

## KANT ON THE QUESTION OF RIGHTS AND MORAL DUTIES AND THE CHALLENGE OF BIOCENTRISM

**Fasiku, Cornelius Gbenga PhD**

Department of Philosophy,

Kogi State University, Anyigba.

[gbenga.fc@ksu.edu.ng](mailto:gbenga.fc@ksu.edu.ng); [cfasiku@gmail.com](mailto:cfasiku@gmail.com)

DOI: 10.13140/RG.2.2.24949.65764

### **Abstract**

*Following Aristotelian paradigm, every specie has a built-in telos, with humans situated at the peak of life's pyramid because the capacity of rationality amongst others, is taken as a proof of human's objective superiority. Many biocentrists argue in the same vein that all living things have "intrinsic worth" and anything that has intrinsic worth has interests that provide a reason for why all moral agents should care about it for the sake of nothing but itself. However, the view widely held by most biocentrists is that, Kant's ethical methodology does not express adequate moral concern for non-human entities. Although Kant recognizes certain duties "regarding" nature, but the ethical question would be whether we have ethical duties towards other members of this moral community on the basis of intrinsic value or on the basis instrumental value. Apart from any legal provisions by which we are moved to action not by inner moral drive and such duties would not be analogous to the ethical duties which Kant himself referred to as juridical duties such as those which underlie laws against assault or theft. This paper therefore seeks to address the scope of moral community in Kant context, i.e. whether our "moral community" include nature or not. Undoubtedly, Kant's description of the moral community seems to be the kingdom of ends, and it is clear that this kingdom includes only rational beings. In the end, this paper establishes its discourse that even though Kant's ethics has anthropocentric premise, in the end, it will be argued that Kant's conception of indirect duties is flexible and unrestricted. This paper explores both the bounds and the prospects of Kant's ethics for application by examining Kant's several texts from a broader philosophical perspective. After confirming that Kant's ethics is anthropocentric in nature from Kant's ethical texts, it will be shown that Kant also integrates a holistic nature-based moral system.*

**Keywords:** Anthropocentrism, Environmentalism, Biocentrism, Eco-centrism, Deontology

### **Preamble**

Modern environmentalism has a short but significant history because most contemporary ethical discourses have had to impose on humans a review of the values and attitudes towards the environment and this has led to the advent and expansion (in many cases) of different ethical positions, opinions and attitudes in order to accommodate this is new worldview. The classical ethical structure and discourse was mostly engrossed in/with the human interests and the fulfilling of their purposes, but could not manage to face the eventual effects of the global technology and industrialization of the human society, which has led to the reconsideration of the moral attitude of man towards nature. This is why some of the nature centered ethics extend the sphere of the human morality without contesting its value in itself, but rather highlighting nature's and its elements' value. Albert Schweitzer who demonstrated the will-to-live could be said to be among the foremost progenitors of this contemporary ethical discourse. Peter Singer, the architect of the "free animals" theory (Singer, 1979); Tom Regan who created the theory concerning animal rights (Regan, 1983), and deep ecology represented by Paul Taylor who extends the sphere of morality even upon plants by means of his biocentric concept (Taylor, 1981) and by J. B. Callicott who takes into consideration nature as a whole, with all its human, non-human and non-living beings, a biotic community which deserves moral consideration (Callicott, 1989)- have all developed increasingly towards offering moral consideration and inherent value to nature as a whole and to its separate components.

Rachel Carson, a marine biologist, revealed in 1962 the destructive impacts of insecticides and herbicides to wildlife, habitats as well as humans. In many ways, her work *Silent Spring* led to the prohibition of the use pesticide dichlorodiphenyltrichloroethane – generally known as DDT – by the U.S. government a decade later. By the 1970s, discourse about environmental philosophy began to be integrated into academic discourse ignited by Singer's *Animal Liberation* and the rest is history. Basically, his approach to the issue of animal rights is from a purely utilitarian standpoint, showing that anyone who cares about minimizing pain and maximizing pleasure must take into moral cognizance, the pains and pleasures of nonhuman animals since pain is bad, whether experienced by a human being or a nonhuman animal (Singer 1975). Characteristically, environmental theorists approach environmental issues from a particular ethical background and make effort to broaden our moral scope and community to accommodate a new set of natural entities, whether it be nonhuman animals, living things, or even nature itself by applying ethical principles to such entities. Singer's *Animal Liberation* is anchored on sentientism on the basis of which moral considerations should be given to animals. The basic

idea here is that we take other human beings into moral consideration because they have “the capacity to suffer and/or experience enjoyment” (31) and, since animals are sentient as well, we must also take them into moral consideration if we are to be consistent.

