

# Genomics and Bioethics: Interdisciplinary Perspectives, Technologies and Advancements

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## Chapter 9

# A Philosophical Exploration of the Concept of ‘Property’ in Genetics and Databanking: Challenges for Bioethics in Asia and Europe

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### ABSTRACT

*The chapter criticizes arguments purporting to show that the human body could be made available in the market as property and those arguing that the concept of property could be applicable to the human bodily parts or human DNA. The author argues that the genetic information contained in matter such as DNA cannot be taken for granted as classifiable as property. There are three reasons: DNA is too personal to be commodified; DNA is of familial nature; and commercialization of DNA runs the risk of exploitation of the disadvantaged. Moreover, ethics should venture to clarify interests and stakes in the debate, with sympathy for the vulnerable rather than executing the rationales of powerful groups in economy and society.*

### WHAT IS AT STAKE

Modern biomedicine and the development of genetic technology raise a number of concerns about the tendency to see a person’s body as an accumulation of objects that may and can be separated and commercially transferred. In fact, the view, that sees a human body as an accumulation of objects, is convenient because it suggests and encourages practices of utilization that would be difficult to

defend morally without such a view. The primary consequential danger of commodification is that it can lead to exploitation and dehumanization, particularly of vulnerable populations, such as people at the margins of society, thus eventually contributing to de-humanizing societies at large. This danger is most apparent in the pharmaceutical and biotechnology companies’ quest to patent and market products derived from human tissues, e.g., the widespread ‘biopiracy’ in the developing world (Rural Advancement Foundation International (RAFI), 1995).

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Moreover, the metaphysical challenge lies in reducing the human being, in part or in total, to an instrument, be it by other people or by an individual regarding itself. This concern is also expressed in efforts to anathematize and contain any activity or doctrine that might support dehumanization, for example in terms of taboo or ban. Both consequentialist and metaphysical concerns demarcate the conceptual horizons of the cultural philosophical debate about the ethics of databanking.

## THE CONCEPTUAL DEBATE

### The Human Body Property

Canadian ethicist Williams-Jones has linked an apparent social (or, rather, legal) tendency to accept commercialization of human tissues to three principal factors (William-Jones, 1999):

1. *Cartesian dualism*, which reduces a human being to a person. It conceives of the person as separable into mind and body and emphasizes the primacy of the mind over the body. Historically, such dualism helped demythologize the body and made it a secular object. Scientists gained the freedom to explore the functioning of the body, thereby supporting the development of modern scientific medicine. But this separation, without proper self-critical reflection, also supports the objectification and commodification of the body, for it may be taken to suggest that the body and its parts may be treated like possessions or instruments, alienated from the grounds of human value.
2. *A materialist conception of the person*, which treats the person as a wholly material being, has mostly replaced the dualistic conception or combines with it. As materialism treats the mind as a function of the body, materialism, in a reductionist form (most apparent

in popular views of human genetics, such as the 'blueprint' metaphor for the genome), can lead to the body being objectified. Many people now expect all behaviors to be explained in terms of genetic causation. Despite this seeming fatalism, there is nonetheless a desire to gain control over genetic material, for the decoding of the blueprint is seen as the key to controlling a person's life and destiny. At the same time, a reductionist materialist perspective can also lead people to treat their own or other people's body parts as commercially transferable, as seen, for example, in the fact that commercial sperm banks exist for the express purpose of selling 'genetically superior' material to prospective mothers.

3. *The principle of self-determination* (or, misleadingly, "autonomy") in the dominant international bioethics discourse requires conceiving of individuals as fully self-responsible, private persons with strong controlling interests in their bodies. This emphasis on one aspect of autonomy can, however, go so far as to diminish awareness of duties towards one's own body. For example, one argument in favor of a commercial trade in organs is that "autonomous" individuals should be able to do as they please with their bodies. Williams-Jones argues that in combination with dualistic or materialistic (reductionist) concepts of the person, such a conception "may result in the body being objectified, manipulated, dismantled and commodified" (Williams-Jones, 1999, p. 12).

One way of exploring the body as property is to speak of it in terms of *quasi-property rights*. According to utilitarian consequentialists such as Radin, the means of weighing the significance of a person's relationship with an object is the type and level of pain suffered by the loss of the object. If the object is loosely held (e.g., one's car),

then it can be freely exchanged or replaced; that is, it is fungible. The relationship to the object is close and personal if the pain of its loss cannot be alleviated by its replacement, e.g., the loss of a family heirloom (Radin, 1982; 1987). This leads to a hierarchy of entitlements, so that the closer the connection with personhood, the stronger the entitlement. Some items (e.g., bodily organs, according to Radin and others) cannot be classified as property at all. To make bodily parts fully alienable would, as Michelle Bourianoff Bray observes, “encourage a perception of body parts as interchangeable commodities and undermine the recognition of the human body as the physical embodiment of the personality” (Bray, 1990, p. 241).

