International Journal of Law in Context (2019), **15**, 515–535
doi:10.1017/S1744552319000314

ARTICLE

Regulation of bodily parts: understanding bodily parts as a duplex

Remigius N. Nwabueze*

Associate Professor of Law, School of Law, University of Southampton
*Corresponding author. E-mail: R.N.Nwabueze@soton.ac.uk

Abstract
The current law in England and Wales adopts a no-property approach to cadavers and separated bodily parts; paradoxically, it affords proprietary protection to tissue users at the expense of tissue sources. Non-proprietary frameworks hardly offer effective legal redress to tissue sources. Potentially, the law could offer tissue sources a mix of proprietary and non-proprietary remedies. Drawing from the work of the famous anthropologist, Marilyn Strathern, I argue that such a flexible and eclectic approach might be facilitated by the concept of *duplex*, an analytical tool that promotes divergent thinking and paradoxical conceptions of a given issue. I argue that while the no-property rule reflects a duplex on bodily parts, the duplex is narrow and ought to be conceptualised more broadly to cover the claims of tissue sources.

Keywords: duplex theory; legal theory; property theory; no-property rule; bodily parts; dead bodies; tissue sources

1 Introduction

The human body and bodily parts have always had pharmacological, therapeutic, artistic, educational and instrumental values. In the Middle Ages, up to the eighteenth century, bodily parts 'harvested' from the cadavers of young men that met violent deaths were used in medicinal preparations called *mumia*; as corpse pharmacology, mumia was ingested for the cure of epilepsy and other serious diseases in that era in most parts of Europe, including the UK. Medicinal cannibalism based on mumia was not the practice of a mystical or fringe group; rather, medicinal cannibalism was an integral part of the medical orthodoxy of the era. Instead of mumia today, we have a range of sophisticated and innovative biomedical applications and products based on bodily parts. Bodily parts are used in organ transplantation, automobile crash tests and tests of protective shoes against landmines; bodily parts are also used in medical dissection, education, treatment and research; they are used for artistic casts and other modern art forms, such as plastination. Thus, bodily parts have enormous *biovalue*, which is 'extracted' by means of *technicity*. But such wide-ranging applications of bodily parts have also presented some significant challenges for legal regulation. How should we deal with non-consensual or unauthorised dealings with bodily parts?

While the current law in England and Wales generally adopts a no-property approach to cadavers and separated bodily parts, it ironically (and paradoxically) affords a proprietary protection to tissue users and innovators at the expense of tissue sources. Non-proprietary frameworks, under which the claims of tissue sources are mostly analysed, can hardly offer effective legal redress to such claims in most situations involving unauthorised dealings with bodily parts. The remedial fortunes of a tissue-source claimant would be significantly improved if the law were to deploy proprietary frameworks along with non-proprietary frameworks in litigation involving bodily parts. In this paper, and drawing from the work of the famous social anthropologist, Strathern (2005), I suggest that such a flexible and eclectic approach might be facilitated by the concept of *duplex* – an analytical tool that promotes divergent thinking and paradoxical conceptions of a given issue. Duplex enables the conceptualisation

of an issue in diametrically opposed ways, such that the opposing conceptions co-exist usefully and could be deployed simultaneously as the explanatory model of a social or legal reality; also, duplex has the potential of being used normatively to solve a given problem. Here, therefore, I aim to examine the general no-property rule in bodily parts, and its proprietary manifestations, through the prism of duplex. I argue that, while the no-property rule reflects a duplex on bodily parts, the current scope of that duplex is narrow in operation, and thus should be conceptualised more broadly to cover the claims of tissue sources. As is well known, the no-property rule disavows proprietary interests in dead bodies and bodily parts; at the same time, however, proprietary interests exist in dead bodies and bodily parts. While this appears to be a paradox, it is (as argued below) a useful duplex. Although the paradoxical delineation of the no-property rule above has been rationalised on the basis of the work or skill exception to the no-property rule, I argue below that the work or skill exception is an insufficient explanatory model for the property regime foisted on the no-property rule. In contrast, the framework of duplex provides a more persuasive and compelling narrative. Even then, I argue that the work or skill exception itself reflects a duplex on bodily parts; under the exception, as argued below, proprietary interests in bodily parts both exist and do not exist, depending on whether the interest sought to be protected is that of a tissue user/innovator or tissue source. Thus, current legal regulation of bodily parts reflects a bipartite duplex, all of which favours only the claims of tissue users and innovators. Furthermore, as the next section shows, the historiography of bodily parts clearly delineates a duplex; while legal regulation in England and Wales has all along signposted a no-property rule on bodily parts, medical, pharmacological and social transactions and markets on bodily parts have since the medieval times practically treated bodily parts as property; this sort of treatment has continued to our modern era.[1] I argue that the theory of duplex not only helps us to understand and capture the historic and modern reality of bodily parts, as being at once property and non-property, but also justice requires that, since the claims of tissue sources are currently excluded from this useful duplex on bodily parts, we should embark on the equalisation and broad *normativisation* of the duplex in order to embrace the proprietary claims of tissue sources. Simply and concisely put, I argue that bodily parts reflect a duplex – at once they are property and non-property. This sort of duplex thinking over bodily parts is both historical and entrenched, and it is already evident in current legal regulation and the praxis of common law on bodily parts. To be clear, therefore, I support this duplex on bodily parts, but argue that, since the tissue sources' claims are outside its current sphere of practical operation, the duplex on bodily parts needs to be normatively extended to cover the proprietary claims of tissue sources.

Therefore, I suggest that a broad *normativisation* and extension of the duplex on bodily parts to cover the proprietary claims of tissue sources would challenge the current *exclusive* application of non-proprietary frameworks to claims instituted by tissue sources. To clarify, as underscored by the italicisation above, I am not calling for an abrogation of the no-property rule (at least not in this paper); nor am I disavowing the application of non-proprietary frameworks to claims of tissue sources. I simply urge that, through duplex, the no-property rule can co-exist usefully, albeit paradoxically, with a property rule for tissue sources. Ability to see and conceptualise bodily parts as *also* property by virtue of their duplex might promote the proprietary remedification of claims brought by tissue sources. Below, I proceed by examining the value of bodily parts both diachronically and synchronically, and then I highlight the regulatory challenges posed by the multifarious values inherent in bodily parts. In the following two sections, I respectively examine the challenges of regulating bodily parts under the non-proprietary frameworks of private law and the criminal law, and highlight the difference a duplex perspective might make. In the last section, I call for a return to the private-law solution based on the paradoxical mix of proprietary and non-proprietary frameworks.

[1]I appreciate that the practical treatment of bodily parts as property in markets and social transactions can equally be explained as being analogous to a situation where the law renders a transaction legally unenforceable but does not prevent the parties from making any informal arrangement in that regard.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

I project the theory of duplex as a potentially helpful tool for the legal regulation of bodily parts, in the sense of its ability to facilitate and promote both proprietary and non-proprietary thinking over bodily parts.

2 Technicity, biovalue and the problem of regulation

Biovalue is a neologism developed by Waldby and Mitchell to capture the productivity and maximisation of values inherent in the tissues and parts of a human body; that is, the 'surplus of in vitro vitality' produced through a biotechnological process identified as *technicity* (Waldby and Mitchell, 2006, p. 32). *Biovalue* is, in essence, the potentiation and amplification of the biological materials of the human body for therapeutic, social or scientific ends. While there is some support for that locution in the current medico-legal literature (Quigley, 2014, pp. 678–680), *biovalue* is not necessarily ahistorical; belief in the therapeutic potentials of the human body runs across societies and ages. Both medieval and post-medieval societies valorised and deployed bodily parts in the art of healing (Siraisi, 1990). One of such bodily-parts-based therapies is medicinal cannibalism, which was practised extensively in all parts of Europe in the Middle Ages up to the eighteenth century (Gordon-Grube, 1988). It involved the ingestion of medicinally prepared bodily parts known as *mumia* or *mummy* – 'a medicinal preparation of the remains of an embalmed, dried, or otherwise "prepared" human body that had ideally met with sudden, preferably violent death' (Gordon-Grube, 1988, p. 406). Mumia was the treatment of choice for several ailments (Noble, 2011, pp. 13, 21–22). Similarly, blood drunk fresh and warm from the body of a decapitated criminal still quivering on the execution ground was believed to be a potent treatment for epilepsy (James, 1747); this resonates with the sucking of warm blood directly from the wounds of gladiators in the Roman era (Pliny, 1975). Epileptics were known to line up beside the scaffold waiting anxiously for a taste of the condemned criminal's blood (Peacock, 1896, pp. 270–271); executioners were usually paid for such 'favours' (Wootton, 1972, p. 7). Notice that medicinal cannibalism was not the practice of a fringe group (Gordon-Grube, 1988); in contrast, medicinal cannibalism was part of the medical orthodoxy and a standard part of the therapeutic armamentarium of the era.

The fact that medicinal cannibalism failed to shock the conscience of the society at that time stemmed from its social deconstruction as a pure therapeutic act; unsurprisingly, medicinal cannibalism was not condemned as morally transgressive, in contrast to sheer cannibalism, which involved ingestion of bodily parts for its culinary delight, or as an act performed in furtherance of a mystical or occultic purpose,[2] or just a rebarbative act of necessity.[3] *Dudley* epitomises the latter sort of cannibalism arising from necessity. There, some seamen lost on the high seas were bereft of water and victuals. Initially, they proposed to cast lots to decide who amongst them would be killed first, and his body and blood used as food to nourish the others; abandoning that option, they eventually killed the youngest and weakest among them and consumed his bodily parts as food.[4] The men were charged with murder. Lord Coleridge C.J. held that the immorality of the defendants' cannibalistic act should be taken into consideration in determining its legality.[5] Accordingly, he dismissed the defendants' defence of necessity and sentenced them to death, although the death sentence was later commuted to six months by the Crown. The essence of the cannibalism in the *Dudley* case is to highlight a contrast with medicinal cannibalism, in that the moral lenses that shaped the perception of the cannibalistic acts in *Dudley* were not deployed in relation to medicinal cannibalism. Thus, mumia was endorsed by the College of Physicians in England and, in 1618, it was listed in the official London Pharmacopoeia (Wootton, 1972, p. 2). Mumia was equally listed in the then influential *Lemery's Medical Dictionary* (Wootton, 1972). Furthermore, medicinal cannibalism was ingrained in the

[2]Witness the German incident of sexualised cannibalism by Armin Meiwes in 2003, involving the cutting, cooking and eating of a willing victim's penis. Meiwes was convicted of murder in 2006 (Harding, 2003, p. 5).

