

Chapter 6

Sui Generis Rules

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There is the story of a Vermont justice of the peace before whom a suit was brought by one farmer against another for breaking a churn. The justice took time to consider, and then said he had looked through the statutes and could find nothing about churns, and gave judgment for the defendant.
– Oliver Wendell Holmes (1897)

6.1 Introduction

Although the “pace” of technological change is difficult to measure (Edgerton 2006), few would deny that technological change is a persistent feature of our society. When new technologies are introduced into society, and begin to spread, there is often pressure on the legal system to “respond” or “keep pace” (Bennett Moses 2007a). As technology changes, new entities, activities and relationships become practical possibilities. As a result, there may be (1) pressure to enact new laws, (2) a need to resolve uncertainties as to the application of law in new contexts, (3) legal rules that apply poorly in new contexts when measured against achieving an underlying goal, and (4) laws that can no longer be justified and hence become obsolete (Bennett Moses 2007a). When contemplating law reform in response to the first three problems, there is, not surprisingly, a tendency to propose new rules designed to apply to the new entities, activities and relationships that gave rise to the difficulty. In other words, there is a tendency to treat new entities, activities and relationships relating to new technologies as in need of special, or *sui generis*, regulation or protection.

As the enactment of *sui generis* rules is one common temptation for rule-makers wishing to respond quickly to emerging technologies, this chapter will consider the extent to which *sui generis* rules are an effective approach for dealing with the pacing problem. In deciding whether *sui generis* rules are truly appropriate,

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it is important to take account of their advantages and disadvantages compared to a more broadly-framed approach. It is also necessary to consider alternative approaches, such as utilizing a broad category and tailoring the law's application to the new entity, activity or relationship within that broad category or employing relatively technology-neutral *sui generis* rules. Unless the tendency to enact narrowly framed technology-specific legislation is minimized, the possibility for further legal problems as technology continues to evolve is high.

6.2 *Sui Generis* Rules: Special Laws for Special Circumstances

As I have discussed elsewhere (2007b), technological change creates significant problems for law. Existing laws are often subject to uncertainty in their application to new situations or, if certain, may not apply as intended. In addition, it is often felt that new laws are necessary, for example to regulate a new technology. As a result, it is often the case that entities, activities and relationships made possible through technological change come to be governed by *sui generis* rules. The term "*sui generis*" means "of its own kind" (Oxford English Dictionary). Thus laws are *sui generis* to the extent that they treat a particular entity, activity or relationship as subject to a narrowly crafted legal regime.

The fact that particular entities, activities and relationships are subject to a narrowly tailored legal regime is sometimes inevitable. There are situations where there is no broader category under which the goal sought to be achieved by particular rules could be achieved. In these situations, the fact that *sui generis* rules are employed is not a matter of choice (except to the extent there is a choice to regulate at all). An example of a rule that could only be crafted narrowly is section 14(1) of the *Apiaries Act 1985* (NSW, Australia), which provides "A person shall not keep bees, or allow bees to be kept in an apiary, except in a frame hive." If the legislature wishes to mandate frame hives for beekeeping, a specific law is the best means of doing so. One might ask whether legislative intervention is justified on this issue, but there is little question of drafting the law more broadly. Sometimes a law, initially *sui generis*, will come to be seen as falling within an as yet undiscovered broader category. For example, copyright law originally consisted of narrowly tailored legislation such as *An Act for Encouraging the Art of Making New Models and Casts of Busts, and other Things therein Mentioned*, 38 Geo. III c. 71 (1798) (UK). At the time the Act was passed, there was no broadly applicable category of copyright and thus sculpture was protected through a *sui generis* statute. Later, the more broadly crafted copyright legislation subsumed the *sui generis* protection that had been offered to particular modes of creative expression.

