and 85 percent in the eighties were of civilians (Renner 1989, p. 135-136). The security systems that are supposed to protect civilians have not protected them from mass killings. These facts should raise serious moral concerns about the idea of national security through the institution of war.

There are 29 million soldiers in the armed forces around the world, and in addition nearly 11 million people are employed in the arms industry (Renner 1989, p. 134). The argument that a positive impact of the military institution has been in providing employment is convincing at face value. But the same numbers could have been employed more productively in institutions designed to enhance life and not destroy it.

The military use of land and other natural resources is yet another cost. While it would appear that the military system primarily relies on human resources, land is also heavily monopolized by armed forces. One-half to one percent of land (750,000 to 1.5 million square kilometres) around the world is tentatively used by the military and 13 industrial nations use one percent of their land for military purposes. The United States uses two percent of its national territory, 200,000 square kilometres, for military purposes and outside of its territory it has 8,100 square kilometres overseas. In the former Soviet Union the Kazakhstan province alone has nearly 200, 000 square kilometres of land in military use (Renner 1991, pp. 133-135). When the military uses these lands, it leaves

most of them "scorched," as I will discuss later. This shows the military's disregard for the intrinsic value of the ecosystems and the living beings that share the areas they occupy.

Three to four percent of the world's oil and energy, 9 percent of its steel and iron, and between 5 and 15 percent of other strategic minerals are consumed by the military. The use of aluminum, copper, nickel and platinum for military purposes around the world supersedes the entire developing world's demand for these resources (Renner 1991a, p. 140). Huisken quantifies military activity in dollar terms to give an indication of the amount of resources and raw materials that are being consumed by the military system.

The fact that the world's armed forces consume annually a quantity of resources (human and material) valued at about \$250,000 million, suggests strongly that the consumption of raw materials for military purposes is very large indeed. After all, \$250,000 million is equivalent to the world's *total* output in the year 1900, or, to give it a more contemporary perspective, it is equivalent to the combined current gross national products of the 65 countries in Latin America and Africa (Huisken 1975, p. 233).

The war system is indeed one of the largest energy consumers and exploiters of nature on this planet. In the course of consuming such large quantities of materials and energy, the military disrupts the energy flow within ecosystems and also pollutes them, as I will discuss in a later section.

There are three implications of such large scale consumption of natural resources and energy. First, as Eisenhower pointed out, this is a theft from the people who are most in need, not to mention the beings whose ecosystems have been damaged. Second, the practical outcome of such military consumption is pollution, including the production of

hazardous untreatable chemical and nuclear wastes, and this pollution also harms nature. Third, military consumption also has a direct impact on individual states that have to borrow to carry out their military policies. Rich states and the superpowers are not exceptions. A theory of Paul Kennedy's explains the cyclical relationship between military expenditure and economic stability. Kennedy argues: "Economic and productive capacity is the basis for developing military power, but beyond a certain point over-investment in military means becomes a drag upon the nation's economy" (Cox 1993, p. 145). In applying this theory Robert Cox shows how from 1981, when Reagan introduced the Strategic Defence Initiatives (SDI) program, the former Soviet Union and the US suffered such economic disaster as a result of excessive military spending. Cox points out that the US was a creditor of \$141 billion at the end of 1981 and became the world's biggest debtor of \$400 billion by 1987 and that it has continued to be the leading debtor nation since that time (Cox 1993, p. 145 and p. 152).

These facts support my argument that enormous military expenditures, consumption and pollution in the long run degrade nature, undermine the well-being of all, and diminish the social and economic security of entire nations. Again, Eisenhower was aware of this. "The problem in defence," he stated, "is how far you can go without destroying from within what you are trying to defend from without" (Renner 1991a, p. 132).

There is yet another way in which the war system brings about insecurity. New developments in technology and their application in weapon-systems of today have become a major threat to the survival of whole species and the very conditions supporting

life on earth. By the early nineties the combined destructive power of arsenals around the globe had reached dangerous levels. Renner estimates the world's total stockpile of weapons to contain:

...more than 50,000 nuclear warheads (containing the explosive equivalent of 13 billion tons of TNT); more than 70,000 tons of poison gas; millions of tons of conventional ammunition and explosives; some 45,000 combat aircraft; 172,000 main battle tanks; 155,000 artillery pieces; and close to 2,000 major surface warships and submarines (Barnaby 1975, and; Renner 1994, p. 138, see also; York 1975).

The production of each nuclear weapon costs at least \$6 million. This amounts to another psychological cost of the institution of war, and potentially could become the ultimate cost.

How Military Practices in Guerilla Warfare Damage Ecosystems

The war system generally tends to regard nature only as a means to its own purposes, that is, either as a means of defence and offence. The camouflage colours on military vehicles, equipment and uniforms represent this relationship between military enterprises and nature. Even on a symbolic level, nature becomes that which is defended, targeted and attacked during war. Unnecessary harm to nature by the military is a routine occurrence which demonstrates the military's disregard for the intrinsic value of individuals and ecosystems. This contradicts Drucker's view that nature can be given a status similar to noncombatants. War zones are understood as dangerous places for humans, but it must be recognized that all living beings for whom the war zone is habitat

are put in danger. In guerrilla warfare, especially, the rebels rely extensively on the forest for cover and ambush.

It is a widespread phenomenon that persecuted people, rebels and anti-government militias in many parts of the world make heavy use of the natural environment for military defence or protection against government assault or for offensive purposes such as ambush of enemy patrols. Rebels in countries such as Vietnam, Cambodia, Burma, El Salvador, Guatemala, Nicaragua, Mexico, Sri Lanka, Kashmir, Chechnya, Zaire and Rwanda, to name a few, base their military training camps in forests from which they coordinate their military exercises and operations.

The occupation of the forest by such rebels has two main drastic impacts on that ecosystem (particularly ecologically sensitive rain forests). First, rebels exploit the forest for their cover, food and fuel supply. They clear the land for their camps and military exercises, and hunt animals for target practice, food, illegal trade and other purposes. For example, in Angola the warring parties killed rhinos and elephants for tusks and horns so that they could buy uniforms and weapons. In Uganda and Tanzania the hippopotamus population was wiped out in target practice and other animals were killed for meat and ivory (Thomas 1995, p. 130). During the Congo civil war in Zaire the rebels occupied the Garamba National Park and massacred many animals. As a direct result the white rhinoceros is on the verge of extinction (Stockholm International Peace Research Institute 1980, p. 93). The Rwandan civil war has gravely threatened chimpanzee populations. Such military practices threaten the diversity of forest life. Suppose, for example, that the deer population were over hunted in a particular the

forest to feed the rebels. The loss of deer would affect the other animals who are dependent on the deer for food, and those species would suffer.

The second impact on the forest occurs when government troops target the forest in order to destroy the rebels. Since forests can be a tool for rebel purposes, they can also be a major obstacle to the success of government military operations. This makes the forest a primary military target. In order to defeat the rebels, government troops or their allies use "scorched earth" tactics to destroy their enemies by making the forest unsuitable to sustain life or military operations. In Sri Lanka, government troops cleared thousands of acres of rain forest on both sides of the main roads in the east and north so they could protect themselves from the rebels' ambushes. In the meantime, the troops also targeted the rebels in the forest by using artillery and shells that greatly disturbed the wildlife and the ecosystem as a whole.

Using nature only as a means to military ends has great moral and practical consequences. Fragile ecosystems often become unstable because of military exercises. Weapons systems undermine the integrity and stability of ecosystems by interrupting the energy flow. The killing of living organisms that cycle energy, and plants and wildlife that maintain diversity, make these ecosystems vulnerable to these military activities. These facts lead us to an analysis of the effects of weapons of different types on ecosystems.

Weapons and Ecological Damage

When the enemy takes the natural environment as a cover that environment becomes a primary target for military operations. The use of conventional and unconventional weapons can have drastic effects on ecosystems, including irrecoverable damage, as J.P. Robinson's studies show (Robinson 1979). Robinson recognizes the main ecological arguments I have been making in Part Two: that all living organisms within an ecosystem are interconnected and interdependent; that they are not self-sufficient but sustain themselves through a cyclical flow of energy as they interact; and that this energy cycle is fragile and depends on a delicate balance of organisms and nutrients. He analyses how these properties make ecosystems vulnerable to one or another type of weapon which may cause destruction of wildlife, trees and other vegetation, soil, watercourses and landscapes.

