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Naturalness

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"Natural" is commonly used for what would exist without humans and would exist in the way it does without humans. The counter-concept, the "artificial", is commonly used for what exists in the way it does only through humans or has only become what it is by human intervention. Both concepts refer to the poles of a spectrum which are rarely realized as such. At the same time, in the philosophical tradition as well as in everyday morality, naturalness functions as a normative principle that distinguishes what has grown or evolved from what has been made by human hands. The diversity of its meanings implies a corresponding diversity of what in each case is considered "natural" in preference to the non-natural. While it is doubtful whether naturalness in the sense of being untouched by human beings can be regarded as having intrinsic value (except in special areas such as preservation, for example in the case of national parks), the reference to naturalness assumes a number of functions (such as alleviating responsibility and avoiding risky innovations with unforeseeable outcomes) which may be justifiable in certain cases.

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1. The Natural and the Artificial – poles of a spectrum

The contrast between the *natural* and the *artificial* has an established place in everyday thinking. The "natural" is considered to be that which would exist without humans and would also exist in the way it does without humans. The "artificial", by contrast, is that which is only there because of humans or has only become what it is because of humans. Almost everything we deal with on a daily basis lies between the poles of the purely natural and the purely artificial. Nearly everything artificial and fabricated ultimately derives from the natural. This insight combines in natural-philosophical terms a metaphysical argument with a materialist one: humans cannot create something out of nothing. Every creation that is not purely intellectual relies on the natural as its source material. To date, it has not been possible to create living things from non-living things using technical means, such as a cell with the ability to metabolise and autocatalyse from its molecular components. But even if this becomes possible one day, the resulting "artificial" cells would still consist of natural components.

The same applies to the side of the natural. Even what we usually call "natural" – nature as the whole biosphere and its elements – is only in rare cases untouched, unaltered or unshaped in any way by human intervention. This applies especially to nature in parts of the world that have long been exposed to human intervention, such as Central Europe or East Asia. In many cases, even those areas considered "original" (partly because they give the *impression* of originality), can still be traced back to targeted human intervention. Even those parts of North America currently protected as nature reserves are by no means "original" or "wild" in the sense that they have remained untouched by humans. For example, the original population of large mammals in these areas was already decimated by humans in pre-Columbian times. In addition, there are numerous *unintended* interventions in the biosphere, for example through environmental pollutants or the direct or indirect consequences of

climate change. Traces of industrial emissions can still be detected even where nature is otherwise carefully protected from interference by civilisation, for example at the polar icecaps.

2. The "naturalness-bonus"

By and large, the philosophical tradition has assumed an intrinsic superiority of the natural over the artificial. The natural has priority not only in temporal terms, but also in terms of value. It is a more direct expression of the Creator's will and provides humans with a clearer and more reliable orientation than anything they have created themselves. Thus, at the height of the Enlightenment, Rousseau thought he could contrast his "noble savage" (Rousseau [1755] 1978: 83 ff.), d'Holbach his "Code of Nature" (d'Holbach [1770] 1978: 600) with the customs of the Ancien Régime, which they regarded as degenerate. For Kant, too, the natural was a criterion for ethical and aesthetic correctness. In one of its formulations, the Categorical Imperative requires us to examine to what extent a maxim for action can be universalised and so thought of as a "natural law" (Kant [1785] 1968, vol. 4: 421). An artificial imitation of "real" nature – as when the song of the nightingale is "very precisely imitated" – is, according to Kant, of inferior aesthetic effect. It appears to our ear "quite tasteless" (Kant [1790] 1968, vol. 5: 243).

Aesthetic and moral evaluations of everyday life are commonly characterized by a "naturalness bonus" (Birnbacher 2014b: 21 ff.). Products which are clearly artificial, such as cosmetics, are advertised with the paradoxical promise of "natural beauty". The most striking manifestation of the naturalness bonus is when natural risks are compared with interventional risks. Negatively evaluated conditions that result from human intervention are rated as more serious evils than if they were of natural origin. Natural hazards are feared less and tolerated more than anthropogenic risks, in many cases even those that could be prevented by human intervention (cf. Hansson 2003). The occurrence of positively evaluated conditions resulting from natural processes is welcomed as good fortune or as God's gift, whereas targeted human intervention to realize the same conditions is often rejected as questionable.