Often there is a choice between adopting a *sui generis* regime to deal with a particular problem and regulating conduct through an existing, broadly framed, law. For example, the advent of genetic testing required a decision as to whether genetic information should be subjected to *sui generis* privacy laws or included within a broader category of protected information. Different jurisdictions reached different

conclusions on this question. In Australia, privacy protection is granted in a general, rather than *sui generis*, law. In section 6 of the *Privacy Act 1988* (Cth), “health information” is defined to include “genetic information about an individual in a form that is, or could be, predictive of the health of the individual or a genetic relative of the individual.” Further, “sensitive information” is defined to include both “health information” and “genetic information about an individual that is not otherwise health information.” Thus the privacy of genetic information is protected by incorporating it in one of two more general protected categories of information. The opposite approach is taken in some other jurisdictions, such as Delaware. Chapter 12.II of Title 16 of the Delaware Code contains specific provisions regulating the taking and disclosure of genetic information.¹ In the case of genetic testing, a new technology generated a new type of information (genetic information) that many felt needed to be protected by privacy laws. Each jurisdiction had a choice as to whether to protect genetic information through the enactment of a *sui generis* law, or by including genetic information within a broader class of protected information, thus making it subject to a broadly crafted privacy regime.

Although modern intellectual property law consists primarily of broadly crafted categories (patents, copyright, trade marks), there remain pockets of *sui generis* protection. The Semiconductor Chip Protection Act was enacted in the United States 1984. It was designed to protect the semiconductor chip industry from reverse engineered copies. The Act was narrowly crafted to protect “mask works,” being the design element in semiconductor chips. At the time, the Act was widely lauded as an effective response to an industry’s need for intellectual property protection in light of the under-inclusiveness of existing regimes (e.g. Samuels and Samuels 1986; Michaelson 1986). Special protection for semiconductor chips is now mandatory for all members of the World Trade Organisation through Article 35 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and many countries have thus enacted *sui generis* legislation.

Sometimes, an entity, activity or relationship is treated *sui generis* in the absence of any specific legislative enactment. Human in vitro embryos are an example of this. Such embryos were first created in 1969 (Edwards et al. 1969). In theory, they could fall under the law of persons or the law of property. However, in *Davis v. Davis*, it was held that “preembryos are not, strictly speaking, either “persons” or “property,” but occupy an interim category that entitles them to special respect because of their potential for human life.” It is not clear from this decision whether this implies (1) that embryos are special property, able to be treated as objects of property rights but subject to constraints necessary to ensure respectful treatment, or (2) that embryos cannot be objects of property rights. If embryos are neither persons nor property, interactions with embryos are regulated, if at all, through *sui generis* rules.

¹The Delaware law remained applicable following passage of the Genetic Information Non-Discrimination Act of 2008 (see section 209 of that Act).

6.3 *Sui Generis* Rules and Other Dichotomies

Laws may be measured on a range of scales. As discussed in the previous section, laws may tend to be tailored to a narrow range of circumstances (*sui generis*) or intended to apply to broader categories of entities, activities or relationships. There are various other criteria by which laws might be compared, including the distinction between rules and standards, between laws that discriminate between technologies and those that do not, and between legislation that is technology-neutral and legislation that is not. Each of these overlaps with the distinction drawn here between *sui generis* and broadly-framed laws, but none is identical.

There is an old and often used distinction between laws that are rule-like and laws that are standard-like. Laws are considered rule-like to the extent that they are given content before individuals act (Kaplow 1992). Because the distinction between rules and standards is usually based on the content of a law rather than its scope, both rules and standards can be *sui generis* or broadly applicable (Schlag 1985). The distinction between *sui generis* and broadly crafted laws thus does not map onto the distinction between rules and standards, as traditionally conceived.

Although laws that are *sui generis* often overlap with those that discriminate between different technologies, the two categories are not identical. Laws can be said to discriminate between technologies where they treat different technologies differently even where the technologies produce equivalent results (e.g. van der Haar 2007). In so far as *sui generis* rules create special laws for particular circumstances, a side effect may be differential treatment of similar situations, possibly based on differences in the technology used. However, even laws electing to employ general categories can discriminate between technologies. The Australian Privacy Act, discussed above, does not treat genetic information as *sui generis* but rather includes it within broader categories of protected information (“health information” and “sensitive information”). However, information obtained from proteins in the blood, rather than through genetic analysis, will not necessarily be “health information” or “sensitive information.” Similar information is thus treated differently depending on the technology used to obtain it (genetic testing or proteomics). This is true despite the fact that genetic information is not treated *sui generis*. Thus while *sui generis* rules may lead to discrimination between equivalent technologies, the narrowness of rules does not map directly to their discriminatory effect.