Robinson defines a "weapon" as: "a device for damaging a target in a manner that is predictable enough for military purposes" (Robinson 1979, p. 11). There are different categories of weapons, including piercing, high explosive, incendiary, chemical, biological, radiological and nuclear. These can be used for more conventional war strategies or for environmental warfare. Robinson classifies ecosystems in six categories: oceanic, arctic, arid, tropical, insular and temperate. Forms of damage that occur in each type of ecosystem may be directly or indirectly caused by a particular type of weapon because of the interconnectedness of ecosystems. Three main forms of ecological damages can occur due to weapons of war: soil damage, destruction of plant

cover and ecocide, and these three are linked; soil damage can lead to the destruction of plant cover, which in turn can lead to massive deaths of other species and ecocide. Since I argued in Part Two that ecosystems and the ecosphere have intrinsic value and ecological-instrumental value, destruction of soil and plant cover, and ecocide have great moral implications. I will next discuss how each of these types of damage may occur in warfare, and some of the consequences that would ensue.

Soil Damage

To begin with we must underscore the ecological importance of soil. Soil is not simply matter; it is a vital bed that contains million of microscopic organisms, water, minerals and other nutrients which provide energy to all life forms higher in the "land pyramid." For example, a gram of soil may include 30,000 protozoa, 50,000 algae, 400,000 fungi and 2,500,000,000 bacteria (Naess 1989, p. 175). Robinson states:

The soil is the vital link between the biotic and abiotic components of an eco-system. It acts as a reservoir for water and the other inorganic substances cycling through the ecosystem. It provides habitat for many of the different population of decomposer organisms that control the rate and capacity of nutrient cycling. It affords the physical structure in which are rooted most, if not all, of the different populations of primary producers (Robinson 1979, p. 47)

The flow of energy in ecosystems relies on the balance and life-sustaining potential of the soil. Weapons damage soil in two ways--by physically displacing it and by altering its structure and composition.

Topsoil displacement is the most serious form of soil damage, since topsoil is the most vulnerable layer of the soil and the most important part of ecosystems. It is the site where soil is formed and removed as nutrients in a process called the "nutrient cycle."

Topsoil is vulnerable to high-explosive and nuclear weapons which are capable of creating craters. Such irreversible craters are numerous in Indochina. Pfeiffer estimates:

The number of craters produced in Indochina by the bombardments from 1965 to 1971 total some 26 million, covering a total area of 432,000 acres and representing a total displacement of about 3.4 billion cubic yards of earth (Pfeiffer 1973, p. 34).

Such massive soil displacement diminishes the soil's capacity to cycle nutrients. There are other military practices that damage top soil. In the Gulf War, Greenpeace reports, "the fuel-air bombs used to clean minefields pulverized topsoil and destroyed all nearby vegetation" (Ostling and Miller 1992, p.5).

When topsoil is displaced its structure and composition may be altered, and land becomes prone to soil erosion and loss of vegetation. Robinson points out that the deep craters created by napalm in Indochina can disturb the way water drains into and out of the water-table, in addition to displacing the soil. Changes to the water-table alter the quality of the soil and this has an impact on the vegetation of the area for a long period of time. Chemical weapons can also alter the soil's structure and composition and severely impede the ability of the soil to maintain the nutrient cycle.

Since the first World War the destructive potential of bombs and shells has increased, and so has their potential to damage the soil. In addition to the bomb damage done in the two World Wars, there is the ongoing environmental threat of unexploded

mines and munitions in peacetime. The forests around Verdun in France were declared a "Red Zone," meaning that people are forbidden from picking up objects or plowing in the area because 12 million unexploded bombs from the first World War are still on the forest floor. The Marne and Somme rivers are the other two places in France where millions of undiscovered munitions from battles of the second World War are to be found. Since 1945, a special department for defusing bombs in France has gathered and destroyed 18 million artillery shells, 10 million grenades, 600,000 aerial bombs and 600,000 underwater mines (Webster 1994, pp. 48-49). Approximately one third of the bombs dropped by the Allies in the Kuwait desert during the Gulf War failed to explode (Thomas 1995, p.120). According to a Red Cross report, there are more than 110 million active land mines planted in 64 states around the world. In 1994, 100,000 mines were removed, while at the same time, another 2 million were planted by warring parties (Red Cross). After the wars in Indochina there remained an estimated 150 to 300 million kilograms of unexploded mines, shells and bombs causing large numbers of casualties and damage to soil (Lumsden 1975, p. 227). The ocean floor also faces ecological harm because of the hundreds of planes, ships and submarines which went under during the first and second World Wars containing unexploded ammunition (Allen 1991; Benchiey 1991). These explosives remain a great threat in peacetime.

Destroying dams is yet another tactic used in conventional warfare which has contributed to both soil damage and displacement (Sorge 1986, p. 99). There are 777 dams around the world in 70 states and at least 522 of them hold back 1000 million cubic metres of water (Westing 1990, p. 2). Attacks on these facilities can bring about

devastation not only to human communities, but also to the surrounding ecosystems. Sometimes the military attacks dams as a form of ecological warfare knowing that flooding an area with water can cause drastic soil damage and destroy plant-cover. During the Japanese invasion, the Chinese blew up the Huayuankow dike of the Yellow River as a defensive measure. It flooded several million hectares of farm land and killed several thousand people. In 1944, the Germans flooded 200,000 hectares of agricultural land with salt water in the Netherlands by opening its dikes. During this time the British also produced and used bombs which were specifically designed to target German dams. During the 1950s the US deliberately attacked the irrigation dams of Korea, Cambodia and Vietnam (Learning 1993, p. 127). In the Gulf War the Allied forces targeted all dams in Iraq. There are two consequences of attacks on dams. First, the artificial floods created by the breaking dams erode the topsoil, which slows down plant recovery. Second, if such dams are close to a nuclear or toxic dump site, the flooding water can become chemically contaminated and can spread the toxic waste over an unpredictable area. Thus, destruction of topsoil can cause great harm.

Destruction of Plant Cover

Destruction of plant-cover is a second type of impact of weapons on ecosystems and it can be caused by most weapons, particularly explosives, fire and herbicides. First, I will emphasize the vital role of plants in ecosystems:

Vegetation is the primary source of utilizable energy for an ecosystem. It is the first link in all the food-chains. It is the means whereby an ecosystem extracts inorganic minerals vital for its biotic components from the geomass. It provides not only food (directly or indirectly) for the consumer population, but also shelter. It stabilizes and moulds the soil, and transforms the prevailing climate regime into a micro climate favouring not only itself but also other biotic components of the ecosystem. The character of an ecosystem is thus dominated by its vegetation, so that damage to the latter will profoundly affect the former (Robinson 1979, p. 49).

Complete destruction of plant-cover makes the soil susceptible to erosion and leaching, and it slows the formation of new soil (Robinson 1979, p. 50). Vegetational destruction, therefore, can be a powerful military tactic and is a major phenomena in war.

Air raids are a particularly dangerous method of destroying both soil and vegetation. To give an historical perspective on the origins of air raids and their connection to ecological damage I will quote a passage which is particularly revealing of the colonial record and the targeting of the environment in war. Sir John Slessor, Marshal of the British Royal Air Force described the method, strategy and ultimate aim of air raids against desert peoples of Western Asia:

Turning now to the application of the Air Method, let me first define a little more clearly what we meant by "interrupting the normal life of the people." The aim was to deprive the offending tribe of their normal means of livelihood; to force them to abandon their grazing grounds, wells or villages when they had them... to prevent the watering of cattle or camels, or at least to make it difficult or arduous; to prevent ploughing or harvesting or any form of cultivation of crops, date palms or fruit trees; to force the tribe to scatter itself and its flocks over cold uplands, to hide in caves or billet themselves and their flocks as unwelcome guests on the inhabitants of neighbouring villages where their hosts usually brought pressure to bear on them to submit to our terms, since the last thing they wanted was to get embroiled themselves; to deny to them any form of compensation which other forms of warfare might offer such as loot, the chance of capturing rifles and ammunition, and the sporting satisfaction of

having a good fight on equal terms; and to go on doing all these things until they got so fed up with the hardship and inconvenience involved that they decided that submission to our terms was the lesser evil (Lumsden 1975, p. 222).