The "naturalness bonus" does not appear uniformly in the convictions of everyday morality, however. This is evident when it comes to interventions that address the psyche and personality, such as in the case of upbringing, education and moral cultivation. Here the "natural" is for the most part evaluated negatively. It is even more evident in the case of interventions in the human body, for example when it comes to artificially increasing physical abilities, as in the various forms of *human enhancement*. But here, too, the naturalness bonus is subject to limitations. First of all, so-called "compensatory" enhancement, the artificial adaptation of a human's physical condition and functional capacity to social standards of normality, is largely exempted from concerns about "going against nature". Secondly, procedures to improve human capacities and to design offspring only meet with reservations when they themselves make use of artificial means: in the former case, pills and injections instead of exercise and training. Even the distinctly "bioconservative" American President's Council of Bioethics did not object to a hypothetical procedure for the conscious choice of the sex of a child, as long as this is done with the help of "natural" means (e.g. the timing of procreation) rather than by technical means such as sperm separation (President's Council 2003: 61).

The most striking and at the same time understandable exception to the verdict of "going against nature" is the everyday moral thinking about procedures used primarily for health purposes, such as the treatment and prevention of diseases. These procedures may be "artificial" to almost any degree. Neither the complexity and lack of transparency nor the novelty of a procedure that is or can be used primarily for therapeutic purposes normally stand in the way of its being approved. An example is the use of preimplantation diagnosis in Germany, the legal status of which was uncertain for a long time, yet which even long before its (restricted) legalisation was viewed positively because it would enable parents with a hereditary genetic predisposition to have a healthy child.

However, the public generally reject the same procedures if employed for purposes other than health, e.g. choosing a child's sex or avoiding the birth of a child with aesthetic impairments (cf. Solter 2003: 197).

3. Is naturalness an intrinsic value?

Thus even in everyday moral thinking, naturalness does not as such constitute an intrinsic value. Otherwise, we would have to reject not only medicine as going against nature, but all cultural techniques. If, however, even the moral common sense regards naturalness as a value only in certain contexts, the question arises as to why it should be legitimate to correct physical malformations in humans by artificial means but "sacrilege" to make potential improvements. The question also arises as to why it should be "hubris" to intervene in the human genome, while interventions in the animal genome, such as in the breeding of livestock, are widely regarded as permissible. One is just as *unnatural* as the other. In both cases humans play God and change the "plan of creation". At any rate, fixing a boundary between what is permitted and what is not seems impossible purely by recourse to the pair of terms "natural/un-natural". Even a person's *freedom* may not be restricted by artificial interventions such as the alteration of his or her genetic material: in order for a person's freedom to be restricted, he or she must first and foremost exist as a being with his or her own volition; yet any genetic modification would occur well before this stage. Consistent with this, a "right to chance", as demanded by the European Parliament in 1982, can only make sense if it is taken to mean that the offspring of the application of genetically manipulative methods are to be protected from possible psychological burdens arising from the knowledge of the circumstances of their origin. Empirical studies have shown, however, that such burdens are negligible, provided that the persons concerned are informed of these circumstances in a timely and appropriate manner.

4. Naturalness as conformity with natural purposes and as normality

Naturalness is a term that can be interpreted in many ways. It does not necessarily have to be understood in its most obvious sense, as the totality of that which is given to humans independently of their activities. Alternatively, naturalness can be understood *teleologically* or *normatively*, either as *agreement with the purposes of nature* or as *normality* or *moral correctness*.

With a *teleological* understanding of naturalness, an offence against (empirical) nature could be justified as perfectly "natural". Take the healing of diseases: on the one hand, it means acting against empirical nature, which does not allow a sick person to become healthy on their own; on the other hand, it is in accordance with the *purposes* of nature, i.e. with the purposes which nature evinces but which it itself only imperfectly realises. In this sense, medicine would be nothing more than "remedial help", a rectification and support of natural self-healing powers (as Aristotle already suggested with reference to Hippocrates).

However, a teleological understanding of naturalness raises a number of questions, and it is unclear whether they can be answered satisfactorily:

1. How can natural purposes be identified? What reasons are there to say that correcting deficiencies fits the purposes of nature whereas improving the blueprint of creation does not? The very language of natural purposes makes little sense without the assumption of a personal creator. Thus the justification becomes theistic and no longer fulfils the conditions of universal validity required to justify moral norms. The restrictions on personal freedom of action that emanate from moral norms cannot, however, be justified without such universally valid grounds.
2. Is the language of natural purposes meaningful at all? Nature is not a unified purposive subject and nature as a whole does not evince a specific goal.
3. Even if there were such things as the purposes of nature and these could be ascertained, the question still arises as to why we should be bound to these purposes (cf. Mill 1874).

