This paper provides a critical presentation of parts of Anglo-American environmental ethics from the perspective of the environmental crisis. Environmental ethics must attempt to provide the theoretical basis for overcoming the crisis to which it responds. So I suggest a possible connection of theory with practice by arguing that the meta-ethical approach to normativity via an axiology of nature should be supported by a theory like deep ecology that is dedicated to practical change. Naess's notion of self-realization as an experiential process of gradual identification with all life contains the insight that practical change begins with a fundamental change of attitude.

Environmental ethics arose during the 1970s as a philosophical attempt to provide a theoretical foundation for a still growing criticism expressed in the public by scientists and activists who envisioned a coming environmental crisis caused by increasing pollution and depletion of natural resources in the world-wide growing industrial production. Especially in the USA the destruction of great areas of the wilderness gave rise to critical considerations about what many regarded as a cynical and thoughtless exploitation of unspoilt nature. The growing environmental awareness of nature as a fragile and also beautiful and ingeniously organized whole consisting of a variety of living species and ecosystems prompted many philosophers to play man's traditional instrumental attitude to nature off against the idea that wilderness being a self-sustaining living and developing whole might be said to possess value for itself, i.e. intrinsic value. Gradually the attitude arose that since nature – living and development, it might deserve moral consideration as well as humans do for similar reasons.

Most environmental ethical theories argue that it is a precondition for ascribing moral consideration to nature that it be considered intrinsically valuable. In the 1970s and 80s the discussions centered on mainly two different approaches. Along one path of the discussions the arguments proposed implied a break with traditional anthropocentric ethics; an Anglo-American analytical approach attempted to expand the scope of moral consideration from humans to nature by means of meta-ethical considerations[1]. Attempting to formulate and justify principles from which moral obligations towards nature could be logically deduced, the followers of this path sought to construe an ontological axiology to determine what classes of entities are worthy of moral consideration: should all organisms regardless of complexity or just sentient beings, mammals or just primates, be considered worthy of

respect? And then, what about whole ecological systems? The other current in environmental ethics that also began in the 1970s counting representative as Naess and Callicott gradually developed to comprise a variety of approaches that, though mutually independent, share a common feature, namely the focus on practical change as an integrate component of the theory. Earth First!, Green Peace, ecofeminism, environmental virtue ethics, social ecology and deep ecology are all key words that signify an impatience that many environmentalists felt with the apparent impotence of purely theoretical discussions. The practically orientated movements that demanded instant change insisted that focus be moved from academic ethics to political action arguing that unless the industrially developed, western countries change values and limits their high degree of material consumption and industrial production the whole world would not escape an environmental crisis.

This paper partly supports the pragmatic action orientated trace by arguing that practical change must be an integrate aspect of the ethical theory. On the individual level it must imply a change of the self-understanding of man and his relation to nature and on the societal level ethics must take into account that economic and political power relations among social groups and nations (developed and developing) play a crucial role for the way nature is treated. Instead of just formulating an axiology of natural being as a basis of moral obligations a practical ethics must orient towards the *attitudes* directing the ways in which individuals, states and societies treat their natural environment and relates to the third world in trade and politics. Suggesting thus that a reflection on the intersubjective and intercultural understanding - ultimately on the solidarity with all members of the global community - is an important condition for the realization of abstract ethical principles I argue that Naess' notion of a deep ecology that involves human education of an environmental attitude comes closest to a theory that incorporate practical change into ethical theory. For by confronting the traditional human centered ethics his theory propounds a life-centered metaphysical holism combined with an egalitarian axiology that include all its parts. It is Naess's point that from these two principles two kinds of tasks are possible. *Firstly* they imply an obligation to advance a certain attitude of the self towards the other, i.e. an *ethical* demand that ecological self-realization is accomplished in and through an identification of the individual with the whole life of the biosphere. Secondly the principles make the world community realized that it is necessary to develop an environmental global *policy* that can accomplish these changes of attitude in ecological

practice.