### **Freedom and Rationality as the Exclusive bases of Rights**

One of the duty-based approaches to ethics is right theory. By right, we mean a justified claim against another person’s behaviours. In that sense, right and duties are seen as correlated in such a way that the rights of one moral agent implies and imposes the duties of/on another moral agent. According to Kant, there is only one intrinsic right: *Freedom*. “*Freedom* (independence from being constrained by another’s choice), insofar as it can coexist with the freedom of every other in accordance with a universal law, is the only original right belonging to every man by virtue of his humanity” (Kant, 1996, 30). Of course, Kant was very explicit in his analysis of rights. For him, rights are natural insofar as they are not invented or created by the government; they are universal insofar as they do not change from place to place; they are equal in the sense that they are the same for all in the stipulated category and finally they are inalienable (36). Thus, Kant talks about the right of an individual in respect to his ability to make rational choices. This principle of freedom and rationality already involves the innate equality of every being that falls within this category. In the context of the categorical imperative of right, *Freedom* is the sole original right; it is *inherent* and *exclusive* to each human being by virtue of his or her humanity. From the concept of freedom, the whole concept of an external right is therefore derived.

Kant’s ethical viewpoint helps us to better understand the meaning and the definition of human rights as inherent and inalienable, as was later formulated by Thomas Jefferson in the United States Declaration of Independence and Kant makes these meanings explicit as he elaborates on the moral-philosophical explanations of humanitarian rights. His transcendental-practical philosophy was able to adequately express the philosophical underpinning of this view. The term “inalienable rights” means that fundamental human rights are “inherent” or “imprescriptible”, thus, recognized as exclusively belonging only humans and nothing else. The forgotten meaning of “inalienable” is that an individual himself is not allowed to surrender his rights or relinquish them for any considerations except for moral demandingness which Kant suggests that only a moral agent can have the capacity to place another subject with a will and autonomy, because only such an entity has the capacity to obligate moral agents (234). Kant further

stresses that a human being as the subject of a morally-practical reason, is not to be valued merely as a means to the ends of others or even to his own ends, but is to be prized as an end in himself; that he or she “possesses a *dignity* (an absolute inner worth)”, deserving the respect of others, and reciprocating respect of their dignity as well. “And this *self-esteem* is a duty of man to himself” (Kant, 1996, 187).

### **Right as the Exclusive Property of the Human Person**

Kant’s *Anthropology from Pragmatic Point of View* is in fact a theory of personhood, in which the subject, is capable of rationally determining the purpose of its actions. In that book, Kant is in fact unambiguous about his human concern. He explores the scope of a natural law that would implicitly exclude the nonhuman domain, but he concludes that, apart from the human inter-subjective realm, neither the natural nor the spiritual world can be thought of in terms of rights (Kant, 2006:50). Kant starts his exploration with a description of types of relations that humans can have. He first analyses the relations with entities which have ‘neither rights nor duties’, by which he means non-rational beings (of course, as noted previously that rationality and freedom are the bases of right). These relations cannot be thought of in terms of rights and duties because rights and duties, he says, can only belong to free beings i.e. human beings. We have no duties towards beings without rights (51). This is how Kant in fact excludes the animal, vegetal and mineral world from his ‘Doctrine of Rights’. It is already clear that to Kant freedom is the only property of rights and right is the property of duties. Analyzing the properties of non-human beings, he concludes that since freedom plays no role in their essence, this enables him to exclude them from having rights. Of course, this argument is problematic because it measures the rights of nonhuman beings from a core human property which is freedom and for any entity without this core property, such entity cannot be said to possess rights and duties.

Kant is correct to exclude this possibility from any philosophy of right, because in order to have moral duties you need to be a rational being that is naturally endowed with the right to freedom. On this basis, there seems to be no moral duty in the animal world only in the human world. Animals certainly have no moral duties towards us, although they might have among themselves – think of duties towards offspring, and if this is the case, our concept of duty may have to be redefined to include categories of duties, it should then be based on a (biological and not necessarily moral) theory of responsibility connecting duty to

love rather than to self-reflection. This duty (love) could be instinctive, and for Kant this would be enough to exclude it from morality, since to him only freedom from inclinations can ground rights i.e. duty devoid of presuppositions.