[3]*R. v. Dudley and Stephens* [1884] 14 QBD 273. For extensive analysis of this case, see Brian (1984).

[4]*Ibid.*

[5]*Ibid.*, at p. 287.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

literary imagination of the era; classical authors of English literature, including Shakespeare, often used medicinal cannibalism as a rhetorical strategy for engaging with pressing social, cultural, political and economic issues.[6] Noble observed that the 'pervasive presence of mummy in early modern literature and drama reveals a cultural fascination, almost to the point of obsession with the medical recycling of corpse matter' (Noble, 2011, p. 2). While the phenomenon of medicinal cannibalism was pervasive and entrenched in history and literature, the concern here is to interrogate its parallel, if any, with the current technicity and biovalue of bodily parts highlighted above.

The question, therefore, is whether corpse pharmacology – the medicinal ingestion of recycled corpse matter – has any relevance for the modern *tissue economy*; that is, the commodification, fragmentation, diversification and distribution of the human body (Waldby and Mitchell, 2006, pp. 31, 181–188). Arguably, medicinal cannibalism had a multitemporal dimension, in the sense of manifesting in some sorts in the modern organ-donation and transplantation processes and other biomedical therapies that are based on the parts of a human body. In this sense, medicinal cannibalism and current bodily-parts-based biomedical procedures, such as organ transplantation, arguably occupy different points on the same spectrum – that is, the therapeutic utilisation of the human body. This sort of multitemporality exhibited by medicinal cannibalism has been vividly captured by both Awaya and Scheper-Hughes in very resounding and connective metaphors. For instance, using 'neo-cannibalism' and 'late modern cannibalism' as rhetorical tropes, both Awaya (1994) and Scheper-Hughes (2002) separately described the current transnational and illegal traffic in human organs, and situated its horror and obnoxiousness in historical contexts involving the acquisition and use of bodily parts for medicine. Particularly, the neologism above employed by Awaya and Scheper-Hughes is poignantly deliberate in underlining the epochal transgressiveness of medicinal cannibalism, suggesting that medicinal cannibalism is now more or less practised through other forms of bodily-parts utilisation for therapeutic purposes. Similarly, Richardson observed that, although organ transplantation is a relatively recent biomedical technology, it could be seen in a long historical perspective undergirded by body-snatching (Richardson, 2006). Noble supports this hypothesis and argues that corpse pharmacology was part of a historical continuum in which the modern-day transplant medicine is embedded; thus, she observed that

> 'what happens to bodies in today's medical market is one moment, albeit a highly organized and sophisticated one, in a long historical continuum in which the human body and its products are exchanged and distributed in a complex medical economy.' (Noble, 2011, p. 4)

Nevertheless, it is modern biotechnology that has driven the current and extensive innovations that are based on the parts of the human body.

For instance, advances in biomedical technology have made it possible for organs and tissues to be successfully transplanted from one person to another (Jones and Whitaker, 2009, pp. 107–120). Cadavers are utilised in the modern art of plastination (Jones and Whitaker, 2009, pp. 87–99). Cadavers are equally useful for testing boots that protect the wearer against landmines; similarly, cadavers are used in the automobile industry for crash and safety tests (Nwabueze, 2007, p. 221). More traditionally, cadavers are used for anatomical dissection, medical education and research (Jones and Whitaker, 2009, pp. 25–80). In short, bodily parts are used for various therapeutic, pharmacological and diagnostic purposes, to say nothing about modern genomic studies that utilise bodily parts; these sorts of studies have led to large-scale biological projects and applications that often raise serious ethical and legal questions, especially those relating to genetic privacy (Laurie, 2002), and intellectual-property rights (McLennan and Rimmer, 2012). These modern and wide-ranging uses of bodily parts, and the divergent and conflicting moral, cultural and ethical values surrounding the human body, raise complex and difficult questions of legal regulation (Liddell and Hall, 2005, pp. 177–178). The Human Tissue Act 2004 represents a serious legislative effort to deal with some

[6]Example: Shakespeare's *Titus Andronicus* and *Othello*.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

of the regulatory challenges noted above; the act was born out of the paediatric organ retention scandal in England (House of Commons (UK), 2001), which was in part engendered by the ambiguous provisions of the (now repealed) Human Tissue Act 1961 (Kennedy, 1988, pp. 225–236). The regulatory formula of the 2004 Act is based on consent. It has been suggested that the act's consent model is underpinned by the erroneous belief that consent is a panacea for most problems that occur in a medical setting (Brownsword, 2004; Mason and Laurie, 2001), such as unauthorised dealings with bodily parts. Also, the act's regulatory framework of consent might have been adopted due to the dignitarian aversion to property rights in the human body. As Brownsword observed, dignitarians argue that a proprietary regulatory framework for bodily parts would potentially have some deleterious effects on human dignity and personhood (Brownsword, 2008, pp. 44, 64–65). Although the 2004 Act should have deployed a proprietary approach as an adjunct to the consent model, it clearly went for the exclusive regulatory modality of consent (Mason and Laurie, 2001).

Coupling a proprietary framework with the consent model would have achieved what Brownsword identified as an 'optimal mix of regulatory modalities' (Brownsword, 2008, p. 15). In essence, the act failed to buy into Black's regulatory aphorism that 'instrument mix is the new buzz phrase' and that regulators should 'not think in terms of using just one regulatory instrument to address a problem, but of using a range of instruments in combination' (Black, 2001, p. 113). Unsurprisingly, problems remain despite the promulgation of the act. As the next section shows, for instance, neither the law of consent nor most other non-proprietary categories of private law in England and Wales can satisfactorily deal with most complaints arising from unauthorised dealings with bodily parts. Particularly, most elements of private law struggle with the remedification of claims made by tissue sources (Price, 2003). Similar challenges are evident in the public law, particularly the criminal law. As the unsuccessful prosecution in the recent German organ scandal shows,[7] criminal law is rarely helpful in relation to issues arising from the processes of organ donation and transplantation; however, the law of theft might be relevant to bodily parts transformed by the application of work or skill.[8] As discussed below, the reluctance to embrace the regulatory modality of property in redressing claims brought by tissue sources partly emanate from the general idea, supported by a significant number of cases, that bodily parts do not qualify as property (the no-property rule)[9]; this has been disputed by some authors (Matthews, 1983; Nwabueze, 2016a). Notice, however, that the various uses of bodily parts highlighted above, from medicinal cannibalism in the Middle Ages to our modern biotechnology, all attests to at least the practical rendition of bodily parts as property, despite a contrary legal conceptualisation. Put differently, while legal regulation regards untransformed bodily parts as non-property, the practice on bodily parts and the multifarious transactions involving them actually treat bodily parts as objects of property. Even with respect to transformed bodily parts under the work or skill exception, they are both property and non-property, depending on whether it is the tissue user or source that relies on the exception; thus, as highlighted in the introduction above and examined further below, the unprincipled nature of the work or skill exception has destabilised it conceptually and, as such, the exception is not a sufficient justification for the paradoxical treatment of bodily parts; I argue that duplex is.

At once, therefore, bodily parts are property and non-property. This duplex, however, currently operates in favour of tissue users only. In this piece, I argue for its normative extension over the claims of tissue sources. I highlight the paradox on bodily parts here in order to pursue it further in the next sections using the trope of *duplex*, by drawing on the work of Strathern (2005). Strathern posited that *relationship* has a duplex character, in that it could be used to capture at once the paradox of a biological relationship unfolded by genetic technology revealing its conceptual/logical structure and, also, the very personal aspects of a relationship that are not founded on a conceptual or logical structure.

[7]'Doctor acquitted in organ donation scandal', *DPA/The Local*, 6 May 2015. Available at http://www.thelocal.de/20150506/doctor-in-organdonation-scandal-acquuitted (last accessed 7 September 2015).

[8]*R. v. Kelly* [1998] 3 All ER 741.

[9]Some of these cases are discussed below.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

Strathern went on to use this paradoxical, duplex nature of relationship to examine some issues raised by modern biotechnological applications on the human body. Analogically, I suggest that bodily parts reflect a duplex, in the sense of being generally regarded as non-property by legal regulation but, paradoxically, treated as property in practical and transactional senses, as well as through certain legal interpretations. True, Strathern's referent for duplex was relationship but, through some epistemological reification of that term, I have (instead) used bodily parts as my referent for duplex. Below, I suggest that a duplex thinking over bodily parts – the realisation that bodily parts have always inhabited a realm of contradiction, simultaneously treated as property and non-property – might challenge the current exclusive non-proprietary frameworks applied to claims made by tissue sources. A duplex sort of thinking over bodily parts might alleviate the problems encountered in non-proprietary regulatory frameworks discussed below.

3 Bodily parts and the regulatory challenges of private law

Some of my previous work has extensively examined the gaps that exist in the private law of England and Wales in relation to bodily parts (Nwabueze, 2007; 2008; 2014; 2016a; 2016b). Here, as a backdrop for the duplex analysis that follows, I only intend to provide some new thinking and fresh insights on existing materials, analyse some new materials that have emerged and also examine some unexplored existing materials.