In deep ecology a metaphysics that is orientated towards ethical and political practice thus attempts to meet the challenge of the crisis. Deep ecology is inspired by world wide ecological and social movements whose interest it is to further sustainable social, economical and ecological relations. Due to their common holistic orientation they deny that an extension of traditional human centered theories is theoretically adequate. Not only is nature essentially different from man but it can disputed if there is basis for ascribing moral value to natural individuals at all. In nature individuals do not count in the circle of life and therefore engagement - so the environmentalists - should address the task of taking care of whole life communities. The Land ethics of the first holistic environmentalists in USA struggled for the protection of land areas, led as they were by ideals of ecological balance, biodiversity and the flourishing of species in ecosystems. The classical figure in ecological thinking, Aldo Leopold, once stated: "A thing is right when it tends to preserve the integrity, stability and beauty of a biotic community. It is wrong when it tends otherwise"[2]. Recent environmental thinking, e.g. Callicott, Ferré and Rolston III, has been inspired by Leopold's ideas and base their theories on his distinction between basically two conflicting attitudes towards nature. Leopold confronted the traditional economical paradigm with an alternative ecological paradigm[3]. Against the 'resourcism' of the liberal tradition from Locke, the ecocentrism of Leopold's 'land ethic' spring from the experience that unspoilt natural areas the wilderness - far from being just potential material for human manufacture, in themselves display a variety of interconnected life forms that are similar to human societies in ethical respects. As ecosystems they too form complex balanced systems with a sophisticated structure that express the way these life forms value their life and flourishing.

It is a crucial point in environmental theory that such ecosystems exist because they are structures of life produced by individuals and species. That means that from an ethical point of view Locke and traditional human centered ethics were wrong by considering unspoilt nature just worthless matter. On the contrary, apart from possessing an aesthetical quality due to the appeal of the harmonious unfolding of nature's abundance to the senses of humans, the intrinsic values of these life systems – the fact that they are valuable to themselves – provide them with much more than just an instrumental, economic value to human society. Consequently nature should not just be estimated from the point of view of its utility to human society. On the contrary, human's use of nature too should be valued

morally from the perspective of the interests that the species inhabiting the ecosystems have. This moral dimension of the ecological paradigm originally proposed by Leopold arises from the experience that humans belong to both a local and global natural environment in and with which they live as a species among other species. Therefore the moral 'right' and 'wrong' among humans and between human and non-human nature can no longer be founded on an anthropocentric ethics that grants human society unlimited freedom to use nature as just a resource for human purposes. On the contrary, the highest end for a moral and ethical endeavor must be a state of ecological balance between the life of the parts of the ecosystems.

However, it can be argued that an life centered environmental ethics is confronted with several theoretical difficulties. *Firstly*, moral consideration presupposes that its object exists as an entity. Whether an ecosystem exists as an individual or is just a local area of living interconnected species, is a question that is based on the general metaphysical problem about atomism and holism. In particular it concerns the ontological status of the whole. Rolston seems to defend a 'weak' holism by arguing that strictly speaking only individuals exist; even the reality of species is questionable. An ecosystem forms – so Rolston – a relatively stable identity of individuals that arise, live and perish, and it exist in a manner similar to a burning flame that results from glowing particles. But even though a system is not a substance itself it still possesses a duration *like* a substance in order to be able to function as an instrumental condition for the life and reproduction of living species. It exhibits a 'creativity' of the system – so Rolston – that is an ontological precondition for the life and development of the species[4]. Therefore it is sensible to claim the existence of ecosystems as object of moral consideration.