Kant's further remark comes from a part of the *Groundwork* in which he introduces the term 'autonomy' or (freedom) to indicate what is distinctive about the human person. He applied it to individuals and to the morality that ought to govern the relations of persons to themselves and to one another. He said that morality is a human creation because it is the legislation that comes from our own rational will (*Groundwork* 216). Although he insists that the moral law is equally binding for all rational agents, we *autonomously* prescribe the moral law to ourselves. Because Kant thinks that the kind of autonomy in question here is only possible under the presupposition of a transcendently free basis of moral choice, the constraint that the moral law places on an agent is not only consistent with freedom of the will, it requires it. This can be said to be a radical innovation in morality especially when we look at the history of moral philosophy, which focuses on the link between virtue and happiness but for Kant, the autonomy and *will* are the bases of rights and moral duties.

### **Right as the Exclusive Basis of Moral Duties in Kant**

In his *Doctrine of Virtue*, Kant himself denies that moral agents have direct duties to non-humans, both because "duty to any subject is moral constraint by that subject's will" (234) and because human persons are the only known entities capable of constraining others in this way. Kant here suggests that a moral agent can have a direct (moral) duty only to another subject with a will and autonomy, because only such an entity has the capacity to obligate moral agents (234). This striking and innovative conception of man by Kant recognizes that human beings even though they have animal nature, are still finite rational beings on the basis of which they qualify for moral concern. Kant occasionally speculates that perhaps on other planets there may be quite different sorts of finite rational animals. But of course we have no specific knowledge of any such. Given that fact, all of our moral duties and moral concerns are duties to other human beings. We can have no duties to God because he is not an object of possible experience and does not possess what qualifies a being to demand such. When Kant states his claim about our having only direct moral duties to humans. This requirement rules out direct moral duties to entities that are not subjects of will and autonomy. Hence, Kant concludes that human beings can have direct moral

duties only to one another, because other entity (e. g., God or other non-human) lack the capacity to place human beings under moral obligation.

There are no human beings such that have only duties and not rights - they would be slaves or serfs. And the apparent duties that we have to abstain from cruel treatment of (nonhuman) animals are, as it turns out, not direct duties to such animals, but duties to ourselves, and merely indirect duties with regard to animals. "Duties to animals" in the Kantian context is an issue about the scope of our morality, i.e. whether our "moral community" include non-human objects or not. Kant's version of the moral community seems to be the kingdom of ends, and it is clear that this kingdom includes only finite rational beings like humans.

Also, Kant talks about the goodwill which implies acting for the sake of duty (as quoted by Albert 180) because human actions have inner moral worth only if they are performed for the sake of duty (181). Actions that result from inclination or self-interest may be praiseworthy if they happen, for whatever reason, to accord with duty, but they have no inner worth (181). He nevertheless warns that those who fail to understand properly the concept of duty may be tempted to act from motives which may be in accordance with duty or may be contrary to it. But even action in accordance with duty is not enough; only respect for duty gives an action inner worth (185). Thus, from Kant's first ethical propositions, he says, an act must be done from duty in order to have inner moral worth and the second proposition is a development from the first: an act done from duty derives its moral value, not from the result it produces, but from the principle by which it is determined (187).

Kant goes further to say, all finite rational beings can become moral persons by developing a *will* that aims to act in conformity with the universal moral law. This *will* should be pure and free (because freedom is a definitive feature of a human being) that is, it must not be determined by psychic or bodily inclinations, and instead it should be guided solely by the inner voice of duty (Kant: *Groundwork* 22). The *Will* is a fundamental natural right which all human being possess is therefore freedom, which means the autonomous capacity to determine our actions independently from heteronomous forces and from the coercion of others. This *Will* is the core property and the distinguishing feature of personhood (Wood: *Ethical thought* 48). In fact, all other rights of man can be derived from this basic right to freedom. Persons are characterized by their autonomy, which makes them both agents of morality and holders of rights (49). As such, what makes an action right according to Kant is not the fact that it leads to good and desirable consequences, but that it is performed freely and for the

sake of duty. Thus, he maintains that the supreme principle of morality is the “categorical imperative,” which is an unconditional command of duty. He asserts that the categorical imperative has the nature of an unconditional moral command or law, which human beings are obliged to follow in their capacity as rational creatures. It is a universal law, which allows no exception.

