# THE DOCTRINE OF INFORMED CONSENT—WHEN EXPERTS AND NON-EXPERTS COLLIDE

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It will not be long before the Singapore Court of Appeal will have to confront the question it left open in *Gunapathy* and decide whether it should extend the *Bolam* principle to negligent advice cases as the House of Lords has done, or whether it should follow the more rigorous standard applied in other jurisdictions such as Canada and Australia. Rather than focus on the narrow and intractable debate about the philosophical values underlying both approaches (patient autonomy versus medical paternalism), this article draws on current behavioural and psychological studies to examine which approach would truly assist a patient in arriving at a rational and informed choice. It is argued that neither model currently employed is satisfactory because they fail to take into account the fact that the patient, as a layperson, and the physician, as an expert, perceive risk differently. Accordingly, it is proposed that the doctrine of informed consent should be structured to emphasize the constitutive nature of risk communication in order to bridge this difference.

## I. INTRODUCTION

In medicine generally, and in the law relating to informed consent specifically, conflicts between the opinions of doctors and their patients happen more frequently than most of us realize.<sup>2</sup> After all, the traditional understanding is that in order for a patient to succeed in a negligent advice case, he must show that he would have done something different had he been warned of the inherent risks.<sup>3</sup> This implies that patients have a different conception from their doctors as to what risks are reasonable to them.

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While the term "informed consent" previously referred to the question of whether battery was committed because of how the tort developed, it is now used to refer to the question of whether a doctor has breached his duty of care by failing to properly inform a patient of the risks involved in a particular procedure or treatment. See Gerald Robertson, "Informed Consent to Medical Treatment" (1981) 97 Law Q. Rev. 102. In this essay, I will use the term to refer to this duty of care. The final decision as to what treatment to accept is, without doubt, the patient's sole prerogative: *Malette v. Schulman* (1990) 67 D.L.R. (4<sup>th</sup>) 321.

<sup>&</sup>quot;The medical people, the engineers, the chemists—all have their jargon which none of the rest of us understands": Lord Denning, "The Freedom of the Individual Today" (1977) 45 Medico-Legal J. 49 at 59; "Doctors are in the business of risk communication almost on a daily basis": Dr Balaji Sadasivan, Senior Minister Of State, Ministry Of Information, Communications And The Arts And Health, Lecture at The Singhealth Scientific Meeting, 17 October 2004, online: Ministry of Health <a href="http://www.moh.gov.sg/corp/about/newsroom/speeches/details.do?id=28704771">http://www.moh.gov.sg/corp/about/newsroom/speeches/details.do?id=28704771</a>.

Contra Chappel v. Hart (1998) 156 A.L.R. 517 [Chappel]; Chester v. Afshar [2004] All E.R. 587 [Chester].

Unfortunately, the courts have, at times, become engaged in a rather narrow debate about the value system underlying both approaches. Whether the court should place more reliance on the doctor's views or the patient's views has become a question of medical paternalism<sup>4</sup> versus a rights-based approach.<sup>5</sup> For example, Robinson J. in *Canterbury v. Spence*<sup>6</sup> sought to justify a more rigorous test in assessing whether a physician has breached his duty in failing to warn his patient of the potential consequences of the particular treatment by arguing that "respect for the patient's right of self-determination on particular therapy demands a standard set by law for physicians rather than one which physicians may or may not impose upon themselves." This debate, while fruitful in its own right, does little to shed light on how we should structure the law so as to facilitate the decision-making process between physicians and patients.

The inquiry must go further. Why the divergence in assessing risk? One oftneglected reason is that doctors and patients perceive risk in manifestly different ways. Thus, for instance, while doctors are concerned with statistical probabilities, studies on cognitive processes show that laypersons attach materiality to those statistics in ways that doctors do not.

Drawing on such psychological studies on decision-making, this essay examines the merits and deficiencies of the current law relating to informed consent. <sup>10</sup> It aims to demonstrate that neither a purely paternalistic nor a purely rights-based approach are adequate to reflect how decisions are made. Both approaches create perverse incentives that are of no ultimate benefit to the patient and the medical profession. Instead, I will argue that decision-making needs to be a constitutive process between a patient and his doctor, and that the courts ought to settle on an "all things considered" formula that tempers the views of the particular patient with prevailing medical judgment.