Against the weak holism of Rolston, a robust holism represented by e.g. Leopold, Callicott and Naess^[5] holds that an ecosystem actually *forms* the species through the niches it makes available for them. The *formal* properties of a single species – its shape and abilities – are essentially *caused* by the place it fits into in the whole of the system. The system is not just an aggregate of individuals, a result of their interconnectedness; it exhibits a stable unity that determines the specific properties of its members. But whether they base themselves on a weak or robust holism, eco-centered ethical theories that insist on raising nature to the level of humans as regards moral value often face conflicts of interest among species. In fact, ethical theories owe their existence to conflicts between such interests that

they are construed to solve. The egalitaristic biocentric theories that value homo sapiens as a species among species faces examples of moral conflicts between humans and nonhumans and they all in practice seem to allow humans to trump animals' interest to "satisfy vital needs"[6]. When humans exceed other species in power and thus act as moral agents towards nature they must administer the egalitarian principle in proportion to the pressure of their own interests. And the fact that humans are capable of such morally conscious considerations towards nature makes the relation between humans and non-humans asymmetrical. Rolston takes the consequence and approaches an anthropocentrism when he ascribes unique value to the human person due to its consciousness, reason and freedom. He even combines a Christian religious social ethic with a hierarchical life centered ethic according to which man take a double position in the world as both a (natural) species among species and as a being that transcends nature and is distinguished by rights and obligations. Roughly speaking, the spiritual essence that rise man above nature imposes a dignity that can not be granted to natural individuals whose essence it is to be just specimens of their species. It is a consequence of Rolston's social ethics that only persons possess unconditioned valuable. Against that, his biocentric ethics demands that humans let nature take its own course in matters of life and death. Moral consideration is thus addressed differently in social and in environmental relations.

Rolston's distinction between social and life centered ethics has been criticized for laying down principles for two normativities[7] without providing higher order principles to determine the choice between them in situations of conflicts between human and non-human interests. An answer to the critics could be that most biocentric theories consent to the same practice. As mentioned previously, they hold an egalitarianism principle except in situations where they estimate that humans have vital needs to satisfy. Notwithstanding the dichotomy of the two normativities, Rolston tends to reconcile this apparent conflict by pointing to the evolutionary aspect of the life of nature. He distinguishes between higher and lower forms of biota; not just by referring to the degree of biological complexity but by focusing on essential differences between in-animate matter, living beings, animals and rational animals (humans). Evolution displays a historical development of the species that corresponds to the ontological hierarchy between 'higher' and 'lower' species. The 'intelligent' distinction of the human being designates the point where the super-natural appears within nature. By interpreting the evolution of nature as a diachronic realization of the *Great Chain of Being* (lat. *Scala Naturae*) he can form the notion of a 'creativity' of eco-

systems that possesses the highest value in nature because it is the condition for the development of its member species. The creativity of the system thus imposes on man a special moral obligation to administer the nature that he is a part of. But still social ethics with its religious foundation trump the obligation towards nature when vital *human* interests come across the interests of natural living species. The fact that man is the 'highest' creature of natural evolution grants unique rights to him.

Life-centered environmental ethics thus does not succeed in breaking with traditional human centered ethics on the egalitarianist point that by some representatives is considered to follow from the denial of man's exclusive role in the world. Natural evolution might encompass man as a natural species among species and animals might be considered intrinsic valuable because of their ability to value their life and environment. But that does not change the fact that humans are metaphysically distinguished by being able to act consciously towards nature, for instance from moral principles basing on knowledge.

Another and probably the most important problem that 'academic' environmental ethics face is the gap between ethics and practice. Owing its existence to world wide growing ecological problems environmental ethical theory considers itself obliged to impede destructive infringement of the substantial life of nature and to contribute to reestablishing a balanced and sustainable life of human society with nature. The last part of my paper will deal with the problem of connecting ethical theory to practical change. Life centered ethics in particular claims to bridge the gap between the descriptive and normative by pointing to the 'wisdom' of the life of the ecosystem itself. From the process of the life community we can learn about cooperation, balance, interconnectedness, symbiosis, i.e. about patterns that can serve as principles for our interaction with the nature of which we are part. But the realization of these ethical values faces difficulties because it both presupposes profound changes of our personal character and of the economical and industrial interests of society. Can ethical theory contribute to bridging this gap? *Firstly*, there is an internal gap in ethics, a leap from rational insight to a change in practical change. Secondly, even if a theory is successful implying morally obliging principles by means of logical arguments, it is questionable if reason or insight will be powerful enough to shape the individual person by environmental virtues and to motivate the public to demand a policy that brings about the necessary societal changes.

