Welfare Biology as an Extension of Biology

Interview with Yew-Kwang Ng

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Yew-Kwang Ng is Winsemius professor in economics at Nanyang Technological University, Singapore and emeritus professor at Monash University. He has been a member of the Academy of Social Sciences in Australia since 1980, and in 2007 received the highest award (Distinguished Fellow) of the Economic Society of Australia. He has published over two hundred papers in leading journals in economics, as well as in biology, cosmology, mathematics, philosophy, psychology, and sociology. His books include: *Welfare Economics*; *Mesoeconomics: a Micro-Macro Analysis*; *Social Welfare and Economic Policy*; *Specialization and Economic Organization*; *Efficiency, Equality, and Public Policy: with a Case for Higher Public Spending*; and *Common Mistakes in Economics: by the Public, Students, Economists, and Nobel Laureates*. He has been a world leading scholar in welfare economics and mesoeconomics. In 1995 he published a very influential paper *Towards Welfare Biology: Evolutionary Economics of Animal Consciousness and Suffering*, which launched concern for the situation of animals in the wild and proposed the creation of a new discipline "welfare biology".

MC: What motivated you to write *Towards Welfare Biology* (Ng 1995)?

Y-KN: I am an economist by training and profession. All my publications beyond economics did not start as normal research. Soon after my Ph.D., I read some health advice saying that it is best not to work after dinner, so that you will be relaxed and sleep better and will be able to work better the next day. With the exception of a few days in a year, I follow this advice and do sleep and work better. I thus spend the after dinner time watching TV and reading magazines and books beyond economics for fun.

About 6 years or so before 1995 (in which *Towards Welfare Biology* was published), I was reading stuff on biology. It then occurred to me that biologists seemed to study only the positive/empirical stuff in biology like the behaviour, evolution, anatomy, living environments, population dynamics, etc. of animals, scarcely on their welfare. True, there are biologists, philosophers and others who are interested in animal welfare. However, this is more a cause than a formal study. As far as I knew, "welfare biology" was not even coined, let alone studied properly and formally. This was obviously a big gap that should be filled. Moreover, this was an important gap not only academically, but more importantly, practically and morally, since it is obviously related to animal welfare. Determined to help fill this gap a bit, I spend the next few years using also day time to do background reading, including in evolutionary biology and animal welfare. In fact, the amount of time I spent on this paper surpasses those on any other paper I published previously by a factor of at least three. It was only my more recent after-dinner-reading-triggered research on the origin of our universe (Ng 2011a; 2011b) that matched or even surpassed this.

My training in economics helped in the writing of this paper in three aspects: (1) In economics, we have the distinction of positive economics and welfare economics, a distinction which prompted me to query the gap in welfare biology; (2) There are the well-known three basic questions in economics (What to produce? How to produce? For whom?) which prompted me to raise the three basic questions in welfare biology (Which species are capable of welfare? Whether their welfare is positive or negative? How to increase their welfare?); (3) The principle of economizing in economics is similar to that in natural selection.

MC: In biology, *r*-strategists animals are those that have huge progenies (they can lay thousands or millions of eggs) most of whom die shortly after coming into existence. It is sometimes argued that it is not clear whether these animals are sentient, so we should not worry a lot about them. Yet from a Bayesian perspective, it seems that because of the large numbers of animals involved and the pain involved in death, concern for these animals should dominate in our decisions about wild animal suffering. What are your views on this?

Y-KN: We do not know with any degree of certainty yet whether these animals are sentient. However, due to their large numbers, even if there is only a 0.1% probability that they do suffer, the welfare implication is enormous. Hence, my view is that the problem should certainly not be dismissed and much more research should be done to find out the answer, even just in increasing our probability judgments.

MC: What are your views on whether these young animals are sentient? Say, several day old bull frog tadpoles?

Y-KN: We do not know with any degree of certainty yet whether these animals are sentient. My paper on welfare biology proposes some principles that may partly help answer such questions. To be sentient, a species (an individual organism in it really) has to be plastic. Thus, the study of the plasticity in animal behaviour is very important.

MC: What do you think of the possibility of insect suffering and what do you think are the implications of this?

Y-KN: This question is discussed in Tomasik ([2009] 2015). I once raised this with Peter Singer at Monash University (probably in the 1980's as I wrote several joint papers with him over 1981-1990). I suggested that we should propose that there should be legislation banning those window/flyscreen designs that trap insects inside. These insects may be sentient; if we could avoid/reduce their suffering at only small costs on us, it should be done morally. Though Singer did not dispute my position, he said that most people would dismiss insects as not sentient.

MC: What are your views on the harms that adult wild animals suffer?

Y-KN: Unless it leads to more enjoyment or helps to prevent more suffering, any suffering itself, whether of humans or of animals, by wild animals or by animals farmed by us, is bad. If we could help to reduce unnecessary suffering at relatively low costs, we should.

MC: What do you think are the usual objections to your position regarding the suffering of animals in the wild?