One dichotomy that comes up in the context of legislating in contexts of rapid technological change is the distinction between technology-neutral and technology-specific rules. This terminology has a range of potential meanings (Koops 2006; Reed 2007), but here the term “technology-neutral” is used to signify laws that are designed to be independent of any particular technological context so that they can continue to apply appropriately even as technology changes. Again, there are overlaps between my distinction between *sui generis* and broadly crafted rules and the distinction between technology-specific and technology-neutral rules. The Semiconductor Chip Protection Act is an example of legislation that is both *sui generis* and technology-specific. But it is possible to envisage laws that would fall

into one category but not the other. The special status of human in vitro embryos might be independent of the technology of their creation and storage. On the other side, the Australian Privacy Act does not treat genetic information as *sui generis*, yet it does assume that familially-linked information about an individual's future health risks will be extracted through genetic testing rather than other means. Information obtained through another means, such as proteomics, would not automatically be treated as "health information" under the Privacy Act unless obtained in a context specifically referred to in the legislation.

The issue of whether there is a need for *sui generis* rules is different than the question of the necessity for *sui generis* ethics along the lines of computer ethics. Within applied ethics, there is a debate about the "uniqueness" of a subject-specific field such as computer ethics. There are those who suggest that ethical issues in this area are unique in that they could not have arisen before the advent of the technology (e.g. Maner 1996). In contrast, Johnson (2001) has pointed out that while the specific issues may be unique, their solutions can be found by adopting an established moral framework. Himma (2003) has observed the irrelevance of this debate about uniqueness to the question of whether "computer ethics" deserves to be treated as a specialized field of applied ethics. In law, there is a similar debate about the usefulness of subject-specific analysis, such as "cyberlaw" (compare Lessig 1995, 1999; Easterbrook 1996; Sommer 2000). My focus here is not on the question of whether new technologies raise new legal issues (Bennett Moses 2007a) or whether these legal issues ought to be the focus of specific study, but rather on the question of how such legal issues ought to be resolved. In particular, this chapter asks in what circumstances the appropriate response is the creation of a legal rule designed to apply only in a narrow range of circumstances.

6.4 Why Employ *Sui Generis* Rules?

There are many reasons rule-makers might choose to craft legal rules narrowly. Sometimes, a narrowly tailored rule is the only available means of achieving a particular goal. Yet, in many circumstances, there is a choice between regulating an entity, activity or relationship through a broader regime (such as patent law or property law) and creating a more narrowly tailored law. In such cases, the reason for choosing the latter will usually be a real or perceived difference between the broader and narrower subject matter.

For example, many have argued that the nature of genetic information, such as its sensitivity, connectedness to family and predictive nature, justify *sui generis* treatment, apart from more general laws protecting privacy and confidentiality (Annas et al. 1995). Others have argued against treating genetic information as *sui generis* (Australian Law Reform Commission 2003; Murray 1997; Gostin and Hodge 1999). The debate generally focuses on the extent to which genetic information is truly distinguishable from broader categories of health information and the risks and benefits of special treatment.

The Semiconductor Chip Protection Act was designed to fill a “gap” between copyright and patent law (Samuelson 1985 at 510–511). At the time, it was felt that copyright law did not apply to objects that were useful in themselves, such as semiconductor chips, and the level of ingenuity required for patent protection would generally be absent (McKeough 1986; Samuelson 1985, H.R. Rep. No. 781). In addition, the time taken to obtain a patent, where available, was longer than the average life-cycle of a particular chip design (Fitz Simons 1990; Samuelson 1985). Accordingly, it was the view of the relevant House Committee that a *sui generis* approach would be best adapted to the needs of the semiconductor industry (H.R. Rep. No. 781).