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As regards the internal problem in ethics itself, Callicott has attempted to bridge the gap between 'is' and 'ought' in his philosophical underpinning of Leopold's theory by arguing that an evolutionary perspective on ecological science implies an extension of social ethics to encompass the whole biotic community[8]. By means of a comparison of Darwin's theory of evolution with Hume 's moral theory he sees a affiliation between the social liberation movements in Western history and the development of altruism in nature. In nature - says Darwin - the self-limitation of biota in favour of the community has proved advantageous in natural selection since the community functions as a security for the individual. Thus apart from the egoistic struggle for life, social affection and symbiotic life forms are tendencies in the life and behaviour of biota. And just like in nature social affection becomes extended to address more individuals as the community of interdependent biota is gradually extended (from family to tribe and nation), so human - especially Western - societies in a similar way have experienced how liberation movements have struggled to encompass still more groups during the development of the world society. For instance human rights means that morals and rights are no longer limited to certain groups but to every human being. Callicott suggests that the struggle for animal rights in the present age is a step toward incorporating biota, including eco-systems, in the moral community due to the experience of their importance for the global human society.

However, the question remains how the evolutionary development of the social affection relates to moral normativity. Not only Darwin addresses altruism descriptively; also Hume, whom Callicott uses to underpin Darwin's empirically based theory, deals with moral psychology. Hume's theory is intended to explain the foundation of moral actions as grounded in inclination and not in reason wherefore he explicitly abstains from laying down moral prescriptions. Therefore it must be concluded that his theory of 'public affection', though supported by Darwin's theory of evolution, is too weak to deliver exhortations and instructions to moral actions.

Maybe the strongest attempt in academic environmental ethics to challenge the anthropocentric ideology of resourcism is Rolston's theory. According to Rolston the value of nature does not depend on humans producing value of a raw worth-less material (minerals, soil, oil, water, etc.) by manufacturing it. When we experience unspoilt nature we see organisms, animals, ecosystems and ultimately the planet Earth as relatively autonomous individuals and systems. Living beings have a good of their own and as such

they value their own life as intrinsically good and their environment instrumentally. Rolston's ethical point is that nature has value independently of humans' making value of it. Animals are "able to value" and as such they are "value-able"[9]. He rejects axiological subjectivism and defends an axiology grounded on ontology, claiming that nature, valuing itself, imposes its value and therefore obligations upon us. But also eco-systems, though strictly speaking they are not individuals, are kinds of communities that – as unities – exhibits a creativity which makes the condition for the life, form and flourishing of the single species. They produce value to their member species. Rolston is affected by the picture of the earth take from the space, this blue-white planet with its beauty and varieties human and non-human life forms. The view of the earth from space produced by NASA in 1968 presented a fantastic spectacle of a living "value-able" planet but also a fragile system of life which makes it morally considerable as an object of care.

But it is doubtful whether an experience and understanding of nature as a life totality with a history where value is realized make a sufficient ethical foundation for imposing moral responsibility on humans. Valuing nature properly according to Rolston's standard seems to keep the valuing subject in a purely theoretical attitude. The contemplative feature that Rolston's ontological axiology occasions, is expressed in his statement that we realize the moral considerability of nature on the basis of an understanding that consists in "joining ongoing planetary natural history in which there is value wherever there is positive creativity"[10]. But bearing in mind the Aristotelian distinction between on the one hand contemplative and on the other hand practical, action orientated virtues it might be necessary to shift focus from objectivity (axiology) to the "value-able" subjectivity. Actions that aim at profound changes of social and economic structures to solve global environmental problems arise from strong ecological motivations and they presuppose that a policy be formed by citizens who concentrate their efforts – individually and socially – to change their self-understanding and ethical and aesthetical values. Subjectivity transforms insight to action. How can contemplation of nature lead to change of human practice?