## **The DNA Property**

Obviously, physical DNA and DNA-based information is significantly less closely attached to our self-appreciation than the body or its parts. Does commodification of DNA necessarily raise the same kind of concerns? For example, why should anyone be worried about genetic sampling? There are three arguments to suggest that commodification of human genetic material is harmful and unjustified:

1. *DNA is too personal to be commodified.* A person’s genetic code is a unique identifier of the individual. DNA is fundamentally private and is an important element in determining certain aspects of physical and psychological existence. A person is determined by their DNA in conjunction with social, environmental, and cultural factors, making a person unique. An individual may attach the symbolic meaning of “blood” to his or her DNA, ruling out that it is commodifiable or in the discretion of an individual to commodify it, even when there are practices that support donation or offering.

It is not the matter of or information about the DNA that is problematic (beyond possible issues of benefit sharing), but the ways in which the related information is being used and how it, (including the chain of events that make up such practices in anthropologic terms), impacts on individual’s self-perception, especially if they are sensitive and bearing a potentially adverse effect on the individual’s health or social situation. At least, it requires special protection. The very least and most fundamental condition for any institutionally organized dealing with DNA is an embedding culture of law, with transparent procedures, separation of powers and effective protections of the vulnerable. This could provide the basis upon which fair understanding could guide the limits and structures of what can and cannot be done.

2. *The familial nature of genetic material* requires us to consider the ramifications of intergenerational and horizontal social relationships and responsibilities. Individual family members cannot profit from the sale of shared genetic material. DNA is not simply a shared resource to claim in good Lockean fashion, as if, for example, one were to harvest trees to make into furniture. Even if we allow the sale of discrete individual body parts and tissue, it does not follow that DNA can be similarly treated.

Perhaps DNA could rather be seen as a shared property (in the double sense of *Eigentum* and *Eigenart*) of a group of persons. Depending on whether one takes this “property” in a materialistic sense or as an immaterial quality, group members can claim the material as being private and personal. Genetic material is part of a person’s genetic heritage and thus at best is a collective property. We are obliged to safeguard rooms and options for those who might turn out to be affected after the facts and entitlements have been (provisionally) fixed.

3. *The commercialization of DNA* is similar in many ways to the sometimes proposed commercial trade in organs, because it puts marginalized peoples at risk for exploitation. For example, the Human Genome Diversity Project with its focus on disease resistance and susceptibility in target populations has led many to doubt the HGDP's altruism. Opponents maintain that the primary objective of the HGDP is the patenting of human DNA and exploitation of indigenous peoples, resulting in exploitation similar to that due to the black market commercial trade in organs (Bereano, 1995) or the looting of imperialist powers. These concerns have led to calls for a worldwide ban on patenting of genetic material (e.g., RAFI, 1995; IPCB, 2009; CRG, 2009). The commodification of the human genetic material is thus considered by many people (e.g., indigenous, civil and human rights groups) to be unacceptable because it can so readily lead to exploitation of vulnerable individuals and communities. This is notably a critique based upon consequentialistic or utilitarian considerations, which do not necessarily conflict with metaphysical arguments.

## REVIS(IT)ING THE FRAMEWORK

Williams-Jones proposes that widely spread acceptance of genetic reductionist views of the person, in conjunction with an increased emphasis on personal sovereignty and control, can lead to a situation where individuals no longer understand or care about their personhood or physical integrity, or the societal dimensions of their own, body-related actions. At the societal level, this might contribute to the development of a huge market for body parts and genetic material, and lead to exploitation of people and erosion of moral standards. If she is right, here is a strong reason for the responsibility of bioethicists to defend a

culturally appropriate and philosophically sound conceptual framework of human body related property.

## Integrating the Academic State of the Art into Bioethics

I would like to respond along these lines, albeit with the intention to further amplify, according to the mentioned concerns. Bioethics needs not only to withstand the rationales and powers that reduce human beings to objects of technology or trade. We cannot simply criticize and reject biomaterialism, but ought to begin to be systematically constructive, in order to re-consider and re-ascertain the language and conceptual grounds of humanity, under specific conditions of post-genomics, legally, culturally, politically and ethically.