The problems faced by the semiconductor chip industry are not unusual. Generally speaking, different industries have different average costs of research and development, different average development timelines, different manufacturing costs and infrastructure and different piracy risks (Burk and Lemley 2003). Assuming patent law is intended to promote the development and proliferation of beneficial technologies at minimum cost to society in terms of the content and length of any monopoly granted, an ideal patent law for the pharmaceutical industry might look very different than an ideal patent law for the machine tool industry (Burk and Lemley 2003). Having a single patent regime that applies across the board thus imposes a “uniformity cost” (Carroll 2006). Accordingly, it is not surprising that arguments for *sui generis* protection are not confined to the semiconductor chip industry. Arguments have been made for *sui generis* treatment of the intellectual property of various industries including software (Abramson 2002; Phillips 1992; Samuelson 1985; Samuelson et al. 1994; cf. Raskind 1986; Griem 1993), proteomics (Williams 2005) and biotechnology (Burk 1991; Purvis 1987; Ellinson 1988; cf. Mellor 1988). Although the need for industry-specific *sui generis* patent rules is sometimes questioned (Shi 2005), there are obvious advantages in laws that take account of relevant features of a specific industry.

The decision to treat human embryos as *sui generis* rather than as objects of property has been made by both courts and legislatures. In the United States, *Davis v Davis* stands as a much-cited authority for the proposition that human in vitro embryos are not property. In the United Kingdom, the *Human Fertilisation and Embryology Act* places embryos within a narrowly tailored legal regime. Either way, there are many reasons why it might be thought necessary to treat embryos as falling outside the scope of property law (cf. Bennett Moses 2008). For example, ordinary chattels can generally be sold, yet most people would feel uncomfortable if similar trading in human embryos were permitted. If classifying embryos as part of the law of property would lead to unrestricted trade, it seems better to treat embryos *sui generis*.

In a sense, each of these examples is part of a broader phenomenon. Any law that operates broadly will apply imperfectly in at least some contexts. There is usually some variety in contexts that makes a law seem inappropriate or insufficient some of the time. Even where there is a common goal, such as avoiding unwanted advertising, there are differences in media that justify different treatment for faxes

and email (compare 47 U.S.C. 227 and 15 U.S.C. 7701-7713). Similarly, the risks and costs of a single activity such as providing law enforcement authorities with access to telecommunications traffic data might be different in different contexts (Escudero-Pascual and Hosein 2004).

6.5 Dangers of *Sui Generis* Rules

Creating narrowly tailored legal rules has several potential disadvantages. These include the possible failure of those rules to cover sufficient ground, the administrative costs of enacting and maintaining multiple legal regimes, the tendency for *sui generis* rules to assume a temporary technological framework and the potential for narrowly defined legislation to favour narrowly defined groups at the expense of others. The extent to which each of these problems will arise in a particular context will vary – some may be avoided entirely. However, in deciding whether a *sui generis* approach is best, it is important to beware of the potential dangers.

6.5.1 *The Problem of Completeness*

The first potential problem, the possibility that *sui generis* rules will fail to cover sufficient ground, is the result of a decision to exclude an entity, activity or relationship from a generally operating legal regime. It arises where there is a choice between a generally operating legal regime and better tailored *sui generis* rules, and a decision is made that the latter will replace rather than supplement the former. If the *sui generis* rules fail to cover the same ground as the general regime, there is a risk of gaps and uncertainties.

This problem is evident in the legal treatment of human in vitro embryos. As mentioned above, it was held in *Davis v Davis* that human in vitro embryos were not “property.” While the case law is still unclear on the implications of this, the impact of the failure to treat human in vitro embryos as a potential object of property rights is evident in the aftermath of an incident in California. Three doctors associated with the University of California at Irvine were accused of using human embryos in fertilization procedures and research *without the consent of the genetic contributors* (Weber and Marquis 1995). Orange County prosecutors believed that the three could not be charged with “theft” due to the fact that embryos were not “property” (Weber and Marquis 1995; California Penal Code § 503). Ultimately, the only accused doctor remaining in the United States was convicted of federal mail fraud in relation to errors on insurance billing forms (McDonald and Christensen 1998).