4. If there were such a thing as nature's purpose, humans would also have a natural purpose. Why should that purpose consist in submission to nature's constraints rather than in the rejection of nature's impositions and the overcoming of natural boundaries?

If, on the other hand, naturalness is understood as "normality" or "moral correctness", the reference to the natural and the unnatural loses its explanatory power. Naturalness as "normality", "natural justice" or "natural law" would in turn be the result of an evaluative definition: what is natural would be – by definition – what is good, God-willed, right. The fact that certain behaviours are "unnatural" would merely repeat the claim that they are morally inadmissible, it would not justify this judgment.

5. Naturalness as a "proxy norm"

This does not mean that arguments and attitudes which invoke naturalness and unnaturalness can be dismissed as unfounded and irrational. Rather, hidden in the use of the term "unnatural" one can see, among other things, attitudes that stand on stronger ground than the evaluation of the natural as an intrinsic value. These are: 1. *a defence against normative overdemandingness*, 2. *a defence against excessive rationalization*, for instance in the context of reproduction, and 3. *a defence against risks*, especially risks with significant margins of *uncertainty*.

1. Principles of naturalness have, among other things, the function of *limiting responsibility*. In the field of reproduction, for example, they relieve reproductive responsibility and reduce the normative pressure on parents for "quality control" of their own offspring. The growing availability of means for controlling genetic intervention inevitably increases pressure on parents to take responsibility for avoiding or reducing risks to their child. This pressure can take the form both of individual conscience and social expectations. Those who advocate principles of naturalness can relieve themselves of such pressures by objecting that nature's counsel (a proxy for God, fate or providence) is for them "God-given".

   At the same time, any accountability for reproductive failures on the part of the parents is removed and a danger lessened that children would take legal action against their parents for reproductive errors and – following the pattern of "wrongful life" trials – demand explanations or even compensation from their parents for having given birth to them with what they perceive as imperfections.
2. Principles of naturalness function as *barriers against the undesirable penetration of planning and technical rationality into spheres where other norms prevail*. One of these is the sphere of reproduction. Artificial interventions here harbour the danger of a "destruction of the natural, unbroken relationship of having children" (Rehmann-Sutter 1998: 436). After all, sexuality and reproduction are one of the few refuges of spontaneity and immediacy in a rationalized world. The preference for chance to prevail in the choices that determine the nature of our children is widespread and understandable. Nothing makes us happier than when we receive something from the hands of others without any prompting on our part. The higher the share of one's own foresight, planning and control in what one receives as a gift, the less of a gift it is and the less one's joy as recipient. Even if completely "natural" methods for fine-tuning reproduction were available, these would certainly not be applied everywhere, but only under special conditions.

   In this respect, principles of naturalness not only protect against the hysteria of reproductive perfectionism, but also make the spontaneous preference for the natural appear to be normatively binding. Although parents could no longer consistently invoke force majeure (since as soon as a possibility to intervene arises, non-intervention would also require justification), they could still invoke principles of naturalness that prohibit them from intervening in the course of nature, even if they foresee significantly worse consequences than by intervening.
3. Principles of naturalness have the function of limiting risk, especially in the case of new, not yet tried-and-tested techniques with incalculable long-term risks. The risks of what is familiar and well-known are more easily predicted precisely because they are familiar and well-known.

What these three justifications have in common is that naturalness assumes a proxy role. Their grounds are not intrinsic but lie in the *functions* of their acceptance. In its first function, the principle of naturalness protects against excessive normative demands, in its second function it protects against excessive rationalisation, in its third it functions as a kind of ethical precautionary principle.

For all three, however, the question arises as to how far these functions are morally worthy of protection. Though each aims at avoiding psychological and social risks, each in turn creates new risks. The desire to avoid excessive normative demands and excessive rationalisation can only be regarded as legitimate if fulfilling it does not generate evils of its own. A therapeutic nihilism, in which nature is allowed to prevail, is itself fraught with serious risks. As pressing as it is to avoid creating new risks, it is equally pressing that existing risks are not accepted fatalistically.