Slessor and his air force colleagues conducted air raids not as a straightforward war against their human enemies but as a war against the whole ecosystem in which their enemies lived. They did not differentiate human enemies from the natural environment. Attacks on nature, therefore, can be a deliberate military tactic used to harm the enemy. Such ecological warfare, according to Lumsden, originated with air raids during WWI, when the British used air power to suppress colonial rebellions.

The intensity of air raids during the second World War was horrifying. I will give only one example to show the destructiveness of military technology at that time. In the Hamburg raid alone, the Allied forces used 30,000 high explosive bombs, 3 million stick incendiaries, and 80,000 pounds of liquid phosphorus. Compounded by stored coal and coke in the households, the fire bombs created three mile high flames with speeds of 150 miles per hour and temperatures of 800 degrees Celsius. This burned alive all living beings within six square miles (Sorge 1986, pp. 101-102). I would also note here that in the six weeks of the Gulf War the Allied forces dropped 100,000 tons of high explosives on Iraq, as much as was dropped in all of World War II (Ostling and Miller 1992, p. 4).

In order to defeat the guerrillas in the Vietnam War, the US military first aimed systematically to destroy the forest so they could stop guerrilla movements and prevent them from taking cover or establishing secret camps. The second aim was to destroy food sources and, thereby, force civilians in the villages to move into US controlled areas so

the guerrillas would not have logistical support. The US military used an estimated 13 billion tons of munitions in Vietnam (Pfeiffer 1973, p. 34). Westing breaks down the estimate as: 11 million-214kg bombs and 217 million-13kg artillery shells (Westing 1975, p. 217). A bomb, nicknamed the "Daisy Cutter," was designed during the Vietnam War for the purpose of clearing large areas of dense rainforest:

The BLU-82/B general-purpose high-explosive concussion bomb... is 4.5 feet in diameter, over 11 feet long, and weighs 15,000 pounds. Within its thin steel case are 12,600 pounds of a special, dense blasting agent... The blast is spectacular: A mushroom cloud rises some 6,000 feet into the air... The blast is of such intensity that all terrestrial and arboreal wildlife (as well as any luckless humans) within a radius of approximately 3,280 feet are killed outright by the concussive shock wave... The lethal zone from one such bomb thus covers an area of about 776 acres. Beyond this circle of death, concussion injury diminishes to insignificance radically outward for a distance of another 1,640 feet or so. This larger area of both death and injury to wildlife thus encompasses about 1,746 acres per bomb (Westing 1973b, p. 40).

Another tactic the US military used at this time was bulldozing the forest. They destroyed 1,000 acres a day, wiping out at least 750,000 acres altogether (Westing 1973a, p. 38). This included rainforests, rubber and fruit plantations and other agricultural land. Without plant cover the soil was exposed to rain and floods. Erosion caused loss of minerals so the land can only support grasses, and no longer has nearly its former biological diversity. This military assault against human beings and nature has resulted in massive ecological damage in Vietnam.

Finally, the US bombardment during wars in Vietnam, Laos and Cambodia caused nearly 17 million people to become refugees (Learning 1993, p. 125). A secondary effect of the refugee population occurs when large numbers of displaced people hide in the

forest and cause enormous ecological damage as they try to provide means of food and shelter. Thus, intensive military campaigns and the use of high explosive weapons inflict great harm on plant cover. Such deliberate attacks on nature mean that the military does not perceive nature as a non-combatant, as Drucker would have it. Harming nature is an integral aspect of military strategy, although it is often claimed that the military wishes to avoid it.

Ecocide

A third effect of weapons on ecosystems is ecocide, the intentional large-scale destruction of species that causes a disruption to the ecological balance. The modern military machine has achieved enormous lethal potential, but its weapons not only do not differentiate civilians from combatants, but also do not have the capacity to differentiate human enemies from the ecosystems in which they live and on which human and non-human life depends. This makes ecocide possible. Cases of genocide are of major concern to human beings, as they should be, but the topic of ecocide tends to be neglected, even though ecocide has serious long-term repercussions. Ecocide may be caused when living organisms are exposed to natural or synthetic toxic substances (Allaby 1994, p. 48). It can be caused by all weapons including anti-material weapons which are designed to destroy inanimate structures and equipment (Robinson 1979, p. 52).

Robinson uses the term "biocide" in place of "ecocide," and he describes how it may come about through plant destruction:

For any ecosystem, the most obviously vital category is that of the primary producer organisms: the green plants which, through the mechanism of photosynthesis, are the ecosystem's principle means of converting solar energy into the chemical energy necessary for sustaining life and growth in its other biotic components. Thus, the stress of the biocide upon an ecosystem may be especially strong if a significant range of plant species falls within the biocidal bandwidth of the weapon concerned (Robinson 1979, p. 52).

Deforestation is an example of ecocide. Loss of plant cover causes climate change and a complete collapse of the balance of the ecosystem, making it unsuitable for the recovery of diversity of plant life. This leads to impacts on other living beings of that particular ecosystem. Depending on the magnitude of the effects, weapons may cause extermination of some species.

Chemical, biological and nuclear warfare are among the major causes of ecocide. Although chemical and biological warfare was practised in ancient times (Kokatnur 1948; Lauren 1982a), modern chemical warfare began when the French first used tear gas, ethyl bromo acetate, in 1914 (Holmberg 1975, p. 211). The Germans used 170 tons of chlorine in 1915 that caused 5,000 deaths out of a total of 20,000 casualties in one event. In the first World War, 92,000 were killed and 1.3 million were injured by chemical warfare. In the Italian campaign against Ethiopia (1936-1937) the Italian military used mustard gas which caused 15,000 casualties. The bombing of Iraq's nerve gas factory at Samarra poisoned the Tigris River and contaminated irrigation and drinking water. UN observers declared the river dead. Lake Mileh Tharthar in Iraq is also heavily polluted by nerve gas

(Thomas 1995, p. 123). The pollution of water systems threatens all the beings that depend on that water. Although the effects of chemical and biological warfare on human beings has been examined, the effects on other beings and organisms has not yet been sufficiently studied. Since the Indochina war, however, studies on the effects of chemical and biological warfare on plants are available.

Herbicides were first introduced by the British in Malaya as part of the defoliation program in 1950 (Holmberg 1975, p. 211). During the seventies in Angola, the Portuguese military used chemical herbicides to wipe out the food crops of the rebels (Stockholm's Afrikagrupp 1973, p. 42). Compared with earlier applications of chemical warfare, its use against Vietnam is well documented. There the American military used both napalm and herbicides to attack the Viet-cong, devastating the rain forest in the process (Whiteside 1971). In this campaign, 10 million hectares of forest were sprayed by chemical substances, including 60,000 hectors of mangrove tree forests (Holmberg 1975, p. 213). The US army used 55 million kilograms of herbicides in South Vietnam (Learning 1993, p. 128). Between 40 and 100 percent of cropland used for rice, bananas, sweet potatoes, papaya, beans cabbage and tomatoes was affected (Learning 1993, p. 128). Wildlife such as elephants, tigers, wild bears, deer, rhinoceros, languors, gibbons and bovine species such as koprey, guar and banteng were affected as well, although the degree of the effects has not been studied sufficiently (Holmberg 1975, p. 214). Seeley estimates that four percent of bird species and three percent of plant species were made extinct (Seeley 1986, p. 196). Such attacks on the soil and plant cover have ecocidal impacts.

Other aspects of the war system that cause ecocide include nuclear bombing and testing. So far in our history only two atomic bombs have been dropped during war. The immediate effects of these bombs is well known, and the long term effects are still being studied. What is less well known is the serious threat posed by the production of nuclear weapons, their waste and their testing.

I will focus on the ecological impacts of nuclear testing, which affect ecosystems in two ways: first, by the immediate blast, and second, by the radiological impact of contaminated fallout after the blast. From 1945 until 1989 more than 1,800 nuclear bombs were exploded in 35 sites around the world, and Renner claims that "virtually all of them [took place] on the land of native people, including the western Shoshones, Aleutians, Kazakhs, Uygurs, Australian aborigines and Pacific islanders. Currently, most testing takes place in Nevada and Kazakhstan" (Renner 1991b, p. 23). Up to 1988, the US is known to have conducted 920 nuclear tests: 66 in the Marshall Islands (43 of these on Eniwetok Atoll and 23 on Bikini Atoll), 790 underground tests in Nevada and the rest in other parts of the US.