It is not clear that effective legal remedies for unlawful interference with the rights of a tissue source exist under the private law of England and Wales. When a tissue source complains about an unlawful interference with their excised bodily parts, they are not necessarily clamouring for a share of the profits engendered by biotechnological applications on their tissues, as in *Moore v. Regents of the University of California*[10]; in contrast, the tissue source might be more concerned about prohibiting certain non-consensual uses of their tissues, such as the *Havasupai* case, where an American indigenous group consented to the use of their separated bodily parts for tests on diabetes in connection with a genetic research programme, but the tissues were non-consensually tested for schizophrenia; thus, the tribe's people were exposed to stigma.[11] Effective prevention of such unauthorised uses of bodily parts requires, in Laurie's felicitous expression, a power of 'continuing control' that, interestingly, can only be furnished by a property right (Laurie, 2002, p. 312). As delineated below, non-proprietary categories of private law simply lack the empowerment that derives from the ability of having or possessing a continuing control; also, non-proprietary categories suffer from one elemental difficulty or another when deployed to claims brought by tissue sources. What we have at the present is the obviously unjust situation where proprietary protection is accorded to the claims of tissue users/innovators but denied to the claims of tissue sources. Furthermore, while the current legal regulatory system maintains and applies the general no-property rule on dead bodies and bodily parts to claims brought by tissue sources, the courts have always found ways to recognise and endorse a proprietary regime for the claims of tissue users and innovators. Notice the duplex at play here; no right of property exists over separated bodily parts. Paradoxically, however, such rights exist in relation to claims instituted by tissue users and innovators; as I argue below, this inequality in treatment is not justified by the user/innovator's work or skill on the tissue, not least because such work or skill is usually un-transformative. Surely, this contradiction of the no-property regime – this useful paradox of property and non-property regimes co-existing to protect the claims of tissue users/innovators – is arguably undergirded and justified by important policy considerations.[12] The question, however, is why should such a duplex reasoning be restricted only to the claims of tissue users and innovators? I argue that

[10]*Moore v. Regents of the University of California*, 793 P2d 479 (Cal S Ct 1990).

[11]*Havasupai Tribe v. Arizona Board of Regents* (consolidated suit numbers 1 CA-CV 07-0454 and 1 ca-cv 07-0801) (Ca App Ariz 2008); eventually settled out of court.

[12]Such as the need to protect the biotechnology industry as acknowledged by Panelli J. in *Moore*, 793 P2d 479 (Cal S Ct 1990).

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

considerations of justice, equality and fairness demand that the proprietary claims of tissue sources should also be taken to reflect a duplex on the no-property rule. Like tissue innovators, tissue sources deserve to benefit from a duplex conceptualisation of their claim – an entitlement to a paradoxical deployment of the no-property rule in order to ground their legal redress in proprietary frameworks.

While the paradoxical application of the no-property rule, as between tissue sources and tissue users, has not previously been analysed in terms of a duplex, there is also another dimension of duplex evident in the way the exceptions to the no-property rule are interpreted and applied. Exceptions to the no-property rule establish situations in which a property regime would be foisted on the no-property rule; however, those exceptions have been only successfully applied to the claims of tissue users and innovators. Thus, under the work or skill exception, the no-property rule would be displaced by (or, rather, co-exist with) a property rule where the bodily part has gone through some transformative work or skill; this exception was originally developed by the Australian High Court in *Doodeward v. Spence*[13] and has since been received into the law of England and Wales.[14] When you consider critically the few cases that have applied this exception in England and Wales, whatever are taken to represent the scope and elements of the exception (Hardcastle, 2007, pp. 28–40), you realise that, although the exception reflects a duplex on bodily parts, it is one that only favours the claims of tissue users/innovators. *Dobson,* for instance, concerned the excised brain tissues of the deceased preserved in paraffin. The claimant's proprietary claim (through her estate) based on the work or skill exception failed on the ground that the preservative work on the brain was not sufficient to trigger the exception; yet that very same type of preservative work was deemed sufficient to engender a proprietary rule under the exception in favour of the claims of a tissue user/innovator in *Doodeward*. Recall that the claimant/exhibitor in *Doodeward* bought the preserved double-headed still-born foetus from a medical doctor who allegedly applied work or skill on the foetus (preservation in spirits); so *Doodeward* was essentially a claim by a tissue innovator. Similarly, a bit more preservative work on bodily parts in *Kelly* (preserved and dissected bodily parts in the mortuary of the Royal College of Surgeons) and *AB v. Leeds* (dissected bodily parts of the deceased children involved in the Alder Hey scandal) was held sufficient for the proprietary interests of the physician/innovators in both cases under the exception. Even when the courts use some other interpretive mechanisms to recognise a proprietary interest in bodily parts outside the work or skill exception, such interpretations have also usually inured to the benefit of tissue users and innovators only. Some American cases are paradigmatic examples. In *Washington University v. Catalona*[15] and *Greenberg v. Miami Children's Hospital Res. Inst.*,[16] for instance, the courts failed to recognise the proprietary claims of the tissue sources. In both cases, the sources donated their tissues for genetic research; the *Greenberg* claimants wanted to control the commercialisation of the patent that resulted from the research, albeit obtained by the researchers without the knowledge of the claimants/tissue sources. Similarly, the *Catalona* claimants/tissue sources wanted to control the location and transfer of their tissues. As the tissues in both cases were untransformed and dehors the work or skill exception, the courts resorted to the gift doctrine as the rule of decision; interestingly, the application of the gift doctrine in both cases reveals some ambiguity and useful paradox. While the courts (in both cases) held that the sources had no property rights in their tissues, they turned round to hold, paradoxically, that the sources had made a valid gift of their tissues to the defendants who were researchers and tissue innovators; as there can be no gift without a property right, it was incorrect (if not paradoxical) to hold that the tissue sources in both cases had no property right in their tissues (Laurie, 2002, p. 313). Duplex reasoning, however, can make sense of the decisions in *Catalona* and *Greenberg* that are redolent of paradox. Essentially, the courts in both cases signposted a duplex on the tissues, holding that the tissues qualified (through gift) as

[13]*Doodeward v. Spence* [1908] 6 CLR 406 (Aus H Ct).

[14]*Dobson v. North Tyneside* [1997] 1 WLR 596; *AB v. Leeds Teaching Hospital NHS* [2005] 2 WLR 358; *Kelly* [1998] 3 All ER 741.

[15]*Washington University v. Catalona*, 437 F.Supp.2d 985 (Dist. Ct. Missouri, 2006).

[16]*Greenberg v. Miami Children's Hospital Res. Inst.*, 264 F.Supp.2d 1064 9SD Fl 2003).

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

property of the tissue innovators, but remained non-proprietary as far as the tissue sources were concerned, even though those same tissue sources could make a gift of the tissues. Overall, therefore, the cases and analysis above delineate two levels of duplex at play here, both of which favour tissue users/innovators. First, separated bodily parts are not property, but they are property in the hands of users and innovators; therefore, bodily parts are property and non-property at the same time. Second, proprietary exceptions exist under the no-property rule in relation to the claims of tissue users/innovators, but no such exceptions practically exist in relation to the claims of tissue sources. Again, at once, there are exceptions and no exceptions to the no-property rule.

Let me clarify. I do not quarrel with the duplex above on bodily parts, which operates in favour of tissue users and innovators. However, I argue for the equalisation and broad *normativisation* of that duplex in a way that protects the interests of tissue users as well. Parity of proprietary protection for both sources and users ideally requires the abrogation of the no-property rule. As *Kelly* shows, however, any hope for the judicial abrogation of the no-property rule is bound to be forlorn.[17] While parliament can intervene to abolish the no-property rule in the future, we should in the interim provide effective legal redress for tissue sources by recognising that their proprietary claims over unauthorised interferences with their bodily parts entail a useful duplex on the no-property rule. We would be doing no more than extending to tissue sources the sort of duplex thinking that already prevails in relation to the proprietary claims of tissue users/innovators. Without such an approach, claims by tissue sources can only be analysed under the non-proprietary frameworks of private law; as highlighted below, such frameworks forebode grave injustices to tissue sources.

A negligence action for unauthorised interferences with bodily parts would fail for the simple reason that such interferences are usually intentional rather than being negligent.[18] Even if such a claim were to arise, the elements of causation (as in *Moore*) and damage (as in *Yearworth*) are bound to be problematical. A claim for the negligent infliction of psychiatric injury is more likely to be relevant; even here, remedial success is undermined by the requirement that the psychiatric injury must be of a recognisable psychiatric illness.[19] Moreover, in England and Wales, a claim for the negligent infliction of psychiatric injury is hedged with control mechanisms that require prove of diverse personal connexions and proximity factors.[20] Unless the claimant is a primary victim, the control mechanisms would almost certainly guarantee the failure of a negligent claim for the infliction of mental distress (Handford, 2001, p. 401). While an intentional tort action appears to offer the best liability theory for adjudicating non-consensual dealings with separated bodily parts, remedial problems still abound.[21] To begin with, the tort requires that the claimant must be a direct percipient witness to an injury or that the defendant must have directly intended to inflict psychiatric harm on the claimant.[22] However, the surreptitious nature of most unauthorised dealings with separated bodily parts and the profit or research motive that dominates the agenda of most defendants in such cases make it extremely unlikely that a claimant would be able to prove this element of the tort. Moreover, even though the intentional tort category in England and Wales has shaken off the shadow cast on its legitimacy by Lord Hoffmann in *Wainwright v. Home Office*,[23] problems still arise from the recent Supreme Court decision in *Rhodes v. OPO*[24] – there, an infant claimant unsuccessfully sought to restrain the publication of his father's autobiographical work, on the ground that publication of certain information contained in the book would inflict psychiatric injury on him. The Supreme Court took

[17] *Yearworth v. North Bristol NHS Trust* [2010] QB 1, 20, did not abolish the no-property rule; it undermined the rule.

[18] For a contrary view, see Handford (2010). Many thanks to one of the Journal's external reviewers for drawing my attention to this.

[19] *AB* [2005] 2 WLR 358.

[20] *McLoughlin v. O'Brian* [1983] 1 A.C. 410; *Alcock v. Chief Constable of South Yorkshire Police* [1992] 1 A.C. 310; *White v. Chief Constable of South Yorkshire Police* [1999] 2 A.C. 455.

[21] *Wilkinson v. Downton* [1897] 2 QB 57.

[22] *Christensen v. Superior Court*, 54 Cal 3d 866 (Su Ct Cal 1992).

[23] *Wainwright v. Home Office* [2003] UKHL 53.

