

# Privacy *and* Property? Multi-level Strategies for Protecting Personal Interests in Genetic Material

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This paper builds on my earlier work which has examined privacy issues as these relate to genetic material and information derived from that material.<sup>1</sup> In that work I have argued that a more robust concept of privacy is required than is currently available to allow us to meet to challenges posed by increased availability of genetic information. I have argued that existing medico-legal paradigms, such as respect for individual autonomy and protection of patient confidentiality, do not provide adequate protection of the range of interests that individuals might have in their genetic constitution. Accordingly, I have proposed a new model of privacy protection that seeks to complete the family of values that I believe should work in parallel to provide such protection. However, although I am generally 'pro-privacy', I also recognise that the limitations of privacy, both in theory and in practice. One such limitation is that a privacy right - however conceived - is always a right of non-interference. It does not constitute a right of positive entitlement. To this extent, privacy suffers from limitations similar to those that afflict the principle of respect for autonomy, namely, it does not provide for any continuing control over personal matters once they enter the public sphere. Autonomy in the guise of consent reduces control to the giving or withholding of that consent after which an individual is largely powerless to dictate what happens.<sup>2</sup> Thus, for example, while an individual might consent to make private information public, she will have no continuing control over what is then done with her data. Similarly, if an individual consents to provide tissue samples for research purposes she loses control of those samples for all time coming. She is not in a position to dictate the fate of the samples by

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<sup>1</sup> GT Laurie, *Genetic Privacy: A Challenge to Medico-Legal Norms*, Cambridge University Press, 2002. I am grateful to the publishers for allowing elements of chapter 6 of this monograph to be reproduced here. A version of this paper was given at the IASTED Law and Technology International Conference in Boston, Massachusetts in November 2002.

<sup>2</sup> See further, O O'Neill, *Autonomy and Trust in Bioethics*, Cambridge University Press, 2002.

exercising her right to privacy. And, while her privacy in any information derived from those samples may continue to be protected, any residual authority depends on the nature of her original consent and, more importantly, on the assumption that its terms will not be violated. Privacy and autonomy are, therefore, of limited utility in this respect. They are, however, unified at the fundamental level by the fact that each reflects a valued aspect of the human personality.<sup>3</sup> If, however, we find them inadequate guardians of 'self', we should explore other options - as yet largely uncharted - that may give fuller protection to interests in the persona. German law, for example, protects the body as an aspect of the right to personality. So, if interference occurs with excised parts of the body - such as the unauthorised destruction of sperm - the law will provide a remedy for a breach of the *Persönlichkeitsrecht*.<sup>4</sup> The way this is done is by recognising enforceable property rights in excised human material.<sup>5</sup> Anglo-American law is less sophisticated in this regard. Our tendency has been to treat privacy and autonomy as one branch of protection, and property as another. Numerous examples of this can be given. Most notable is the experience in Oregon, where the state took the bold step in 1995 of embodying a personal property right in genetic information and DNA samples when used for anonymous research with the result that that unauthorised interference with either constituted a tort actionable at law.<sup>6</sup> However, after several years of lobbying by the pharmaceutical industry and research institutes, a new Bill was passed in June 2001 that removed this right and replaced it with more stringent privacy protection.<sup>7</sup> The claim is that Oregon will now have the most far-reaching privacy legislation of its kind in the United States. The reality is that the two concepts of privacy and property are treated as 'either/or' options when there is no sound reason to do so. The Oregon experiment was not given sufficient time for the promise and the pitfalls of a property paradigm to be

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<sup>3</sup> The European Group on Ethics in Science and New Technologies to the European Commission recognises the same connection between personal health data and personality, see, Opinion of the EGE, Ethical Issues of Healthcare in the Information Society (Opinion No.13, July 1999), para.2.2.

<sup>4</sup> Bundesgerichtshof, 9 November 1993, BGHZ, 124, 52.