Bolam v. Friern Barnet Management Committee [1957] 1 W.L.R. 582 [Bolam]; Dr. Khoo James & Anor v. Gunapathy d/o Mundiany and another appeal (2002), [2003] 2 S.L.R. 414 [Gunapathy]; Sidaway v. Board of Governors of the Bethlem Royal Hospital [1985] 1 All E.R. 643 [Sidaway].

Reibl v. Hughes (1980) 114 D.L.R. (3d) 1 [Reibl]; Canterbury v. Spence (1972) 464 F.2d 772 [Canterbury]; Rogers v. Whitaker (1992) 1765 C.L.R. 479 [Rogers]; Sidaway, ibid., per Lord Scarman's dissent

<sup>6</sup> Canterbury, ibid. An excellent doctrinal analysis of the law in this area is found in Terry Kaan, "The Physician's Duty to Warn: Advice, Information and the Patient" [1995] 7 Sing. Ac. L.J. 23.

<sup>&</sup>lt;sup>7</sup> Canterbury, supra note 5 at 784.

Take, for instance, Lord Bridge's suggestion that a one to two percent risk of damage to the spinal cord and nerve root of Sidaway was not enough to breach the "obviously necessary" standard he laid down: Sidaway, supra note 4 at 663.

On the difference between an expert's and a layman's perception of risk, see generally Paul Slovic, ed., The Perception of Risk (London: Earthscan, 2000) [Slovic, Perception of Risk]; Editor's Note, "Symposium—Empirical Legal Realism: A New Social Scientific Assessment of Law and Human Behavior" (2003) 97 Nw. U.L. Rev 1075; Mark Kelman, "Law and Behavioral Science: Conceptual Overviews" (2003) 97 Nw. U.L. Rev 1347; Lee Ross & Donna Shestowsky, "Contemporary Psychology's Challenges to Legal Theory and Practice" (2003) 97 Nw. U.L. Rev 1081.

While not specifically addressed in this essay, it should be noted that the duty of the doctor to his patient in relation to advice extends to disclosure beyond the risks of the procedure being recommended. The doctor must advise on the alternatives open to the patient, including non-treatment, and answer truthfully questions put to him by the patient. See Ian Kennedy & Andrew Grubb, *Medical Law*, 3<sup>rd</sup> ed. (London: Butterworths, 2000) at 711-725.

This essay proceeds in three parts. First, I will examine the paternalistic model and suggest what the benefits and demerits of such a model are. Second, I will examine the rights-based model and again seek to demonstrate its merits and deficiencies. Finally, I will conclude by proposing a way forward, emphasizing that a desirable decision-making situation can come about only from a constitutive process that promotes trust between doctors and patients.<sup>11</sup>

A point of clarification is necessary: as should be apparent by now, when I use the terms "paternalistic" or "rights-based" I do not intend to employ the value-laden assumptions behind them. I am not concerned with the ethical or moral underpinnings of either model *per se*. I use these words as a short form for the options currently available in the doctrine of informed consent. The underlying basis of my essay is an assumption that we want a model, the mechanics of which takes the patient as close to a rational decision as possible in the choice of treatment. In and of itself, this is clearly a desirable goal.<sup>12</sup>

## II. THE PATERNALISTIC MODEL

The paternalistic model is best exemplified by what is often referred to as the *Bolam* test: <sup>13</sup> a doctor is not negligent if he or she acts "in accordance with a practice accepted as proper by a responsible body of medical man skilled in that particular art ... [even if] there is a body of opinion who would take a contrary view". <sup>14</sup> This model of medical paternalism finds its roots in early historical declarations of the role of doctors, such as the Hippocratic Oath. <sup>15</sup> It is a claim that doctors know best. This test was supplemented in *Bolitho v. City and Hackney Health Authority*, <sup>16</sup> which imposed a threshold test of logic. In truth, however, even this supplemented test is without much bite because Lord Browne-Wilkinson was careful to emphasize that "it will very seldom be right for a judge to reach the conclusion that views genuinely held by a competent medical expert are unreasonable." <sup>17</sup> As noted in *Gunapathy*, this model confers "near immunity."

The *Bolam* test was, for some time, confined to medical diagnoses and treatment. It was only in *Sidaway* that the House of Lords decided to extend its application to

Paul Slovic, "Trust, Emotion, Sex, Politics and Science: Surveying the Risk-Assessment Battlefield" in Slovic, *Perception of Risk*, *supra* note 9 [Slovic, "Risk-Assessment Battlefield"] at 390.