## Conclusion

Kant’s ethical logic demonstrates that only humanity could be the “ground” of moral duties, which is largely due to its capacity of rationality and freedom which are the basis of moral rights. What Kant did was dismiss three candidates for unconditional and inherent goodness: objects of inclinations; inclinations themselves; and beings “the existence of which rests not on our will but on nature” (Kant: *Metaphysics* 428), for example, animals. Then, without further ado, he announced that humanity is unconditionally good which qualifies it for moral concern. Kant takes the authority of the moral law to be grounded in the fact that it is legislated by rational will. The fundamental end whose value grounds the theory is the dignity of that rational nature, and its command is always to treat humanity as an end in itself. Here the term ‘humanity’ is being used in a technical sense as pointed out earlier, to refer to the capacity to set ends according to reason. It includes the *technical* predisposition to devise means to arbitrary ends, and the *pragmatic* predisposition to unite our ends into a comprehensive whole, called ‘happiness’. ‘Humanity’ is one of the three original predispositions of our nature, along with ‘animality’, which includes our instinctual desires promoting our survival, reproduction and sociability, and ‘personality’ which is our rational capacity to give moral laws and obey them (Warren 12). Even so, it might seem as though a theory of this kind would license (or even require) a ruthlessly exploitative attitude toward humanity’s natural environment and all nonhuman things in it. For if rational nature is the only end in itself; then everything else must count only as a means to rational nature and its ends. Nothing else could have a worth which might set limits on those ends or on the ways in which rational beings might choose to explore non-rational nature in pursuit of humanity’s set end (Toby 143).

Following this understanding therefore, all duties which are not to ourselves are required on account of the respect we owe humanity in the person of *other* rational beings and they fall collectively under the end of the happiness of others, since we show respect for humanity in others by promoting the (permissible) ends set by their rational nature, which are summed up in the idea of a person’s happiness (387-388). Duties to others are further distinguished into

duties of respect and duties of love (448-450). It follows therefore that there can be no duties towards animals, towards nature as a whole, or indeed towards any non-rational being at all which are not duties towards our own rational nature to promote our own moral perfection (442). Interestingly, in the *Metaphysics of Morals*, Kant argues further that we nevertheless have duties in regard to nonrational beings. These duties, he says, appear to be duties toward them, owing to an “amphiboly of moral concepts of reflection,” that is, a sort of conceptual illusion which leads us to mistake a moral duty to oneself for a duty to beings other than oneself (442-443).

Kant concludes that our duty to cherish and promote what is beautiful in nonrational nature irrespective of its usefulness and to behave with kindness and gratitude toward animals, are really duties to promote our own moral perfection by behaving in ways that encourage a morally good disposition in ourselves (443). Kant claims that appreciation for the beauty of nature, awakens in us the disposition to value them irrespective of their usefulness to and for our ends and prepares us for a genuinely moral disposition in our behavior toward rational beings (Kant: *Metaphysics* 443; *Lectures on Ethics* 29-30). Similarly, practicing kindness and gratitude toward animals cultivates attitudes of sympathy and love toward human beings, while callousness or cruelty toward animals promotes the contrary vices and makes worse people of us (Kant: *Metaphysics* 444). To make this point clear, one could imagine a human being who fulfils all his perfect duties to himself and his duty to increase his moral perfection and still violates his duties regarding non-human nature. A human being is, of course, a human approximation of the good will, which acts out of respect for the moral law. Thus, if a human being is always subject to inclinations, he must instead cultivate virtuous dispositions that approximate the good will. Kant’s account of the duty to increase one’s moral perfection allows us to offer a better interpretation of duties regarding non-human nature, which go far beyond the “psychological interpretation” of most biocentrists.