[24] *Rhodes v. OPO* [2015] UKSC 32.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

the opportunity to recognise and affirm the tort, as well as restating its elements and scope.[25] Pertinently, Lady Hale and Lord Toulson opined that the tort 'requires words or conduct directed towards the claimant for which there is no justification or reasonable excuse'.[26] Since the abuse of dead bodies or non-consensual dealing with separated bodily parts is hardly directed towards claimants, a relevant claim in this country might be impaired by the requirement in *Rhodes* above. Worse still, Lord Neuberger's suggestion for restricting the tort to distressing statements could exacerbate the remedial difficulties of a claimant. Lord Neuberger suggested that the tort 'could perhaps be characterised as the tort of making distressing statements'[27] and that he 'would be reluctant to decide definitely that liability for distressing actions and distressing words should be subject to the same rules'.[28] If this restriction were to hold, most intentional tort claims over the abuse of dead bodies or bodily parts would fail, since such claims usually involve acts rather than statements.

Other private-law claims might equally falter, remedially speaking. For instance, an action in battery over separated bodily parts might not succeed, as suggested by *Yearworth*. Battery protects our interests in bodily autonomy and physical well-being (Shultz, 1985); hence, it does not apply to separated parts of the body that are no longer functional parts of the whole body.[29] A claim in contract might not arise in those bodily-parts cases involving medical treatment under the NHS, because such treatment is free and non-contractual.[30] Outside such a context, the legal position is far from being clear (Nuffield Council on Bioethics, 2011, p. 66; Gitter, 2004). Certainly, a claim in unjust enrichment would succeed in limited circumstances typified by *Greenberg v. Miami Children's Hospital*, but would fail in the vast majority of other cases.[31] An action in privacy might be equally unhelpful,[32] not least because the law of privacy protects the complete living person, not a corpse or a separated bodily part.

Most of the difficulties above would be surmounted with the simple expedient of an action in conversion, but this strategy requires recognition of the tissue source's proprietary interests (Mason and Laurie, 2001, p. 719). As indicated above, however, most cases on the matter are reluctant to recognise the tissue source's proprietary interests in their excised tissues. Part of this reluctance is conceptual, underpinned by the view that bodily parts do not qualify as property in law. As I suggested above, conceiving bodily parts as a duplex, at once property and non-property, would significantly alleviate this sort of conceptual obstacle. A duplex approach, which I draw from the anthropological work of Strathern (2005), would facilitate a divergent and paradoxical thinking on bodily parts; it would promote a reflexivity on bodily parts that discourages their rendition in exclusively non-proprietary terms. A duplex approach would overcome the potential awkwardness of holding that bodily parts are non-property and yet are property in some circumstances. Seeing that bodily parts reflect a duplex, and thus could justifiably be regarded as property, a judge might be encouraged to adopt a proprietary approach, along with non-proprietary approaches, in litigations involving bodily parts. Potentially, therefore, a duplex paradigm of bodily parts might mitigate the remedial hardship of tissue sources for whom the law does not currently recognise their proprietary interests in separated bodily parts. As highlighted above and further expounded below, it is clear that some duplex sort of approach is already inherent in some recent decisions and market practices relating to bodily parts, as well as

[25] *Ibid.*, at paras. [73]–[77].

[26] *Ibid.*, at para. [74].

[27] *Ibid.*, at para. [101].

[28] *Ibid.*, at para. [103].

[29] *Hecht v. Kaplan*, 221 AD2d 100 (Sup Ct New York 1996), 359. *Doe v. High-Tech Institute, Inc.*, 972 P 2d 1060 (1998); Rao (2000).

[30] *Appleby v. Sleep* [1968] 1 WLR 948; *Pfizer Corporation v. Ministry of Health* [1965] AC 512.

[31] *Greenberg*, 264 F.Supp.2d 1064 9SD Fl 2003); unjust enrichment attaches to monetary enrichment, not just any benefit (Birks, 2005, p. 3; Stoljar, 1987, p. 606; Virgo, 2006, pp. 62–64).

[32] *Campbell v. MGN Ltd.* [2004] 2 AC 457; *Armstrong v. H & C Communications*, 575 So 2d 280 (Dist. Ct. App 1991); *Waters v. Fleetwood*, 212 Ga 161 (1956); Keeton *et al.* (1988, pp. 849–868). A privacy claim might succeed in cases alleging unauthorised genetic analysis of bodily parts: *Norman-Bloodsaw v. Lawrence Berkeley Laboratory*, 135 F 3d 1260 (9th Cir 1998); *Doe*, 972 P 2d 1060 (1998); might be an offence under s. 45 of the Human Tissue Act 2004.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

in the common law and its praxis on bodily parts. As the bodily parts' legal and market landscapes are already descriptive of a duplex, albeit one that primarily favours the claims of tissue users/innovators, what remains to be done is a conscious and broad *normativisation* of that duplex in order to embrace the claims of tissue sources. *Yearworth* is paradigmatic.[33] Therefore, to the extent that the problem of denying tissue sources of some proprietary interests in their tissues is conceptual, I suggest that a duplex analysis of bodily parts might be helpful. After considering the challenges of criminal regulation of bodily parts in the next section, I will return to the relevance of duplex in litigations involving bodily parts.

4 Criminal-law frameworks for bodily parts

Only a handful of commentators would contemplate with equanimity an expansive role for criminal law in the regulation of bodily parts.[34] A similar (negative) disposition is evident in most of the chapters of a seminal monograph edited by Erin and Ost (2007), whose overarching theme is captured in the editors' titular and rhetorical question of whether the relationship between the criminal justice system and health care is ill-suited and appropriate (Ost and Erin, 2007). While the general reasons for the unease with the intervention of the criminal justice system in the medical setting are numerous and varied, they definitely include the judiciary's readiness to protect the medical profession (Ashworth, 1996), possibly out of fear that a lack of 'special' protection would undermine the efficiency of doctors (Brazier and Allen, 2007). Similar reasons might underpin a protectionist attitude towards medical researchers in relation to bodily parts. More reasons account for the indifference of criminal law to bodily parts. First, most criminal offences address some personal, public or economic interests; as these categories relate to persons or property, they do not generally encompass dead bodies and excised bodily parts (Davies and Naffine, 2001). Second, the stigma of criminal conviction, with its attendant penal sanctions and possible imprisonment, might be considered a harsh punishment for medical researchers who dealt unlawfully with bodily parts (Allen, 2007). Third, most dealings with bodily parts occur within the contexts of medical treatment, research and education. Criminalising the actions of those who interfere with bodily parts in order to provide cure for the sick and medical education for the learner might come across as unseemly (Montgomery, 2007; Merry, 2007). Partly for this reason, considerable criticism was directed against the Human Tissue Act 2004 for criminalising non-consensual removal, storage or use of human bodily parts (Spencer, 2004). Fourth, crimes against the dead are poorly developed in England and Wales (Herring, 2007). Furthermore, most instances of unlawful interference with bodily parts sit uneasily with the elements of most common crimes; for instance, as shown by the German organ prosecution discussed below, a manslaughter charge hardly captures wrongdoing within the processes of organ donation and transplantation. Criminal law's reluctance to regulate bodily parts is historical.

4.1 Historical contexts of the criminal regulation of bodily parts

A diachronic analysis of the criminal regulation of bodily parts begins with the eighteenth-century case of *Lynn*.[35] Recall that *Lynn* was the first reported prosecution of a body-snatcher in England and Wales. In that era, body-snatchers, or *resurrectionists*, were a great menace to public peace and safety – something that Sir William Scott highlighted in the *Iron Coffin's* case.[36] With this background

[33]Also, *Green v. Commissioner of Internal Revenue*, 74 T.C. 1229 (US Tax C, 1980).

[34]Even when criminal law intervened, as in *Kelly* [1998] 3 All ER 741; *R. v. Rothery* [1976] RTR 550; and *R. v. Welsh* [1974] RTR 478, it was unsurprisingly for the benefit of tissue users and institutional entities. Thanks to Professor Jonathan Herring for helpful insights in this section.

[35]*R. v. Lynn* [1788] 2 T.R. 732; *R. v. Cundick* [1822] ER 900.

[36]*Gilbert v. Buzzard* [1820] 2 HAG. CON. 333. Interestingly, the no-property rule highlighted above grew out of some cases involving body-snatching, even though its basis is somewhat unclear. Many thanks to one of the reviewers for bringing this to my attention.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

in sight, the *Lynn* court was anxious to stamp its seal of disapproval against the activities of body-snatchers. Thus, the court refused to grant the accused 'a rule to shew cause, lest that alone should convey to the public an idea that they entertained a doubt respecting the crime alleged'.[37] The Canadian historian, Royce MacGillivary (1988), reported a similar prosecution in Montreal, Canada in the nineteenth century.[38] Interestingly, MacGillivary's report of the case echoed the same placating tone witnessed in *Lynn* above.[39] The proliferation of medical schools in Edinburgh and London in the eighteenth century led to a shortage of cadavers for medical education and dissection. Resurrectionists emerged to fill the supply gap by disinterring freshly buried bodies from their graves and sold them to medical schools (Drimmer, 1981, pp. 29–31). At times, the supply was filled by killing vulnerable and poor people, as exemplified by the Burke and Hare scandal in Scotland (Richardson, 1988, pp. 131–143). Public outcry over the heinous act of body-snatching, coupled with the acute shortage of cadavers for dissection, led to an investigation by a select committee of the House of Commons in 1828 and recommendation for a legislative solution (House of Commons, 1828). The Anatomy Act 1832 was, however, triggered by the 1831 copycat *Burkean* murders in London by the trio of May, Bishop and Williams (Drimmer, 1981, pp. 75–94). All of the above is just to underscore that pre and post *Lynn*, the criminal justice system practically winked at offences involving cadavers and bodily parts because of their medical utility (MacGillivary, 1988, p. 59).[40] Much of this was openly conceded by some judges.[41] Thus, utilitarian concerns dissuaded criminal regulation of cadavers up to the twentieth century.