Perhaps, the renewed urgency of the attention to property issues related to the human body suggests that we should try a fresh start, commencing prior to the onset of the Lockean heritage, and begin with a critique of the reductionistic and rationalistic outlook, as has been undertaken notably by philosophical schools of phenomenology and feminist anthropology. Today, however, we do not only search for the corresponding attitudes towards the body as an irreducible, socially and biologically interconnected whole (*Leiblichkeit*), but have to enlarge the debates' perspectives so as to develop appropriate cross-cultural and trans-disciplinary approaches.

Related bridge-building projects have been proposed already, such as by Hartmann: "Drawing on the philosophies of John Locke that individuals have property rights in the body that include identity and individuality to the exclusion of others and Immanuel Kant that a person's intrinsic moral worth is bound up with both body and self, this dignitary property interest is best explained by reference to the human body as an embodiment of self and identity, rather than a commercial or 'quasi-commercial' entity" (Hartmann, 2005).

Transforming the perception of the body to an *embodiment* of dignity appeals to me as a convincing advancement in the conceptual language of bioethics. However, is this also a robust and sufficiently wide construed bridge? Will it hold to discourage relativistic and subtly biological investigations, for example, the gradualistic kind, “how much or little body does it take to become fully dignified?”, just as we find it in precedence, in arguments regarding the beginning of a human beings’ dignified life or worthiness of protection, in the human cloning and embryonic stem cell research debates? Or will it be durable enough to withstand convenience-driven solutions to organ procurement and transplantation, with medical-reductionistic and technically modulized anthropologies, as we encounter them in debates about brain death versus cardiac death?

It seems to me that the conceptual horizons need to be enlarged, allowing us to deal with perceptions of the body that do not even begin to sympathize with conceiving it as a property in any economic sense. The true challenge for bioethics is not to organize the dissent that exists among those who already accept the foregoing *cultural grammar* of a qualified dualism of the human being that renders one part, quality or property of the human disposable (*verfügbar*) in principle. Rather, ethics should seek to provide strong grounds to explain and argue for the unavailability (*Unverfügbarkeit*) of the human, for any reason or purpose.

Some established opinions in international bioethics merit closer examination. For example, “Whether and how property law applies to the body and its parts depends on a number of variables, especially whether the body is alive or dead, and whether it is a question of the whole body or body parts” (Everett, 2003).

Why would this, (“Whether and how property law applies to the body?”), be the proper question? If we take it for granted that no person has the right to interfere with the integrity or the legitimate self-determination, physically, socially or spiritually, may we even pose such a question and

thereby begin to persuade someone to subscribe to the underlying mindset, namely the one that is expressed in and compatible with the given property law?

Reducing the scope of interest to the *mode* rather than the quality of a property-relation to the human being pre-establishes a bias in the discourse, which is more often than not left unexplained. Alternatively, cultivated bioethics, with a global view, includes concern about social concepts and practices that do not depend upon (but might tolerate) standards of property or ownership, and/or certain affiliated body concepts, not only in order to protect vulnerable people, but also because there is no strong reason why they should not have a valid point to be considered in its own right, even when it seems to contradict the powers of the day.

In fact, most major philosophies and religions alert us that we shall not address practice in a language of possession, claiming that ownership or materialistic attachment to worldly things, for example, could be tantamount to hubris or delusion. It is a challenge, how to identify, in the ways we organize biomedicine, the turning point from acts of practical freedom to dehumanized acts of technical rationality.

Notably, this raises a notorious type of problem of political philosophy, in all societies with some degree of moral diversity, and the response to it certainly depends on the respective political order. Countries have found diverse theoretical and practical ways to manage in terms of standardization, of due procedures, legal codes and institutions. For example, Germany has established legislation on the hotly debated and intractable problem of abortion, according to which such an act would be unlawful but not punishable under certain conditions.

However, in countries that do not support civic diversity and notably in those global areas of international conduct that do not enjoy a legal state of civility (*Bürgerlichkeit*), but act under conditions of a natural state (*Naturzustand*, Hobbes

on human nature, Kant on perpetual peace) we may not take such protection for granted. Here, namely in view of globalization, bioethics is called to seek ways to pro-actively protect the interests of the disadvantaged, discriminated and vulnerable.

### **Towards an Empirically Confirmed and Culturally Enriched Framework**

At the present stage, we cannot provide positive answers to such questions. We can try to clarify the questions and the stakes.

Beyond the narrow utilitarian scope that can be found in most arguments in the debate, as it is shared by civic stake-holders, business lobbyists and politics, it appears that there are conceptual alternatives. For example, considering ownership of genetic material in general, Safrin speaks of “the corrosive interplay between the patent-based and the *sovereign*-based systems of ownership of genetic material. In *patent*-based systems, genetic material is increasingly ‘owned’ by corporations or research institutions, which obtain patents over such material. In *sovereign*-based systems, the national government owns or extensively controls such material. As more patents issue for synthesized genes in developed countries through the patent system, more raw genetic material is legally enclosed by the governments of developing nations, which house most of the world’s wild or raw genetic material. This interactive spiral of *increased enclosure* results in the sub-optimal utilization, conservation and improvement of vital genetic material” (Safrin, 2004, p. 642).

