Specificatio's Raw Materials

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This article questions whether English law contains rules which could plausibly be understood to be equivalent to the Roman rules of *specificatio*. It is commonly said that there do exist such rules, and that those rules determine that the manufacturer of a new thing,[1] where that new thing is created from a chattel belonging to another, will acquire the best legal title to that thing. Thus, the title that was previously held by the owner of the initial chattel is destroyed, although it may be replaced by some other legal interest, such as a personal right to damages held against the manufacturer. This is the description of English law that is offered in the textbooks on personal property law,[2] as well as in textbooks concerned with the rules of law which govern the processes of following, tracing and claiming.[3]

It will, however, be argued that the better view is that this orthodox descriptive account of the law is mistaken. There is in fact no clear rule of English law which tells us who it is that holds the best legal title to a newly manufactured thing. It is the primary aim of Section II of this article to make good that claim. Sections III and IV then move on to consider what the law ought to be. The former criticises popular justifications of orthodoxy, while the latter defends a novel justification.

The arguments considered throughout the article are of importance for several reasons. First, an almost universally shared assumption about the content of English law is shown to be misplaced. There is, therefore, a risk of error in the writing of judgments and the giving of legal advice. Second, there is growing interest in the doctrinal and normative foundations of legal and equitable tracing.[4] This article contributes to these ongoing debates by examining a closely

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[1] Throughout the article, I use the words "thing" and "chattel" to refer to tangible chattels, such as laptops, books and cars. My inquiry is limited in scope to personal property of this sort, and is not intended to cover intangibles such as shares, intellectual property, or money in an account. For the sake of clarity, I use the labels "initial chattel(s)" and "new thing" when referring, respectively, to the state of affairs before and after a manufacture takes place. Nothing turns on these labels; it is simply to make the thread of analysis easier to follow.

[2] See, e.g., E.L.G. Tyler and N. Palmer, *Crossley Vaines on Personal Property*, 5th edn (London: Butterworths, 1973) at p.430; A.P. Bell, *Modern Law of Personal Property in England and Ireland* (London: Butterworths, 1989) at p.69; S. Worthington, *Personal Property Law: Texts, Cases and Materials* (Oxford: Hart Publishing, 2000) at p.515; W.J. Swadling, "Property: General Principles" in A.S. Burrows (ed), *English Private Law*, 3rd edn (Oxford: Oxford University Press, 2013) at para.4.436; D. Sheehan, *The Principles of Personal Property Law*, 2nd edn (Oxford: Hart Publishing, 2017) at p.27; M. Bridge et al, *The Law of Personal Property*, 3rd edn (London: Sweet & Maxwell, 2022) at para.17.034.

[3] See, e.g., P. Birks, *Unjust Enrichment*, 2nd edn (Oxford: Oxford University Press, 2005) at p.34; S. Worthington, *Equity*, 2nd edn (Oxford: Oxford University Press, 2006) at pp.90-91; A. Burrows, *The Law of Restitution*, 3rd edn (Oxford: Oxford University Press, 2011) at p.122, n.19; C. Mitchell, P. Mitchell and S. Watterson (eds), *Goff & Jones: The Law of Unjust Enrichment*, 10th edn (London: Sweet & Maxwell, 2022) at para.7.24.

[4] There is a vast literature. The vitality of the debate can be seen in the publication of a number of monographs dedicated to the subject in recent years. See, e.g., A. Nair, *Claims to Traceable Proceeds* (Oxford: Oxford University Press, 2018); M. Raczynska, *The Law of Tracing in Commercial Transactions* (Oxford: Oxford

related topic. Third, and perhaps most importantly, it seems true to say that those rules which govern the acquisition of new property rights ought to tell us something about the values that our system of private property as a whole can be said to promote. This explains why theorists have spilt a considerable amount of ink asking why a possessor of a chattel or of land should acquire an enforceable title to it.[5] It is a peculiar feature of the literature that *specificatio* – or manufacture – has received so little attention when, at least according to a near-universal understanding of the law, it also acts as a method through which people might acquire new property rights.

I. Preliminary Matters

In order to clarify the scope and content of the arguments developed throughout this article, it is useful to deal with a number of issues at the start of the analysis. There are four such issues to consider.

1. The Legal Interest in Issue

The first point to clarify is that this article is concerned with identifying who it is that holds the best legal title to the newly manufactured thing. Suppose, for example, that a person, M, is given by T a chattel that T had in fact earlier stolen from O, and that M – unaware of O's legal interest in the chattel – then manufactures a new thing from it.[6] Before M's act of manufacture, it is clear that O had a better title to the chattel than M; O had a right against M, and against the rest of the world, that they not deliberately or carelessly interfere with the chattel. This is so even though it is likely that, immediately before the manufacture took place, M also had a title to the chattel in virtue of their having taken possession of it.[7] M had, at that time, a relatively weaker title to the chattel, which grounded rights against all the world – except O – that they not interfere with the chattel.

According to what we can call the *orthodox view* of English law, M's act of manufacturing the new thing has the effect of destroying the titles held in relation to the initial chattel, and generating in M the best legal title to and right to possess the new thing. One might say that the new thing is owned by M, whereas the initial chattel was owned by O. It is the accuracy of the *orthodox view* that is the concern of this article; it follows that it is not concerned with the issue of whether different legal interests might also be generated when a manufacture takes

University Press, 2018); J. English and M.J. Hafeez-Baig, *The Law of Tracing* (Alexandria, N.S.W.: Federation Press, 2021).

[5] Again, the literature is vast. For classic treatments of the problem, see, e.g., R.A. Epstein, "Possession as the Root of Title" (1979) 13 Georgia Law Review 1221; C.M. Rose, "Possession as the Origin of Property" (1985) 52 University of Chicago Law Review 73. Two monographs dedicated to the role of possession as a mode of acquiring property rights have also been published in the last few years: M.J.R. Crawford, *An Expressive Theory of Possession* (Oxford: Hart Publishing, 2020); L. Rostill, *Possession, Relative Title, and Ownership in English Law* (Oxford: Oxford University Press, 2021).

[6] These were the facts of the classic American case *Wetherbee v Green* 22 Mich. 311 (1871).

[7] *Armory v Delamirie* (1722) 1 Str. 505; 93 E.R. 664.

place. For example, if the *orthodox view* is correct, it may be that the law permits O to bring a claim against M for the value of the initial chattel at the time of the manufacture.[8] Alternatively, if the *orthodox view* is incorrect, it may be that the law allows M to bring a claim against O for the difference in value between the newly created thing and the initial chattel, assuming the former to be more valuable.[9] These are important issues, which require detailed analysis to which this article does not have the space to attend.[10] Thus, the article does not consider the complete picture of English law's response to the manufacture of a new thing, but only the prior and most foundational issue of title or ownership.

There is considerable debate about the appropriate terminology to use in describing the legal interest that is the subject of our inquiry. So far, this article has talked of "the best legal title" or "ownership", but neither of these terms is free from difficulty. There is no settled view on the matter, and to give a full analysis of all candidate terms would require far more space than is possible here.[11] From now on, this article adopts the suggested language of a number of scholars, and terms the relevant legal interest in issue the "supreme general property interest" in the newly created thing.[12] This is said to be the "personal property equivalent" to the fee simple,[13] and it is hoped that its content is clear enough to distinguish it from "lesser" (as opposed to general) property interests such as a pledge or a lien and from "inferior" (as opposed to supreme) general property interests like that of the finder of a lost chattel.

2. *The Relevance of Agreements*

The second preliminary point to note is that this article is not directly concerned with the law governing the interpretation of agreements. As a matter of positive law, it has been accepted that it is open to parties to decide for themselves what legal interests follow a particular event.[14] Such agreements are common. Suppose, for example, that O sells leather to M, who intends to use that leather to fashion items of clothing. The contract between O and M might contain one, or both, of the following sorts of clause. The first is what we can term a "simple retention of title" clause, which purports to retain in O the supreme general property interest in the leather

[8] This was the outcome reached in *Wetherbee v Green* 22 Mich. 311 (1871).

[9] cf. *Greenwood v Bennett* [1973] Q.B. 195; [1972] 3 All E.R. 586.