<sup>5</sup> Excised body parts that are not intended for another (such as transplant organs) or for return to the individual (such as stored sperm), are subject to the normal rules of personal property, *ibid*.

<sup>6</sup> ORS 659.700-720.

<sup>7</sup> Senate Bill 114 was before the 71<sup>st</sup> Oregon Legislative Assembly (8 January - 7 July 2001).

explored and addressed. In the UK, the Human Genetics Commission<sup>8</sup> has recently issued its recommendations on protecting personal genetic data, but it too has eschewed the property paradigm in favour of an approach couched in the traditional concepts of 'more and better consent', and 'adequate protection of privacy interests'.<sup>9</sup> This would not be so objectionable but for the fact that property rights are granted over human material. This happens all the time, and is actively encouraged by governments around the world. It happens, of course, through the mechanisms of intellectual property law, and primarily through the granting of patents. But the property owners in such cases, as the infamous Moore case demonstrated only too well,<sup>10</sup> are the 'inventors' - i.e. the researchers, and not the subjects from whom the material was derived. Much has been written about the inequities of this, and it has even prompted the Human Genome Organisation's Ethics Committee admirably to recommend that: "profit-making entities dedicate a percentage (e.g 1-3%) of their annual net profit to healthcare infrastructure and/or to humanitarian efforts'.<sup>11</sup> However, in this short paper I would like to propose an alternative strategy, namely, recognition of property rights in ourselves.

The need for an additional approach?

One might ask why is such a strategy needed? A number of points can be made. There is, for example, an undeniable public crisis of confidence in genetic research, even though its promise is well recognised. This is borne out by the UK Medical Research Council's survey into public perceptions of the collection of human biological samples - published in October 2000.<sup>12</sup> This

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<sup>8</sup> Human Genetics Commission, *Inside Information: Balancing Interests in the Use of Personal Genetic Data* (May 2002).

<sup>9</sup> See also, Article 4 of the Universal Declaration on the Human Genome and Human Rights provides: 'the human genome in its natural state shall not give rise to financial gains', while Article 21 of the Council of Europe Convention on Human Rights and Biomedicine states: 'The human body and its parts shall not, as such, give rise to financial gain'.

<sup>10</sup> *Moore v. Regents of the University of California* 793 P.2d 479 (Cal. 1990), 271 Cal. Rep. 146.

<sup>11</sup> HUGO Ethics Committee, *Statement on Benefit-Sharing* (Vancouver, 9 April 2000).

<sup>12</sup> Medical Research Council, *Public Perceptions of the Collection of Human Biological Samples* (MRC, London, 2000). See too, Human Genetics Commission, *Public Attitudes to Human Genetic Information* (HGC, London, 2001), pp.20-22.

general atmosphere of mistrust is compounded in large part by the increased role that the private sector has assumed in undertaking, financing and staking a claim to research involving human genetic material. The granting of intellectual property rights over the products of this research has served only to alienate the public even further. These issues will not be addressed adequately just by the simple removal of intellectual property protection from the equation. Pragmatically, this is not even a viable option, but more importantly the very strong public interest in encouraging innovation would be lost to any state or geographical area that attempted to use it; the research and innovation that biotechnology attracts would simply move elsewhere. The real problem is two-fold. First, where should the proper focus lie in addressing this crisis of confidence? Second, what role, if any, should law play in that process?

The reality is that those who participate as subjects and who provide vital genetic research material are the key components of the genetic research machine and are crucial to its continued success. Whether they are represented by individuals or by communities, they are currently undervalued, under respected and undermined. The way forward is to empower these parties to take a more equal role in the partnership that is formed when they participate in research.<sup>13</sup> The starting point is to break free of current institutional constraints that stand in the way of this progress and to explore more imaginative ways by which we can establish, and perhaps protect, the role of those who further the public interest in genetic research.

Maybe so, but why property? Well, the exclusion of individuals from the human property model, when this model is available to others, has been strongly objected to by many who advocate a more consistent application of the law.<sup>14</sup> This in turn is part of a wider movement

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<sup>13</sup> H.T. Greely, 'The Control of Genetic Research: Involving the "Groups Between"' (1998) 33 *Houston Law Review* 1397.