So, even within the ownership model, there are qualitatively different conceptualizations of the kind of entitlement connected to property. Generally speaking, *sovereignty* is an open concept that allows us to define property in a plurality of ways, within procedural and principled confinements. It can encourage civic virtues, such as tolerance and attitudes such as precaution and respect. The fact that national sovereigns use it in accordance with the rationales of patenting is not a necessary or

logically required but a pragmatic choice. A sovereignty model does have the capacity to support ethical horizons greater than the global market.

Patenting, on the other hand, is an original act that binds property strictly to pre-determined legal entities such as persons or companies, and reconstructs value in reduced positive terms of law, economy or science. It is a materialistic concept with an imperialistic inclination in its normativity that makes sense only under specific conditions of certain economic models.

Ethics, as it subscribes to humanity rather than market rationality, cannot support a property model that submits itself to the confined rationales of patenting. The sovereignty model tolerates a greater variety of options, but needs to be governed in the proper fashion in order to account legitimacy.

### **INTEGRATING DIVERSE NORMATIVE CULTURES TOWARDS AN ADVANCED FRAMEWORK**

Ethics can develop a conceptual framework to safeguard and defend a realm of bodily integrity beyond the reach of any power or sovereign (*Unverfügbarkeit*). Such a framework could not be intended to prohibit any exchange of property but to sustain the tension that makes us continue to criticize, argue, and performatively improve practices of dealing with the body in biomedicine. The chief aspiration thus is to allow ethics to do the job properly on sound theoretical and methodological grounds. In the following, I would like to submit some consideration in order to stimulate the debate.

The semantics of the English word ‘property’ is interesting because of its ambiguity. There are *intrinsic* and *accidental* qualities of property. The intrinsic meaning refers to what is essentially characteristic of something. For example, humans have a moral property; it is humanly proper to act morally. However, in the accidental sense, we cannot say that morality is our property in

that we can dispose of it at will. If we confuse both meanings, we not only commit a logical fallacy, but we also confuse fundamentally different categories, by conceptualizing morality in accidental terms or accidental things or affairs as if they were not possible expressions of morality but morality proper.

If we look into the conceptual impact of normative languages, it appears that, notably within what is called the legal traditions of the West, there are incongruent languages of property, such as in the case of German and English, each normative code carrying a peculiar system of ethics and procedural rationales, with a strong influence of connotative semantics. For example, the fundamental distinction between dignified persons and material objects in the German law makes it most difficult to tell if and how human body materials qualify as belonging to an intrinsically protected person or can be treated under the rules of objects with a certain value. This situation suggests that under conditions of renewed urgency and global relevance of the normative grammar in bioethics, there is a need to discuss the legitimacy of a language of property or ownership in relation to the body (and living things, or nature in general) that includes all significant contributions in human cultures.

We should ask whether 'property' can constitute a bodily self-relationship. What kind of relationship would this make and what kind of "body" can there be in terms of property? I propose that we should not inquire among European or Northern American philosophers only, (although it may certainly do good to revisit their proper interpretation), but invite all cultures to contribute directly or comment on the established answers. At the same time, the established opinions should be revisited. In sum, we need to engage a *global discourse*, (in the appropriate fashion), in order to identify the diversity of views and arguments, before we rush to lend the factual powers ethical legitimacy.

There are conceptual alternatives to defining property in terms of ownership of, legitimate access to, discretion or sovereignty to determine the use of the human body; and there are concepts of the human that rule out any reduced materialistic or objectivistic assessment of the body, because the underlying idea of a human entity that can be separated into body, soul, mind, etc., is not accepted. And there are alternative ways to organize the normative system of human interaction that, for example, transport a different assessment of dealing with the body and its matter.

I would like to randomly pick four examples from the debate that carry alternative concepts and merit closer inspection and thorough systematic analysis in the light of our theme.

*Hedging claims.* The Chinese philosopher Yu Kam Por (Hong Kong) has started to develop a concept of legitimate entitlements to access the spheres of a human's integrity, based on a classical Confucian term of human social order, *fen*, and an analysis of contemporary uses of this term in common language. This idea grounds the debate in a language of natural entitlements, which need to be individually negotiated regarding the margins but reserve a substance of inalienable integrity.