Property law is the general mechanism by which the law regulates the interactions between people and “things” (Bennett Moses 2008). The possibility that more than one person might interact with a thing creates a potential for conflict. From a

practical perspective, it is the law of property that identifies who is subject to which legal relations with respect to a thing at any given moment and how these can be enforced (Kohler 2000 at 282; Hohfeld 1913–1914). Thus the legal system contains crimes such as theft and torts such as conversion that ensure that objects of property remain under the control of particular people. The legal system does not have rules that perform the same function for things that are not objects of property rights. While *sui generis* rules could perform a similar function in particular circumstances, there is a risk of incompleteness where rules are less comprehensive than property law or there is a delay in their creation (Kohler and Palmer 1998 at 17).

In the case of in vitro embryos, the insistence that embryos are not property has not been matched by a comprehensive *sui generis* legal regime. In the aftermath of the Irvine scandal, the Californian Penal Code was amended to add a more appropriate offence in section 367 g should similar conduct be repeated. However, the provision only addressed the conduct at issue in the scandal (taking embryos and gametes without consent) and only came into effect afterwards. It did not deal with other issues, such as the unauthorised destruction of embryos or negligent handling of embryos. If embryos are not property, tort actions will generally need to be based on emotional distress rather than the law of conversion (e.g. *Del Zio v The Presbyterian Hospital in New York*).

On the other hand, where human embryos are treated as property, remedies are available to protect rights of control. In *York v Jones*, a couple wishing to move embryos from one fertility clinic to another was able to rely on the tort of detainment to recover their embryos. In *Frisina v Women and Infants Hospital*, a claim alleging emotional distress following the loss of embryos was allowed to proceed to the extent that it was based on loss or destruction of irreplaceable property. In *Jeter v Mayo Clinic Arizona*, embryos were recognised as “things,” and thus litigation based on breach of bailment and breach of an undertaking to protect “things” was allowed to proceed. In *Dahl v. Angle*, the Court of Appeals of Oregon treated rights of control over embryos as “personal property,” which was necessary if the court were to have jurisdiction to make an order respecting the embryos on dissolution of marriage. Property law and related principles thus seem capable of resolving disputes between those with rights to control embryos and those who misuse or damage them. Of course there are disputes about embryos for which property law offers little assistance, such as disputes between different people with rights of control, such as divorcing spouses (Bennett Moses 2005 at 608–615). Nevertheless, property law can provide useful answers in a wide variety of situations.

The example of in vitro embryos illustrates the dangers of removing an entity, activity or relationship from a general domain such as property law without simultaneously creating a *sui generis* regime of similar scope. The problem can be avoided by allowing *sui generis* rules to run in parallel with more generally framed rules. For example, the Semiconductor Chip Protection Act does not prevent the semiconductor industry from accessing patent and copyright protection where each is

applicable.² The result is that process patent protection continues to apply and has gained in importance as process innovation has increased in importance against chip design (Lewis 1995).

6.5.2 *The Problem of Administrative Costs*

While a broad and comprehensive *sui generis* regime may be desirable for the reasons outlined above, it can also prove costly. Most obviously, there are costs associated with the creation of legal rules. If created by a legislature, costs are incurred in drafting the new law, analysing its costs and benefits and ultimately enacting it. The main cost is one of time – time spent on subject-specific laws could arguably be better spent on other issues in the jurisdiction. If created by courts, the costs are borne by parties to litigation as well as the court system in hearing and deciding cases where the law is unclear. If there is an alternative existing legal regime that could perform a function similar to the new *sui generis* regime, these additional costs are potentially redundant (Brownsword 2008 at 152).

Depending on the operation of the *sui generis* law, it may envisage the creation of a new bureaucracy to enact accompanying regulations, monitor compliance and enforce the new law. These costs can obviously be reduced if these tasks are delegated to an existing bureaucracy, although the additional tasks may nevertheless result in an increase in size of the bureaucracy.

