

ALSO FROM THE ANIMAL ETHICS READER

# TELOS

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Bernard E. Rollin

## “On *Telos* and Genetic Engineering”

Rollin addresses the notion of *telos*, the essence and purpose of a creature, and proposes that there is no direct reasoning to argue that the notion of *telos* in animals and the Maxim to Respect *Telos* should preclude genetic engineering of animals. He notes that for domestic animals, each proposed modification should be assessed in relation to the Principle of Conservation of Welfare. For non-domestic animals, he believes that such modifications also may be valuable. He exercises proceeding cautiously so as to avoid possible ecological impacts or affecting other animals adversely.

### *Telos*

Aristotle's concept of *telos* lies at the heart of what is very likely the greatest conceptual synthesis ever accomplished, unifying common sense, science, and philosophy. By using this notion as the basis for his analysis of the nature of things, Aristotle was able to reconcile the patent fact of a changing world with the possibility of its systematic knowability. [...] Though individual robins come and go, 'robin-ness' endures, making possible the knowledge that humans, in virtue of their own *telos* as knowers, abstract from their encounters with the world. Common sense tells us that only individual existent things are real; reflective deliberation, on the other hand, tells us that only what is repeatable and universal in these things is knowable.

[...]

For Aristotle, as for common sense, the fact that animals had *tele* was self-evident—the task of the knower was to systematically characterize each relevant *telos*. [...] [T]he notion of *telos* has in fact been refined and deepened by the advent of molecular genetics, as a tool for understanding the genetic basis of animals' physical traits and behavioural possibilities. At the same time, the classical notion of *telos* is seen as threatened by genetic engineering, the operational offspring of molecular genetics. For we may now see *telos* neither as eternally fixed, as did Aristotle, nor as a stop action snapshot of a permanently dynamic process, as did Darwin, but rather as something infinitely malleable by human hands.

## Contemporary agriculture

Despite the fact that the concept of *telos* has lost its scientific centrality, there are two major and conceptually connected vectors currently thrusting the notion of *telos* into renewed philosophical prominence, both of which are moral in nature. These vectors are social concern about the treatment of animals, and the advent of practicable biotechnology. The former concern reflects our recently acquired ability to use animals without respecting the full range of their *telos*; the latter concern reflects our in-principle ability to drastically modify animal *telos* in unprecedented ways. There obtain significant conceptual connections between the two concerns, but before these are dealt with one must understand the social conditions militating in favour of a revival of the concept of *telos*.

[...]

The overwhelmingly preponderant use of animals in society since the dawn of civilization has unquestionably been agricultural—animals were kept for food, fibre, locomotion and power. Presupposed by such use was the concept of husbandry; placing the animals in environments congenial to their *telos*—the Biblical image of the shepherd leading his animals to green pastures is a paradigm case—and augmenting their natural abilities by provision of protection from predators, food and water in times of famine and drought, medical and nursing attention, etc. In this ancient contract, humans fared well if and only if their animals fared well, and thus proper treatment of animals was guaranteed by the strongest possible motive—the producer's self-interest. Any attempt to act against the animals' interests as determined by their natures resulted in damage to the producers' interests as well. In this contract, both sides benefited—the animals' ability to live a good life was augmented by human help; humans benefited by 'harvesting' the animals' products, power or lives. One could not selectively accommodate some of the animals' interests to the exclusion of others, but was obliged to respect the *telos* as a whole.

[...]

All of this changed drastically in the mid-twentieth century with the advent of high-technology agriculture, significantly portended as university departments of animal husbandry underwent a change in nomenclature to departments of 'animal science'. In this new approach to animal agriculture, one no longer needed to accommodate the animal's entire *telos* to be successful. [...] Technology has allowed animal producers to divorce productivity from total or near-total satisfaction of *telos*.

High-technology agriculture was not the only mid-twentieth century force significantly reforming the ancient contract with animals. Large-scale animal use in biomedical research and toxicology is, like intensive agriculture, a creature of the mid-twentieth century. Like confinement agriculture, too, successful use of animals in biomedicine does not necessitate accommodating the animals' *tele*.

[...]

Thus, both the advent of industrialized agriculture and large-scale animal use in science created an unprecedented situation in the mid-twentieth century by inflicting significant suffering on animals which was nonetheless not a matter of sadism or cruelty. Agriculturalists were trying to produce cheap and plentiful food in a society where only a tiny fraction of the population was engaged in agricultural production; scientists were attempting to cure disease, advance knowledge and protect society from toxic substances. As society became aware of these new animal uses neither bound by the ancient contract nor conceptually

captured by the anti-cruelty ethic, and concerned about the suffering they engendered, it necessarily required an augmentation in its moral vocabulary for dealing with animal treatment.

[...]

It is th[e] notion of rights, based on plausible reading of the human *telos*, which has figured prominently in mid-century concerns about women, minorities, the handicapped and others who were hitherto excluded from full moral concern. It is therefore inevitable that this notion would be exported, *mutatis mutandis*, to the new uses of animals. In essence, society is demanding that if animals are used for human benefits, there must be constraints on that use, equivalent to the natural constraints inherent in husbandry agriculture. These constraints are based in giving moral inviolability to those animal interests which are constitutive of the animals' *telos*. If we are to use animals for food, they should live reasonably happy lives, i.e. lives where they are allowed to fulfil the interests dictated by their *telos*. [...] For the baboon used in biomedicine, this means creating a housing system which, in the words of US law, enhances the animals' 'psychological well-being', i.e. social non-austere containment for these animals that accommodates 'species-specific behaviour' (Rollin, 1989, pp. 177-81). For the zoo animals, it means creating living conditions which allow the animals to express the powers and meet the interests constitutive of its *telos* (Markowitz and Line, 1989).