Naturally, a fully rights-based model (in the sense of respecting patient autonomy) will not care if the decision is "irrational" as long as it is made by a competent person with the necessary information.

<sup>13</sup> After *Bolam*, *supra* note 4.

This case continues to hold sway as the definitive test for the standard of care required of medical practitioners in England, as well as in Singapore. For the Singapore position, see Yeo Peng Hock Henry v. Pai Lily [2001] 4 S.L.R. 571.

<sup>&</sup>quot;I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others. I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous." [emphasis added] Online: <a href="http://classics.mit.edu/">http://classics.mit.edu/</a> Hippocrates/hippooath.html>. See also Walter Wadlington, "Breaking the Silence of Doctor and Patient" (1984) 93 Yale L.J. 1640, detailing the historical reasons for the hitherto reticent relationship between physicians and their patients.

<sup>&</sup>lt;sup>16</sup> [1998] A.C. 232 [Bolitho].

<sup>&</sup>lt;sup>17</sup> *Ibid.* at 243.

<sup>&</sup>lt;sup>18</sup> Gunapathy, supra note 4 at 431.

pre-treatment advice such that the voluntary warning of risks inherent in a particular treatment was treated as "an exercise of professional skill and judgment as any other part of the doctor's comprehensive duty of care." Australia and Canada do not share this position and the position in Singapore has yet to be decided.

## A. How Experts Decide, and the Merits of their Decisions

What merits, if any, does the paternalistic model offer when assessed from the psychological perspectives of physicians and their patients? The answer to that question rests on a fundamental assumption that first needs to be explored. That assumption is that there is such a thing as a "real risk".<sup>23</sup>

The argument that there is no such thing as a real risk suggests that risk is inherently subjective. It exists "out there" as a phenomenon invented by human beings to understand and cope with dangers. <sup>24</sup> Furthermore, given that risk can be formulated and expressed in innumerable ways, there is no one "correct" way of assessing risk. <sup>25</sup> If this is true, and risks are merely creatures of our imagination, then doctors cannot be in a *better* position to make determinations about acceptable levels of risk. In fact, it would be impossible to adjudicate claims relating to the non-disclosure of risks since risks are not independently verifiable.

However, the argument that risks do not exist except as an anthropological phenomenon says more than it proves. It is true that the way we frame a question often determines the answer. What this means is only that we must pick the right questions for the right purposes. It does not imply that risks cannot be assessed objectively. Interestingly, Paul Slovic, who moots the argument that risks are not real, does not dispute that "the dangers and uncertainties of life are real." If this is the case, it is fallacious to argue that risks are not real. Indeed, it should be noted that it is seldom the problem that physicians are not able to derive an objective (*i.e.*, statistical) enumeration of the risk. Rather, the issue is invariably the interpretation of the materiality or significance of the statistic.

If risks are real, why might experts be better placed to make decisions? First, as a matter of empirical truth, laypersons tend to make decisions based on mental shortcuts that do not always produce the most accurate or sensible results. For example, it has been found that most ordinary people think that there is no safe level of exposure to cancer-causing agents. Experts, of course, believe that this is

Sidaway, supra note 4 at 657 (per Lord Diplock).

<sup>20</sup> Rogers, supra note 5.

<sup>&</sup>lt;sup>21</sup> Reibl, supra note 5; see generally Robertson, supra note 1.

While the Court of Appeal in *Gunapathy* appeared to assume that the *Bolam* test applied to medical advice and disapproved of the trial judge's interpretation of Lord Bridge's opinion in *Sidaway*, the merits of the doctrine of consent were not argued or submitted on appeal. As such the Court explicitly stated that it would not make a pronouncement on the issue.

<sup>23</sup> Slovic, "Risk-Assessment Battlefield", *supra* note 11 at 392.

<sup>24</sup> Ibid

<sup>&</sup>lt;sup>25</sup> *Ibid.* at 393.

<sup>&</sup>lt;sup>26</sup> *Ibid.* at 392.