[10] The textbooks suggest a difference of opinion is likely on the latter issue. On one view, such a claim could succeed only if it is "inevitable" that O will realise the benefit of that increase in value through sale: G. Virgo, *The Principles of the Law of Restitution*, 3rd edn (Oxford: Oxford University Press, 2015) at pp.82-85. Alternatively, it may be that such a claim could only succeed where it is "highly likely" that O would realise that improved value: Burrows, *The Law of Restitution* (2011) at pp.237-39. For potential criticisms of those accounts, see R. Stevens, "The Unjust Enrichment Disaster" (2018) 134 L.Q.R. 574 at 583-84 and L. Smith, "Restitution: A New Start?" in P. Devonshire and R. Havelock (eds), *The Impact of Equity and Restitution in Commerce* (Oxford: Hart Publishing, 2019) at pp.101-03 and at p.113.

[11] For discussion of the issue, see, e.g., R. Hickey, *Property and the Law of Finders* (Oxford: Hart Publishing, 2010) at pp.162-68; L. Rostill, "Terminology and Title to Chattels: A Case against 'Possessory Title'" (2018) 134 L.Q.R. 407.

[12] See the works cited above, at n.11.

[13] Hickey, *Property and the Law of Finders* (2010) at p.167.

[14] *Clough Mill Ltd v Martin* [1985] 1 W.L.R. 111; [1984] 3 All E.R. 982.

until payment of the full purchase price is made. The relationship between simple retention of title clauses and the default rules of law with which we are concerned is considered at various stages below.[15] The second sort of clause is a "products" clause, which purports to vest in O the supreme general property interest in the clothes that M produces with the leather, again until the purchase price is paid. As a theoretical matter, O and M are able to create an arrangement of this sort, so long as this is what they have objectively agreed.[16] The legal effects of products clauses fall outside the scope of this article, because those effects are determined by the rules of contractual interpretation.[17] Instead, the focus of this article is on those default rules of law which govern in the absence of agreement.

3. *The Concept of a "New Thing"*

This article is not directly concerned with formulating a test that can be applied to determine whether a "new thing" has been produced and so whether the event of manufacture has taken place. There is no one preferred test, either in academic commentary or in the case law of jurisdictions which undoubtedly do recognise a rule equivalent to the *orthodox view*. A number of plausible tests have been suggested: (1) whether the thing in question has undergone a "transformation";[18] (2) whether the thing in question has increased in value by virtue of M's actions;[19] (3) whether the thing in question has undergone some change in its chemical composition;[20] and (4) whether the thing in question can be restored to the state it was in before M's actions.[21] No one test is preferred in the literature; if any conclusion on the matter is offered in academic writing, it is usually to claim that any or all of (1)-(4) could be taken into account on a given set of facts.[22]

This article does not seek to resolve this debate, although the arguments made below have significant implications for it.[23] It is not a debate that is likely to make any progress until courts

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[15] See below at II.3 and at III.3.

[16] As touched on below, in II.3, it will in fact be very difficult for parties to convince a court that this is what they have objectively agreed.

[17] For discussion of the law's approach to products clauses, see, e.g., L. Gullifer, "'Sales' on Retention of Title Terms: Is the English Law Analysis Broken?" (2017) 133 L.Q.R. 244.

[18] e.g. E.C. Arnold, "The Law of Accession of Personal Property" (1922) 22 Columbia Law Review 103 at 105-06; D. Webb, "Title and Transformation: Who Owns Manufactured Goods?" [2000] J.B.L. 513 at 524; Y. Chang, "An Economic and Comparative Analysis of *Specificatio*" (2015) 39 European Journal of Law and Economics 225 at 228; Raczynska, *The Law of Tracing in Commercial Transactions* (2018) at para.2.34.

[19] e.g. Arnold "The Law of Accession of Personal Property" (1922) 22 Columbia Law Review 103 at 106-07; Chang, "An Economic and Comparative Analysis of *Specificatio*" (2015) 39 European Journal of Law and Economics 225 at 228. For judicial endorsement of this test, see *Wetherbee v Green* 22 Mich. 311 (1871).

[20] e.g. P. Matthews, "'Specificatio' in the Common Law" (1981) 10 Anglo-American Law Review 121 at 124-25.

[21] e.g. Matthews, "'Specificatio' in the Common Law" (1981) 10 Anglo-American Law Review 121 at 123-24; G. McCormack, "Mixture of Goods" (1990) 10 L.S. 293 at 304; Webb, "Title and Transformation: Who Owns Manufactured Goods?" [2000] J.B.L. 513 at 523-24.

[22] e.g. L. Smith, *The Law of Tracing* (Oxford: Oxford University Press, 1997) at p.111.

[23] Some of those implications are discussed below, in IV.3. For further discussion, see A.C. Waghorn, *The Goals of Property Law: The Acquisition of Proprietary Interests in Chattels through Possession, Mixtures, Reproduction and Manufacture*, Ph.D. thesis (University of Cambridge, 2021) at pp. 200-03.

and commentators settle on a rationale – or a principled rejection – of the *orthodox view* that can tell us *why* it should – or should not – be the law and what purposes it should be taken to serve. Until sound answers to those questions are found, it is inevitable that there will be no satisfactory test which can determine whether a new thing has been created in difficult cases.

4. The Relevance of Bad Faith

Finally, it should be made clear that the article's primary focus is on the default legal rule which governs those cases where M manufactures a new thing in good faith. However, the possible impact of M's bad faith is also dealt with at various stages throughout the article. As will become clear, there is some English authority in favour of the proposition that the *orthodox view* does not govern a case of bad faith manufacture.[24] That authority needs to be analysed in order to address the issue of a manufacture done in good faith. Although more could be said on the matter, a number of arguments considered below, in Sections II.2 and IV.3, are sufficient to deal with the problem of bad faith.

II. The Accuracy of the *Orthodox View*

This section evaluates the evidence that can be marshalled in support of the *orthodox view* as a descriptive account of English law. First, however, it is worth drawing a distinction between two classes of manufacture that could occur. The first – call it *Single Property Manufacture* – occurs where M does not contribute any chattels in which they hold a supreme general property interest. An example may be where M carves a statue from O's marble, or where M bakes a cake out of O's ingredients. The second sort of manufacture – *Two Property Manufacture* – occurs instead where M combines their own chattels with those of O to create the new thing. In both classes of manufacture, the *orthodox view* holds that the supreme general property interest in the new thing vests in M.

1. Blackstone

Blackstone is sometimes cited in support of orthodoxy in the absence of many express cases on the matter.[25] He favoured the *orthodox view*:

> "By the Roman law… if the thing itself, by such operation, was changed into a different species, as by making wine, oil, or bread, out of another's grapes, olives, or wheat, it belonged to the new operator; who was only to make a satisfaction to the former proprietor for the materials, which he had so converted. And these doctrines are implicitly copied and adopted

[24] See II.2 below. There is also famous American authority in favour of this proposition: *Silsbury & Calkins v McCoon & Sherman* 3 N.Y. 379 (1850). See too *Jones v de Marchant* (1916) 28 D.L.R. 561; *Foskett v McKeown* [2001] 1 A.C. 102 at 132-33; [2000] 3 All E.R. 97 at 125 (Lord Millett). For a full analysis of the problem of bad faith, see Waghorn, *The Goals of Property Law*, Ph.D. thesis (2021) at pp. 179-82 and at pp. 196-99.

[25] e.g. Tyler and Palmer, *Crossley Vaines on Personal Property* (1973) at p.430.

> by our Bracton, in the reign of king Henry III; and have since been confirmed by many resolutions of the courts".[26]

Blackstone cited three cases in support of his analysis, but none of those cases actually establish that it is correct. The first is the *Case of Leather*,[27] in which C complained of a trespass by D, who had taken boots out of C's possession. C had earlier fashioned the boots from D's leather. The claim was unsuccessful: "if one take a piece of cloth and make himself a coat, the owner may rightfully retake it, for the reason that it is the same thing, and not different".[28] It follows that the case may have nothing to say about the rule of law which governs *after* a manufacture takes place; instead, it can be understood to be concerned with the definition of a "new thing". The second case is an anonymous case of 1560.[29] It was there held that the supreme general property interests in planks were held by the holder of the supreme general property interests in the trees from which they were cut. This was said to be because the "greater part of the substance" of the tree remains. Again, this is a decision based on the conclusion that no new thing had been created. The final case cited by Blackstone is *Stock v Stock*,[30] which concerned a mixture of indistinguishable bales of hay and the effect of that mixture on the legal interests of the parties. The event of manufacture was not in issue.