4.2 Modern criminal regulation of bodily parts

While the modern contexts of interferences with cadavers and bodily parts are no longer defined by body-snatching and burking, the motivations remain largely medical and commercial. The criminal-justice system has slowly intervened either to protect public decency, as in *R. v. Gibson*,[42] or institutional interests, as in *R. v. Kelly*.[43]

The challenges involved in regulating bodily parts through the criminal law have been brought into bold relief by the recent unsuccessful prosecution of the transplant surgeon (Mr Aiman O) involved in the German organ scandal.[44] Allegedly, Mr Aiman falsified his patients' medical records and test results in order to make them look sicker and in (more) urgent need of a transplant. Thus, Mr Aiman's patients were prioritised over more deserving (eleven) patients on the transplant waiting list. He was charged with eleven counts of attempted manslaughter and three counts of causing grievous bodily harm resulting in death; the latter charge was on account of the three medically unnecessary liver transplants that he had performed. Senior Judge Ralf Günther acquitted Mr Aiman of all charges, but the case has now gone on appeal.[45] Neither Judge Günther's decision nor a transcript of the judgment has been published; however, a media report of the case quoted the judge as holding that, although 'the doctor had breached the medical code of ethics … this was not an action which was punishable by law'.[46] Arguably, the German decision signposts the impropriety of criminal justice intervention over dealings involving bodily parts.

[37] *Lynn* [1788] 2 T.R. 732, 734.

[38] A group of medical students, who were body-snatchers, had attempted to steal a body from the cemetery; they were caught, prosecuted and fined.

[39] MacGillivary (1988, p. 58): 'this prosecution may have been a collusive action between the magistrate and the culprit for the purpose of placating an understandably aroused public.'

[40] *Doodeward* [1908] 6 CLR 406 (Aus H Ct), 423.

[41] *R. v. Sharpe* [1857] DEARS & BELL 159, 163; *R. v. Feist* [1858] 169 Eng. Rep. 1132, 1135.

[42] *R. v. Gibson* [1991] 1 All ER 439 (CA Crim.).

[43] *Kelly* [1998] 3 All ER 741.

[44] German organ prosecution (see note 7 above).

[45] *Ibid.*

[46] *Ibid.*

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

It does not seem that a similar prosecution in England and Wales would have produced a significantly different outcome. Consider, for instance, the elements of a charge for attempted involuntary manslaughter in this country. It is not clear that an unlawful manipulation of the organ waiting list (*actus reus*) would constitute an act *sufficiently proximate* to the involuntary manslaughter of patients bypassed by a transplant surgeon.[47] In part, this is because having priority on the waiting list does not guarantee that the person would definitely receive the next available organs; allocation depends on a host of factors, such as favourable histocompatibility test results and other ethico-medical criteria. Furthermore, a charge of attempt requires proof that D intended to commit the substantive offence,[48] which is lacking in situations like the German organ scandal. Card, Cross and Jones have argued that there can be no conviction for an attempt to commit involuntary manslaughter because the essence of the substantive offence is unintentional killing (Card, 2008, p. 609). While disputing this bald proposition, Simester and colleagues have observed that a charge of attempted manslaughter 'must be proved by evidence which establishes an intent to kill' (Simester *et al*., 2010, p. 297). *Morrison*[49] and Ormerod and Laird (2015, p. 460) support this latter view. Transposing these principles to the German organ scenario, it is obvious that Mr Aiman did not intend to kill the bypassed patients; he simply or primarily wanted to accelerate the transplant treatment of his own patients. Also, absent evidence that bypassing those patients rendered their deaths a virtual certainty, it is not likely that Mr Aiman would have been convicted on a similar charge in England and Wales.

The regulatory difficulties presented by a German-type scandal are not limited to the charge of manslaughter. A few other relevant charges might not fare better. For instance, prosecution under the Fraud Act 2006 might be considered apposite in a German-type scandal; this arises from Mr Aiman's alleged 'fraudulent' manipulation of patients' medical records and diagnostic test results in that scandal. Were that to be prosecuted under the Fraud Act 2006, section 1 establishes three ways of committing a general offence of fraud – that is, by dishonest false representation, failure to disclose information and abuse of position.[50] Apparently, only the first route is relevant here because it captures the impugned conduct of Mr Aiman.[51] However, the act's general offence of fraud is only 'based on dishonest conduct against *property interests*' (Ormerod and Laird, 2015, p. 991, emphasis added).[52] Under section 2 of the act, therefore, a dishonest false representation by D must be intended to *gain* property for him or herself or another, or to cause *loss* to another or expose them to a risk of loss.[53] Applying these provisions to a German-type scandal, a charge under the general offence of fraud would raise controversial issues, such as whether organs qualify as *property* whose gain or loss was intended by D. While *Kelly* (above) raises hope that organs intended for transplantation might be considered property in the future, the current state of the law is that untransformed organs do not qualify as property. Thus, it is likely that a prosecution under the general fraud offence would not succeed.

Nevertheless, a charge might be brought under section 11 of the act, which criminalises the dishonest obtaining of services. But such a charge can only relate to services rendered on the basis of a payment that was not fully made or paid at all. In the German-type case, however, the complaint was not that a transplant surgeon dishonestly obtained transplant services or resources for his patients without payment; rather, the complaint was that the transplant surgeon bypassed patients who had priority on the waiting list. Therefore, a section 11 charge might fail. More generally, the focus of fraud on the economic interests of others means that it is inapt for a German-type scandal (Ormerod and Laird, 2015, pp. 1002–1003). Unethical or unlawful manipulation of a transplant waiting list, as in the German scandal, does not directly impair the economic interests of the victims because their interest

[47]This proximity test is the common law's precursor to the test under the Criminal Attempts Act 1981, s. 1(1).
[48]Criminal Attempts Act 1981, s. 1(1).
[49]*R. v. Morrison* [2003] EWCA Crim 1722.
[50]Fraud Act 2006, ss. 2–4.
[51]A fraud charge relating to a *failure to disclose* is not relevant here, nor is a charge of abuse of position.
[52]Fraud Act 2006, s. 5.
[53]Section 5 of the act defines *gain* and *loss* only in relation to property.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

is purely therapeutic, nor does it impair the economic interest of Eurotransplant, because Eurotransplant's primary interest is in maintaining the integrity of the waiting list and the ethics of organ transplantation; thus, Eurotransplant's interest is not economic. Furthermore, a German-type scandal might not be successfully prosecuted under section 5 of the Human Tissue Act 2004, which criminalises non-consensual removal, storage or use of bodily parts; this is because the sting of the scandal was that a transplant surgeon skewed the standard scheme of organ allocation, not that he obtained and used transplantable organs for his patients without appropriate consent.

5 Moving forward

The challenges of criminal regulation of bodily parts above should invite the reconsideration of private-law solutions. On utilitarian grounds, as seen above, criminal law has always been reluctant to intervene in the biomedical utilisations of bodily parts. If the German organ prosecution was meant as a test case for the propriety of criminal regulation of bodily parts, then the result so far has not been encouraging. It could also be that the criminal approach in the German scandal reflects some dissatisfaction with the current non-proprietary remedies applied to organs. Interestingly, no property-related charge was included in the German prosecution. Absent proprietary remedies, the German authorities might have considered that there was little prospect of success with a civil claim and this might have encouraged the criminal route. I suggest that a private-law approach, undergirded with duplex thinking on bodily parts, might be helpful in redressing most claims involving unauthorised dealings with bodily parts; a duplex thinking on bodily parts would help in their conceptualisation as property and would promote a mix of proprietary and non-proprietary remedies in litigations involving bodily parts.

5.1 Bodily parts as a duplex

Kant observed quite epigrammatically that 'a person cannot be a property and so cannot be a thing which can be owned, for it is impossible to be a person and a thing, the proprietor and the property' (Kant, 1963, p. 165); for that reason, 'a human being is not entitled to sell his limbs for money, even if he were offered ten thousand thalers for a single finger' (Kant, 1963, p. 124). Kant, therefore, suggested that the incomparable worth of the human body and its parts consigns them to the kingdom of ends rather than means (Kant, 1996, p. 37); thus, bodily parts should be objects of veneration, not for purchase – they are imbued with dignity, not propriety (Davies, 2007). A criticism of Kant, which abounds (Munzer, 1993; Nwabueze, 2016a), is not the burden of this piece; however, his epigram above basically denies the duplex character of bodily parts – that is, their reflexivity and potential for simultaneous deployment in opposite directions. I argue that this duplex is the very essence of the praxis of the common law on bodily parts.[54] Notice, however, that not every classical philosopher accepted Kant's unidirectional and non-paradoxical rendition of bodily parts. An example is Locke's famous self-ownership thesis; he opined that every individual owns him or herself and, as a result, they own their labour and any unowned thing over which they mixed with their labour (Locke, 1988). The Lockean person, therefore, is both the owner (the self-proprietor) and the owned (the property). Davies and Naffine, however, warned that the Lockean 'self-ownership' was just a rhetorical figure deployed to invoke or reinforce the political freedoms and entitlements of the liberal person (Davies and Naffine, 2001, pp. 67, 183–184). Similarly, Hegel argued that the completion of subjectivity and proper moral self-development required the embodiment of a will in an external object, thus bridging the subject–object gap and letting subjectivity manifest in objectivity (Hegel, 2005). In Hegelian terms, therefore, an individual is at once a person and property. In Western liberal thought, Macpherson identified this phenomenon as *possessive individualism* (Macpherson, 1962). This sort of duplex thinking about the body inherent in Lockean, Hegelian and Macphersonian frameworks was

[54]Frow (1995, p. 155) acknowledged the reflexivity of the human body.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

brought into bold relief in the anthropological sphere by Strathern (2005), the eminent social anthropologist. Projecting *relationship* as a duplex – that is, having the paradoxical characters of the interpersonal and the conceptual – Strathern deployed it as an analytical tool for examining some of the issues that arise from biotechnological applications on the human body and its parts, particularly the social and cultural implications of biotechnology for kinship and the constellations and recompositions of knowledge that are engendered by biotechnology (Strathern, 2005, pp. 6–11; Edwards and Petrović-Šteger, 2011, pp. 3–4). On reproductive technology specifically, Strathern juxtaposed the interpersonal connections that genetic manipulations help to unfold with the conceptual and epistemological recombinations that reproductive technology help to create (Strathern, 2005, pp. 22–25). Thus, Strathern observed that the 'duplex works in a … world simultaneously perceptible from different viewpoints' and being capable of 'switching back and forth … between categories and individuals, offers positions that anticipate each other' (Strathern, 2005, p. 82). Drawing on Strathern, Riles observed that 'a "duplex character"… has two possible directions to it, and hence it is possible, "switching back and forth", to occupy two different positions at once' (Riles, 2011, p. 43; Putniņa, 2011). In this paper, analogically, I argue that duplex can facilitate both a descriptive and a normative account of the paradoxical treatment of bodily parts.