Y-KN: I am not sure that I disagree with Peter Singer (1973) in that "wildlife should be left alone". In fact I agree with a slightly qualified statement: "For now, wildlife should be largely left alone". We do give occasional helps to wildlife and more could be given without serious negative consequences. However, I agree with Singer that we do not possess enough knowledge and ability to help reduce suffering in the wild on a large scale safely. Nevertheless, as I argue conceptually in my welfare biology paper and others (e.g. Horta 2010; Tomasik 2015) argue with more empirical support, animals in the wild are likely to suffer more than enjoy. If this Buddhist premise is true even at only 5% probability (my estimate is more than 50%), we should not ignore this, as the suffering involved could be very large. We should not be completely anthropocentric and be concerned only with human welfare. Thus, we should at least start to study the problem more seriously and find out. Hopefully, in the not too distant

future, we may find out more and be able to help reduce animal suffering both for farm animals and animals in the wild. Nevertheless, we should also be very cautious to avoid doing more harm than good.

MC: What do you think the proposed discipline you have called welfare biology would look like and how do you think that it would be different from current scientific practice in biology?

Y-KN: Welfare biology may be regarded as a natural extension of biology. It uses existing knowledge in biology and beyond to help us to judge which species are capable of welfare, and to find out whether their welfare is positive or negative, and hence hopefully also help us to try to reduce their suffering and increase their welfare.

MC: What should be done for a welfare biology to be developed? Who should we try to convince first?

Y-KN: University departments in biology should encourage more research and teaching in welfare biology. With my welfare biology paper as a starting point, supplemented with other publications in animal welfare, biology and moral philosophy, a subject in welfare biology could already be offered in a good biology department now either at the undergraduate and/or the graduate level. More research funding to do research on animal welfare and welfare biology should be awarded. In terms of its practical welfare implication, this is an area with enormous potential. We should probably first try to convince biologists interested in animal welfare.

MC: Have you spoken about your position with biologists? What is the impact that you imagine your work and that of others who may follow you to have with biologists, as well as with others such as philosophers and economists?

Y-KN: Before the publication of the paper, I had spoken on it at seminars and conferences that are somewhat biology-related. After its publication, I sent the paper to a number of people in biology departments, but I did not receive any response. I have not done much since then; my professional duties are in economics. My substantial contributions in economics had earned me the highest award of the Economic Society of Australia – distinguished fellow in 2007 (Corden et al. 2008). However, in terms of its potential implications for reducing suffering, I regard my welfare biology paper as more important than all my contributions in economics put together. Thus, so far it has not been given sufficient attention that it deserves. [However, the same is true for many of my papers in economics as well! Haha!]

MC: In your view, what are the main obstacles that those willing to spread these ideas may find?

Y-KN: I guess it is the anthropocentric attitude of most people, ignoring the sufferings of other species. People should ask: what if I were an individual of the poor suffering species?

MC: What do you think of the objection that helping wild animals is not possible or practical?

Y-KN: I largely agree with this view if it refers to the current situation. However, some help is already possible and with more knowledge, we will likely be able to do more in the future. Though we should be very cautious and must also take the costs and danger of helping wild animals into account, we should not take the position that we may ignore animal suffering (even just confined to wild animals) forever. If the net suffering of animals is larger than the net welfare of humans (as I suspect to be the case) and this unfortunate situation cannot be changed forever, from an over-all perspective (all sentients including animals and humans), the destruction of the whole world is a better option. However, I am not in favour of destruction, as I believe that, in the long term, we will be able to help animals to reduce their suffering; we will also be able to increase our welfare dramatically through brain stimulation (discussed in an appendix of both Ng 2000 and 2011b) and genetic engineering, though we have to be very cautious.

MC: What practical steps do you think we should take to reduce wild animal suffering in the short term?

Y-KN: I do not advocate large-scale help to wild animals in the short term. We should first concentrate on two things: doing more research and try to improve the conditions of farm animals. This short-term preference on reducing suffering for farm animals first is based on several considerations: (1) We know more about the suffering of farm animals than wild animals now; (2) We can reduce the suffering of farm animals at relatively low costs (including the danger of disrupting the ecological balance) to ourselves; (3) People are generally more susceptible to the feasibility and moral obligation of reducing suffering of farm animals. However, this short-term strategy should not preclude doing more research on the welfare of wild animals now and our obligation to help them in the future.

MC: Is the best way to help wild animal suffering to spread concern about wild animal suffering?

Y-KN: This is one way. Another is to study to learn much more about wild animal suffering. I want to echo the concluding sentence of Horta

(2010): "Promoting debate on this issue, doing research on it and questioning speciesism appear to be the most important ways in which we all can work today in order to reduce the immense amount of suffering and death that exists in the world".

MC: Do you think that research done on case studies of how animals are harmed in the wild and on proposals to aid them could eventually inform actual policies that would have an impact on that?

Y-KN: Yes, I certainly do. However, I do not think that this will happen soon, and not before much more studies on animal welfare for both farm animals and wild animals. It will also be unlikely to happen before the degree of our morality has substantially improved to a level where anthropocentrism or speciesism is widely regarded as a shame as racism and sexism are currently. However, being an optimist regarding human nature, I am confident that we will eventually reach such a level. But I do not know how long it will take.

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