<sup>14</sup> See, for example, D. Beylveid and R. Brownsword, 'My Body, My Body Parts, My Property?' (2000) 8 *Health Care Analysis* 87, J.W. Harris, *Property and Justice* (Clarendon Press, Oxford, 1996), and D. Morgan, *Issues in Medical Law and Ethics* (Cavendish, London, 2001), chapter 6.

that involves a re-assessment of the relationship that individuals enjoy with their own bodies and the legal rights that can be claimed in respect of that relationship.<sup>15</sup>

Moreover, current models are inadequate to redress imbalances. The conflation of autonomy with consent that is typical of current approaches to medico-legal dilemmas reduces the means of respecting individuals to one solitary event - the obtaining of informed consent. And, while numerous ways of maintaining respect for individuals are available when they remain passive in the process,<sup>16</sup> the equiparation of autonomy with consent means that informed consent has come to be the primary, and arguably the only, legitimate way of empowering individuals in their dealings with health care professionals and researchers. This is also true in the spheres of intellectual property and biotechnology. But this need not and should not be so. Two examples illustrate the current approach.

When the European Patent Office's Opposition Division was called upon in 1994 to examine the morality of Howard Florey's patent over the H2-Relaxin - a protein secreted by pregnant woman that eases the process of childbirth - it did so in large part by reference to the principle of informed consent.<sup>17</sup> It had been objected, *inter alia*, that the granting of the patent offended morality because it required the removal of tissue from pregnant women; this was said to be an affront to human dignity because it used a particular female condition (pregnancy) for a technical process oriented towards profit. The answer of the Opposition Division, however, was that the tissue had been freely donated by the women in question, and that, therefore, the manipulation of genetic material from those samples was not immoral.<sup>18</sup>

Second, Recital 26 of the European Directive on the legal protection of biotechnological inventions provides that:

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<sup>15</sup> See further, J.I. de Witte and H. ten Have, 'Ownership of Genetic Material and Information' (1997) 45 *Social Science and Medicine* 51.

<sup>16</sup> Examples include doing no harm and respecting individual privacy.

<sup>17</sup> HOWARD FLOREY/Relaxin [1995] EPOR 541.

<sup>18</sup> *ibid.*, at 550. It was left open, however, whether the research in se was immoral, but this was not addressed by the Division as it is a question outside its remit (the remit being to determine whether the granting of a patent would be immoral).

Whereas if an invention is based on biological material of human origin or if it uses such material, where a patent application is filed, the person from whose body the material is taken must have had an opportunity of expressing free and informed consent thereto, in accordance with national law.<sup>19</sup>

The terms of Recital 26 were originally intended for inclusion as an Article of the Directive with clear binding force on member states, but heavy lobbying by representatives of the biotechnology and patent industries meant that it was ultimately relegated to the Preamble to the Directive, where its legal status and its effect on member states is far less certain.<sup>20</sup>

None the less, such formulations of consent certainly provide adequate protection for the researchers. They also represents one means of respecting individuals. Indeed, they are highly desirable safeguards. However, they are considerably less successful as a means of empowering individuals. But, it might be asked, why would we be concerned to empower individuals anyway? Well, it is precisely because people feel disenfranchised from, and disempowered by, the modern machinery of research that we face the current public crisis of confidence in research in general and genetic research in particular. Individuals who provide samples for research purposes are not, and do not feel like, stake-holders in the enterprise. The continued participation and support of the public in research activity can only be ensured by a fundamental reappraisal of the relationships with the subjects that have traditionally been accepted.

The imperative to seek and obtain consent from research subjects gives them an illusion of power and control. In reality, it delegates extremely limited control to individuals. The sole power that is afforded is that to withhold consent - that is, to refuse. Moreover, there is no

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<sup>19</sup> Directive 98/44/EC.