I suggest that it is possible to understand the human body and its parts as a duplex; this, as noted above, involves an epistemological reification in which bodily parts become the referent of duplex. Not only would a duplex perspective on bodily parts help to unpack the contradiction on the human body opposed by Kant above, but also a duplex conceptualisation of bodily parts as having both proprietary and non-proprietary dimensions (all at once) would suggest that the proprietary claims of a tissue source have a legitimate normative base. Thus, it would not be sufficient to dismiss such claims simply on the basis of the no-property rule, because the framework of duplex complicates the rule by foisting a proprietary opposite to it. A duplex thinking over bodily parts carries the advantage of analytical flexibility, in that it would accommodate multiple and divergent applications of the concept of property to the human body and bodily parts; the reflexivity of duplex should also accommodate, if necessary, an alternating or simultaneous recognition of tissue sources and innovators as owners of bodily parts. As suggested above, and further below, the duplex sort of thinking on bodily parts promoted here is already evident not only in the common law's regulation of bodily parts, but also in the ordinary usages and transactions involving bodily parts.

I argue that duplex not only helps us to recognise and understand the phenomenology of the paradox on bodily parts, but also exposes the unjust operation of that paradox in favour of only the claims of tissue users and innovators. Considerations of fairness, equality and justice for the tissue sources therefore demand a normative extension of the duplex on bodily parts to cover the claims of tissue sources. In this sense, duplex would be performing both descriptive and normative roles. Consider, again, the common law's no-property rule for cadavers and bodily parts highlighted above (Matthews, 1983; Naffine, 1999). While the rule implies a non-proprietary approach towards the body and bodily parts, it has (paradoxically) always operated alongside a formidable and thriving medical economy on bodily parts, involving the fragmentation, commodification and propertisation of the body (Scott, 1981). As examined above, for example, corpse pharmacology thrived up to the eighteenth century, involving the recycling, commodification and ingestion of human bodily parts as drugs, in spite of the no-property rule. Furthermore, in 1540, during the reign of Henry VIII, an act of parliament established the United Company of Barbers and Surgeons and made dissection a compulsory part of the medical training[55]; the act mandated the *giving* of four executed criminals to the company for dissection (Ball, 1989, pp. 59–60), although the number was later increased to ten. This provision was later increased by the Murder Act of 1752, which made dissection a compulsory and additional punishment to the sentence of death. All this shows not only the existence of a market in bodily parts (Mahoney, 2000), but also the state's conscription and assumption of property rights over the dead bodies of its citizens, contrary to the prevailing no-property rule on the human

[55]Physician Act 1540 (Privileges), c. 40; Act Concerning Barbers and Chirurgians 1540, c. 42.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

body. After the eighteenth century, anatomy and dissection became established as standard parts of medical training and education; this triggered a huge demand for dead bodies often met by a black market where newly buried corpses unlawfully exhumed from their graves were bought and sold, again in spite of the no-property rule. There is even some anecdotal evidence of a futures market in cadavers (for dissection) in the seventeenth century (Noble, 2011, p. 27). Thus, while the body was not property for the purposes of legal regulation, at the same time, it was practically treated as property in market and transactional senses.

Reflecting on situations similar to the above, Richardson observed that 'this was a market economy of goods and services … the goods bought and sold were human corpses …. Corpses were priced up, haggled over, negotiated for, discussed in terms of supply and demand, delivered, imported, exported, and transported' (Richardson, 2006, p. 156). Things have not changed much since then. Although the no-property rule is still in force in its generality and remains the mantra of the common law on bodily parts,[56] a huge and lucrative transnational market has developed over blood and blood products (Farrell, 2012); there is also a huge market for other tissues and bodily parts (Mahoney, 2000; Goodwin, 2006). Duplex is also evident in the coupling of a proprietary regime to the no-property rule, albeit under the so-called work or skill exception. As argued above, the conceptual instability of the work or skill exception suggests that it is not a sufficient justification of the duplex on bodily parts. In my view, the work or skill exception is simply a smokescreen for the judicial application to bodily parts of a duplex that is well established in historical and market contexts – just that the duplex driven by that exception is only applied to the claims of tissue users and innovators. Outside the work or skill exception, as highlighted above, a similar duplex could be seen in the treatment of different categories of claimants in relation to the human body. For instance, while tissue sources are generally denied property rights in the separated parts of their bodies (based on the no-property rule),[57] tissue users and innovators have (at the same time) been acknowledged to possess some proprietary interests in those tissues.[58] Reputable authors have highlighted this paradoxical, and potentially unjust, treatment of tissue sources (Mason and Laurie, 2001, pp. 719, 725). Brazier, for instance, observed that, though the deceased could not own their body, parts of the deceased's body could be 'taken from the body without either the deceased's or their family's approval. Put to the uses of medicine, these body parts become, as if by magic, property, but property owned by persons unknown, for purposes unforeseen by the deceased' (Brazier, 2002, p. 563). This clearly suggests that the common law and its praxis at once treat the human body as property and non-property; this should, as suggested here, inspire a potentially helpful reflexivity on bodily parts.

Normatively, therefore, I urge that we ought to begin to conceptualise bodily parts in the same paradoxical manner as they have been represented in historical, transactional and regulatory contexts; in other words, our rationalisation and conceptualisation of bodily parts should be underpinned by the paradox that, as I highlighted above, is descriptive of bodily parts as a matter of fact. More simply put, our conception of bodily parts should reflect the reality of bodily parts, which is a paradox. The normative move suggested above is, in my opinion, justified by considerations of justice, equality and fairness – particularly the need to treat the claims of tissue sources on terms similar to those of tissue users and innovators. In the normative sense highlighted above, duplex quintessentially performs the work of a theory. A theory must have torque as an explanatory metaphor, for, as Van Fraassen opined, a theory is 'also of wonderful use in unifying our account of hitherto disparate phenomena, and most of all, explanatory' (Van Fraassen, 1980, p. 87). Similarly, Einstein observed that science is 'the attempt at the posterior reconstruction of existence by the process of conceptualisation' – that is, the 'endeavor to bring together by means of systematic thought the perceptible phenomena of this world' (Einstein, 1954, p. 44). As indicated above, duplex performs this function creditably.

[56] *Dobson* [1997] 1 WLR 596.

[57] *Washington University*, 437 F.Supp.2d 985 (Dist. Ct. Missouri, 2006); *Greenberg*, 264 F.Supp.2d 1064 9SD Fl 2003).

[58] *Greenberg*, 264 F.Supp.2d 1064 9SD Fl 2003); *Washington University*, 437 F.Supp.2d 985 (Dist. Ct. Missouri, 2006); *Moore*, 793 P2d 479 (Cal S Ct 1990); Price (2010, p. 230).

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

Therefore, since duplex encourages us to think divergently on bodily parts, as being property and non-property at the same time, the framework should help to avoid the current judicial practice on bodily parts that largely reflects a singularity that disavows the proprietary interests of tissue sources.[59]

Of course, the problem in the regulation of bodily parts is not just the conceptual question of whether bodily parts can be admitted into the category of property, as implied above, but also it is a problem that impinges on moral, ethical and policy issues concerning the human body. For instance, some people might consider the propertisation of bodily parts as morally offensive and tantamount to the objectification and commodification of the body (Greasley, 2014). In *Moore*, Arabian J. gave acute expression to this moral concern.[60] There is also the policy concern that investing tissue sources with proprietary interests in their excised tissues might impair progress in the field of biomedical technology; in part, this accounted for the rejection of the claimant's conversion claim in *Moore*.[61] Furthermore, Herring powerfully argued that a proprietary approach to bodily parts focuses on individualistic values, the protection of an owner's rights of exclusion and control over a thing in a way that not only neglects the owner's personal interests, such as interests in dignity, identity and personhood, but also undermines significant social, communal and relational interests that exist in a human body (Herring, 2014, pp. 215–22). According to Herring, the wide-ranging interests in human bodies and excised bodily parts are better weighed, balanced and calibrated under a statute (Herring, 2014, pp. 223–228). In the same vein, Gold argued that the concept of property is judicially deployed in favour of those whose valuation of a resource is economic and, as such, a proprietary framework is not apt for the analysis of conflicts over bodily parts because it tends to recognise the economic interests of biotech companies and tissue innovators at the expense of tissues sources whose valuations of tissues are rather moral, cultural or religious (Gold, 1996). Therefore, Gold suggested a parliamentary approach: the development of a comprehensive, non-property-based, statutory scheme to regulate the exploitation of separated bodily parts in ways that recognise all modes of bodily valuations (Gold, 1996, p. 177).

These sorts of objections against the use of a proprietary framework for bodily parts are pertinent and valid, and should be seriously considered by any proposal to propertise the human body. I make only a narrow claim, however. The duplex framework I promote here does not propertise the human body – on the contrary, it retains the no-property rule – just that it engrafts a property regime onto the rule. As I argued above, while I promote duplex here as a normative framework, it is already descriptive of the history and legal regulation of bodily parts – only that its current operation only favours the claims of tissue users and innovators. As a normative framework, however, duplex should be more broadly conceptualised to cover the claims of tissue users on grounds of fairness, equality and justice. I suggest that treating tissue sources fairly, so as to avoid the inexorable failure of their proprietary claims, demands that we liberalise and project unto the normative realm the descriptive duplex on bodily parts in order to cover the claims of tissue sources. Therefore, to the extent that the problem of regulating and propertising bodily parts is conceptual in nature, understanding bodily parts as a duplex might be a useful solution. A duplex sort of thinking over bodily parts might potentially facilitate their conceptualisation as property (at least in part) and thus the use of proprietary frameworks along with non-proprietary frameworks in the remedification of unauthorised dealings with bodily parts.