None of these cases, therefore, establish that Blackstone was correct to endorse the *orthodox view*. Nonetheless, it goes too far to conclude that they demonstrate that the *orthodox view* is false.[31] The cases may simply stand for the proposition that, on their facts, the event of manufacture did not occur.

However, there has been some judicial endorsement of Blackstone. Most clear is Goff L.J.'s judgement in *Clough Mill Ltd v Martin*.[32] A sold yarn to B, who used it to produce fabric. Their contract contained a products clause. In discussion of the issue of how to interpret such a clause, Goff L.J. said:

> "Now it is no doubt true that, where A's material is lawfully used by B to create new goods, whether or not B incorporates other material of his own, the property in the new goods will generally vest in B, at least where the goods are not reducible to the original materials: see Blackstone's Commentaries".[33]

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[26] 2 Bl. Comm. 404.

[27] (1490) Y.B. 5 Henry VII fol. 15.

[28] (1490) Y.B. 5 Henry VII fol. 15.

[29] Moore (K.B.) 19; 72 All E.R. 411.

[30] (1594) Poph. 37; 79 All E.R. 1156. The case has been said to be of "very little authority" because it is poorly recorded: *Indian Oil Corp Ltd v Greenstone Shipping Co S.A. (Panama)* [1988] Q.B. 345 at 360H; [1987] 3 All E.R. 893 at 900 (Staughton J.).

[31] This suggestion has been made judicially: *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103; [2001] 1 Lloyd's Rep. 284 at [178]. See too Matthews, "'Specificatio' in the Common Law" (1981) 10 Anglo-American Law Review 121 at 126.

[32] [1985] 1 W.L.R. 111.

[33] *Clough Mill Ltd v Martin* [1985] 1 W.L.R. 111 at 119.

However, the case itself was decided on the basis of the parties' express products clause, and so any support given by Goff L.J. to the *orthodox view* can only be obiter.

A second case of note is *Thorogood v Robinson*,[34] where Blackstone's text was cited to the court in argument and went unchallenged in the judgements. The manufacturer, M, was in possession of land that belonged to O, believing (incorrectly) that he was entitled to be in possession of it. M had dug chalk from the land, and burned it to create lime. After M had vacated the land, and O had retaken possession of it, the question was raised whether O's removal of M's servants from the land could amount to conversion of the lime. It was reasoned that this alone was not a wrongful act, but that, had M demanded the lime's return, O would then have committed a tort if he did not hand the lime over to M, or allow M to collect it, because M "certainly had a right to the goods".[35] Thus, the court must have accepted that M held the supreme general property interest in the lime, otherwise O could not have owed duties to M not to interfere with it.

However, *Thorogood* is not strong authority,[36] because an application of the *orthodox view* was not necessary to arrive at the conclusion that O did not commit a wrong against M. The same result could have been reached on the alternative basis that M had no legal interest in the lime, and so O owed them no duties in relation to it. Thus, *Thorogood*'s endorsement of the *orthodox view* can be dismissed as obiter.

2. *Simple Retention of Title*

Stronger authority in favour of the *orthodox view* comes from *Borden (UK) Ltd v Scottish Timber Products Ltd*,[37] a rare case in which the relevant contract included only a simple retention of title clause. O supplied resin to M, which was used to manufacture chipboard. Counsel for O argued that a "tracing remedy" should arise because the resin, in which O held the supreme general property interest, was used to manufacture the chipboard. The Court of Appeal rejected this argument. Templeman L.J. stated:

> "When the resin was incorporated in the chipboard, the resin ceased to exist, the plaintiffs' title to the resin became meaningless and their security vanished. There was no provision in the contract for the defendants to provide substituted or additional security. The chipboard belonged to the defendants".[38]

[34] (1845) 6 Q.B. 769; 115 E.R. 290.

[35] *Thorogood v Robinson* (1845) 6 Q.B. 769 at 772 (Lord Denman C.J.).

[36] The same point has been made by Paul Matthews: Matthews, "'Specificatio' in the Common Law" (1981) 10 Anglo-American Law Review 121 at 126. However, the reasons Matthews gives to doubt the case are not convincing: that the argument "was all on one side (that of [M] and not [O])", and that "the only authority cited on the point was Blackstone". But it is the court's decision that is the source of the law's rules, and so neither point is relevant. Moreover, Lord Denman C.J. does not expressly rely on Blackstone; although Blackstone's text was cited to the court in argument, the judgment itself makes no mention of it.

[37] [1981] Ch. 25; [1979] 3 All E.R. 961.

[38] *Borden (UK) Ltd v Scottish Timber Products Ltd* [1981] Ch. 25 at 44. See too at 46 (Buckley L.J.).

The most natural reading of the court's reasoning is that no new legal interest was generated in O when the chipboard was produced because there is a rule of law which holds that, after the event of manufacture, a new supreme general property interest is created in M, and the pre-existing general property interest of O is destroyed. Because the parties did not make any express agreement that contradicted this outcome, and because it was not necessary to imply a term that O ought to have some proprietary interest in the chipboard, the default rule governed. This is the understanding of the case that is offered in most of the textbooks, many of which explicitly rely on *Borden* as purportedly confirming the accuracy of the *orthodox view*.[39]

However, this interpretation has recently been challenged by the judgment of Moore-Bick J. in *Glencore International v Metro Trading International*.[40] Glencore and other claimants had left their oil for storage with M.T.I., who had stored that oil in a mixed mass, drawing on it to trade. This had been done without the authorisation of any of the claimants. Upon M.T.I.'s insolvency, the oil within the mass was less than the amount that the claimants had, in total, originally stored. Importantly however, the mass was made up of a mixture of different grades of oil; the resulting mass was not the same grade, and so had different commercial value, to the oil that had originally been stored with M.T.I.. For this reason, Moore-Bick J. considered the oil to have been "blended" rather than "commingled". The "essential distinction" between the two was said to be that "where blending has taken place the resultant product is *different in nature* from both its original constituents".[41] Thus, the case was taken to be one of manufacture. Where a simple mixture took place, which would produce no new thing, the result was said to be co-ownership held by the contributors to the mass.[42]

Despite this characterisation, Moore-Bick J. concluded that when M manufactures a new thing from O1 and O2's chattels, or when M manufactures a new thing from M and O's chattels combined, the results are respectively that O1 and O2, and that M and O, are co-owners.[43] Although the specific question that the court answered in *Glencore* was a narrow one – limited to blending brought about in bad faith where the new thing is easily separable – doubt was cast on the claim that the *orthodox view* is a part of English law as a general matter.[44]

[39] See, e.g., Bell, *Modern Law of Personal Property in England and Ireland* (1989) at p.69; Swadling, "Property: General Principles" in *English Private Law* (2013) at para.4.436; Sheehan, *The Principles of Personal Property Law* (2017) at p.27. To similar effect, see, e.g., Smith, *The Law of Tracing* (1997) at p.109; P. Birks, "Mixtures" in N. Palmer and E. McKendrick (eds), *Interests in Goods*, 2nd edn (London: L.L.P., 1998) at p.228, n.3; Worthington, *Equity* (2006) at pp.90-91; M. Raczynska, "The Proprietary Nature of Title-based Financing Interests" in B. McFarlane and S. Agnew (eds), *Modern Studies in Property Law: Volume 10* (Oxford: Hart Publishing, 2019) at p.128; L. Rostill, "Possession and Damages for Tortious Interferences with Chattels" (2021) 41 O.J.L.S. 459 at 470, n.78.

[40] *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103.

[41] *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103 at [156], emphasis added. Oddly, this part of the judgment is consistently overlooked in the literature. Many accounts of the law cite *Glencore* in the context of mixtures, but continue to endorse the *orthodox view* without any analysis of the case: see, e.g., Sheehan, *The Principles of Personal Property Law* (2017) at p.29; Raczynska, *The Law of Tracing in Commercial Transactions* (2018) at para.2.36; Bridge et al, *The Law of Personal Property* (2022) at para.17.028.

[42] *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103 at [159].

[43] *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103 at [181]-[182].

[44] *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103 at [178].