Naess's idea of self-realization as a unification of the individual with the biospheric community is a suggestion for how a philosophical knowledge can be combined with a change of attitude towards nature that can lead to action. His 'deep ecology' is dedicated to action; as mentioned above, it is a theory that arise as a response to the crisis of the natural environment. Its very existence is a sign of crisis and conversely its possible dissolution

together with the environmental movement that it is closely associated with, would mean a victory for the good cause, namely accomplish a global ecological balance. Furthermore the interdisciplinary character of deep ecology – joining philosophy, religion, social and natural sciences – reflects an awareness of how complex the cause is: It implies both exploring the causes of the crisis and gaining insight in the (spiritual) ideals to be realized to solve the problems. Natural and social sciences as well as speculative philosophy and religion are needed – so Naess – in order to understand the roots of the crisis and to show the way out of it.

Deep ecology rests on a life-centered idea of everything being 'interconnected' and mutual dependent in a common universal biospheric life. Against the atomism and mechanicism of traditional scientific thinking Naess claims that entities are not separate but formed by their relations; relation is ontologically prior to the relata. It follows from this fact that separation is wrong and cooperation is good. Symbiosis designates the experience of how life is promoted and enhanced both intersubjectively and in the relation between man and nature. The highest good of deep ecology would be a state of the biosphere where every single entity is included in a joint cause of promoting the flourishing of life on earth with the highest degree of specific diversity.

Deep ecology combines the above-sketched metaphysical holism with a principle of selfrealization. This focus on subjectivity has been regarded a corrective to the traditional academic attempts that base environmental ethics on axiology because it allegedly stresses the importance of a "psychological awakening" of humans in contrast to just a logical approach that deduce moral obligation from rules derived from axiology. Warwick Fox suggests a Freudian model to explain the "psychological" change necessary for a sound realization of the right ecological attitude[11]. The aim is that the ego learns to administer the conflicting tendencies of the self between the desire (lat. id) and the normativejudgmental super-ego in a balanced behavior towards the environment. But the problem with this psychological approach is that it does not capture the structure of the self-*relation* being dependent on the *relation* to the world. More precisely, by self-realization Naess means a process of enlightenment that humans – individually and collectively – enter into through a gradually evolving experience of being identical with other beings in a common unified life totality. The identity aimed at, is based on both sensitivity, empathy toward living organism, on a social understanding of (sub-)cultures and on spiritual experiences of

being one with the universal life process. In self-realization the boundaries of the individual self is dissolved in the greater Self of a life totality, the "*a*tman" (individual self) undergoes a change to the Atman (the cosmic self)"[12].

The process of self-realization thus involves a *knowledge* attained through practical involvement with the world. The ethics of deep ecology combines theory and practice; it develops its normative principles from ideas of *metaphysical* holism (e.g. relation-is-prior-torelata; interconnectedness; egalitarianism; symbiosis; flourishing). It derives its moral obligation from the idea of mutual dependence of human and non-human life that imposes responsible actions. Furthermore, deep ecology stresses the importance of a change of the whole human character by harmonizing the inner conflicting tendencies of reason and desire. Therefore academic ethical theory's focus on rationality (on *logically* binding principles for action) should be extended to influence the volitional aspect of human nature since the subjects of concrete actions are whole persons and not just thinking subjects. The 'ecological field worker' understands that actions originates from the authentic will of the whole person and that abstract, logical reason needs to be challenged by experiences of the immense diversity of both human and non-human life forms. Cognition as an understanding that subsumes and reduces the sensuous manifold to abstract concepts seems to advance a self-consciousness that separates it from its objects. Against the traditional metaphysical and epistemological tradition the ecological field worker makes a virtue of approaching the diversity of the world with sympathy and he imposes the epistemic task on himself to understand the world by experiencing himself as being identical with it in taking part in one and the same life process with it.