### Works Cited

- Altman, M.C., *Kant and Applied Ethics: the Uses and Limits of Kant’s Practical Philosophy*, London: Blackwell, 2011
- Andrew, Reath, “Self-Legislation and Duties to oneself” in *Kant’s Metaphysics of Moral: Interpretive Essay*, Mark Timmons (ed.), Oxford: Oxford University Press, pp. 349-370, 2000

- \_\_\_\_\_, "Setting Ends for Oneself through Reason" in Simon Robertson (ed.) *Spheres of Reason*, Oxford: Oxford University Press, 2009.
- Aristotle, *Nicomachean Ethics*, Christopher Rowe (trans.), with Introduction and Commentary. By Sarah Broadie, New York: Oxford University Press, 2002.
- Attfield, R., "Beyond the Earth Charter: Taking Possible People Seriously", in *Environmental Ethics*, vol. 29, pp. 359-367, 2007.
- Baron, M. M. *Kantian Ethics (Almost) Without Apology*, New York: Cornell University Press, 1995.
- Baron, Marcia and Seymour, M. F. "Beneficence and Other Duties of Love in The Metaphysics of Morals" in *The Blackwell Guide to Kant's Ethics*. Hill, Thomas E. Jr. (ed.) Oxford: Wiley-Blackwell Publishing, pp. 211-28, 2009.
- Bachour, Omar, *Kantian Ethics and the Formula of Humanity: Towards Virtue and Ends*, an unpublished Master's Thesis submitted to Department of Philosophy, Faculty of Arts, University of Ottawa, Canada, 2014.
- Baron, M. "Acting From Duties" in *Rethinking the Groundwork of Metaphysics of Morals*, Allen, Wood (ed. And trans.), London: Yale University Press, 2002.
- Bekoff, M. and Pierce, J., *Wild Justice: The Moral Lives of Animals*, London: The University of Chicago Press, 2009.
- Callicott, J.B., "Non-Anthropocentric Value Theory and Environmental Ethics", in *American Philosophical Quarterly*, vol. 21(4), pp. 299-309, 1984.
- \_\_\_\_\_, "Rolston on Intrinsic Value: A Deconstruction", in *Environmental Values*, vol. 14, n. 2, pp. 129-143. 1992.
- Cannon, Joseph, "Nature as the School of the Moral World: Kant on Taking Interest in Natural Beauty" in, William, P. Kabasenche, Michael O'Rourke, Matthew H. Slater (eds.) *The Environment: Philosophy, Science, Ethics*, Cambridge, MA: The MIT Press 2012, pp.154-168.
- Dean, R., "The Formula of Humanity as an End in Itself" in *The Blackwell Guide to Kant's Ethics*. Hill, Thomas E. Jr. (ed.), Oxford: Wiley-Blackwell Publishing, pp. 83-101, 2009.
- Dieter, Henrich, *Aesthetic Judgment and the Moral Image of the World*, Stanford: Stanford University Press, 1992.
- Dieter, S., "How is a Categorical Imperative Possible?" in *Kant's Deduction of the Categorical Imperative (GSM III 4)*, Christopher Horn and Dieter Schonecker (ed. & trans.), Berlin: Walter de Gruyter, pp. 301-326, 2006.
- \_\_\_\_\_, "What does Kant Mean by Acting from Duty" in Wolff R.P. (ed.) *Kant: A Collection of Critical Essay*, New Jersey: Garden City, 1967.
- Frierson, Patrick, *What is the Human Being?* Oxford: Routledge, 2013.
- Hare, R.M. *Freedom and Reason* Oxford: Oxford University Press, 1963.