The worst ecosystem disasters occur after the blast through radioactive fallout.

Fallout can travel on the wind for hundreds of miles, affecting other ecosystems far from the test site. Fallout from the "Bravo" thermonuclear detonation contaminated an area 300 miles long and 40 miles wide because of an unexpected downwind. At Bikini atoll, after a test of a 15 megaton bomb the fallout covered 7,000 square miles (Lauren 1982b, p. 79). The affected areas were so polluted they become, as a result, unsuitable for human

life. Radioactive dust and metal particles from fallout from a nuclear test in the Nevada desert travelled 2,000 miles to Rochester, New York in 1951.

Of the 66 tests in the Marshall Islands, 12 islands were destroyed, and 6 of these were completely erased by the impact of the bombs (Sorenson 1990, p. 66). Ninety vessels which formed part of the experiments are still under the water emitting nuclear contamination and thus affecting the ecosystem of the Bikini lagoon (Eliot 1992, p. 7083). All living organisms in the area have experienced heavy radiation. Since land, ocean, fresh water, fish and vegetation are interconnected in the food chain of the islands, all local foods contain radioactivity. Vegetation in the nuclear tested areas has abnormalities because of radiation. According to Edvarson, grazing animals are more vulnerable to radioactive fallout than are humans (Edvarson 1975, pp. 209-210).

Sorenson compares the effects of radiation on other species:

Comparing several categories of life forms, the following describes relative sensitivities: mammals are more sensitive than birds, which are more sensitive than higher plants, fishes, amphibians, reptiles, and crustaceans; these, in turn, are more sensitive than insects, bacteria, and viruses. Of plant communities, coniferous forests, which dominate a large proportion of the Northern Hemisphere, are most sensitive; grasslands, characterized by plants with meristems protected near or below the soil surface, are least sensitive (Sorenson 1990, p. 108).

Since humans are at the top of the food chain, relying on animals and plants, they suffer from the cumulative effects of radiation. According to UN reports, over 150,000 Islanders have died as a direct result of over 250 nuclear detonations in the Pacific islands (Thomas 1995, p. 34). Leukemia, thyroid tumours, cataracts and diabetes have became

common among humans living in the Bikini Islands (Dibbin 1988, pp. 42-47). Besides these disorders, radiation is also known to cause sterility, miscarriages, and birth defects.

Another impact of the testing has been the forced removal of populations living on the islands being used for tests and the overcrowded conditions of lands on which these populations were resettled. For example, the resettlement to Ebeye atoll has overcrowded the land to the point that it can no longer support vegetation (Thomas 1995, pp. 27-28).

Problems from exposure to radiation develop not only in the people who live on the testing site, but also in the people who are involved at various levels of work in the production and testing of nuclear bombs. In United States, 400,000 soldiers were exposed to radioactivity from nuclear test sites and in the 1950s, 250,000 American, British and Canadian soldiers participated in military exercises that included mock nuclear combat, and many were exposed to radioactive fallout (Thomas 1995, p. 41).

NASA scientist, Gary White Ford, suggests that there may be a relationship between the underground tests and killer earthquakes. Thomas provides some evidence of this:

Among the biggest was a 150-kiloton blast in Nevada, 7,000 times more powerful than the Hiroshima bomb. The test took place on July 27, 1976. On July 28, 800,000 people died in an earthquake in Tangsham, China. Three weeks later, another underground Nevada test was followed by earthquakes in Lima, Peru, and Nepal; 700 Tibetans died in the Nepal tremor (Thomas 1995, p. 40).

As I will explain further in the next section, nuclear waste which has leached into ground water, rivers and lakes poses a great threat to the health of local people, not to mention

domesticated animals and wildlife at all levels of the food chain. Nuclear waste, testing of nuclear weapons, accidents during transport of nuclear weapons² or relating to nuclear weapons located in earthquake zones, and actual deployment of nuclear weapons constitute the highest ecocidal threats because each of these aspects of nuclear armaments may cause total breakdown of ecosystem balance.

Weapons of mass destruction do not have the capacity to discriminate civilians from combatants or human life from the source of all life, nature. Such indiscriminate power has "overkill" potential in that it can destroy the basis for life on the planet.

Irreparable "overkill" amounts to "ecocide," which John Fried describes and defines as follows:

If the environment is greatly disturbed or destroyed, the ecological balance cannot be maintained, and the interdependent existence of living things--human, animals and plants--itself is endangered (ecocide). "Ecocide," then, refers to large-scale intentional measures to disturb or destroy the ecological balance (Fried 1973, p. 43).

When people have been killed on a massive scale in wars in the past, despite the moral and rational objections one may have to those wars, there has always been the possibility that human beings and the affected ecosystems would reorganize and flourish in the future. If overkill ever occurs, however, it is improbable that human beings or other life forms could flourish again. Thus, the war system not only does great harm at present, it also has the potential to harm future generations, which is morally wrong.

² See Jacob and Kirby (1990).

Peacetime Military Maintenance and the Pollution of Land, Air, Rivers, Oceans and Ground Water

I have discussed how both conventional arms and weapons of mass destruction can inflict great harm on ecosystems and how armies use nature as a resource as well as a tool for defensive and offensive purposes. Here I will argue that the major threat of the modern war system to nature and civilians is not only from the immediate effects of war but from the establishment and maintenance of the military system. Even in peacetime the military damages nature on many levels, with serious consequences. The military uses nature as a source of resources, site for drills and tests, and dumping ground for military-industrial waste, among other purposes.

Ruth Leger Sivard, an environmental scientist, states that the military is, "the single largest polluter on Earth" (Sivard 1991, p. 5). In support of Sivard's contention, Thomas states: "Today's armed forces are responsible for 10 percent to 30 percent of global environmental damage, six to 10 percent of worldwide air pollution and 20 percent of all ozone-destroying chloro-fluorocarbon use" (Thomas 1995, p. 16). In the US, 40 percent of industrial manufacturing is of military-related products and the top 10 weapon producing companies are major violators of environmental standards. For example, the American Boeing company has produced and dumped 24 million gallons of toxic waste over the past three decades (Thomas 1995, pp. 8, 25).

I will now give an overview of some of the pollution problems at specific military sites in the US alone. Over the last 34 years, the military-nuclear plant in Fernald, Ohio released 520,000 pounds of uranium dust into the air and dumped 12 million pounds of

uranium toxic waste into settling ponds, which have seeped into ground water (Resnikoff 1990, p. 24). Over a 40 year period, two hundred and ten billion gallons of low-level fluid waste were pumped into the soil from the Hanford nuclear plant, and 500,000 gallons of high-level waste has leaked from underground tanks (Resnikoff 1990, p. 24; see also Shrader-Frechette 1991, p. 328). Thirty-five million gallons of highly radioactive liquid waste in leaky underground tanks were found at the bottom of the Savannah River in the United States. The ground water at Sacramento in the United States contains TCE degreasers, PCBs, various acids, low-level radioactive waste and other contaminants because of the activity of the McClellan Air Force. The Sacramento River receives heavy toxic runoff, while the fruit and vegetable farmers around the river heavily rely on its water for irrigation (Thomas 1995, p. 24). The Rocky Mountain Arsenal outside Denver, Colorado is the most contaminated area in the world, according to Renner. In last thirty years, the military has dumped almost 125 kinds of chemical waste in this area (Shrader-Frechette 1991, p. 328). In the 1950s toxic waste from the nerve gas plant there was dumped into reservoirs and contaminated the ground water. The chemicals killed 2,000 ducks and other birds annually, along with livestock and crops irrigated from wells in the area (Birks 1990, p. 172). Underground nuclear tests in Nevada have made ground water unusable. The Nevada site also contains contaminated dust that has affected the animals and the 30 species of birds in the area (Sorenson 1990, p. 104). Similar conditions of nuclear exposure are present in the Idaho, Livermore, Los Alamos, Mound, Oak Ridge, Paducah, Pantex, Portsmouth, Rocky Flats and Sandia nuclear laboratories, plants and test sites in the US (Resnikoff 1990).