Self-realization as enlightenment that forms the personal character does not only serve as a condition for identifying with natural life. Since deep ecology aims at furthering the integrity of universal life it addresses human society as well. The ideals of biospheric balance, symbiosis and flourishing, include an encounter with social and economic inequalities between groups, cultures and nations. Disparity between rich and poor together with oppressing power relations characterizes a world of boundaries among humans and between humans and non-human nature. Separation causes conflict, struggle and destruction of human life and of the environment. The environmental problems first strikes the poor nations but it gradually turns out to be a global matter changing the life conditions of all people. Therefore a real condition for a substantial change is a concerted effort of all

nations; this cooperation implies a unification of mankind that bases on mutual recognition, economical and political equalization. And the will to realize the political changes that is needed for that cause rests upon an experience of belonging to one and the same life totality. So deep ecology combines a realistic sense of and dedication to solve the global environmental problems with a strong foundation in a life-centered 'academic' ethical theory. As a movement it understands itself as a response to the environmental crisis and as an ethic based on a holistic metaphysics it claims to possess the theoretical toolbox for overcoming the crisis.

However, it is my conviction that the egalitarianism of Naess's theory must be corrected; the fact that humans' treatment of nature is conscious, implies that ethics inevitably consists in an asymmetrical relation between humans and nature that does not allow for egalitarianism. If this inequality does not lead to anthropocentrism, at least it seems to speak in favor of a hierarchical biocentrism of a Rolston who operates with a twofold normativity of a social and an environmental ethics respectively. The new and distinctive feature of environmental ethics is its predominantly holistic - or systemic - orientation. Individualistic theories such as the animal liberation and well-fare ethics of Singer and Regan just extend traditional ethical theories - utilitarianism and deontology - to apply to animals since animals - the arguments say- are equal to humans, being capable as they are of suffering and of having a life and a good own their own[13]. But an isolated moral consideration for individual animals is problematic because it ignores the balance of the biotic community. From a holistic orientated point of view liberation of domesticated animals would be wrong because it would threaten the ecological balance of the biotic community. Not only for this reason but also due to the experience that environmental problems do not know borders since biota are parts of ecosystems and these again integrated in the entire biosphere of the planet Earth, the focus of the environmental view on nature needs to be extended from addressing just individuals (animals) to comprise whole ecosystems and ultimately the entire biosphere. Environmental ethics is essentially life centered.

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Endnotes

[1] For a presentation of the history and philosophy of environmental ethics, see Keller, D.: "Introduction: What is Environmental Ethics?" in: Keller (2010)

[2] Leopold, A.: A Sand County Almanac. 1960. Cited from Keller (2010): p. 200

[3] E.g. Callicott, J.B.: In Defense of the Land Ethic. Albany. New York 1989.

[4] Rolston III, H.: "Value in Nature and the Nature of Value" in: Keller (2010): p. 132-134

[5] Naess, A. (1) in: Keller (2010): p. 232-234, esp. p. 231.

[6] Cf. McLaughlin, A.: "The Heart of Deep Ecology", in: Keller (2010): p. 236 and Naess when he states the second of eight principles for the Deep Ecology Movement: "*Biospherical egalitarianism – in principle*. The "in principle" clause is inserted here because any realistic praxis today implies a degree of exploitation and repression". Keller (2010) p. 231.

[7] Cf. Ferré, F.: "Ethics in the Environment". Vol.1, no.1. JAI Press 1990. P. 15-25. Keller (2010): p. 154-160.

- [8] Callicott, J.B. (1989)
- [9] Rolston in: Keller (2010): p. 131
- [10] Rolston, in (Keller) 2010: p. 136.

[11] Fox, Warwick (1990). Extracts in (Keller 2010): p. 247 f.

[12] Naess, A.(2). Cited from Keller (2010): p. 243 f.

[13] Cf. Singer, P. "All Animals are Equal" in: Singer (1974): p. 103-116. Regan, T.: "The Case for Animal Rights" in Singer (1985): p. 13-14.