Moore-Bick J. emphasises two reasons to be sceptical that *Borden* can be taken to say anything about a default rule of law of general application. The first is that it was not argued by O that they had acquired a general property interest in the chipboard, either independently or as co-owners. Instead, the "only question before the court was whether the reservation of title clause operated to create a *charge* over the goods".[45] O had their claim to be co-owners of the board dismissed in the lower courts, and did not pursue the issue.[46] It follows that counsel's "uncritical acceptance" of the *orthodox view* led them to concede a vital point on which they may have been able to secure priority for O upon M's insolvency.[47]

The second difficulty with *Borden* is that the manufacturing process was authorised by the sellers of the resin, and so there was no actionable wrong committed against them when the chipboard was produced. For this reason, argued Moore-Bick J., it "might well be said" that O had "by implication agreed not only that the resin should be used, but that title in the resulting product should vest solely" in M.[48] Indeed, in those cases where an express products clause is included in the parties' contract, which prima facie purports to vest the supreme general property interest in the product in O, the clause is usually interpreted as being objectively intended to mean that the supreme general property interest is to vest in M, but that M would create a charge in O's favour. This is most commonly explained on the basis that, were O to hold the supreme general property interest, a windfall would be conferred on them, because the value of the product will exceed the value of the materials from which it was produced.[49] This reasoning has led to some surprising results, such as in *Modelboard Ltd v Outer Box Ltd*,[50] in which a clause that labelled the product "the sole and absolute property" of O was insufficient to vest in them the supreme general property interest. Against this background, it is plausible to suppose that *Borden* could be rationalised on the basis that a term could be implied in fact into the parties' contract, displacing some default rule of law that had the effect, say, of vesting the supreme general property interest in O and M as co-owners.

3. *Other Jurisdictions*

[45] *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103 at [163], emphasis added.

[46] "[T]here was a further plea included in [O's] statement of claim to be entitled to the ownership, in part, of the chipboard. That also was the subject of one of the questions of law raised as a preliminary issue; that was decided by the judge against [O] and no cross-appeal was raised with regard to that, so we may take it that it is not in dispute that the title to the manufactured chipboard is the title of [M]": *Borden (UK) Ltd v Scottish Timber Products Ltd* [1981] Ch. 25 at 33 (Bridge L.J.).

[47] This point has also been made by Simon Rainey Q.C.: S. Rainey, "Whose Goods Are They Anyway?" (2016) 13 International Corporate Rescue 324 at 326.

[48] *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103 at [166].

[49] e.g. *Clough Mill Ltd v Martin* [1985] 1 W.L.R. 111 at 120; *Re Peachdart Ltd* [1984] Ch. 131 at 142; [1983] 3 All E.R. 204 at 210; *Ian Chilsholm Textiles Ltd v Griffiths* [1994] B.C.C. 96 at 101-02; [1994] 2 B.C.L.C 291 at 298-99. It has also been said that allowing M dominion over both materials and product is inconsistent with an intention that O should hold the supreme general property interest in the product: e.g. *Re Peachdart Ltd* [1984] Ch. 131 at 142.

[50] [1992] B.C.C. 945; [1993] B.C.L.C. 623.

The rules of Roman law and of other common law jurisdictions do carry some weight,[51] and so a brief statement of those rules is useful here. The Justinianic rule is well-known.[52] If the "new thing" that had been created could be returned to its original components, then the owner of the materials from which it was made would own it; if the change was irreversible, then the new thing would be owned by its maker. A rule similar in its effect was applied in the American case of *Lampton v Preston*,[53] in which Lampton had fashioned bricks from Preston's soil. It was held that Lampton's executors could only commit a tort in refusing to return those bricks which had not yet been burned, because they could easily be returned to soil.

4. Conclusion

The upshot of the foregoing discussion is that there is no clear rule governing the problem of manufacture. Despite what the textbooks say, there is no evidence that conclusively proves that the *orthodox view* is descriptively accurate, at least where M acts in good faith. Nor is there any evidence that demonstrates that the view is false.

III. Existing Justifications of Orthodoxy

If the arguments made above are correct, it follows that it is vitally important that commentators move the debate on, and ask what the law ought to be. This section begins that process. It does so by analysing prominent justifications of the *orthodox view*, which purport to show that the law has good reason to vest the supreme general property interest in a new thing in its manufacturer. It is argued that each one of those justifications suffers from serious flaws.

1. Reward

It is sometimes said that the *orthodox view* may be justified on the basis that it rewards the work, effort and skill of M.[54] Despite its intuitive attractions, this argument is unconvincing because it cannot explain why M's reward should be the supreme general property interest in the new thing, rather than some other legal interest such as a right to a monetary award. The

[51] Courts often defend their reasoning in similar areas on the basis that it coheres with their understanding of Roman law. See, e.g., *Spence v Union Marine Insurance Co Ltd* (1868) L.R. 3 C.P. 427 at 438-39 (Bovill C.J.); *Tucker v Farm and General Investment Trust Ltd* [1966] 2 Q.B. 421 at 427; [1966] 2 All E.R. 508 at 510 (Lord Denning M.R.).

[52] J.2.1.25. For discussion of the Roman materials, see T.G. Leesen, *Gaius Meets Cicero: Law and Rhetoric in the School Controversies* (Leiden: Brill, 2010) at pp.70-90.

[53] *Lampton's Executors v Preston's Executors* 24 Ky. 255 (1829). See too e.g. *Wetherbee v Green* 22 Mich. 311 (1871). For discussion of more American cases, see Arnold, "The Law of Accession of Personal Property" (1922) 22 Columbia Law Review 103 at 104-09. The *orthodox view* has been described by leading commentators on American property law as "venerable": T.W. Merrill and H.E. Smith, "The Morality of Property Law" (2007) 48 William & Mary Law Review 1849 at 1878.

[54] See, e.g., D. Varadarajan, "Improvement Doctrines" (2014) 21 George Mason Law Review 657 at 706; S. Douglas and I. Goold, "Property in Human Biomaterials: A New Methodology" [2016] C.L.J. 478 at 500; Raczynska, *The Law of Tracing in Commercial Transactions* (2018) at para.4.59.

latter sort of right would, in fact, do a better job of rewarding the work and skill of M, because the value of that award could be tailored to take account of, for example, the actual amount of time and effort expended by M and the value of the new thing that M has produced. The *orthodox view*, in contrast, is likely either to under- or to over-reward.

2. *Labour*

As some writers have noted,[55] there is a clear intuitive link between the *orthodox view* and the "labour theory" of property acquisition offered by John Locke. Although Locke did not explicitly concern himself with the problem of manufacture – rather, his examples concerned gathering unappropriated apples, or ploughing unclaimed fields – it is not difficult to formulate an argument in defence of the *orthodox view* which closely mirrors Locke's account of original acquisition. He argued that:

> "[E]very man has a property in his own person: this no body has any right to but himself. The labour of this body, and the work of his hands, we may say, are properly his. Whatsoever then he removes out of the state that nature hath provided, and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property".[56]

We might adapt that argument into a defence of the *orthodox view* by claiming that the new thing contains M's labour within it, and that M has therefore joined something of their own to O's initial chattel. Because that labour belonged to M, the new thing should now belong to M.

Read literally,[57] this argument suffers from at least two serious flaws. First, it is not capable of justifying the *orthodox view*, which claims that M – and only M – holds the supreme general property interest in the new thing. On the Lockean view, that M and O have both contributed something belonging to them to the new thing suggests that both are as entitled as the other to the ultimate right to that thing. There is no reason why M's contribution should take precedence over O's, such that M alone should acquire the supreme general property interest. Second, the argument suffers from a "category mistake".[58] It is not true that M has mixed their labour with O's chattel in a meaningful sense, in the same way that one might mix eggs with flour. The

[55] See, e.g., H.E. Smith, "Intellectual Property as Property: Delineating Entitlements in Information" (2007) 116 Yale Law Journal 1742 at 1767; P. Lee, "The Accession Insight and Patent Infringement Remedies" (2011) 110 Michigan Law Review 175 at 199-200; T.W. Merrill and H.E. Smith, *Property: Principles and Policies*, 2nd edn (New York: Foundation Press, 2012) at p.170.

[56] J. Locke, *Two Treatises of Government* (1669) Book II, Ch.V, at §27.