<sup>20</sup> For a trenchant critique, see D. Beyleveld, 'Why Recital 26 of the E.C. Directive on the Legal Protection of Biotechnological Inventions Should Be Implemented in National Law' (2000) 4 *Intellectual Property Quarterly* 1.

residual power once consent has been given unless further consent is required at some future point. This is demonstrated particularly well in the context of the donation of samples for research. While no individual will be forced to give samples - and in most cases the only ethically and legally appropriate approach is to seek informed consent to the provision of a sample - the individual retains no continued relationship with the sample in either a factual or a legal sense once consent has been obtained and the sample surrendered. Thus, the focus on consent renders the participatory process disempowering in at least two senses: (i) for those who genuinely wish to participate in research the availability of a 'right to refuse' is useless; (ii) the one-off event of consent is disempowering because it fails to recognise the individual subject - or indeed, the community of research subjects - as a party with an interest in the overall endeavour. In sum, the fundamental problem with the consent model is that it does not provide a means by which the subjects can exercise continuing control of her materials.<sup>21</sup>

### Revisiting the gift model

This problem is compounded by the continuing use of the gift model that has traditionally served to govern the researcher-subject relationship. The notion of gift has a strong normative appeal in lay terms, not least because it is seen to be a laudable act, demonstrating the virtues of altruism and beneficence, and untainted by the twin evils of self-interest or exploitation. In practice, it has considerable utility for the recipient, in that gifts for research purposes are treated as unconditional. This provides broad scope for the future use or disposal of the gift. As to public interest, unconditional gifting can serve a number of valuable social ends, including advances in medical research and the development of therapeutic agents or cures. This particular consideration weighs heavily as an unquestionable given, to which we shall return presently. But

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<sup>21</sup> For a defence of the role of autonomy and consent as a counter to property claims, see L. Skene, 'Proprietary Rights in Human Bodies, Body Parts and Tissue: Regulatory Climates and Proposals for New Laws' (2002) 22 *Legal Studies* 102.

such a concept of gift is seriously incongruous in legal terms. In English law 'gift' is defined as 'the transfer of any property from one person to another gratuitously'<sup>22</sup> [emphasis added]

Thus, in legal terms the invocation of gift presupposes underlying property rights in the subject matter that constitutes the gift. As a result, the legal position in respect of ownership of donated human body parts is in disarray in most western legal systems.<sup>23</sup> A fair summation is that while there is no clear prohibition on ownership of body parts - and indeed, one can find many examples of a property model being applied to human tissues - the one player who is routinely excluded from the property model is the source of the property itself.<sup>24</sup>

The classic policy decision on self-ownership is to be found in the decision of the Supreme Court of California in *Moore v Regents of the University of California*,<sup>25</sup> in which the Californian Supreme Court denied the plaintiff any legal recognition of property rights in his own excised spleen cells. The court held that because no precedent could be found on which to ground Moore's property claim, and because of the utilitarian consideration that a finding for the plaintiff would be a hindrance to medical research 'by restricting access to the necessary raw materials',<sup>26</sup> it was inappropriate to recognise individual property rights in the body. Moreover, the Court was concerned that a contrary decision would '[threaten] to destroy the economic incentive to conduct important medical research' because '[i]f the use of cells in research is a conversion, then with every cell sample a researcher purchases a ticket in a litigation lottery'.<sup>27</sup> The paradox in this decision was highlighted by the dissent of Broussard, J. wherein he stated:

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<sup>22</sup> Halsbury's Laws of England, Fourth Edition, Vol. 20: Gifts, paragraph 1.

<sup>23</sup> For a discussion, see J.K. Mason and R.A. McCall-Smith, *Law and Medical Ethics* (6<sup>th</sup> edn, Butterworths, Edinburgh, 2002), chapter 15.

<sup>24</sup> See, J.K. Mason and G.T. Laurie, 'Consent or Property? Dealing with the Body and its Parts in the Shadow of Bristol and Alder Hey' (2001) 64 *Modern Law Review* 711.