<sup>27</sup> Cass Sunstein, "The Laws of Fear" (2002) 115 Harv. L. Rev. 1119 [Sunstein, "Laws of Fear"] at 1147.

clearly false.  $^{28}\,$  I will examine this point and its implications more thoroughly in Part III.  $^{29}\,$ 

The second reason why laypersons are more prone to making miscalculations in their judgments is that they are more likely to be alert to the hazards of an activity, but not very alert to its benefits. Benefits are frequently "cognitively off-screen," although there are situations where it is the hazards that are "off-screen." Because we tend to weigh the benefits against the costs, our decision-making process is highly influenced by whether the hazards or benefits of a particular activity are on- or off-screen. In the cases where a patient lacks information as to the hazards of a certain procedure, there is a further complication because the problem is not simply resolved by informing the patient of the inherent risks. This is because we tend to be extremely risk-averse. A patient who exaggerates the risk in his mind may reject a course of treatment that is in his best interests simply to avoid having to accept the risk.

As such, a powerful justification for the paternalistic model comes firstly, from doctors being better able to present the risks and benefits of a procedure more comprehensively on their patients' cognitive screens;<sup>33</sup> and secondly, in avoiding the possibility that the disclosure of inherent risks might compel a patient to decide against a highly beneficial course of treatment. Accordingly, if we really wanted to further the best interests of the patient, a paternalistic approach would be advisable. On this view, "a decision as to what degree of disclosure of risks is best calculated to assist the particular patient to make a rational choice as to whether or not to undergo a particular treatment must primarily be a matter of clinical judgment."<sup>34</sup>

# B. Groupthink and Mistakes

However, it is one thing to recognise that medical practitioners can perform a useful role in putting the benefits of the proposed procedure on-screen so that patients have a more balanced view when deciding whether or not to consent, and quite another to suggest that this justifies a more paternalistic approach. Such an approach would allow doctors to not only put the positives on-screen, but take the negatives off-screen, thereby channelling a patient towards only one possible decision. Indeed, the run-of-the-mill negligent advice cases do not involve doctors failing to inform patients of the benefits of a particular treatment. Rather, it is almost invariably

Nancy Kraus, Torbjorn Malmfors & Paul Slovic, "Intuitive Toxicology: Expert and Lay Judgments of Chemical Risks" in Slovic, *Perception of Risk*, supra note 9 at 285.

For the moment, see generally *ibid*. at 299.

<sup>30</sup> Howard Margolis, Dealing with Risk: Why the Public and the Experts Disagree on Environmental Issues (Chicago: University of Chicago Press, 1996) at 75-92.

<sup>31</sup> Ibid. at 77-78.

Elke Weber, "Who's Afraid of a Little Risk? New Evidence for General Risk Aversion" in James Shanteau, Barbara Mellers & David Shum, eds., Decision, Science and Technology: Reflections on the Contributions of Ward Edwards (Boston: Kluwer Academic, 1999) 53 at 56-65; see also Nils-Eric Sahlin & Johannes Persson, "Epistemic Risk: The Significance of Knowing What One Does Not Know" in Berndt Brehmer & Nils-Eric Sahlin, eds., Future Risks and Management: Technology, Risk and Society (Netherlands: Kluwer Academic, 1994) 37.

Sunstein, "Laws of Fear", supra note 27 at 1152.

<sup>&</sup>lt;sup>34</sup> Sidaway, supra note 4 at 662-663 (per Lord Bridge).

the complaint that the physician did not warn the patient of the risks of the treatment being proposed. When this happens, the contribution that patients can make towards their own care is sterilised. This is unfortunate because, as we will see, patients can make intelligent choices about their healthcare. Accordingly, the role of the physician must be to engage in a dialogue with his patient about the risks involved.

From a psychological and behavioural point of view, the *Bolam* test is not always effective in picking up the distinction between a physician managing his patient's expectations and a physician manipulating his patient's decision. The test's decisive reliance on whether a body of expert opinion supports the allegedly negligent advice is misconceived for a few reasons.

First, as a matter of practical commonsense, expert witnesses face a conflict of interest. They are often engaged and paid for by the respective parties. This conflict was recognised in *Khoo Bee Keong v. Ang Chun Hong*,<sup>35</sup> where Andrew Phang J.C. (as he then was) cautioned that one must take an expert witness's testimony with a "pinch of salt".<sup>36</sup> It is a reality that barring a truly exceptional case, there will invariably be a body of medical opinion that supports the allegedly negligent physician's practice.

Second, physicians also tend to share similar views because of the phenomenon of affiliation bias. The claim is that experts who are affiliated to a particular organization, field, or school of thought will tend to align their observations and findings in a way favorable to their affiliations. Industrial toxicologists, for example, are more likely to believe that chemicals are benign than their counterparts in academia, government or the general public.<sup>37</sup> Physicians who are used to aggressive forms of therapy to treat pain are also less likely to appreciate the addictive effects of narcotic pain relievers.<sup>38</sup> Therefore, more broadly speaking, doctors who have treated a large number of patients are less likely to accord significance to a randomized one or two percent risk of a side-effect eventuating than an individual patient might.