- Herman, B., "The Difference That Ends Make" in *Perfecting Virtue: New Essays on Kantian Ethics and Virtue*. Lawrence Jost and Julian Wuerth (eds.). New York: Cambridge University Press, pp. 92-115, 2011.
- Heath, Peter & Schneewind J. B., (ed.), *Lectures on Ethics* (The Cambridge Edition of the Works of Immanuel Kant), Cambridge: Cambridge University Press, 1997.
- Hill Jr., Thomas E. *Human Welfare and Moral Worth: Kantian Perspectives*. New York: Clarendon Press, 2002.
- Heath, Peter & Schneewind J. B., (ed.), *Lectures on Ethics* (The Cambridge Edition of the Works of Immanuel Kant), Cambridge: Cambridge University Press, 1997.
- Hill Jr., Thomas E. *Human Welfare and Moral Worth: Kantian Perspectives*. New York: Clarendon Press, 2002.
- Kant, I. *Anthropology from a Pragmatic Point of View*. Robert B. Louden (ed. and trans.). Introduction by Manfred Kuehn. New York: Cambridge University Press, 2006.
- \_\_\_\_\_, *Critique of Practical Reason*. Mary Gregor (ed. and trans.), Introduction by Andrews Reath. New York: Cambridge University Press, 1997.
- \_\_\_\_\_, *Groundwork of the Metaphysics of Morals*. Revised Edition. Mary Gregor and Jens Timmermann (eds. and trans.) with Introduction by Christine M. Korsgaard. New York: Cambridge University Press, 2012.
- \_\_\_\_\_, *The Conflict of the Faculties*, English translation and Introduction by Mary J. Gregor Lincoln, NE: University of Nebraska Press, 1992.
- \_\_\_\_\_, *The Metaphysics of Morals*. Mary Gregor (ed. and trans.) with Introduction by Roger J. Sullivan. New York: Cambridge University Press, 1996.
- \_\_\_\_\_, *Lectures on Ethics*. Peter Heath (Trans.). Peter Heath and J. B. Schneewind (Eds.). New York: Cambridge University Press, 1997.
- \_\_\_\_\_, *Critique of Judgment*, Allen Wood (ed.), New York: Cambridge University Press, 2000.
- Korsgaard, C. M. *Creating the Kingdom of Ends*, Cambridge: Cambridge University Press, 1996.
- \_\_\_\_\_, "From Duty and for the Sake of the Noble: Kant and Aristotle on Morally Good Action." In *Aristotle, Kant and the Stoics: Rethinking Happiness and Duty*. Stephen Engstrom and Jennifer Whiting (eds). Cambridge: Cambridge University Press, 1996. 203-236.
- Koukouzelis, K., "Autonomy and Duties Regarding Non-Human Nature" in *Synthesis Philosophia*, vol. 59(1), pp.61-72, March, 2015.

- Kyle, B., "Anthropocentrism and Nature An Attempt at Reconciliation" in *Rethinking Nature* vol. 5(12), pp.119-137. 2014
- Norton, B.G., "Environmental Ethics and Weak Anthropocentrism", in *Environmental Ethics*, vol. 6, n. 2, pp. 131-148, 1984.
- Regan, Tom, *The Case for Animal Rights*, 1st edition Los Angeles: University of California Press, 1983.
- Rowland, M., *Can Animals Be Moral?* New York: Oxford University Press, 2012.
- Sandler, R., *Environmental Ethics: Theory in Practice*, Oxford: Oxford University Press, 2017.
- Singer, Peter, "Not for Humans only: the place of non-humans in Environmental Issues", in Andrew Light and Holmes Rolston (eds.) *Environmental Ethics: An Anthology*, Malden: Blackwell, 2003, pp. 55-64.
- \_\_\_\_\_, *In Defense of Animals*, Oxford: Basil Blackwell, 1985.
- Taylor, P.W., "The Ethics of Respect for Nature", in *Environmental Ethics*, vol. 3(3), pp. 197-218, 1981.
- Warren, M.A., *Moral Status: Obligations to Persons and Other Living Things*, New York: Oxford University Press, 1997.
- Wood, A., "Duties to Oneself, Duties of Respect to Others." *The Blackwell Guide to Kant's Ethics*, Hill, Thomas E. Jr. (ed.) Oxford: Wiley-Blackwell Publishing, pp. 229-251, 2009.
- \_\_\_\_\_, "Humanity as End in Itself." *Kant's Groundwork of the Metaphysics of Morals: Critical Essays*, Paul Guyer, (ed.), New York: Rowman & Littlefield Publishers, pp. 165-188, 1997.
- \_\_\_\_\_, "Kant and Agent-Oriented Ethics." *Perfecting Virtue: New Essays on Kantian Ethics and Virtue*, Lawrence Jost and Julian Wuerth (eds.), New York: Cambridge University Press, pp. 58-91, 2011.
- \_\_\_\_\_, *Kant's Ethical Thought*, New York: Cambridge University Press, 1999.
- \_\_\_\_\_, *Kantian Ethics*. New York: Cambridge University Press, 2008.
- \_\_\_\_\_, "The Final Form of Kant's Practical Philosophy" *Kant's Metaphysics of Morals: Interpretative Essays*, Timmons, Mark (ed.), New York: Oxford University Press, pp. 1-22, 2002.