<sup>25</sup> *Moore v. Regents of the University of California* 793 P.2d 479 (Cal. 1990), 271 Cal. Rep. 146. See too, *Brotherton v. Cleveland* 923 F.2d 661 (6th Cir. 1991).

<sup>26</sup> *Moore*, Cal. Rep. at 161.

<sup>27</sup> *ibid.*, at 162-163.

...the majority's analysis cannot rest on the broad proposition that a removed part is not property, but rather rests on the proposition that a patient retains no ownership interest in a body part once the body part has been removed from his or her body.<sup>28</sup>

Does it remain reasonable or defensible to exclude completely from the equation the one person who can make everything possible?

More particularly, it is interesting to note how the court in Moore seemed entirely satisfied that its adoption of the consent model was sufficient to provide respect for, and to empower, the plaintiff (for Moore won in respect of lack of informed consent). The consent model and the property model were treated as though they were mutually exclusive; a phenomenon that has also been noted above in respect of property and privacy. There is, however, no sound reason why this should be so.

### A property paradigm

It is undeniable that an attitudinal shift is occurring in respect of the way we regard our bodies and any parts removed from them. The recent MRC survey on the perceptions of the public on the collection and use of human biological samples found that younger people tended to view payment for excised bodily tissues as a matter of right or at least as a logical and acceptable option.<sup>29</sup> This was especially so when research was undertaken for profit by private enterprises. In corroboration, the Human Genetic Commission's poll found considerable antipathy to the idea of exclusive ownership of genetic information by research organisations.<sup>30</sup> Contrariwise,

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<sup>28</sup> *ibid.*, at 168. For comment on Moore see, B. Hoffmaster 'Between the Sacred and the Profane: Bodies, Property, and Patents in the Moore Case' (1992) 7 *Intellectual Property Journal* 115.

<sup>29</sup> Medical Research Council, *Public Perceptions of the Collection of Human Biological Samples* (MRC, London, October 2000).

<sup>30</sup> Human Genetics Commission, *Public Attitudes to Human Genetic Information*, pp.27-28.

members of the older generation found more comfort in the classic gift paradigm, expecting nothing in return for altruistic and public spirited donations.<sup>31</sup> And yet, many GPs and nurses who took part in the survey also supported the view that volunteers should retain a degree of ownership in donated samples.<sup>32</sup> Indeed, the MRC Working Group on Human Tissue and Biological Samples for Use in Research opined: ‘...it was more practical and more attractive from a moral and ethical standpoint to adopt the position that, if a tissue sample could be property, the original owner was the individual from whom it was taken’.<sup>33</sup>

It is submitted that there is nothing in principle to prevent recognition of property interests in aspects of the self, subject of course to limitations against self-harm. A personal property paradigm could, in fact, serve an all important role in completing the picture of adequate protection for the personality in tandem with other protections such as autonomy, confidentiality, and privacy.<sup>34</sup> However, the added value of a property model lies in its ability to empower individuals and communities and to provide the crucial continuing control over samples or information through which on-going moral and legal influence may be exerted.

Property implies many things, including ownership and control. Property protection is, however, by no means an absolute, and as with all of our other legal rights, property rights can be tempered in our own interests or in those of others. Exercises of self-ownership therefore need not be recognised if these conflict with an individual’s best interests. Examples include attempts to dispose of vital organs or tissues that would be detrimental to health. Nor should the law ever condone ownership of entire living, breathing human beings as this would be a fortiori impermissible as slavery. None the less, the recognition of property rights in excised body parts or samples does not carry any of these risks.

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<sup>31</sup> *ibid.*, para. 6.12.

<sup>32</sup> *ibid.*, para. 17.

<sup>33</sup> Medical Research Council, Working Group on Human Tissue and Biological Samples for Use in Research: Report of the Medical Research Council Working Group to Develop Operational and Ethical Guidelines (MRC, London, 1999), para. 2.2.1.