[57] It may be that we can construct an interpretation of Locke which begins with the supposition that the notion of "mixing" was not intended literally: A.J. Simmons, *The Lockean Theory of Rights* (Princeton, New Jersey: Princeton University Press, 1992) Ch.5. Read in this way, a Lockean defence of the *orthodox view* would seem to me to have to collapse into something very similar to the argument developed in Section IV below if it is to be convincing. Eric Claeys has purported to offer an argument of this sort, although he claims no more than that the *orthodox view* is permissible if it in fact generates "benefits useful to human prosperity": E.R. Claeys, "Productive Use in Acquisition, Accession, and Labour Theory" in J.E. Penner and H.E. Smith (eds), *Philosophical Foundations of Property Law* (Oxford: Oxford University Press, 2013) at p.30. The argument in Section IV could be read as an attempt to set out those benefits.

[58] J. Waldron, *The Right to Private Property* (Oxford: Clarendon Press, 1988) at p.185.

labour is done to the chattel; it is not somewhere within it. Similarly, if a person were to pick up and move a chattel belonging to another, then they have laboured on it, but we would not say that their labour has somehow become a part of that chattel, or that they now have some claim to the supreme general property interest in it.

3. *Windfalls*

Alternatively, it might be argued that supreme general property interest in the new thing should vest in M in order to avoid a windfall being conferred on O, who may – if they held the supreme general property interest in the new thing – be free to sell the thing to another and benefit from the additional value added to it by M at no cost to themselves. As we have seen, this worry has influenced English courts when they have been called on to interpret products clauses. That the product will be worth considerably more than the purchaser will have paid to acquire the raw materials from the seller has been taken into account in establishing a presumption that such clauses are intended to create a charge over the product in the seller's favour, rather than to confer the supreme general property interest on them.[59] The concern to prevent a windfall being conferred on O has also been relied on in judicial explanations of the *orthodox view* in the United States.[60]

The argument, however, is unconvincing as a justification of the *orthodox view*, for at least three reasons. First, it is circular. In order to know whether there would be conferred on O an unjustified windfall, we need some argument that establishes why it is that this would be an unjustified, rather than a legitimate, enrichment. Second, it does not seem correct to think that the new thing created by a manufacture must always have a higher financial value than the chattel from which it was made. Third, it is unconvincing to rely solely on abstract value to justify the creation of a supreme general property interest in M. A personal right to a monetary award would be sufficient to strip O of whatever windfall would arise in virtue of O's having the supreme general property interest in the new thing.

4. *Creation and First Possession*

There is some attempt to explain a rule similar to the *orthodox view* in the Roman texts. The Proculian jurists considered that ownership ought to vest in the manufacturer "because what has just been made previously belonged to no one".[61] There are two ways in which we might understand this argument as a justification of the *orthodox view*. The first relies on the intuitive claim that the supreme general property interest in the new thing should be held by its creator simply because they created it. However, it is difficult to understand precisely how this thought could form an argument in defence of the *orthodox view*, rather than being simply a restatement of that view. Plausibly, it could be equated with the claim that no harm would be done by awarding the interest to M, because the new thing, being new, cannot already be subject to

[59] See the cases cited above, at n.49.

[60] *Wetherbee v Green* 22 Mich. 311 (1871).

[61] D.41.1.7.7.

proprietary rights. That argument, however, is unsatisfactory because it does not give us any positive reason to vest the interest in M.

A second interpretation of the Proculian argument is that the *orthodox view* is simply an application of rules governing possession. On this view, the supreme general property interest in a new thing vests in the first person to possess it. In most cases, this will be M because, when the thing is made, they will probably have physical control of it and the requisite intention to possess. This analysis has been endorsed as a matter of English law by Ben McFarlane, who claims that the *orthodox view* "seems to be a simple application of the core principle" that general property interests in chattels can be acquired only through voluntary transfer or by taking possession.[62] On this view, the orthodox "rule" is no rule at all. Because it is "very hard to think of a situation in which [M] can manufacture a thing without that thing being in the physical control of [M] or someone acting on behalf of [M]", rules of law governing possession create the impression that the *orthodox view* is correct.[63]

One flaw with this argument is that it is possible that a new thing could be manufactured by a person who is not in possession of that thing upon its creation. An example may be where M uses another's automated machine to create a new thing from O's chattels.[64] Nonetheless, it does seem plausible that the law might have some good reasons to adopt a rule that vests the supreme general property interest in a newly manufactured thing in its first possessor. If so, those reasons can be adapted into a defence of the *orthodox view*, on the basis that, at least in the vast majority of cases, the *orthodox view* will bring about the same benefits as a rule vesting that interest in the thing's first possessor, because the manufacturer and the first possessor are likely to be the same. McFarlane does offer an argument of this sort. He claims that it is preferable for English law to hold that the supreme general property interest vests in the first possessor because such a rule would protect third parties, who will reasonably assume that the person in possession of the thing is its owner.[65] Were O to acquire the supreme general property interest, a purchaser from M may be held strictly liable to O in tort were they to interfere with the thing, and, McFarlane argues, it is unreasonable to expect that purchaser to discover that O, rather than M, has the best right to the thing.

Although this argument suggests that the law may have good reason to adopt the *orthodox view*, these reasons are of limited force. They depend for their existence upon a prior rule of law, that liability is strict. Although this undoubtedly represents English law, there is a sizeable

[62] B. McFarlane, *The Structure of Property Law* (Oxford: Hart Publishing, 2008) at p.161 and at pp.331-32. For what appears to be a similar view, see Crawford, *An Expressive Theory of Possession* (2020) at pp.17-18 and at p.21. Crawford argues that the effect of a manufacture "is not to create new rights… but to destroy extant rights". By this, he appears to mean that a newly manufactured thing need not be immediately subject to any general property interests, and so the supreme general property interest in that thing can be acquired by the first person to take possession of it.

[63] McFarlane, *The Structure of Property Law* (2008) at p.161.

[64] It might be objected that we can deem the manufacturer to be in possession of the thing when it is created in cases of this sort. However, if M has no physical control over the thing, then it is a fiction to say that M possesses it. What is needed is a justification of that fiction.

[65] McFarlane, *The Structure of Property Law* (2008) at p.331.

literature that asks whether strict liability in this context is justifiable.[66] We might, therefore, usefully ask whether the *orthodox view* could be defended even if the law were reformed to require fault. Indeed, McFarlane's argument seems to be better understood to be one in favour of that reformation, rather than one in favour of any particular solution to the problem of manufacture. Suppose that T innocently misappropriates a chattel belonging to C, and gives that chattel to D. It is odd to think that D should be given protection of the sort advocated by McFarlane only where T has subjected the chattel in question to a manufacturing process, but not whenever D could not reasonably be expected to discover C's interest.

5. *Economic Efficiency*

As Thomas Merrill explains, economic arguments in relation to rules governing the acquisition of general property interests focus primarily on three elements: (1) the costs incurred in the application of the rule; (2) whether the rule works to ensure that that the property in question is ultimately transferred to the person who can extract the most financial value from it; and (3) the incentives to invest in the property that the rule creates.[67]

In these terms, the *orthodox view* has a number of strengths. First, it assigns the supreme general property interest in a new thing to a single party, and so avoids co-ownership. This is particularly a strength in the case of *Two Property Manufacture*,[68] where the most plausible alternative rule would appear to be to render O and M tenants in common of the newly manufactured thing. This would lead to an increase in costs: forcing the parties to cooperate to manage or divide the new thing is likely to lead to conflict and, therefore, litigation.[69] Second, it has been argued that allocative efficiency favours M over O, because M is more likely to place a subjectively high value on the new thing. As Richard Epstein explains, "it is most improbable that [O] would be the one person to buy the [new thing] if [M] had made it out of his own materials".[70] On the other hand, we at least know that M places some value on the thing, otherwise they may well not have bothered to create it. The *orthodox view*, therefore, works more efficiently in seeing that the supreme general property interest in the thing works its way to the person who values it most, because it avoids some of the chain of transfers that would otherwise be necessary if that interest were initially held by O.

There are, however, flaws with this account. First, at least without any empirical analysis, the prescriptions of economic efficiency are largely indeterminate. For example, a rule which

[66] See, e.g., A. Tettenborn, "Conversion, Tort and Restitution" in N. Palmer and E. McKendrick (eds), *Interests in Goods*, 2nd edn (London: L.L.P., 1998); N.J. McBride, "*Vindicatio* – The Missing Remedy?" (2016) 28 Singapore Academy of Law Journal 1052 at 1065-70.

[67] T.W. Merrill, "Accession and Original Ownership" (2009) 1 Journal of Legal Analysis 459.