Another cost associated with narrowly tailored legal regimes is the need for familiarity with different rules for similar but different contexts. For example, if different patent laws apply to different industries (as suggested by Burk and Lemley 2003), intellectual property attorneys need to be familiar with all of them. Companies responsible for inventions in different fields would need to work with multiple legal regimes. Further, the rules designed to determine the regime into which a particular invention fell would inevitably create an entire new field of inquiry with which many would need to be familiar. The result is an inevitable increase in the legal costs of those engaging in research and development.

Not only will there be a need for familiarity with multiple legal regimes, but there will also be more questions of interpretation for courts to decide (Samuelson 1985 at 501–502; Burk and Lemley 2003). Returning to the patent example, if each industry's patent law were drafted using different, tailored terminology, each would have its own questions of interpretation for courts to resolve. In fact, even though different industries share common patent legislation, it has been suggested that the resolution of a patent law question in the context of biotechnology will not necessarily assist in a case involving nanotechnology (Burk and Lemley 2003). If technologies converge, the appropriate legal regime may be difficult to identify. The result may be a rise in the volume of litigation.

²17 U.S.C. § 912(a). See also *J.E.M. Ag Supply, Inc. v Pioneer Hi-Bred Int'l, Inc.* 534 U.S. 124 (2001) (in relation to *sui generis* protection for plants).

Of course, the extent of administrative costs associated with multiple *sui generis* legal regimes depends on how those regimes are crafted. It would be possible to employ similar language across the board in order to reduce the costs associated with drafting and interpreting multiple statutes. It is also possible to employ the same bureaucracy across the field. However, the risk of heavy administrative costs should be taken into account in the decision to create multiple *sui generis* legal regimes rather than a single general framework. Administrative costs are most evident where multiple *sui generis* regimes proliferate within the same regulatory space (see Wahlgren 2004).

6.5.3 *The Problem of Technological Change*

As demonstrated above, the scales of generality and technology-neutrality are not identical. It is possible to have *sui generis* technology-neutral laws and generally operating, but technology-specific, laws. Despite this, it is common for *sui generis* laws to assume a particular state of technology. In fact, one reason for *sui generis* laws is the need for special laws to deal with an entity, activity or relationship that is the result of technological change (Bennett Moses 2007a).

The Semiconductor Chip Protection Act was enacted specifically to protect an industry built around a new technology from “chip pirates.” The Act, which creates a *sui generis* intellectual property regime for semiconductor chips, is highly technology-specific. The Act quickly dated. There has been little infringement litigation employing the Act (Risberg 1990; Callaway 2008). As one chip designer, Hans Camernzind, has noted “Everyone was hoping [the Semiconductor Chip Protection Act] would stop direct optical copying. It doesn’t work – nobody’s using it, period” (Callaway 2008). The Australian version of the Semiconductor Chip Protection Act has been criticised by the Intellectual Property and Competition Review Committee (2000) for being “highly specialised, technology specific and narrowly defined” and hence unable to keep up with technological change. The reasons for the practical irrelevance of the Act are various but include changing techniques of design and manufacture (Rauch 1993 at 429; Risberg 1990 at 277; Radomsky 2000; Kukkonen 1997 at 133).

To the extent *sui generis* rules assume a particular state of technology, they risk falling behind the times (Bennett Moses 2007a; Brenner 2007; Kirby 2008). Like the Semiconductor Chip Protection Act, they may become obsolete in that the legislation may not apply well to a future manifestation of the technology to which it is directed (see, for example, Breyer et al. 2009, in relation to European regulation of genetically modified organisms). If *sui generis* rules are created to provide differential treatment for a technology considered special in a particular context, it is possible that the technology will change so that it is no longer special or other technologies will develop that are equally special. Legislation drafted in a particular technological mould will not be optimal in either context. Further, difficulties of interpretation and inconsistencies may arise if, as often happens, technologies

subject to different *sui generis* regimes ultimately converge (Abelson et al. 2008 at 291; Svantesson 2007 at 45).