Physicians also tend to work closely with pharmaceutical companies and this also promotes an affiliation bias when it comes to assessing the risks inherent in a particular course of medication.<sup>39</sup> As medical guidelines—evidence of the practice of responsible persons—are increasingly being written by experts with undisclosed

<sup>35 [2005]</sup> SGHC 128.

<sup>36</sup> Ibid. at paras. 82-84. See also the concern in Canterbury, supra note 5 at 783-784: "We sense the danger that what in fact is no custom at all may be taken as an affirmative custom to maintain silence, and that physician witnesses to the so-called custom may state merely their personal opinions as to what they or others would do under given conditions."

Kraus, Malmfors & Slovic, *supra* note 28 at 311-312; see also Lee Clarke, "Politics and Bias in Risk Assessment" (1988) 25 The Social Science Journal 155.

Sally Satel "Doctors Behind Bars: Treating Pain is Now Risky Business" New York Times (19 October 2004) F6, online: The New York Times <a href="http://www.nytimes.com/2004/10/19/health/policy/19essa.html?pagewanted=2&ei=5088&en=da701934255e5062&ex=1256011200&partner=rssnyt>"http://www.nytimes.com/2004/10/19/health/policy/19essa.html?pagewanted=2&ei=5088&en=da701934255e5062&ex=1256011200&partner=rssnyt>"http://www.nytimes.com/2004/10/19/health/policy/19essa.html?pagewanted=2&ei=5088&en=da701934255e5062&ex=1256011200&partner=rssnyt>"http://www.nytimes.com/2004/10/19/health/policy/19essa.html?pagewanted=2&ei=5088&en=da701934255e5062&ex=1256011200&partner=rssnyt>"http://www.nytimes.com/2004/10/19/health/policy/19essa.html?pagewanted=2&ei=5088&en=da701934255e5062&ex=1256011200&partner=rssnyt>"http://www.nytimes.com/2004/10/19/health/policy/19essa.html?pagewanted=2&ei=5088&en=da701934255e5062&ex=1256011200&partner=rssnyt>"http://www.nytimes.com/2004/10/19/health/policy/19essa.html?pagewanted=2&ei=5088&en=da701934255e5062&ex=1256011200&partner=rssnyt>"http://www.nytimes.com/2004/10/19/health/policy/19essa.html?pagewanted=2&ei=5088&en=da701934255e5062&ex=1256011200&partner=rssnyt>"http://www.nytimes.com/2004/10/19/health/policy/19essa.html?pagewanted=2&ei=5088&en=da701934255e5062&ex=1256011200&ex=12560

So much so that the New England Journal of Medicine will no longer try to find truly independent doctors to write reviews for the journal. See Brian Ross & David Scott, "Influencing Doctors", online: ABC News <a href="http://www.vaccinationnews.com/dailynews/February2002/InfluencingDoctors.htm">http://www.vaccinationnews.com/dailynews/February2002/InfluencingDoctors.htm</a>; Bill Brubaker "Drug Firms Still Lavish Pricey Gifts on Doctors" *The Washington Post* (19 January 2002) E1.

links to pharmaceutical companies, <sup>40</sup> the *Bolam* test is becoming practically ineffective in identifying the proper standards that medical practitioners should be held to. The claim is not that physicians are conscientiously violating their ethical and legal duties for profit. <sup>41</sup> Rather, it is that their perception of the risks involved in a particular treatment regime is likely to be influenced, as studies show, by their allegiance to such pharmaceutical companies. Thus, the bias is not only a benign personal preference. It is a systemic problem that calls for independent oversight.