<sup>34</sup> A.D. Moore, ‘Owning Genetic Information and Gene Enhancement Techniques: Why Privacy and Property Rights May Undermine Social Control of the Human Genome’ (2000) 14 *Bioethics* 97.

The way that the concept of gift has been used in research culture presumes surrender of all residual interests in donated samples. However, not only does this lack support in law but it has also prompted the dual disservices of justifying a distorted gift paradigm while fuelling inconsistencies that ultimately undermine public confidence in research.<sup>35</sup>

It is no longer clear that the model of gifting currently employed in the modern research environment remains appropriate. It is not true, for example, that individuals retain no interest in materials surrendered for research. The moral significance of body parts remains even when they are separated from their original source. The MRC has found, for example, that: '[v]irtually everyone said that if they donated a sample they would appreciate feedback on what the research using their samples had discovered or achieved'.<sup>36</sup>

Nor should we ignore the fact that the commercial value that human material might represent to researchers also represents a potential value in those terms to the sample sources themselves. Not everyone agrees with the Supreme Court of California in *Moore*.<sup>37</sup> Numerous commentators point to principles of fundamental equity, the redress of unjust enrichment and the protection of personal interests that can be furthered through property rights.<sup>38</sup>

The recognition of this kind of interest in personal samples would provide the continuing control that is so lacking under the consent model alone.<sup>39</sup> Meaningful, legally relevant and enforceable conditions could be placed on any transfer of the property and so ensure that a research participant or indeed a community retains a vested interest in samples and in the goals and outcomes of any research for which those samples are provided. By the same token, restrictions on the inclusion of undesirable clauses by either side could easily be imposed

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<sup>35</sup> Mason and Laurie, 'Consent or Property?'

<sup>36</sup> MRC, *Public Perceptions*, para. 6.9.

<sup>37</sup> M.M.J. Lin, 'Conferring a Federal Property Right in Genetic Material: Stepping into the Future with the Genetic Privacy Act' (1996) 22 *American Journal of Law and Medicine* 109.

<sup>38</sup> See, for example, Beyleveld and Brownsword, 'My Body, My Body Parts, My Property?', W. Boulier, 'Sperm, Spleens and Other Valuables: The Need to Recognize Property Rights in Human Body Parts' (1995) 23 *Hofstra Law Review* 693, and C.M. Valerio Barrad, 'Genetic Information and Property Theory' (1993) 87 *Northwestern University Law Review* 1037.

<sup>39</sup> E.B. Seeney, 'Moore 10 Years Later - Still Trying to Fill the Gap: Creating a Personal Property Right in Genetic Material' (1998) 32 *New England Law Review* 1131.

by law.<sup>40</sup> It might be objected, for example, that property rights could easily be waived under pressure. The obvious retort to this is that no such assignation of rights should be legally permissible. Thus, while individuals or communities might choose not to exercise their rights, they cannot give them away.

### Current movements towards a property model

Examples of communities working together can be found in North America where families have used their genetic uniqueness as a bargaining tool. Those suffering from the rare genetic disorder Pseudoxanthoma elasticum (PXE) have reached agreement with researchers only to provide samples only on the condition that they are named as joint-patentees in any subsequent patent applications, with a right to 50% of any proceeds.<sup>41</sup> This is an interesting reversal of fortune, for historically researchers would not take samples unless the consent included a grant of full title, even if this was meaningless in law. That such a bargain has been struck signals an important change in research culture, although the point remains that the property interests claimed by the families and their representatives may be unfounded in law. Fundamental principles of justice certainly support this approach,<sup>42</sup> but whether it could withstand serious legal analysis is open to debate.<sup>43</sup> Nevertheless, more such arrangements will undoubtedly be made.