The production of plutonium for nuclear weapons also causes enormous ecological damage. "The production of a single pound of plutonium generated about 150 gallons of high-level radioactive waste laced with hazardous chemicals, more than 25,000 gallons of low- to intermediate-level waste; and more than 1.1 million gallons of contaminated cooling water" (Renner 1991b, p. 21). Plutonium-239, which is used to make nuclear weapons has a radio-active half-life of 24,000 years (Reicher and Salzman 1990, p 153). The US possesses 90 to 100 tons of plutonium weapons.

Nation-wide in the US, there are 40,000 underground containers owned by the military that store fuel and chemicals and these pose a great treat to civilians because many of them are now leaking as a result of various causes. There is also, in total, 100 million cubic feet of low-level waste that has been dumped in land fills (Resnikoff 1990, p. 19). Nearly 17,500 US military sites are not in compliance of federal environmental laws, and 97 bases are listed under the "Superfund," which means that their clean-up has national priority because of their severe contamination (Finger 1991, p. 224; Renner 1991b, p. 19; Thomas 1995, p. 23).

There are serious moral issues concerning hazardous chemical and radioactive waste generated by the military complex because, unlike commercial-industrial production, information regarding military production, type of waste and waste disposal is denied to the public under the pretext of national security. This puts citizens into the dangerous situation of possibly being exposed to toxic waste, but not being aware of it. Researchers have brought to light much information about the dangers of military

pollution in the US, but information on nuclear arsenals and military waste elsewhere is much less accessible.

During the stay of the NATO military in West Germany, NATO forces annually produced 100 million tons of solid waste. They dumped 500 tons of toxic waste on the land and 15 million gallons of toxic waste into the rivers and ground water every year (Thomas 1995, p. 27).

In the case of the former Soviet Union, nearly 15 percent of the land is considered unsuitable for human life because of the various military uses made of it. (Because of their anthropocentric world view, researchers have not thought fit to discuss its suitability for other forms of life.) In East Germany, military activities of the Soviet Armed Forces ruined ten percent of the land and 90 military bases are heavily polluted. The ground water at the Larz air force base in East Germany accumulated a layer of petrol from military activity at least five feet thick (Thomas 1995, pp. 29-30).

The Techa River in the former Soviet Union, used as a military waste dump until 1952, was contaminated by cesium, strontium and other liquid radioactive wastes. Such chemical and radioactive wastes travelled and spread 1,000 miles to the Arctic Ocean (Renner 1991b, p. 22). Nuclear waste along the river exposed 124,000 people to high levels of radiation and forced people to leave their homes (Lichtenstein and Helfand 1993). The effects on other beings have not been documented.

The exposure of civilians and military personnel to nuclear hazards in the former Soviet Union is assumed to be worse than in the US (Edwards 1994). It is also known

that nuclear tests in Kazakhstan exposed at least 10,000 people to high levels of radiation (Lichtenstein and Helfand 1993, p. 107). Consider also the following description:

From 1952 on nuclear waste was dumped into nearby Lake Karachay. The heat of the substances began to dry out the four-square-mile body of water until it all but evaporated. By 1988, it contained radioactive waste emitting 120 million curies, two-and-a-half times more than was released at Chernobyl. The radioactivity on the lake shore is so high that any person exposed to it for just one hour would die within a few weeks (Renner 1991b, pp. 22-23).

A worldwide ecological problem brought about by the military system is air pollution from military planes. According to Worldwatch, from 700,000 to a million sorties are engaged in annually. Ten million tons of carbon monoxide, nitrogen oxide, hydrocarbons, sulphur dioxide and soot are released into the air by military aircraft in these sorties each year (Thomas 1995, p. 63). Another global problem stems from the many nuclear-powered submarines that have been discarded under the ocean (Sagalevitch 1991, p. 43). The effects of these military wastes on living beings and ecosystems clearly will be destructive and long-term.

Once again, given this evidence, it would be very difficult for Drucker's environmentally conscious commander to amend established military priorities. This reality challenges the idea that security can be achieved through military means. It prompts people like Wendell Berry to ask:

To what point... do we defend from foreign enemies a country that we are destroying ourselves? In spite of all our propagandists can do, the foreign threat inevitably seems diminished when our air is unsafe to breathe, when our drinking water is unsafe to drink, when our rivers carry tonnages of topsoil that make light of the freight they carry in boats, when our forests are dying from air pollution and acid rain, and when we

ourselves are sick from poisons in the air. Who are the enemies of this country? (Renner 1989, p. 141)

Environmental Warfare

"Environmental modification techniques" is the military term for environmental warfare. Environmental modification is defined as: "Any technique for changing—through the deliberate manipulation of natural processes—the dynamics, composition or structure of the earth, including its biota, lithosphere, hydrosphere, and atmosphere, or of outer space" (Goldblat 1975, p. 186). Information about military capabilities and applications of this area of warfare is very limited to public knowledge. We do know, however, the broad types of environmental warfare that are possible. The following is a list of known strategies:

Fog and cloud dispersion

Fog and cloud generation

Hailstone production

Release of materials which might alter the electrical properties of the atmosphere Introduction of electromagnetic fields into the atmosphere

Generating and directing destructive storms

Rain and snow making

Control of lightning

Climate modification

Disruption of the ionized or ozone layers

Change of the physical, chemical and electrical parameters of the seas and oceans

Addition of radioactive material in to the oceans and seas

Generation of large tidal waves (tsunamis)

Stimulation of earthquakes/ tsunamis

Large-scale burning of vegetation

Generation of avalanches and landslides

Surface modification in permafrost areas

River diversion

Stimulation of volcanoes. (Goldblat 1975, p. 187)

Although the US and USSR showed great interest in developing these kinds of warfare in the late sixties and early seventies, they submitted a draft to the 1975 Geneva

Disarmament Conference that urged prohibiting such warfare. Effects of these forms of warfare on nature still have not been well studied, although their purpose is to change climate, which is linked to the balance of ecosystems. However, the practicality and impact of most of these techniques is still a matter of speculation, except for rain-making and the destruction of vegetation by US that was used to the detriment of ecosystems in the Indochina wars (Goldblat 1975, p.186).

Physicist, Bhupendra M. Jasani, has analysed weather modification techniques and warned that before we use them as weapons we must better understand the basic physical processes of nature (Jasani 1975, pp. 191-198). However, a form of environmental warfare was used in the Gulf War, as the destruction of oil fields clearly show. Five-and-a-half million barrels of oil spilled in the Gulf, and affected the soil, marine life, the ocean and millions of migrating, water and wading birds belonging to 200 different species along the coast of the Gulf. Oil affected the birds both by weighing down their wings and destroying their feeding areas on the shore. A trail of toxic smoke 1,500 miles long travelled from the Kuwait oil fields to Iran, Oman, Pakistan, India and the southernmost of the former Soviet Republics, causing acid rain and destroying trees and crops (Thomas 1995, p. 117).

In conclusion, the information which has been provided in this chapter is a partial account of the ecological damage committed by the military system. There is much more detailed data available on ecosystem damage by military causes, and more data collection

is needed. What we may gather from this information is, first, a greater awareness of the danger posed by the war system and actual war to human beings and nature as a whole than what we would have if we focused only on superficial, human-centred data, such as numbers of war casualties. Second, the data shows how the institution of war, which was developed for security reasons, has itself become an enemy. Modern weapons not only have the capacity to cause ecological breakdown in enemy territory, but they can cause great harm to the well-being of the nation which makes and uses them, as the war system consumes enormous quantities of resources and energy, and then emits poisonous waste and by-products. Damage to nature and ecocide are antithetical to true security.

Johansen sums up this conclusion well:

A deeper respect for nature is essential to maintaining a healthy biosphere, without which a life of human dignity cannot continue. Environmental issues pose planet-enveloping dangers with the prospect of such irretrievable damage that they constitute the most serious long-range security problem in the world today. The World Commission on Environment and Development has concluded that life support systems for the entire species face severe danger from pollution, resource depletion, and population pressure. These dangers cannot in most cases be treated at all through the traditional security instruments of military strength (Johansen 1991, p. 410-411).