[68] It would also be a strength in cases where M manufactures a new thing and, in doing so, combines chattels belonging to both O1 and O2. If we were to reject the *orthodox view*, the solution to such a case would presumably be that O1 and O2 would become co-owners of the new thing: see *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103 at [181].

[69] R.A. Epstein, *Simple Rules for a Complex World* (Cambridge, M.A.: Harvard University Press, 1995) at p.117. See too Chang, "An Economic and Comparative Analysis of *Specificatio*" (2015) 39 European Journal of Law and Economics 225 at 230, n.29.

[70] Epstein, *Simple Rules for a Complex World* (1995) at p.118.

vests the supreme general property interest in O in cases of *Single Property Manufacture* also has a number of strengths. Such a rule would avoid co-ownership, and would also prevent courts from needing to determine whether the event of manufacture has actually been made out and a new thing created. Instead, everyone could safely assume that O holds the supreme general property interest. Second, it is not clear how much weight should be attached to prescriptions generated by arguments from economic efficiency. It has, for example, recently been argued that a legal rule which solely aims at promoting economic efficiency serves no "real human need or interest".[71] There is not the space required in this article to come to a firm conclusion on this point. However, it is worth noting that both limbs of the economic defence of the *orthodox view* are concerned with eliminating costs. Although it seems true that, if all other things are equal, we ought to favour one possible rule over another because it is less costly, it seems equally clear that other values should be of importance. It is only once those values have been considered that we can adequately evaluate arguments from economic efficiency.

IV. A Different Justification of Orthodoxy

In this section, a different justification of the *orthodox view* is put forward, which argues that English law does have genuinely good reason to vest the supreme general property interest in a newly manufactured thing in its creator. Two objections to that argument are then considered.

1. The Justification

It is important to remember the legal interest that calls for justification: the supreme general property interest in the newly created thing. That interest grounds general duties of non-interference, owed to the holder of the interest, imposed upon the world. We can, then, identify four important features of the *orthodox view* which call for justification: (1) that *all people*, other than M, should owe duties; (2) that those duties relate to a *particular thing*; (3) that those duties are owed *to M*; (4) that those duties demand that people *do not interfere* with the new thing. A convincing justification of the *orthodox view* should rely on reasons that are of the same form, that are *erga omnes* in character and that are capable of justifying duties owed to M that all others not interfere with the thing in question. The nature of the legal interest which calls for justification limits the form that arguments in defence of that interest should take.

The failure to appreciate this point is what undermined many of the arguments considered in Section III. To help to see its force more clearly, consider the tempting argument that O ought to hold the supreme general property interest in the new thing because they deserve priority in the event of M's insolvency. One might, for example, think that the *orthodox view* is intuitively unattractive because it could lead to O being deprived of priority that they would otherwise enjoy. Alternatively, one might think that priority is deserved on the basis that O

[71] N.J. McBride, *The Humanity of Private Law: Part I* (Oxford: Hart Publishing, 2019) at pp.10-11. For a recent discussion of this issue, see J. Gardner, "Tort Law and Its Theory" in J. Tasioulas (ed), *The Cambridge Companion to The Philosophy of Law* (Cambridge: Cambridge University Press, 2020).

may not have "taken the risk" of M going insolvent.[72] Arguments of this form, however, cannot convincingly justify any rule which tells us who it is that holds the supreme general property interest in a newly manufactured thing. This is because priority could be secured for O in other ways, such as through the award of an equitable lien over the thing, or through the recognition of some right which need not require O to identify any particular asset to which their claim relates. We should distinguish arguments that purport to justify priority from arguments that purport to justify the recognition of particular proprietary interests in particular things.[73] It is only the latter sort of argument that is the concern of this article.

One possible source for a justification of the *orthodox view* that is of the proper form comes from noting that rights to exclude others from tangible items of property – and the correlative duties which demand that others exclude themselves from those items – carve out a space for the holder of those rights, which permits the holder to set and pursue valuable projects free from the interference of others.[74] To see the intuitive force of this claim in the context of the acquisition of general property interests, we might draw an analogy with the event of the taking possession of a chattel, an event which causes such a legal interest to vest in the possessor of that chattel.[75] Consider the following example set out by James Penner:

> "Imagine coming out of the woods and finding some fish neatly piled on the riverbank, or a basket of apples… [Y]ou would understand that to grab the fish or the apples would be to interfere with some other human agent's purposive activity and that, understanding the interest people have in the success of their purposive activity, you would understand it to be wrong to take the fish or the apples, i.e. you would understand yourself to have a duty not to interfere with them… [R]espect for the interest that others have in the fulfilment of their purposes and the fish's and apples' contribution to that in this case could be cognitively assimilated, that is, understood by you, as a reason not to interfere which would prevail over your current, personal, goals, such that it would be both rational and reasonable to regard yourself to be under a duty not to interfere".[76]

A similar argument can be raised in relation to the *orthodox view*. As Penner's example helps to illustrate, the fact that a person has begun to pursue a valuable project gives us reason not to

[72] According to some commentators, this is one vital factor to take into account when attempting to justify the creation of proprietary rights: e.g. Burrows, *The Law of Restitution* (2011) at pp.176-79.

[73] R. Stevens, "Private Law and the Form of Reasons" in A. Robertson and J. Goudkamp (eds), *Form and Substance in the Law of Obligations* (Oxford: Hart Publishing, 2019) at p.125.

[74] There is a wealth of literature, from various philosophical perspectives, which attempt to justify private property rights on the basis that they secure the pursuit of valuable projects. It is not possible to cite even a fair sample here. For some leading recent contributions, see A.J. MacLeod, *Property and Practical Reason* (Cambridge: Cambridge University Press, 2015); E.J. Weinrib, "Ownership, Use, and Exclusivity: The Kantian Approach" (2018) 31 Ratio Juris 123; J.E. Penner, *Property Rights: A Re-Examination* (Oxford: Oxford University Press, 2020), Ch.8; H. Dagan, *A Liberal Theory of Property* (Cambridge: Cambridge University Press, 2021).

[75] *Costello v Chief Constable of Derbyshire* [2001] EWCA Civ 381; [2001] 3 All E.R. 150. For a detailed analysis of the English law governing the event of taking possession, see Rostill, *Possession, Relative Title, and Ownership in English Law* (2021).

[76] J.E. Penner, "On the Very Idea of Transmissible Rights" in J.E. Penner and H.E. Smith (eds), *Philosophical Foundations of Property Law* (Oxford: Oxford University Press, 2013) at p.265.

interfere with their pursuit of it.[77] Such a reason can, in turn, give us reason not to interfere with a thing which that person is using; to interfere with that thing risks interfering with the project itself. These reasons are capable of grounding duties owed by the world, because these reasons are themselves of an *erga omnes* character; all persons have reason not to interfere with those valuable projects that another is pursuing. Because those reasons arise in virtue of the project-pursuer's (non-legal) interest – their interest "in the success of their purposive activity" – those reasons are capable of generating duties owed to the project-pursuer in particular. Thus, these reasons map onto the four features of general property interests identified earlier.

These insights help in our analysis of manufacture in both positive and negative fashion. First, positively, all people have reason not to interfere with a thing that has been deliberately manufactured by M. In manufacturing the thing, M has demonstrated through their activity that they have plans in respect of it, and M's (non-legal) interest in the success of those plans provides us with genuinely good reasons not to interfere with the thing. Those reasons, then, could positively justify duties of non-interference owed to M by the world. Second, negatively, there are likely to be no reasons of this sort capable of grounding an *erga omnes* right held by O.[78] At least in the great majority of cases,[79] whatever projects that O might have had in relation to the initial chattel cannot be pursued with it after a manufacture has taken place, because it has been destroyed and replaced with a new thing. Whatever reasons we all now have not to interfere with that new thing based on respect for others' interest in the success of their purposive activity, those reasons are not capable of grounding duties *owed to O* that we not interfere with that thing. It follows that, from this perspective at least, the law has no reason to recognise in O a general property interest in the new thing.

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[77] Although these reasons are plausibly weaker when the person in question is a legal person but not a natural one, it seems intuitively true to think that we do have good reason not to interfere with valuable projects being pursued by all legal persons.

[78] For an analysis of the *orthodox view* which emphasises this negative point, see C.M. Newman, 'Transformation in Property and Copyright' (2011) 56 Villanova L22aw Review 251 at 268-288. However, Newman's analysis, as a justification of the *orthodox view*, is importantly incomplete in that his focus is only on why the law might deny that O holds the supreme general property interest in a newly created thing. Taken alone, the negative limb of my account demonstrates no reason at all to vest that interest in M, rather than in another person or in no one at all.