*Being.* German social philosopher Erich Fromm has suggested an ethics that is based on a world view of "Being defining Having." Such a conceptual language cannot support the idea of possessing the human body in any materialistic sense and thus rejects all attempts to commodify it.

*Propriety instead of Property!* Many traditional societies and contemporary schools of thought emphasize a reciprocal sense of entitlements and obligations, which are regulated *in situ* according to a robust set of normative customs. For example, some ethnic groups and religions assess genetics in terms of the 'human blood lines' or as a matter of the sanctity of the universe. Related views on and their practices regarding the human body and its matter are often framed in terms of social relationship and obligations, which have a potential to protect the individual from com-

modification by embedding the body in social and inter-generational networks of belonging. Such moral systems can be tested for their responsiveness to current conditions.

*Equity* is a set of legal practices and principles following the English Common Law tradition and supplementing rules of law, introducing a dimension of 'natural justice' into the legal discourse. It allows one to deal with some flexibility with subjective and practical dimensions of judgement of value. For example, a plaintiff whose neighbor will not return his only milk cow, which wandered onto the neighbor's property, may want that particular cow back and not just its monetary value. Or the value of a donated probe of body material to the donor can be assessed in terms different from those of science or medical benefit, or from their market value. In equity, with its emphasis on fairness and flexibility, only general guides apply, known as the maxims of equity. The material force of equity grounds in the moral authority of an accomplished person's conscience, such as, historically, the Lord Chancellor, or, exploratively speaking, in the Confucian Junzi.

These examples for diversity indicate a rich reservoir of contributions to a cross-cultural discourse on a proper normative framework for regulating the practices of dealing with the human body and the questions raised by regarding it in terms of ownership, as property, commodity.

### **Ethics beyond Governance**

Opening the debate to considerations of a culture of humanity will obviously encourage a fundamental critique of capitalism, materialism and alienation. The cross-cultural exercise of comparison of ethics and critique of practice might involve re-assessment of the common sense of non-commercialization, and apply it to the claims of patenting (of life), and the hubris and moral absurdity of bio-markets.

The juridical problem is how to define the human body, the legal person, object and com-

modity, and their interrelations. What kind of legal category do we use when we assess human body-related property, and whether property can be applied here in the first place? Within a narrow juridical scope, conceptual ambiguity and juridical uncertainty towards the definition of the body and body material, in their distinction from objects might even support the confusion of body and person, and lead to restoring a Cartesian anthropology while at the same time contradicting moral common sense. Thus, depending on a legal or narrow regulatory conceptual framework without a reflected cultural ethical background would make it more difficult to legitimize ethical guidelines that deal with utilizing a person's body or body material, or to see how such an entitlement could be contained.

### **WHAT CAN PHILOSOPHY DO TO CONTRIBUTE TO ETHICS OF GENETICS?**

It is the task of philosophy to clarify the fundamental questions and issues, especially to contribute to the conceptual language of an adequate ethical framework.

A basic question on the table is: Can the debate be framed properly in the language of law, or, is the entire undertaking of utilizing the body and its parts taboo? Does it categorically cover concerns about dealing with information? Should it be assessed according to an approach of equity, rather than positive law? How can the related questions of justice, benefit sharing and donor protection be organized?

In preparation, bioethics should sort out the conceptual correlation between diverse interpretations of property, ownership, possession, entitlement or claim to use, claim to access, control, dispose, etc. related to the human body and the human being. Not only does our understanding of the human body need to be refined in terms that reflect the best of our knowledge and responds to

challenges of globalized biomedical modernity, but the semantic field of property needs also to be redefined and re-established in a sense that makes it meaningful and clear.

Some provisional practical conclusions I would like to draw for the time being, that is, while grounds will be prepared for a more adequate framework, are

1. A qualified informed consent with an option for renewable consent is a minimal condition in cases that affect sufficiently developed places and potentially benefiting subjects,
2. Individuals and countries with no apparent self interest or corresponding framing conditions cannot be used as sources (cf. The Belmont Report),
3. Patenting of biological resources with a legal status outside sciences (especially in economics) is extremely problematic because it imposes the rationales of particular cultures on others without an option to opt-out.

These are not new suggestions. The point I am trying to make here is that the basis for such guidelines needs to be strengthened in an adequate and unambiguously ethical manner. In cross-cultural and international, transdisciplinary bioethics, an attitude of open-mindedness with primary concern for the quality of an argument rather than convenience of the doctrine or pragmatic compromises should prevail. Regarding 'property' in genetics, there is a long way to go, if we want to leave the jumbled state of current bioethics and begin to systematically develop a sustainable, cultivated framework.

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