Indeed, the war system causes graver moral and practical problems than it was designed to resolve. Real security in our time, when the ecosphere is already exhausted by enormous energy consumption, can only be achieved by non-military, nonviolent methods of avoiding, managing and resolving conflict. An ecocentric perspective brings these problems to light and morally compels us to find new ways to resolve them.

Conclusion: Moral Implications of the War System's Impact on Nature

It is time now briefly to review the vast area covered so far in the thesis. The first part extended Gandhian nonviolence in a secular direction and showed that his theory is also relevant to the problem of violence in the human relationship to nature. In doing so Part One laid out the basic moral framework for later arguments. The second part constructed Gandhian ecological ethics based on underdeveloped tendencies within Gandhi's work, as well as aspects of Leopold's ecosystem ethics and Naess' deep ecology that are compatible with Gandhian thought. By selecting ideas from all three thinkers I put forward a set of principles on the morality of violence against nature and the process for realizing an alternative nonviolent relationship with nature. The first nine principles conveyed the general moral position that was the foundation for my critique of the war system in the third part. I developed the tenth principle on the need to make ecological security a priority over military security in the first chapter of Part Three. In this final chapter I have used factual evidence to emphasize the devastating impact of the institution of war on nature, and to demonstrate the importance of ecology to the moral position of nonviolence. I will conclude the thesis by commenting on the implications of each of the ten principles in relation to ecological security and the problem of war.

1) Nonviolence theory should be as widely applicable as possible and, therefore, it should not be based on a particular religious worldview.

The institution of war is global in scope, and so is the ecological harm it causes. The war system reinforces national identity and borders, but nations share ecosystems, and there is only one ecosphere which we all inhabit. Solutions to ecological problems and nonviolent alternatives to the institution of war, therefore, must be transnational. They require trust, cooperation and openness to exploring truth between people of different nationalities, cultures and religions. Arguments for nonviolence that are based on a particular religious worldview will be limited in their acceptability. The most useful nonviolence theories will be secular theories that can be flexibly adopted by different cultures.

2) Unavoidable violence, or violence which is necessary for fulfilling vital needs, is not morally wrong, whereas unnecessary violence towards any part of nature is morally wrong. Unnecessary acts which undermine the balance and health of ecosystems are wrong.

All wars unquestionably involve avoidable, objectionable violence. The activities engaged in to prepare for war, such as weapons production and testing, are also violence because they harm nature, use nature only as a means, and wastefully divert resources away from fulfilling basic needs. Most of the unnecessary violence committed by the war

system occurs in peacetime. Moral objections to war from the perspective of nonviolence, therefore, must include objections to the institution of war in all of its aspects, not just the killings of human beings in actual warfare.

3) Nonviolence and truth are mutually reinforcing. Nonviolence is a method to understand the truth, and truthfulness enables the practice of nonviolence. In the context of ecology, nonviolence is a method to understand the ecological truth of our interconnected and interdependent relationship with nature. In turn, awareness of this truth will encourage the practice of nonviolence towards nature.

Though wars are justified by claims to seek truth and justice, the war system itself is based on withholding truth. Information about recently developed weapons systems and new types of warfare and their effects on ecosystems and human health are often deliberately denied to people in the name of security. Military secrecy directly harms those people who are unknowingly exposed to environmental hazards, and it prevents people from taking measures to oppose harm being done to nature.

The war system also denies ecological truths by engaging in activities with indifference to their long-term or secondary effects on nature. The search for truth and for a greater understanding of the interconnectedness and interdependence of nature will bring about greater awareness of the ecological violence of military activities. Truth-seeking will motivate nonviolent alternatives to war, and the implementation of these alternatives will allow for even greater ecological awareness.

4) Nonviolence has negative and positive aspects in dialectical relationship. Both aspects are necessary for maintaining the health of nature. Negative nonviolence instructs us not to harm nature. Positive nonviolence fosters an inclination to treat all beings and nature as a whole with love, compassion, respect, and service. It calls for a lifestyle based on simplicity and the search for relative truth.

A basic critique of the war system takes the position of negative nonviolence. It is the conviction that we should not harm nature through our narrow, anthropocentric attempts to achieve security. Such a position would lead to non-participation in any aspect of the institution of war. Positive nonviolence on the individual level, would lead people to adopt lifestyles based on care and respect for nature. On the institutional level, the practice of positive nonviolence would lead to the formation of organizations that promote ecological security, develop methods of nonviolent conflict resolution, and foster harmonious relationships between all human groups, and between humans and nature.

5) The simple life and the ecocentric perspective are important to the practice of nonviolence because they compel humans to minimize their impacts on nature.

Many wars are fought for the power and affluence that comes with conquest. The simple life thoroughly renounces these goals. While the soldier's lifestyle may appear to be relatively simple, the negative consequences of the soldier's anthropocentric actions, in the long run, are vast and complicated. Thus, the simple life entails more than restricting consumption to what is necessary to meet vital needs. It means leaving a small

footprint on the earth. Widespread adherence to the simple life and ecocentric values would be a strong impediment to the war system.

6) All living beings, ecosystems and the ecosphere as a whole have intrinsic value independently of the other values attributed them by humans.

War is fought for human purposes and uses nature for anthropocentric instrumental value. Recognition that ecosystems have intrinsic value and ecological instrumental values would lend greater force to arguments against war because they give a strong basis for the claim that harm to nature is morally wrong. If we took seriously the intrinsic value of nature we would have to find alternatives to resolving conflict, and these could not be shallow ecological alternatives that revert to military instrumental logic, but must involve firm adherence to the moral position that nature has intrinsic value and should not be harmed.

7) Symbiotic relationships in nature demonstrate the inseparability of means and ends. For humans to behave symbiotically they must cooperate with each other, live harmoniously with nature, and avoid relationships that are merely human-instrumental.

The institution of war is fundamentally antithetical to symbiotic relationships with nature. Its moral justification depends on a distinction between means and ends. It compartmentalizes its activity into special military zones and justifies them through the moral category of means. It shows no regard for how military zones are interconnected in

multiple ways with other areas of life and nature, and how harm to nature within military zones can have wide-reaching effects.

8) The ultimate aim of ecological nonviolence is to maintain the integrity and stability of nature so that living beings can maximize their potentials. This depends on maximal diversity and complexity within ecosystems.

Maintenance of the war system and engagement in actual war destabilizes ecosystems by soil damage, destruction of plant cover and ecocide. Chemical and nuclear weapons alter the genetic pool, cause extinctions and undermine diversity. In contrast, nonviolence ensures bio-diversity by refusing to unnecessarily harm nature.

9) Genuine self-interest includes the interest of all. Identification with others and nature as a whole, allows one to realize one's genuine self-interest. Broadening one's identification is a process of developing an expanded sense of self, or self-realization.

War is based on the narrow interests of a particular group of humans and it does not encourage wider identification with nature. Rather, it associates nature merely with military strategies around resources, territory, camouflage, and so on. It obstructs symbiotic relationships within nature, and between humans and nature. To this extent the institution of war is an obstacle to self-realization.

Nuclear warfare is widely recognized as suicidal, but an ecological perspective makes us aware of the more subtle ways in which the institution of war, including preparation for war, harms nature and is contrary to genuine self-interest.

10) An enhanced notion of security includes ecological security, which relies on self-realization and not merely self-preservation.

The increasing deadliness of military technologies and the life-threatening pollution of military industries have reached the point that military means of nation security are counter-productive, and the military system itself has become a threat to every nation's security. Although national security has been perceived as the highest duty of national leaders, the ecological damage brought about by attempts to ensure it militarily should lead us to reevaluate the importance placed on national security in relation to ecological security. There needs to be a shift from traditional moral thinking on the primacy of national security toward a broader understanding of moral responsibilities to the nation and to nature as a whole. The only way to assure ecological security is through nonviolent alternatives to the institution of war.