The reader should not take away from this discussion an impression that the property model being advocated amounts only to some crude instrument requiring that research subjects be paid for their trouble. Rather, it is offered as a vehicle for further discussion and analysis of certain crucial elements that must be strengthened in order to advance the public interest in genetic research. A cultural shift in attitude must occur, as must a reassessment the nature of the

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<sup>40</sup> On experiences to date of applying contract law to reproductive materials, see D.M. Vukadinovich, 'Assisted Reproductive Technology Law: Obtaining Informed Consent for the Commercial Cryopreservation of Embryos' (2000) 21 *Journal of Legal Medicine* 67.

<sup>41</sup> <http://www.pxe.org/>

<sup>42</sup> HUGO Ethics Committee, 'HUGO Urges Genetic Benefit-Sharing' (2000) 3 *Community Genetics* 88.

<sup>43</sup> B.M. Knoppers, 'Population Genetics and Benefit Sharing' (2000) 3 *Community Genetics* 212.

relationship between researchers and subjects. These can be achieved in part through the discourse of property.

The language that we use predisposes us to certain attitudes towards each other and serves to establish the nature and the limits of any claims that we might make of each other. The law has the power to legitimise some of these claims by giving them the status of enforceable rights. We ought, then, to consider what it would mean to talk in terms of property rights in ourselves and how that language might be translated into law.

At the time of writing a seminal case is proceeding through the American courts brought by parents of children affected by Canavan disease against researchers who developed and patented a test for the disorder using samples donated by the families.<sup>44</sup> The defendants had worked closely with afflicted families receiving samples and gaining access to registers containing details of other affected groups around the world. However, when the Canavan gene was eventually identified the researchers sought a patent over it and a related test and proceeded to restrict access to the latter save through tightly controlled exclusive licences. The plaintiffs objected strongly and have mounted an action on a number of grounds. These include, lack of informed consent, breach of fiduciary duty, and conversion. In this last respect, the plaintiffs claim a property interest in their samples, the genetic information therein and information contained in the Canavan Registry.

Paradoxically, this case stands in stark contrast to *Moore*, for here policy favours the plaintiffs. The families want information about the disease and the test to be freely available while it is the patent holders who wish to restrict access and so potentially hinder research. Policy will undoubtedly have a significant role to play in the outcome, but the policy arguments are strong on both sides,<sup>45</sup> and attitudes have moved on since *Moore* was decided in 1990.<sup>46, 47</sup>

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<sup>44</sup> *Greenberg et al. v. Miami Children's Hospital Research Institute Inc. et al.*, (2003), pending. Jurisdictional issues were settled at Illinois (Eastern Division) District Court, (2002) WL 1483266 (N.D.Ill.).

<sup>45</sup> Cf. A. Ryan, 'Self-Ownership, Autonomy and Property Rights' (1994) 11 *Social Philosophy and Policy* 241, and S.R. Munzer, 'An Uneasy Case Against Property Rights in Body Parts' (1994) 11 *Social Philosophy and Policy* 259.

## Defending a property model

A number of counter-arguments can, however, be mounted. The concern that property rights in the self will hinder research held sway in Moore and lie at the core of the amendments to the Oregon law. However, it is far from established fact that research will be obstructed by furnishing sample sources with some small measure of bargaining power. Indeed, in the scheme of relative powers, those who provide the samples are at by far the greatest disadvantage. In most cases individuals would find that their property was of very little economic significance to researchers. But more positively, it has been suggested that research might be furthered rather than hindered by the recognition of property rights because those previously reluctant to come forward now have an incentive to do so.<sup>48</sup> Furthermore, the mere recognition of property does not preclude altruistic gifting.

The second major counter-argument is, of course, that commercialisation of body parts leads to the prospect of exploitation. This is undoubtedly true. But, merely because we face that prospect is no reason in se to refuse to recognise property rights as a matter of principle. Exploitation can be guarded against. Indeed, it is naïve to imagine that a black market in body parts does not already exist. It most certainly does.<sup>49</sup> To ignore the reality does not make it go away. Moreover, this argument is open to significant challenge as an example of undue

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<sup>46</sup> In *Hecht v. Superior Court* 20 Cal. Rptr. 2d 275 (1993), quoting *Davis v. Davis* 842 SW 2d 588 (1992), the California Court of Appeals held that stored sperm 'occupies an interim category that entitles them to special respect because of their potential for human life', but that none the less a deceased donor had an interest 'in the nature of ownership, to the extent that he had a decision making authority as to the sperm...which falls within the broad definition of property in the Probate Code', *ibid.*, at 281.