6. Faking nature

A particularly strong principle of naturalness is voiced by nature ethicists who, with the accusation of *faking nature*, criticise the practice of destroying natural areas by civilising interventions (e.g. the extraction of raw materials) or accepting their destruction as a necessary side effect and then restoring them in such a way as to give the impression of originality and "authenticity" (cf. Elliot 1997). Just as in the visual arts a copy does not have the same value as the original, even if it is perfect in qualitative terms, a "faked" nature does not have the same value as the "original". Rather, the fake is worth less the more it owes its genesis to human factors.

Yet theorists of "faking nature" must ask themselves how far the analogy between works of art and works of nature actually holds. They cannot deny that in the case of a work of art, the historical circumstances of its creation, such as how innovative it is in terms of the state of the art at the time of its creation, are relevant to its evaluation. Even a perfect symphony in the style of Beethoven, composed by a contemporary composer, would be of dubious aesthetic value. Does the same apply to nature, to which evaluative categories such as originality, creativity or innovation do not seem applicable?

There are at most two contexts in which it is of crucial importance for the evaluation of a natural phenomenon that it be "genuine" and "authentic": first, if that natural phenomenon has a special historical significance and thereby acquires the status of a "natural monument"; second, if it has become a quasi-partner in a personal relationship. In the first case it is clear that as long as the documentary function of a natural phenomenon is in the foreground, strict identity and continuity between earlier and later phases of life must exist. In the second case, too, genetic-historical "authenticity" is important when an animal, a plant, a landscape or other natural phenomenon has "grown close to someone's heart" in such a way that it becomes a relational object with lasting emotional ties. The relationship to a pet animal or to a "favourite tree" is not automatically transferred to their respective "successors". After all, a piece of nature can truly become "irreplaceable" (cf. Birnbacher 2014a) in the sense that its destruction is as little compensated by "replanting" as the loss of a loved one is compensated by the birth of a child.

Basic Literature

Birnbacher, Dieter 2014b: Naturalness. Is the 'Natural' Preferable to the 'Artificial'? Lanham/MD, University Press of America.

Literature

Birnbacher, Dieter 2014a: Biodiversity and the 'substitution problem'. In: Lanzerath, Dirk/Friele, Minou (eds): Concepts and Values in Biodiversity. London/New York, Routledge: 39–54.

Birnbacher, Dieter 2014b: Naturalness. Is the 'Natural' Preferable to the 'Artificial'? Lanham/MD, University Press of America.

Elliot, Robert 1997: Faking Nature. The Ethics of Environmental Restoration. London/New York, Routledge.

Hansson, Sven Ove 2003: Are natural risks less dangerous than technological risks? In: Philosophia naturalis 40 (1): 43–54.

d'Holbach, Paul Thiry [1770] 1978: System der Natur oder von den Gesetzen der physischen und der moralischen Welt. Frankfurt/M., Suhrkamp.

Kant, Immanuel [1785] 1968: Grundlegung zur Metaphysik der Sitten. In: Kants Werke. (Akademie-Textausgabe). Berlin, de Gruyter: Bd. 4, 385–464.

Kant, Immanuel [1790] 1968: Kritik der Urtheilskraft. In: Kants Werke. (Akademie-Textausgabe). Berlin, de Gruyter: Bd. 5, 165–485.

Mill, John Stuart 1874: Nature. In: Mill, John Stuart (ed.): Nature, The Utility of Religion, and Theism. London, Longmans: 3–65.

President's Council on Bioethics 2003: Beyond Therapy: Biotechnology and the Pursuit of Happiness. Washington/DC, Dana Press.

Rehmann-Sutter, Christoph 1998: DNA-Horoskope. In: Düwell, Marcus/Mieth, Dietmar (eds): Ethik in der Humangenetik. Die neueren Entwicklungen der genetischen Frühdiagnostik aus ethischer Perspektive. Tübingen, Francke: 415–443.

Rousseau, Jean-Jacques [1755] 1978: Über den Ursprung der Ungleichheit unter den Menschen. In: Rousseau, Jean-Jacques: Schriften zur Kulturkritik. Hamburg, Meiner: 77–268.

Solter, Davor/Beyleveld, Deryck/Friele, Minou B./Hołówka, Jacek/Lilie, Hans/Lovell-Badge, Robin/Mandla, Christoph/Martin, Ulrich/Pardo Avellaneda, Rafael 2003: Embryo Research in Pluralistic Europe. Berlin, Springer.