BIBLIOGRAPHY

- Bible. New International Version.
- 19--. The Mahabharata of Krishna-Dwaipayana Vyasa. Translated by Pratap Chandra Roy. 2 ed. Calcutta: Oriental Publication Co.
- 1969a. The Elder's Verses 11 Therigatha. Translated by K.R. Norman: Luzauc and Co., Ltd.
- 1969b. The Thirteen Principle Upanishads. Translated by S. Radhakrishnan. New York: Humanities Press.
- 1983. The Rig Veda. Translated by Wendy Doniger O'Flaherty. Great Britain: Penguin Books.
- Allaby, Michael. 1994. Ecology. Oxford: Oxford University Press.
- Allen, Thomas B. 1991. Pearl Harbour: a return to the day of infamy. *National Geographic*, December, 50-77.
- Barnaby, Frank. 1975. The spread of the capability to do violence: an introduction to environmental warfare. Ambio 4 (5-6):178-183.
- Basham, A.L. 1959. The Wonder that was India. New York: Grove Press.
- Benchiey, Peter. 1991. Ghost of war in the South Pacific. *National Geographic*, April, 424-457.
- Birks, John W. 1990. Weapons forsworn: chemical and biological weapons. In *Hidden Dangers: Environmental Consequences of Preparing for War*, edited by A. H. Ehrlich and J. W. Birks. San Francisco: Sierra Club Books.
- Bondurant, Joan V. 1988. Conquest of Violence: The Gandhian Philosophy of Conflict.
 Princeton: Princeton University Press.
- Brown, Donald Mackenzie. 1953. The White Umbrella: Indian Political Thought from Manu to Gandhi. Berkeley: University of California Press.

- Callicot, J. Baird. 1989. In Defence of the Land Ethic: Essays in Environmental Philosophy. U.S.A.: State University of New York Press.
- Chomsky, Noam. 1993. Year 501: The Conquest Continues. Montreal: Black Rose Books.
- Chomsky, Noam, and Edward S. Herman. 1979. The Washington Connection and Third World Fascism. Montreal: Black Rose Books.
- Cox, Robert. 1993. Production and security. In *Building a New Global Order: Emerging Trends in International Security*, edited by D. Hewitt, D. Haglund and J. Kirton. Oxford: Oxford University Press.
- Des Jardins, Joseph R. 1993. Environmental Ethics: An Introduction to Environmental Philosophy. Belmont, California: Wadsworth Publishing Co.
- Desai, Mahadev. 1956. The Gita According to Gandhi. Ahmedabad: Navajivan Publishing House.
- Devall, Bill, and George Sessions. 1985. Deep Ecology: Living as if Nature Mattered. Salt Lake City: Peregrine Smith Books.
- Dibbin, Jane. 1988. Day of Two Days: Nuclear Testing and the Pacific Islanders: Virago Press.
- Dobson, Andrew. 1995. Green Political Thought. New York: Routledge.
- Drengson, Alan. 1989. Protecting the environment, protecting ourself: reflections on the philosophical dimension. In *Environmental Philosophy*, edited by R. Bradley and S. Duguid. British Colombia: Simon Fraser University.
- Drucker, Merrit P. 1989. The military commander's responsibility for the environment. Environmental Ethics 11 (summer):135-152.
- Eckersley, Robin. 1992. Environmentalism and Political Theory: Towards an Ecocentric Approach. Albany: State University of New York Press.
- Edvarson, Kay. 1975. Radioecological aspects of nuclear warfare. *Ambio* 4 (5-6):209-210.
- Edwards, Mike. 1994. Lethal legacy. National Geographic, August, 70-99.
- Eliot, John L. 1992. Nuclear graveyard. National Geographic, June, 70-83.

- Falk, Richard A. 1991. Theory, realism and world security. In World Security: Trends and Challenges at Century's End, edited by M. T. Klare and D. C. Thomas. New York: St. Martin's Press.
- Finger, Matthias. 1991. The military, the nation-state and the environment. *The Ecologist* 21 (5, September/October):220-225.
- Fischer, Louis, ed. 1962. The Essential Gandhi: An Anthology of his Writings on his Life, Work and Ideas. New York: Vintage Books.
- Fox, Warwick. 1995. Towards a Transpersonal Ecology: Developing New Foundations for Environmentalism. Albany: State University of New York Press.
- Fried, John H.E. 1973. Environmental warfare II: 'War by ecocide'. Bulletin of Peace Proposals 4:43-44.
- Gandhi, Mohandas K. 1957. An Autobiography: The Story of my Experiments with Truth. Boston: Boston Press.
- Gandhi, Mohandas K. 1984. The Collected Works of Mahatma Gandhi. New Delhi: Publications Division, Ministry of Information and Broadcasting, Government of India.
- Gandhi, Mohandas K. 1993. The Bhagvadgita. New Delhi: Orient Paperbacks.
- Gauthier, David P. 1969. The Logic of Leviathan. Oxford: Clarendon Press.
- Gier, Nicholas F. 1994. Gandhi, ahimsa and self. In Facets of Mahatma Gandhi: Ethics, Religion and Culture, edited by S. Mukherjee and S. Ramaswamy. New Delhi: Deep & Deep.
- Goldblat, Jozef. 1975. The prohibition of environmental warfare. Ambio 4 (5-6):186-190.
- Gray, Elizabeth Dobson. 1981. Green Paradise Lost. Wellesley: Roundtable.
- Holmberg, Bo. 1975. Biological aspects of chemical and biological weapons. *Ambio* 4 (5-6):211-215.
- Huisken, Ronald H. 1975. The consumption of raw materials for military purposes. *Ambio* 4 (5-6):229-233.
- Iyer, Raghavan. 1973. The Moral and Political Thought of Mahatma Gandhi. New York: Oxford University Press.

- Iyer, Raghavan N., ed. 1986. The Moral and Political Writings of Mahatma Gandhi. 3 vols. Vol. 2. New York: Oxford University Press.
- Jacob, Gerald, and Andrew Kirby. 1990. On the road to ruin: the transport of military cargoes. In *Hidden Dangers: Environmental Consequences of Preparation for War*, edited by A. H. Ehrlich and J. W. Birks. San Francisco: Sierra Club Books.
- Jasani, Bhupendra N. 1975. Environmental modification. Ambio 4 (5-6):191-198.
- Johansen, Robert. 1991. A policy framework for world security. In World Security: Trends and Challenges at Century's End, edited by M. T. Klare and D. C. Thomas. New York: St. Martin's Press.
- Kattackal, Jacob. 1982. Religion and Ethics in the Advaita. Kerala: C.M.S. Press Kottayam.
- Khanna, Summan. 1985. Gandhi and the Good Life. New Delhi: Gandhi Peace Foundation.
- Klare, Michael T., and Daniel C. Thomas, eds. 1991. World Security: Trends and Challenges at Century's End. New York: St. Martin's Press.
- Kokatnur, Vaman R. 1948. Chemical warfare in ancient India. *Journal of Chemical Education* 25:268-272.
- Lauren, Paul Gordon. 1982a. War, peace and the environment. In *International Dimensions of the Environmental Crisis*, edited by R. N. Barrett. Colorado: Westview Press.
- Lauren, Paul Gordon. 1982b. War, peace and the environment. In *International Dimensions of the Environmental Crisis*, edited by R. N. Barrett. Colorado: Westview Press.
- Learning, Jennifer. 1993. War and the environment: human health consequences of the environmental damage of war. In *Critical Condition: Human Health and the Environment*, edited by E. Chivian, M. McCally, H. Hu and A. Haines. Massachusetts: MIT Press.
- Leopold, Aldo. 1966. The land ethic. In A Sand County Almanac. Oxford: Oxford University Press.

- Lichtenstein, Kenneth, and Ira Helfand. 1993. Radiation and health: nuclear weapons and nuclear power. In *Critical Condition: Human Health and the Environment*, edited by E. Chivian, M. McCally, H. Hu and A. Haines. Massachusetts: MIT Press.
- Lumsden, Malvern. 1975. 'Conventional' war and human ecology. *Ambio* 4 (5-6):223-228.
- Mahadevan, T.K. 1970. An approach to the study of Gandhi. In *Quest for Gandhi*, edited by G. Ramachandran and T. K. Mahadevan. New Delhi: Gandhi Peace Foundation.
- Mangold, Peter. 1990. National Security and International Relations. New York: Routledge.
- Moline, John N. 1986. Aldo Leopold and the moral community. *Environmental Ethics* 8 (Summer).
- Naess, Arne. 1965. Gandhi and the Nuclear Age. Totawa, New Jersey: The Bedminster Press.
- Naess, Arne. 1973. The shallow and the deep, long-range ecology movement: a summary. *Inquiry* 16:95-100.
- Naess, Arne. 1974. Gandhi and Group Conflict: An Exploration of Satyagraha. Oslo: Universitetsforlaget.
- Naess, Arne. 1977. Spinoza and Ecology. In *Speculum Spinozanum*, edited by S. Hessing. Boston: Routledge and Kegan Paul.
- Naess, Arne. 1979. Self-realization in mixed communities of humans, bears, sheep and wolves. *Inquiry* 22:231-41.
- Naess, Arne. 1986. The deep ecological movement: some philosophical aspects. *Philosophical Inquiry* 8:10-31.
- Naess, Arne. 1989. Ecology, Community and Lifestyle: Outline of an Ecosophy.