Rules that assume a particular technological framework are not only potentially distorting from a legal perspective, they may distort technology as well. Potential avenues for technological change may remain unexplored in order to remain within the technological paradigm assumed by a beneficial law. Alternatively, technology may be redesigned in socially and economically unproductive ways in order to avoid the application of onerous regulation. One technology may be preferred over another equivalent technology due purely to the existence of separate legal regimes for each. Sometimes, encouraging a particular pathway for a technology is the very purpose of regulation, but it can also be an unintended side effect of technology-specific *sui generis* rules.

6.5.4 *The Problem of Politics*

The final potential problem with narrowly crafted legal rules, at least in the legislative context, is the potential for bias in their negotiation. Although this simplifies things somewhat, broadly applicable rules tend to have more widely distributed costs and benefits than narrowly crafted rules. This makes *sui generis* rulemaking more susceptible to interest group politics and rent-seeking (Wilson 1980). The problem is most easily observed where legislation is designed to apply to a particular industry where powerful players may urge rules that benefit the industry at the expense of possibly as-yet-unknown others. It is evident in the case of *sui generis* intellectual property regimes (Reichman 1994). This is a particular problem in technology based industries where participants may have a monopoly on the information that regulators are using to make decisions (Nelkin 1984). Conversely, public opinion may be galvanised around a specific, narrow issue so that the political response is more limited than a policy logically derived from its professed goals. While the potential for distorted politics is not a reason to reject any specific proposal for *sui generis* legislation, it is a reason to be wary. This distortion is one reason why *sui generis* rules may ultimately lead to differential treatment of equivalent technologies.

6.6 Weighing It Up

Despite the fact that *sui generis* rules are more likely to be tailored to the specific conduct they deal with than generally framed rules, there are reasons to be cautious in employing them too readily. At the very least, the potential disadvantages of *sui generis* rules should be considered in deciding whether a less well suited, but more general, set of rules might be more appropriate.

Interestingly, these sorts of issues are rarely considered. In the context of the Semiconductor Chip Protection Act of 1984, two congressmen, Robert Kastenmeier

and Michael Remington, proposed several factors for enacting *sui generis* intellectual property legislation (1985). They are:

1. The proponent of a new protectable interest ought to show that the interest can fit harmoniously within the existing legal framework without doing violence to existing principles or accepted basic concepts.
2. The proponent of a new intellectual property interest must provide a reasonably clear and functional definition of that interest.
3. The proponent should also provide a valid analysis of the costs and benefits of the proposed legislation on the affected interest groups.
4. The proponent should further show with some specificity how the change will enhance or enrich the public interest.

These criteria are directed at ensuring that legislation is well crafted and properly justified. In a sense, they could be applied to the enactment of *any* legislation – all laws should ideally be well-crafted and properly justified. Kastenmeier and Remington do not refer to any need to consider the special problems that can arise in the context of narrowly framed legislation.

6.7 Tailoring Within Broad Category

There are good reasons to enact *sui generis* rules even where more broadly framed rules could achieve a similar function. As discussed above, broadly framed rules will often be an imperfect fit in a particular context. On the other hand, *sui generis* rules are associated with significant disadvantages – they may be incomplete or expensive, they have a tendency to become obsolete, and they may be designed to favour powerful groups. One way to reduce administrative costs and resolve the problem of incompleteness is to employ a generally based legal regime, but tailor rules within that regime to a particular context.

For example, it is possible to treat human in vitro embryos as potential objects of property, yet create *sui generis* rules to ensure different treatment in some contexts (Bennett Moses 2008). In this case, the rights of control over embryos would be treated as property rights, ensuring the applicability of general laws such as theft and conversion. At the same time, laws applying uniquely to human in vitro embryos could limit the property rights applicable to embryos, in particular by banning certain transactions and restricting permissible conduct to fertilization procedures performed by authorised persons, authorised research and authorised destruction. This would not alter what might be done with embryos, but it would allow property law to deal with intentional and negligent harm. The incompleteness problem is thus solved.

At the same time, the costs of creating rules to deal with the special problems raised by human in vitro embryos are reduced. There is no need to reinvent the wheel and create special rules to deal with every situation where one person's conduct interferes with another's rights to an embryo or damages that embryo. Property rules, made clear through many years of application and interpretation, will deal

with those issues. Instead, lawmakers only need to consider the ways in which embryos deserve special treatment. The special respect that embryos deserve due to their potential to become human life can be reflected in specially created *sui generis* rules.