Above, I highlighted the significant limitations or potential objections to the use of a property framework for bodily parts and I sought to allay some of the concerns on the basis that the application of a duplex theory would not involve an undue extension of the current law relating to bodily parts. Nonetheless, some further clarifications might be required. For instance, although I have argued for the recognition of property rights in bodily parts based on duplex, it is obvious that the assertion of such a right might arise in several contexts, whether such a right exists or not and, if so, the extent

[59]Cf. *Yearworth* [2010] QB 1.
[60]*Moore*, 793 P2d 479 (Cal S Ct 1990).
[61]*Ibid*., at pp. 487, 493.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

thereof might depend on the particular context in question. One of this Journal's external reviewers kindly drew my attention to five such scenarios or contexts and I must say at the outset that I do not pretend to have dealt with all such potential scenarios in this paper. First, a living person may claim property rights in his or her whole body or intact tissues. I call this a claim to self-ownership. Second, a claim may be made on behalf of a deceased person for the recognition of the deceased's property right in his or her whole dead body or (third) in the separated parts of the deceased's body. I call these second and third claims a posthumous property right. Fourth, a person may claim property rights over a separated part of his or her body now held by another (e.g. a tissue innovator). Fifth, a tissue innovator may claim property rights over a separated bodily part that has been transformed by the tissue innovator.

As regards the first scenario above (self-ownership, the idea of owning one's (living) self or one's in situ bodily parts), it should be noted that a living person's claim of self-ownership is a highly contestable right. As the beginning of this section shows, there are both classical and modern philosophers (such as Kant, 1963; 1996; Locke, 1988; Hegel, 2005; and Macpherson, 1962) who supported the idea of self-ownership; however, most of them deployed the concept of self-ownership as a background for their larger theoretical projects, such as the labour theory of value (for Locke) or the liberal political theory of possessive individualism (for Macpherson). In contrast, Harris has suggested that the concept of self-ownership is devoid of proprietary signification, but that it has some rhetorical value, such as when used to reinforce a person's 'open-ended set of use-privileges and control powers over' the person's body – something he identified as 'bodily-use freedom principle' (Harris, 1996, pp. 63, 71). The debate on self-ownership is interesting and important (Cohen, 1995), but it is not the focus of this paper. Through duplex, this paper promotes the recognition of a tissue source's proprietary interest in the separated part of his or her own body, so I am not arguing for or against the recognition of self-ownership in this paper.

In relation to the claim of posthumous property right (the second and third scenarios above) – that is, the idea that a person now deceased owns his or her dead body or the separated part thereof – it is true that Cantor has supported the existence of such a posthumous right based on what he identified as 'prospective autonomy rights' (Cantor, 2010, pp. 49–71). However, it suffices to say that, at least since the decision in *Williams v. Williams*,[62] the law in England and Wales has been that, generally, a corpse cannot own itself or any separated part of it; and thus a dead person cannot control the disposal of his or her body. Furthermore, *Williams* held that there is no property right in a corpse. While the law has gradually moved on from this rigid position to recognise the work or skill exception (amongst others) as analysed above and, more recently, has recognised that the wishes of the dead in relation to the disposal of their body cannot be completely disregarded,[63] the legal position remains that a dead person cannot own their dead body or a separated part of it. In any event, this paper is not concerned with the existence or otherwise of a posthumous property right of the deceased. The fourth and fifth scenarios above are the focus of this paper – that is, a living person's claim of property rights over his or her separated bodily parts (now held by a tissue innovator) and a tissue innovator's claim of property rights over a transformed dead body or separated bodily parts. As the analysis and cases considered above show, the law has always been ready and willing to use certain legal exceptions or legal interpretations to recognise a tissue innovator's property right in a transformed corpse (*Doodeward*) or separated and transformed bodily parts of both a corpse (*Kelly*) and a living person (*Miami Children's Hospital Res. Inst.*; *Moore*). Also, as the cases and analysis above show, the law has even gone further to recognise a tissue innovator's property right in the partially transformed bodily part of a corpse (*Dobson*; *Doodeward*) and, worse still, in the separated and untransformed bodily parts of the living (*Catalona*). In contrast, the law has refused to acknowledge or recognise the proprietary interest of the tissue source over their separated bodily parts and those of the deceased's next of kin or personal representatives over the deceased's transformed dead body or separated parts of the deceased's

[62] *Williams v. Williams* [1882] 20 Ch D 659.

[63] *Burrows v. HM Coroner for Preston* [2008] EWHC 1387.

https://doi.org/10.1017/S1744552319000314 Published online by Cambridge University Press

body (Brazier, 2002, p. 563). Consequently, I have argued above that this injustice and inequality in proprietary recognition should be remedied based on the duplex theory.

Finally, although I have argued in this paper that a tissue source's proprietary right in their separated bodily part should be recognised and enforced by the law based on duplex, it could be objected that I have not specified the particular property right in question, since *property* appears to be a multiple, rather than a single, concept. True, the complexity of a property right was highlighted in Honoré's famous paper, where he specified the eleven standard incidents of property: right to possess; right to use; right to manage; right to the income; right to the capital; right to security; incident of transmissibility; incident of absence of term; prohibition of harmful use; liability to execution; and residuary character (Honoré, 1961). While any collection or bundle of these standard incidents can amount to ownership in a given legal system (Wilson, 1957, p. 222; Gray, 1991), Nwabueze (2014) and Quigley (2014) have separately argued that any one of the above incidents (apart from the prohibition of harmful use, which is not peculiar to property) can qualify as a property right. All along, I have used *property* in the same sense in this paper. Therefore, when I argued above that duplex should be deployed to recognise the tissue source's property right in the separated part of their body, I meant that the relevant property right could be any of Honoré's standard incidents of ownership above. Thus, depending on the circumstances, this could simply be the recognition of the tissue source's right to control the use of their separated bodily parts (*Yearworth*; *Havasupai*) or the tissue source's right to share in the profits made from the biotechnological utilisation of their separated bodily parts (*Moore*). In short, I argue that it would be sufficient for my project in this paper if duplex was used to recognise *any* of the standard incidents of property in favour of the tissue source in any given case. Consequently, as highlighted above, the tissue source should be able to assert the two property-based claims usually relevant in litigation involving biomaterials – that is, income rights and control rights.

6 Conclusion

The human body and bodily parts have been used over the centuries in the cure of the sick and for various artistic, research and educational purposes. These wide-ranging uses have raised serious challenges for legal regulation. Current legal regulation hardly redresses claims brought by tissue sources over unauthorised interferences with the separated parts of their body; partly, this results from exclusive application of non-proprietary frameworks to claims brought by tissue sources, although, ironically, proprietary remedies are available to redress claims made by tissue users and innovators. Thus, tissue sources have suffered some sort of injustice in the way private law currently operates. As seen above, the criminal justice system has been reluctant to intervene in the biomedical utilisations of bodily parts on utilitarian grounds. Thus, I suggest that the best way forward would be to consider a private-law solution that integrates a proprietary approach, not exclusively, but in conjunction with non-proprietary frameworks. In this regard, I suggest that the analytical tool of duplex might help us to conceive bodily parts as property, even though they might not be regarded as property in some circumstances. So, duplex promotes a useful reflexivity – a divergent and paradoxical thinking on bodily parts that might facilitate the application of proprietary remedies to claims instituted by tissue sources.

Acknowledgements. I am very grateful for the constructive and helpful comments on the earlier draft provided by Professors Jon Herring (Faculty of Law, University of Oxford) and Graeme Laurie (School of Law, University of Edinburgh). Many thanks for the helpful feedback from the Journal's two external and anonymous reviewers. All errors and omissions are mine.

References

Allen N (2007) Medical or managerial manslaughter? In Erin CA and Ost S (eds), *The Criminal Justice System and Health Care*. Oxford: Oxford University Press, pp. 49–66.

Ashworth A (1996) Criminal liability in a medical context: the treatment of good intentions. In Simester AP and Smith ATH (eds) *Harm and Culpability*. Oxford: Clarendon Press, pp. 192–213.