 Translated by David Rothenberg. Cambridge: Cambridge University Press.
- Naess, Arne. 1990. 'Man apart' and deep ecology: a reply to Reed. *Environmental Ethics* 12 (Summer):185-192.

- Naess, Arne. 1993. Identification as a source of deep ecological attitudes. In *Radical Environmentalism: Philosophy and Tactics*, edited by P. C. List. California: Wadsworth Publishing Co.
- Ostling, Karen, and Joanna Miller. 1992. Taking Stock: The Impact of Militarism on the Environment. Toronto: Science for Peace.
- Parekh, Bhikku. 1989. Gandhi's Political Philosophy: A Critical Evaluation. London: MacMillan Press.
- Passmore, John. 1974. Man's Responsibility for Nature. Great Britain: Gerald Duckworth & Co.
- Pfeiffer, E.W. 1973. Environmental warfare II: 'Cratering of Indochina'. *Bulletin of Peace Proposals* 4:34.
- Power, Thomas, and Ruthven Tremain, eds. 1988. Total War: What it is, How it Got that Way. New York: William Morrow and Company.
- Radhakrishnan, S., and Charles A. Moore, eds. 1989. A Sourcebook of Indian Philosophy. New Jersey: Princeton University Press.
- Raja, C. Kunhan. 1964. The Quintessence of the Rigveda. Bombay: D.B. Taraporevala & Sons Co.
- Ramachandran, Govindan. 1970. *Quest for Gandhi*. Edited by G. Ramachandran and T. K. Mahadeyan. New Delhi: Gandhi Peace Foundation.
- Ramanathapillai, Rajmohan. 1996. Gandhi on violence. Peace Research: The Canadian Journal of Peace Studies 28 (2):27-38.
- Ray, Stephen N. 1970. Jains influences on Gandhi's early thought. In Gandhi, India and the World, edited by S. N. Ray. Bombay: Nicheketa Publishers.
- Red Cross. Anti-personnel mines.
- Reicher, Dan W., and Jason Salzman. 1990. Cleanup or buildup: nuclear weapons production in the 21st century. In *Hidden Dangers: Environmental Consequences of Preparing for War*, edited by A. H. Ehrlich and J. W. Birks. San Francisco: Sierra Club Books.

- Renner, Michael. 1989. Enhancing global security. In State of the World 1989: A

 Worldwatch Institute Report on Progress Toward a Sustainable Society, edited by
 L. Starke. New York: W.W. Norton & Company.
- Renner, Michael. 1991a. Assessing the military's war on the environment. In State of the World 1991: A Worldwatch Institute Report on Progress Toward a Sustainable Society, edited by L. Starke. New York: W.W. Norton & Company.
- Renner, Michael. 1991b. War on nature. World Watch, May-June, 18-25.
- Renner, Michael. 1994. Cleaning up after the arms race. In State of the World 1994: A Worldwatch Institute Report on Progress Toward a Sustainable Society, edited by L. Starke. New York: W.W. Norton & Company.
- Resnikoff, Marvin. 1990. The generation time-bomb: radioactive and chemical defense wastes. In *Hidden Dangers: Environmental Consequences of Preparing for War*, edited by A. H. Ehrlich and J. W. Birks. San Francisco: Sierra Club Books.
- Robinson, J.P. 1979. The Effects of Weapons on Ecosystems. Edited by United Nations Environment Program. Vol. 1, UNEP Studies. Oxford: Pergamon Press.
- Rothenberg, David. 1989. Introduction: Ecosophy T-- from intuition to system. In *Ecology, Community and Lifestyle*, edited by D. Rotherberg. Cambridge: Cambridge University Press.
- Rothermund, Indira N. 1994. Mahatma Gandhi and Hindu tradition. In Facets of Mahatma Gandhi: Ethics, Religion and Culture, edited by S. Mukherjee and S. Ramaswamy. New Delhi: Deep & Deep.
- Roy, Ramashray. 1984. Self and Society: A Study in Gandhian Thought. New Delhi; Beverly Hills: Sage Publications in collaboration with the United Nations University, Tokyo.
- Sagalevitch, Anatoly. 1991. Allies in the deep. National Geographic, February.
- Seeley, Robert. 1986. The Handbook of Nonviolence. New York: Lakeville Press.
- Sharp, Gene. 1973. Power and Struggle. 1 ed. 3 vols. Vol. 1, The Politics of Nonviolent Action. Boston: Porter Sargent Publishers.
- Shrader-Frechette, Kristin. 1991. Ethical dilemmas and radioactive waste: a survey of the issues. *Environmental Ethics* 13 (winter):327-343.

- Sivard, Ruth Leger. 1991. World Military and Social Expenditures 1991. Washington: World Priorities Institute.
- Sonnleitner, Michael W. 1985. Gandhian Nonviolence: Levels of Satyagraha. New Delhi: Abhinay Publications.
- Sorenson, Jay B. 1990. Venting, shaking and zapping: the environmental effects of nuclear weapons tests. In *Hidden Dangers: Environmental Consequences of Preparing for War*, edited by A. H. Ehrlich and J. W. Birks. San Francisco: Sierra Club Books.
- Sorge, Martin K. 1986. The Other Price of Hitler's War: German Military and Civilian Losses Resulting from World War II. New York: Greenwood Press.
- Sterba, James P. 1994. Reconciling anthropocentric and non-anthropocentric environmental ethics. *Environmental Values* 3:229-244.
- Stockholm International Peace Research Institute. 1980. Warfare in a Fragile World:

 Military Impact on the Human Environment. New York: Crane, Russak & Company.
- Stockholm's Afrikagrupp. 1973. Environmental warfare II: 'Chemical warfare in Angola'.

 Bulletin of Peace Proposals 4:42.
- Tahtinen, Unto. 1976. Ahimsa: Non-violence in Indian Tradition. Ahmedabad: Navajivan Publishing House.
- Thomas, William. 1995. Scorched Earth: The Military Assault on the Environment. Philadelphia: New Society Publishers.
- Varma, Vishwanath Prasad. 1974. Studies in Hindu Political Thought and its Metaphysical Foundations. Delhi: Motilal Banarsidass, Shri Jainendra Press.
- Walzer, Michael. 1977. Just and Unjust Wars: A Moral Argument with Historical Illustrations. New York: Basic Books.
- Warren, Mary Anne. 1989. Environmentalism and environmental rights. In Environmental Ethics, edited by R. Bradley and S. Duguid. Burnaby, B.C.: Institute for the Humanities, Simon Fraser University.
- Watson, Richard A. 1983. A critique of anti-anthropocentric biocentrism. *Environmental Ethics* 5 (fall):245-256.

- Webster, Donovan. 1994. Brothers to the bombs. Readers Digest, December, 48-49.
- Westing, Arthur H. 1973a. Environmental warfare II: 'Levelling the jungle'. Bulletin of Peace Proposals 4:38.
- Westing, Arthur H. 1973b. Environmental warfare II: 'The big bomb'. Bulletin of Peace Proposals 4:40.
- Westing, Arthur H. 1975. Environmental consequences of the second Indochina war: a case study. *Ambio* 4 (5-6):216-222.
- Westing, Arthur H. 1988. Cultural Norms, War and Environment. Oxford: Oxford University Press.
- Westing, Arthur H. 1990. Environmental hazards of war in an industrializing world. In Environmental Hazards of War: Releasing Dangerous Forces in an Industrial World, edited by A. H. Westing. London, Newbury Park, New Delhi: Sage Publications.
- Whiteside, Thomas. 1971. The Withering Rain: America's Herbicidal Folly. New York: E.P. Dutton & Co.
- York, Herbert. 1975. The nuclear balance of terror in Europe. Ambio 4 (5-6):203-208.