In the intellectual property context, tailoring within a broad category such as patent law is one way to deal with the problem of uniformity cost. Burk and Lemley (2003) propose that *the judiciary* continue to treat different types of inventions differently within the bounds of a broadly framed patent law. Stern (1986) proposes instead that an *agency* be authorised to specify special rules for new technologies within a broadly phrased industrial property system. While delegation has its own problems, it does reduce the risk that specially tailored rules will fall behind the times and then prove difficult to amend (Bennett Moses 2007a).

6.8 Technology Neutral *Sui Generis* Rules

In order to reduce the problem of *sui generis* rules becoming out of date, it is sometimes helpful to draft laws in a technology-neutral way. By this, I mean that a special law can be created to deal with a particular situation, while minimizing the risk that the law will become uncertain, poorly targeted or obsolete in the future. As such, technology-neutral *sui generis* rules will sometimes be a solution to the dilemma presented by Collingridge (1980). Collingridge argued that the social control of technology was difficult because attempts to control a technology early in its development suffer from the difficulty of not knowing its final form and ultimate effects while attempts to control a technology after it had become entrenched were virtually impossible. To the extent that rules designed to deal with specific features of a technology can be crafted in a technology-neutral way, the rules will maintain flexibility as the technology changes.

A technology-neutral *sui generis* approach might be an alternative solution in the case of intellectual property laws such as the Semiconductor Chip Protection Act. Semiconductor chips fell into the “gap” between copyright and patent law because they were functional objects with significant development costs but little in the way of non-obvious innovation. If semiconductor chips deserve intellectual property protection, then it is arguable that *anything* with similar features deserves the same protection. Depending on one’s view, semiconductor chips and subpatentable inventions can be protected as part of the law of unfair competition (Janis and Smith 2007), through broadly crafted liability rules (Reichman 1994, 2000) or through a new form of intellectual property.

Like narrowness of legal rules, technology-neutrality is a scale. There are very few goals that can be achieved through perfectly technology-neutral rules that will continue to apply well despite technological change (Bennett Moses 2007a). However, there are drafting techniques that can be used to help make laws more future-proof. In particular, it is possible to employ language that abstracts away from technology-embedded specifics (Bennett Moses 2007a). For example, a “document” (suggesting the use of a physical medium) might become a “preserved

communication.” While it is possible to enhance the ability of a law to withstand future technological change by careful drafting, there will often be a need to balance technology-neutrality against clarity and operational effectiveness.

A technology-neutral approach is not always appropriate. Koops (2006) gives the example of traffic laws. Such laws commonly distinguish between pedestrians, cyclists and automobiles, thus distinguishing between road-users based on the technology of transportation employed. The need for *sui generis* treatment of bicycles and cars is obvious – the different size and speeds of different vehicles makes different treatment on the road necessary. While it is not necessary to use technology-specific language, it is desirable to do so. One could avoid referring to cyclists specifically by creating rules for those road-users with certain speed and size limitations. Perhaps cycling lanes could only be used by human-propelled vehicles less than three feet wide. But the benefit of such an approach is dubious. While it may help decide which rules apply to futuristic modes of transport, the rules would in the meantime be less clear and could have negative unforeseen effects (Bently 2004 at 176; Reed 2007).

6.9 Conclusion

Especially in the context of technological change, there is a tendency to treat new entities, activities and relationships as in need of special *sui generis* regulation or protection. While legal change is often a necessary response to technological change, it is important to consider the form that any new rules take and, in particular, to bear in mind the costs of *sui generis* rules. In some cases, it may be better to link a new entity, activity or relationship to existing, broadly framed, legal rules while creating exceptions and additions to deal with any special features. It is also worth considering the possibility that *sui generis* rules be drafted with the possibility of future technological change in mind, employing technology-neutral language where there is no significant effect on clarity and ease of application. While this is not an exhaustive account of how to design legal rules that deal with the new conduct made possible by technological change, it hopefully offers some food for thought.

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