[79] The rider is intended to capture the unlikely scenario where M produces precisely the same product that O intended to use their initial chattel to produce. In such a case, it would seem that the justificatory argument presented here does not offer a solution. A full analysis of this problem requires more space than is available. However, three alternative arguments can usefully be suggested. First, it seems true to think that this sort of case will occur far less often than those cases where M creates something that O would not have created. Plausibly, we therefore have good reason to adopt a blanket rule which brings about the more valuable result in most cases, and which does not require courts to undertake a difficult inquiry into the intentions of O. Second, it still follows from the argument made in this section that the law does have good reason to adopt the *orthodox view* in at least some cases. We might then expect that courts should apply the *orthodox view* in those particular cases, even if they should not in each and every case. Third, we may be able to address this problem through our definition of a "new thing". It may be that if M produces some product that is precisely the same as O would have otherwise produced, we can say that the event of manufacture has not in fact occurred, because no new thing has been created. For fuller consideration of these arguments, see Waghorn, *The Goals of Property Law*, Ph.D. thesis (2021) Ch.6 and Newman, 'Transformation in Property and Copyright' (2011) 56 Villanova Law Review 251 at 276-279.

This argument is intended to demonstrate that more good would be brought about by the adoption in English law of the *orthodox view* than would be brought about by the alternative rule favoured in *Glencore*. The orthodox rule would enhance and protect M's interest in the success of their purposive activity, while – put simply – there would seem to be no point in vesting the supreme general property interest in the new thing in O. As we have seen, the fact that a manufacture has occurred means that the projects that O was pursuing with the initial chattel cannot be fulfilled. Nor does O need to hold the supreme general property interest in the new thing in order to take the benefit of protection in the event of M's insolvency.

2. *The Unfairness Objection*

The first objection that might be made to this justification of the *orthodox view* is that it is unfair. There are two plausible reasons to think this. The first is that the rule seems to place an unfair detriment on O, because it causes O's supreme general property interest to be lost without O's consent or fault. This may be the view of Lionel Smith, who claims that it is "extraordinary" that the law might strip O of their interest after a unilateral act like that of manufacture.[80] Second, it might be thought that the *orthodox view* unfairly benefits M, because it may allow M to discharge themselves of a duty (the duty owed to O not to interfere with the initial chattel) by performing an act which is a breach of that duty. Ernest Weinrib has argued – albeit in a different context – that such a result would be "absurd".[81]

We can cast doubt on the intuitive strength of these arguments by noting that this unfairness is reflected in the law by the imposition upon M of a primary duty owed to O that M not interfere with the initial chattel. Once breached, that duty may give rise to liability in the chattel torts, and, with it, a liability to pay a sum of money.[82] Similarly, if D were to eat an apple belonging to O, it is not extraordinary that D would no longer owe duties to O in relation to that apple. Although there is a sense in which this is unfair, the primary duty and subsequent liability imposed on D seem to be sufficient to address these concerns.

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[80] Smith, *The Law of Tracing* (1997) at p.113. This concern also underlies the analysis of Paul Matthews. He has claimed that it would be a "staggering slap in the face of justice" if a person could, in effect, enforce a "compulsory purchase order" by tortiously dealing with a chattel belonging to another: P. Matthews, "Proprietary Claims at Common Law for Mixed and Improved Goods" (1981) 34 C.L.P. 159 at 177. See too P. Matthews, "The Moral and Legal Limits of Common Law Tracing" in P. Birks (ed), *Laundering and Tracing* (Oxford: Clarendon Press, 1995) at pp.45-46. Influenced by Matthews, Robert Stevens has also recently claimed that English law ought not to adopt the *orthodox view*: R. Stevens, *The Laws of Restitution* (Oxford: Oxford University Press, 2023) at pp.203-05. Although he seems implicitly to endorse the unfairness objection, Stevens explicitly raises only two reasons to reject the *orthodox view*. First, he claims that it is difficult to draw a line between a manufacture and a mere improvement. However, that a legal rule may produce difficult cases in its application is a common and ordinary feature of the law, and so this argument alone is rather weak. Second, Stevens argues that common law courts have not always adopted the *orthodox view*. But one could simply respond to this argument by pointing out that common law courts have not always rejected the *orthodox view* either: II.3 above. If Stevens' claim is true, it is irrelevant given that our question is what the law ought to be.

[81] E.J. Weinrib, *Corrective Justice* (Oxford: Oxford University Press, 2012) at p.90.

[82] Weinrib's argument is in fact offered in an attempt to justify a defendant who has destroyed another's chattel coming under a duty to compensate the owner of that chattel.

As explained in Section I, this article is concerned with the descriptive accuracy and the desirability of the *orthodox view*. It is, therefore, beyond the scope of the article to analyse the remedies which are, or which should be, available to O. Nonetheless, as a matter of the positive law, it seems clear that O would be able to bring a claim against M in tort,[83] so long as M acted outside the scope of any authority given to them by O to deal with the initial chattel. As has been explained by the House of Lords,[84] O would be able to bring a claim for a loss-based remedy, which will be calculated so that that O is properly compensated. The aim of that remedy is to put O into the "same position" as they would have been if the manufacture had not occurred.[85] As a starting point, therefore, O would either be awarded the market selling price of the initial chattel at the time of the manufacture, or the cost of acquiring a replacement. However, a "higher or lower amount" may be awarded instead if it would be a more accurate measure of O's loss.[86] The cost of acquiring a replacement will only be awarded where the court is satisfied that it would be "reasonable" in the circumstances, for example where O could prove that they genuinely intend to acquire a replacement.[87] As an alternative to those loss-based remedies, it may be that O can elect to bring a claim for a gain-based remedy, calculated to strip M of some, or all, of the profits made from the wrong.[88] If one thinks that any of the solutions sketched here are undesirable, it is important to remember that the flaw may lie in English law's remedial rules, rather than in my endorsement of the *orthodox view*.

Whatever strength remains in the unfairness objection is probably explained by the fact that the subject of O's general property interest does, in a sense, survive a manufacture. Some atoms that made up the initial chattel must be located in the new thing, and it would plausibly be unfair to divest O of their rights in relation to those particular atoms. This seems to flow from the inherent logic of private property: those atoms belong to O until O decides to part with them. However, there is a risk here that the law is taken to absurd conclusions. We could, for example, make precisely the same point in relation to the atoms that made up the apple eaten by D as they pass through, and out of, D's digestive system. Taken seriously, the objection also suggests that, following *Two Property Manufacture*, O and M should hold rights in separate

[83] Destroying another's chattel is a converting act, such that if it is done deliberately a claim in conversion or reversionary injury will be available: see, e.g., M.A. Jones et al (eds), *Clerk & Lindsell on Torts*, 23rd edn (London: Sweet & Maxwell, 2020) at para.16.30; J. Goudkamp and D. Nolan, *Winfield & Jolowicz on Tort*, 20th edn (London: Sweet & Maxwell, 2020) at para.18.021. If the *orthodox view* is accepted, then O's chattel will, at least as a matter of law, have been destroyed.

[84] *Kuwait Airways Corp v Iraqi Airways Co (Nos 4 & 5)* [2002] UKHL 19; [2002] 2 A.C. 883 at [67] (Lord Nicholls).

[85] *Livingstone v Rawyards Coal Co* (1880) 5 App. Cas. 25 at 39; (1880) 7 R. 1 at 7 (Lord Blackburn).

[86] *Kuwait Airways Corp v Iraqi Airways Co* [2002] 2 A.C. 883 at [67] (Lord Nicholls).

[87] *Southampton Container Terminals Ltd v Hansa Schiffahrts GmbH (The Maersk Colombo)* [2001] EWCA Civ 717; [2001] 2 Lloyd's Rep. 275. For applications of these principles, see: *Ali Reza-Delta Transport Co Ltd v United Arab Shipping Co* [2003] EWCA Civ 684; [2003] 2 All E.R. (Comm.) 269; *Aerospace Publishing Ltd v Thames Water Utilities* [2007] EWCA Civ 3; [2007] Bus. L.R. 726.