Thus, *telos* has emerged as a moral norm to guide animal use in the face of technological changes which allow for animal use that does not automatically meet the animals' requirements flowing from their natures. In this way, one can see that the social context for the re-emergence of the notion of *telos* is a pre-eminently moral one: *telos* provides the conceptual underpinnings for articulating social moral concern about new forms of animal suffering. From this moral source emerge epistemological consequences which somewhat work against and mitigate the reductionistic tendencies in science alluded to earlier. For example, it is moral concern for *telos* which is sparking a return of science to studying animal consciousness, animal pain and animal behaviour, areas which had been reduced out of existence by the mechanistic tendencies of the twentieth-century science that affords pride of place to physicochemistry (Rollin, 1989). In an interesting dialectical shift, moral concern for animals helps revive the notion of *telos* as a fundamental scientific concept, in something of a neo-Aristotelian turn.

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## Respect for *telos* and the conservation of well-being

This, then, is a sketch of the concept of *telos* that has re-emerged in society today. Though it is partially metaphysical (in defining a way of looking at the world), and partially empirical (in that it can and will be deepened and refined by increasing empirical knowledge), it is at root a moral notion, both because it is morally motivated and because it contains the notion of what about an animal we *ought* at least to try to respect and accommodate.

What, then, is the relationship between *telos* and genetic engineering? One widespread suggestion that has surfaced is quite seductive (Fox, 1986). The argument proceeds as follows. Given that the social ethic is asserting that our use of animals should respect and not violate the animals' *telos*, it follows that we should not alter the animals' *telos*. Since genetic engineering is precisely the deliberate changing of animal *telos*, it is *ipso facto* morally wrong.

[...]

Seductive though this move may be, I do not believe it will stand up to rational scrutiny, for I believe it rests upon a logical error. What the moral imperative about *telos* says is this:

### Maxim to Respect *Telos*:

If an animal has a set of needs and interests which are constitutive of its nature, then, in our dealings with that animal, we are obliged to not violate and to attempt to accommodate those interests, for violation of and failure to accommodate those interests matters to the animal.

However, it does not follow from that statement that we cannot change the *telos*. The reason we respect *telos*, as we saw, is that the interests comprising the *telos* are plausibly what matters most to the animals. If we alter the *telos* in such a way that different things matter to the animal, or in a way that is irrelevant to the animal, we have not violated the above maxim. In essence, the maxim says that, given a *telos*, we should respect the interests which flow from it. This principle does not logically entail that we cannot modify the *telos* and thereby generate different or alternative interests.

The only way one could deduce an injunction that it is wrong to change *telos* from the Maxim to Respect *Telos* is to make the ancillary Panglossian assumption that an animal's *telos* is the best it can possibly be vis-à-vis the animal's well-being, and that any modification of *telos* will inevitably result in even greater violation of the animal's nature and consequently lead to greater suffering. This ancillary assumption is neither *a priori* true nor empirically true, and can indeed readily be seen to be false.

Consider domestic animals. One can argue that humans have, through artificial selection, changed (or genetically engineered) the *telos* of at least some such animals from their parent stock so that they are more congenial to our husbandry than are the parent stock. I doubt that anyone would argue that, given our decision to have domestic animals, it is better to have left the *telos* alone, and to have created animals for whom domestication involves a state of constant violation of their *telos*.

By the same token, consider the current situation of farm animals mentioned earlier,

wherein we keep animals under conditions which patently violate their *telos*, so that they suffer in a variety of modalities yet are kept alive and productive by technological fixes. As a specific example, consider the chickens kept in battery cages for efficient, high-yield, egg production. It is now recognized that such a production system frustrates numerous significant aspects of chicken behaviour under natural conditions, including nesting behaviour (i.e. violates the *telos*), and that frustration of this basic need or drive results in a mode of suffering for the animals (Mench, 1992). Let us suppose that we have identified the gene or genes that code for the drive to nest. In addition, suppose we can ablate that gene or substitute a gene (probably *per impossibile*) that creates a new kind of chicken, one that achieves satisfaction by laying an egg in a cage. Would that be wrong in terms of the ethic I have described?

If we identify an animal's *telos* as being genetically based and environmentally expressed, we have now changed the chicken's *telos* so that the animal that is forced by us to live in a battery cage is satisfying more of its nature than is the animal that still has the gene coding for nesting. Have we done something morally wrong?

I would argue that we have not. Recall that a key feature, perhaps *the* key feature, of the new ethic for animals I have described is concern for preventing animal suffering and augmenting animal happiness, which I have argued involves satisfaction of *telos*. I have also implicitly argued that the primary, pressing concern is the former, the mitigating of suffering at human hands, given the proliferation of suffering that has occurred in the twentieth century. I have also argued that suffering can be occasioned in many ways, from infliction of physical pain to prevention of satisfying basic drives. So, when we engineer the new kind of chicken that prefers laying in a cage and we eliminate the nesting urge, we have removed a source of suffering. Given the animal's changed *telos*, the new chicken is now suffering less than its predecessor and is thus closer to being happy, that is, satisfying the dictates of its nature.

This account may appear to be open to a possible objection that is well known in human ethics. As John Stuart Mill queried in his *Utilitarianism*, is it better to be a satisfied pig or a dissatisfied Socrates? His response, famously inconsistent with his emphasis on pleasure and pain as the only morally relevant dimensions of human life, is that it is better to be a dissatisfied Socrates. In other words, we intuitively consider the solution to human suffering offered, for example, in *Brave New World*, where people do not suffer under bad conditions, in part because they are high on drugs, to be morally reprehensible, even though people feel happy and do not experience suffering. Why then, would we consider genetic manipulation of animals to eliminate the need that is being violated by the conditions under which we keep them to be morally acceptable?

END.