Awaya T (1994) The theory of neo-cannibalism. *Japanese Journal of Philosophy* **3**, 29–47 (quoted in **Scheper-Hughes N** (2000) The global traffic in human organs. *Current Anthropology* **41**, 191–224).
Ball JM (1989) *The Body Snatchers: Doctors, Grave Robbers and the Law*. New York: Dorset Press.
Birks P (2005) *Unjust Enrichment*, 2nd edn. Oxford: Oxford University Press.
Black J (2001) Decentring regulation: understanding the role of regulation and self-regulation in a 'post-regulatory' world. *Current Legal Problems* **54**, 103–146.
Brazier M (2002) Retained organs: ethics and humanity. *Legal Studies* **22**, 550–569.
Brazier M and Allen N (2007) Criminalizing medical malpractice. In Erin CA and Ost S (eds), *The Criminal Justice System and Health Care*. Oxford: Oxford University Press, pp. 15–27.
Brian SAW (1984) *Cannibalism and the Common Law*. Chicago: The University of Chicago Press.
Brownsword R (2004) The cult of consent: fixation and fallacy. *Kings College Law Journal* **15**, 223–251.
Brownsword R (2008) *Rights, Regulation, and the Technological Revolution*. New York: Oxford University Press.
Cantor NL (2010) *After We Die: The Life and Times of the Human Cadaver*. Washington, DC: Georgetown University Press.
Card R (2008), *Card, Cross and Jones Criminal Law*, 18th edn. Oxford: Oxford University Press.
Cohen GA (1995) *Self-ownership, Freedom, and Equality*. Cambridge: Cambridge University Press.
Davies M (2007) *Property: Meanings, Histories, Theories*. Oxford: Routledge-Cavendish.
Davies M and Naffine N (2001) *Are Persons Property? Legal Debates about Property and Personality*. Aldershot: Ashgate Publishing Ltd.
Drimmer F (1981) *The Body Snatchers: Stiffs and Other Ghoulish Delights*. New York: Citadel Press.
Edwards J and Petrović-Šteger M (2011) On recombinant knowledge and debts that inspire. In Edwards J and Petrović-Šteger M (eds), *Recasting Anthropological Knowledge: Inspiration and Social Science*. Cambridge: Cambridge University Press.
Einstein A (1954) *Ideas and Opinions*. New York: Crown Publishers, Inc.
Erin CA and Ost S (2007) *The Criminal Justice System and Health Care*. Oxford: Oxford University Press.
Farrell A (2012) *The Politics of Blood: Ethics, Innovation and the Regulation of Risk*. Cambridge: Cambridge University Press.
Frow J (1995) Elvis' fame: the commodity form and the form of the person. *Cardozo Studies in Law & Literature* **7**, 131–171.
Gitter DM (2004) Ownership of human tissue: a proposal for federal recognition of human research participants' property rights in their biological material. *Washington & Lee Law Review* **61**, 257–346.
Gold ER (1996) *Body Parts: Property Rights and the Ownership of Human Biological Materials*. Washington, DC: Georgetown University Press.
Goodwin M (2006) *Black Markets: The Supply and Demand of Body Parts*. New York: Cambridge University Press.
Gordon-Grube K (1988) Anthropophagy in post-Renaissance Europe: the tradition of medicinal cannibalism. *American Anthropologist* **90**, 405–409.
Gray K (1991) Property in the thin air. *Cambridge Law Journal* **50**, 252–307.
Greasley K (2014) Property rights in the human body: commodification and objectification. In Goold I *et al.* (eds), *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century?* Oxford: Hart Publishing, pp. 67–88.
Handford P (2001) Psychiatric damage where the defendant is the immediate victim. *Law Quarterly Review* **117**, 397.
Handford P (2010) Intentional negligence: a contradiction in terms. *Sydney Law Review* **32**, 29–62.
Hardcastle R (2007) *Law and the Human Body: Property Rights, Ownership and Control*. Oxford: Hart Publishing.
Harding L (2003) Victim of cannibal agreed to be eaten, *The Guardian*, 4 December 2003.
Harris JW (1996) Who owns my body. *Oxford Journal of Legal Studies* **16**, 55–84.
Hegel GWF (2005) *Philosophy of Right*. Dyde SW (trans.). New York: Dover Publications, Inc.
Herring J (2007) Crimes against the dead. In Brooks-Gordon B *et al.* (eds), *Death Rites and Rights*. Oxford: Hart Publishing, pp. 219–240.
Herring J (2014) Why we need a statute regime to regulate bodily material. In Goold I *et al.* (eds), *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century?* Oxford: Hart Publishing, pp. 215–230.
Honoré AM (1961) Ownership. In Guest AG (ed.), *Oxford Essays in Jurisprudence*. Oxford: Oxford University Press, pp. 107–147.
House of Commons (1828) *Report from the Select Committee on Anatomy*. London: The House of Commons.
House of Commons (UK) (2001) The Royal Liverpool Children's Inquiry, *Hansard*, 30 January 2001.
James R (1747) *Pharmacopoeia Universalis: Or a New Universal English Dispensatory*. London: J Hodges.
Jones DG and Whitaker MI (2009) *Speaking for the Dead: The Human Body in Biology and Medicine*, 2nd edn. Aldershot: Ashgate.
Kant I (1963) *Lectures on Ethics*. Infield L (trans.). Cambridge: Hackett Publishing Co.
Kant I (1996) Groundwork of the metaphysics of morals. In Gregor M (ed.), *Practical Philosophy*. Cambridge: Cambridge University Press.
Keeton WP *et al.* (1988) *Prosser and Keeton on Torts*, 5th edn. St. Paul, MN: West Publishing Co.
Kennedy I (1988) *Treat Me Right: Essays In Medical Law and Ethics*. Oxford: Clarendon Press.
Laurie G (2002) *Genetic Privacy: A Challenge to Medico-legal Norms*. Cambridge: Cambridge University Press.

Liddell K and Hall A (2005) Beyond Bristol and Alder Hey: the future regulation of human tissue. *Medical Law Review* **13**, 170–223.
Locke J (1988) *Two Treaties of Government*. Laslett P (ed.). Cambridge: Cambridge University Press.
MacGillivary R (1988) Body-snatching in Ontario. *Canadian Bulletin of Medical History* **5**, 51–60.
Macpherson CB (1962) *The Political Theory of Possessive Individualism: Hobbes To Locke*. Oxford: Oxford University Press.
Mahoney JD (2000) The market for human tissue. *Virginia Law Review* **86**, 163–223.
Mason K and Laurie G (2001) Consent or property? Dealing with the body and its parts in the shadow of Bristol and Alder Hey. *Modern Law Review* **64**, 710–729.
Matthews P (1983) Whose body? People as property. *Current Legal Problems* **36**, 193–239.
McLennan A and Rimmer M (2012) Inventing life: intellectual property and the new biology. In Rimmer M and McLennan A (eds), *Intellectual Property and Emerging Technologies: The New Biology*. Cheltenham: Edward Elgar.
Merry AF (2007) When are errors a crime? Lessons from New Zealand. In Erin CA and Ost S (eds), *The Criminal Justice System and Health Care*. Oxford: Oxford University Press, pp. 67–98.
Montgomery J (2007) Medicalizing crime – criminalising health? The role of law. In Erin CA and Ost S (eds), *The Criminal Justice System and Health Care*. Oxford: Oxford University Press, pp. 257–272.
Munzer SR (1993) Kant and property rights in body parts. *Canadian Journal of Law & Jurisprudence* **6**, 319–341.
Naffine N (1999) 'But a lump of earth?' The legal status of the corpse. In Manderson D (ed.), *Courting Death: The Law of Mortality*. London: Pluto Press, pp. 95–106.
Noble L (2011) *Medicinal Cannibalism in Early Modern English Literature and Culture*. New York: Palgrave Macmillan.
Nuffield Council on Bioethics (2011) *Human Bodies: Donation for Medicine and Research*. London: NCB.
Nwabueze RN (2007) *Biotechnology and the Challenge of Property: Property Rights in Dead Bodies, Body Parts and Genetic Information*. Aldershot: Ashgate.
Nwabueze RN (2008) Donated organs, property rights and the remedial quagmire. *Medical Law Review* **16**, 201–224.
Nwabueze RN (2014) Cadavers, body parts and the remedial problem. In Goold I *et al.* (eds), *Persons, Parts and Property: How Should We Regulate Human Tissue in the 21st Century?* Oxford: Hart Publishing, pp. 157–175.
Nwabueze RN (2016a) Proprietary interests in organs in limbo. *Legal Studies* **36**, 279–301.
Nwabueze RN (2016b) The liability rule, proprietary remedies and body parts. *Liverpool Law Review* **37**, 177–203.
Ormerod D and Laird K (2015) *Smith and Hogan's Criminal Law*, 14th edn. Oxford; Oxford University Press.
Ost S and Erin CA (2007) An ill-suited and inappropriate union? Exploring the relationship between the criminal justice system and health care. In Erin CA and Ost S (eds), *The Criminal Justice System and Health Care*. Oxford: Oxford University Press, pp. 1–14.
Peacock M (1896) Executed criminals and folk-medicine. *Folk-Lore* **7**, 268–283.
Pliny E (1975) *Natural History*, Vol. 8, Books 28–32. Jones WHS (trans.). Cambridge, MA: Harvard University Press.
Price D (2003) From Cosmos and Damien to Van Velzen: the human tissue saga continues. *Medical Law Review* **11**, 1–47.
Price D (2010) *Human Tissue in Transplantation and Research: A Model Legal and Ethical Donation Framework*. Cambridge: Cambridge University Press.
Putniņa A (2011) Invisible families: imagining relations in families based on same-sex partnerships. In Edwards J and Petrović-Šteger M (eds), *Recasting Anthropological Knowledge: Inspiration and Social Science*. Cambridge: Cambridge University Press, p. 108.
Quigley M (2014) Propertisation and commercialisation: on controlling the uses of human biomaterials. *Modern Law Review* **77**, 677–702.
Rao R (2000) Property, privacy, and the human body. *Boston University Law Review* **80**, 359–460.
Richardson R (1988) *Death, Dissection and the Destitute*. London: Routledge and Kegan Paul.
Richardson R (2006) Human dissection and organ donation: a historical and social background. *Mortality* **11**, 151–165.
Riles A (2011) Too big to fail. In Edwards J and Petrović-Šteger M (eds), *Recasting Anthropological Knowledge: Inspiration and Social Science*. Cambridge: Cambridge University Press, pp. 31–48.
Scheper-Hughes N (2002) Bodies for sale: whole or in parts. In Scheper-Hughes N and Wacquant L (eds), *Commodifying Bodies*. London: Sage Publications, pp. 1–4.
Scott R (1981) *The Body As Property*. New York: The Viking Press.
Shultz MM (1985) From informed consent to patient choice: a new protected interest. *Yale Law Journal* **95**, 219–299.
Simester AP *et al.* (2010) *Simester and Sullivan's Criminal Law: Theory and Doctrine*, 4th edn. Oxford: Hart Publishing.
Siraisi N (1990) *Medieval and Early Renaissance Medicine*. Chicago: University of Chicago Press.
Spencer JR (2004) Criminal liability for the desecration of a corpse. *Archbold News* **6**, 7–9.
Stoljar S (1987) Unjust enrichment and unjust sacrifice. *Modern Law Review* **50**, 603–613.
Strathern M (2005) *Kinship, Law and the Unexpected: Relatives Are Always a Surprise*. Cambridge: Cambridge University Press.
Van Fraassen BC (1980) *The Scientific Image*. Oxford: Oxford University Press.
Virgo G (2006) *The Principles of the Law of Restitution*, 2nd edn. Oxford: Oxford University Press.

Waldby C and Mitchell R (2006) *Tissue Economies: Blood, Organs and Cell Lines in Late Capitalism*. Durham, NC: Duke University Press.
Wilson GP (1957) Jurisprudence and the discussion of ownership. *Cambridge Law Journal* **15**, 216–229.
Wootton AC (1972) *Chronicles of Pharmacy*, Vol. 2. New York: USV Pharmaceutical Corporation.

Cite this article: Nwabueze RN (2019). Regulation of bodily parts: understanding bodily parts as a duplex. *International Journal of Law in Context* **15**, 515–535. https://doi.org/10.1017/S1744552319000314