[88] Space means that it is not possible to offer a detailed analysis of the complicated case law in this area. For such an analysis, see, e.g., A. Burrows, *Remedies for Torts, Breach of Contract, and Equitable Wrongs*, 4th edn (Oxford: Oxford University Press, 2019) at pp.338-52.

atoms within the thing which M has created.[89] It does not lead to the conclusion that O and M should co-own that thing as tenants in common.[90] There comes a point where the supposed logic of private property – logic which is, after all, whatever we choose to make it – should give way to the values which that logic might serve. The *orthodox view* promotes those values more effectively than does any obvious alternative. It also, we might note, conveniently allows courts to apply a single standard to resolve disputes, regardless of who it was that contributed the initial chattel or chattels.

3. *The Inconsistency Objection*

The second objection that might be made to our justification of the *orthodox view* is that it creates inconsistency. There are two potential sources of inconsistency which we can identify. The first is between cases where M acts in good and in bad faith. As discussed above, it was thought in *Glencore* that the *orthodox view* did not apply in a case of the latter sort.[91] If accepted, the justification of the *orthodox view* offered above may therefore require courts to draw a distinction between these two classes of case. This risks inconsistency; if courts and citizens are likely to make errors in applying the law to sets of facts, normatively similar facts might not lead to similar substantive outcomes.

Three points can be made in response. First, there exist other well-established rules of law, such as the bona fide purchaser defence, which already call on courts and citizens to draw the same distinction. It is not unreasonable, therefore, to expect that they can do so in this context, if that is what the law requires them to do. Second, *Glencore* is weak authority; it is a single judgment of the High Court. Indeed, the Court of Appeal has consistently rejected the argument that those who take possession of chattels in bad faith should not acquire general property interests in those chattels.[92] That background makes *Glencore* look like something of an outlier. Third, the justification above suggests that the *orthodox view* perhaps ought to govern even cases of bad faith manufacture. This is so for the simple reason that M's state of mind cannot alter the effect of their actions; O's initial chattel has still been destroyed, and so, even in cases where M acts in bad faith, there may not exist reasons not to interfere with the new thing that

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[89] For an attempt to render this outcome plausible, see Stevens, *The Laws of Restitution* (2023) at pp.204-05. On Stevens' account, O and M should each retain the supreme general property interests in those atoms which they contributed to the new thing. The question then becomes whether the law should allow O to assert their rights to those atoms against M, when O would not be capable of possessing the new thing without also committing a legal wrong against M by interfering with M's atoms. Stevens argues that O should be able to do so only where M has acted wrongfully. However, this account leads us into some difficulty where M manufactures a new thing from the chattels of two innocent parties, O1 and O2. The logic of this analysis dictates that neither O1 nor O2 would be able to possess the thing without also possessing the atoms of the other. Since both contributors are innocent, however, wrongfulness cannot be relied upon to resolve a dispute between them.

[90] This was the preferred solution of Moore-Bick J. in *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103.

[91] See II.3 above.

[92] See *Webb v Chief Constable of Merseyside Police* [2000] Q.B. 427; [2000] 1 All E.R. 209 and *Costello v Chief Constable of Derbyshire* [2001] 3 All E.R. 150. Similarly, a mixture of chattels brought about deliberately by a contributor to that mixture leads to the same result as those mixtures brought about by accident or by third parties: *Indian Oil Corp Ltd v Greenstone Shipping Co S.A. (Panama)* [1987] 3 All E.R. 893.

can ground duties owed by the whole world to O in particular. If the primary concern raised in response is the need to punish or to deter M,[93] then it is not obvious why that could not be addressed through criminal sanction or punitive damages.

A second potential source of inconsistency is between cases of manufacture and cases of accession or mixture. In a case of mixture – say, where A's bales of hay are intermingled with B's in such a way that they become indistinguishable – it seems that English law holds that the contributors become tenants in common of the mixed mass.[94] It might be argued that the same result should be reached following a manufacture, because the two events are similar.[95] This argument appears particularly strong in the case of *Two Property Manufacture*, where there may be marginal cases where it is not immediately obvious whether a manufacture or a mixture has occurred.

There are two different objections here that ought to be distinguished. First, it might be argued that there is no difference of normative significance between these classes of case, because the reasons that bear on them are the same. Sarah Worthington, for example, has criticised the *orthodox view* on the basis that it contradicts "the results *and rationale* underlying the common law rules" which govern accession and mixture.[96] However, the better view is that there is an important normative difference between manufacture and mixture, because the former involves the creation of a new thing. On the view presented in this article, this is vital: where A's chattels are simply mixed with B's, the projects that each were previously pursuing can still be fulfilled by restoring to them the quantity that went into the mixed mass.[97]

Second, it might be argued that it is too difficult to distinguish between mixture and manufacture, and so all cases should lead to the same outcome so that this distinction need not be drawn and errors will not be made in attempts to apply the law.[98] This objection is also unconvincing, for at least two reasons. First, the argument depends for its validity on the assumption that the differences between the legal rules that govern these two classes of case ought to be eliminated by giving effect to the rule governing mixtures. The argument would, however, lose all force so long as we treated both events in the same way. Second, the strength of the argument depends in part upon the confused state of the law in determining when a "new

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[93] Deterrence was the primary justification offered by Ruggles J. in *Silsbury & Calkins v McCoon & Sherman* 3 N.Y. 379 (1850), where the Court of Appeals of New York refused to apply the *orthodox view* to a case of bad faith manufacture.

[94] For consideration of the problem of mixtures, see, e.g., Smith, *The Law of Tracing* (1997), Ch.2; Birks, "Mixtures" in Palmer and McKendrick (eds), *Interests in Goods* (1998); R.W.J. Hickey, "Dazed and Confused: Accidental Mixtures of Goods and the Theory of Acquisition of Title" (2003) 66 M.L.R. 368; A. Waghorn, "Sorting Out Mixtures of Property at Common Law" (2021) 84 M.L.R. 61; Stevens, *The Laws of Restitution* (2023) at pp.198-201.

[95] e.g. M. Bridge, *Personal Property Law*, 4th edn (Oxford: Oxford University Press, 2015) at p.131. See too *Glencore International AG v Metro Trading International Inc* [2001] 1 All E.R. (Comm.) 103 at [177].

[96] S. Worthington, *Proprietary Interests in Commercial Transactions* (Oxford: Oxford University Press, 1996) at p.142, emphasis added.

[97] Waghorn, "Sorting Out Mixtures of Property at Common Law" (2021) 86 M.L.R. 61 at 78-79.

[98] M. Conaglen, "Retaining Title to Mixtures and Manufactured Goods: A Principled Re-Appraisal" (1996) 11 Denning Law Journal 23 at 49-50. See too Worthington, *Proprietary Interests in Commercial Transactions* (1996) at p.142.

thing” has been created. If that uncertainty can be remedied, then we may be able to expect courts and citizens to apply the law without falling into error. Although more needs to be said on the matter, the analysis of this article should help to begin the process of remedying that uncertainty. Once we have agreed on the purpose of a legal rule, then that purpose can be used by courts when they are called upon in concrete cases to give more specific meaning to the concepts that the rule employs.[99] So, for example, the justification of the *orthodox view* put forward in this article suggests that the inquiry ought to focus primarily on whether the purported “new thing” can be put to the same uses as the chattel from which it was made.[100] This focus would map onto the common intuition, reflected in the Roman texts and in some American cases, that the reversibility of the changes made to the initial chattel ought to be one significant factor to be taken into account. If whatever changes have been made to a given chattel are easily reversible, then it follows that it can still be used as before; the law should say that no new thing has been created.

V. Conclusion

This article has questioned an entrenched orthodoxy, which claims that there exist rules of English law which are equivalent in their effect to *specificatio*. That orthodoxy does not stand up to scrutiny; the authorities do not reveal any rule which governs the issue. It is, therefore, vital that commentators ask what the law ought to be. This article has made a positive contribution to that debate, by offering a justification of the orthodox understanding of English law which is rooted in the idea that certain property rights may be justifiable, at least in part, because they serve important interests that people have in the pursuit of valuable projects. Importantly, that justification relied on reasons that are of a particular form, that are of an *erga omnes* character and that are capable of grounding duties owed to a particular person in relation to a particular thing. If found convincing, that justification should help to put English law on a surer footing.

[99] For the same point in a different context, see F. Wilmot-Smith, “Taxing Questions” (2015) 131 L.Q.R. 531.
[100] See too Newman, ‘Transformation in Property and Copyright’ (2011) Villanova Law Review 251 at 276.