<sup>47</sup> There is tentative Australian authority that stored human tissue can be the property of those from whom it was taken and their heirs, see *Roche v. Douglas* [2000] WASC 146. Note, however, that the Australian Law Reform Commission and the Australian Health Ethics Committee have recommended that 'The common law right to possession of preserved samples, which is currently enjoyed by hospitals and others, should continue to be upheld, but full property rights in genetic samples should not be granted', see 'Protection of Human Genetic Information', Discussion Paper 66, August 2002, chapter 17.

<sup>48</sup> M.M.J. Lin, 'Conferring a Federal Property Right in Genetic Material: Stepping into the Future with the Genetic Privacy Act' (1996) 22 *American Journal of Law and Medicine* 109.

<sup>49</sup> For an indication of the scale of the problem see - Organ Watch - <http://sunsite.berkeley.edu/biotech/organswatch/>

paternalism. As Andrews has argued in the context of surrogacy, it may be more devaluing to persons not to recognise their worth in monetary terms for the contributions they can make to society from the use of their bodies than it is to protect them from potential predators - provided, always, that the value that they represent is not entirely reducible to those terms.<sup>50</sup>

The exploitation argument also provides an example of an overly pessimistic view of the utility of self-ownership rights. Rather than prejudicing individual interests, the recognition of property rights can bolster the respect that individuals deserve and can at the same time provide a crucial means of ensuring that that respect endures. The wholesale application of a traditional property model to the human body and its parts is not, however, envisioned. This would be inappropriate and unacceptable in many respects. Yet, to the extent that a body property model reflects a desire and need to protect the human personality, certain key features of the language and operation of property rights could serve this end very well.<sup>51</sup>

Researchers might object, however, that it would be impossible to monitor individuals' samples for these would invariably become mixed with others during the research process. But this is not problematic in property terms. The concepts of commixtion and confusion are well established in property law.<sup>52</sup> Where two separate entities are mixed together and cannot be separated, property in each element ceases and is replaced by common property in the resulting mixture. The new property is owned by each of the interested parties and must be held in trust for the benefit of all. So, if two piles of corn (solids are governed by commixtion) or two bottles of wine (liquids are examples of confusion) are merged the resulting property is owned in common by the owners of the original elements. So too is could be with genetic samples. Indeed, the notion that property is to be held in trust is entirely apposite in this modern context. The benefits to be derived from the new property should accrue to all of those who have contributed. Alternatively,

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<sup>50</sup> L.B. Andrews, 'Beyond Doctrinal Boundaries: A Legal Framework for Surrogate Motherhood' (1995) 81 *Virginia Law Review* 2343.

<sup>51</sup> See, for example, M.B. Bray, 'Personalizing Personalty: Toward a Property Right in Human Bodies' (1990) 69 *Texas Law Review* 209.

<sup>52</sup> This terminology is drawn from Scots law, however, the concepts are well recognised in the laws of most western legal systems.

specification might occur when a new thing has been created without the knowledge or consent of the original owners, for example, where A builds a new house using B's bricks. B cannot claim the return of her bricks in such a case but she is nevertheless entitled to compensation for her loss. So too, once again, it might be with genetic samples. Matters may be more problematic, however, in the context of the ownership of information derived from samples. As has been stated, information is a difficult concept to fit into the property paradigm, but it is by no means impossible to do so.<sup>53</sup> Collective claims to property in information - such as familial genetic information - might therefore also arise.

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<sup>53</sup> For an argument in support of this, see Valerio Barrad, 'Genetic Information and Property Theory'.