Third, physicians may hold a similar opinion not because they have an independent belief in its correctness, but because of what is known as an informational cascade. In an informational cascade, people cease to rely on their own private information or opinions and instead decide based on the signals conveyed by others. 42 For instance, suppose that we have a queue of ten oncologists each with a patient suffering from neurocytoma, deciding in sequence what treatment to administer. The first oncologist decides to advise the patient to accept radiosurgery because he believes it is highly beneficial and low in risk. The second oncologist also decides the same way because his information coincides with the first oncologist's. A third oncologist now knows that the first two oncologists prescribed radiosurgery. According to his research, he believes that radiosurgery carries significant risk and its benefits are uncertain. He would not have made an independent judgment in favour of radiotherapy. However, his beliefs are shaken because he knows the two oncologists before him favored radiosurgery. If he cares enough about the views of the first two oncologists, he might very well discard his own information and prescribe radiosurgery instead. And so on. Lest one imagines that this is mere speculation, it is well documented that doctors do "episodically and with a blind infectious enthusiasm push certain diseases and treatments primarily because everyone else is doing the same."43

Fourth, the end result of a large number of physicians holding the same view is that their opinion may tend to polarise.<sup>44</sup> This is known as group polarization: that is, when an identifiable body of persons with a common purpose deliberate, that group is more likely to adopt a position more extreme than the position which the individuals of that group would have reached deliberating alone. Often, these positions tend to be inconsistent with what ostensibly might be the more sensible position.<sup>45</sup> This phenomenon is the result of both an informational cascade and a reputational cascade.

Alison Tonks, "Authors of Guidelines Have Strong Links with Drugs Industry" online: BMJ Publishing Group <a href="http://bmj.com/cgi/content/full/324/7334/383/a">http://bmj.com/cgi/content/full/324/7334/383/a</a>; also, Andy Ho, "Now, Who is Watching the Drug Watchdog" *The Straits Times* (23 January 2005).

Although it has been said that they do. Frank Riddick, Chairman of the AMA Council on Ethical and Judicial Affairs says: "There is probably no physician in the US that hasn't violated in spirit or in fact some aspect of these [ethical] guidelines." See Liz Kowalczyk, "Drug Companies' Push on Doctors Disclosed" Boston Globe (19 May 2002) A1.

<sup>42</sup> Cass Sunstein, Why Societies Need Dissent (Massachusetts, London: Harvard University Press, 2003) [Sunstein, Societies Need Dissent] at 54-73.

John Burnham, "Medical Practice a la Mode: How Medical Fashions Determine Medical Care" (1987) 317 New England Journal of Medicine 1220 at 1201; see also Sushil Bikchandani, "Learning from the Behavior of Others: Conformity, Fads, and Informational Cascades" (1998) 12 J. Econ. Persp. 151 at 167

Sunstein, Societies Need Dissent, supra note 42 at 111-144.

<sup>&</sup>lt;sup>45</sup> *Ibid*. at 119.

A reputational cascade is where individuals, eager to prove themselves and gain acceptance in a group setting, try not to appear out-of-sync. When their original views are confirmed by others, however, they tend to shift towards a more aggressive position. Thus, with individuals corroborating with and mimicking others, and with positions being more aggressive, the group as a whole polarizes. As

An excellent illustration of the dangers of groupthink is found in *Hucks v. Cole.* <sup>49</sup> In that case, the defendant-doctor had failed to prescribe penicillin to a patient who was suffering from septic spots on her skin. These spots contained organisms capable of leading to puerperal fever, which she eventually suffered. A number of distinguished doctors gave evidence that they, like the defendant, would not have administered penicillin. The English Court of Appeal nevertheless found the defendant negligent on the basis that this revealed a lacuna in professional practice where risks of grave danger were knowingly undertaken, even though they could be prevented by an easy and inexpensive method of cure. The court accordingly found that there was no acceptable rationale for this lacuna in the profession.

Sachs L.J. stated: The court must be vigilant to see whether the reasons given for putting a patient at risk are valid in the light of any well-known advance in medical knowledge, or whether they stem from a residual adherence to out-of-date ideas. <sup>50</sup>

This willingness to confront the established opinion of the medical profession is to be welcomed. Indeed, it is somewhat inexplicable that the profession would not have considered prescribing penicillin, which is a cheap and easy form of medication. This "residual adherence to out-of-date ideas" is demonstrative of the need to continually ensure that the bases of medical judgment and opinion are substantively justified and not the result of informational cascading or group polorization, which may well have been the case here. Had the court not held this lacuna to be wrong, it would have created an incentive for the medical profession to continue merrily in its old ways.<sup>51</sup>

Finally, it has been found that experts tend to buy into the fallacious belief in the law of small numbers.<sup>52</sup> This is an exaggerated confidence—even among trained scientists—in the representativeness or validity of a small sampling poll. The implications of this cognitive bias in favour of the fairness of chance are especially seen in the application of new technologies that have yet to be tested on a large enough scale for their results to be predictable. Suppose, for instance, that radiosurgery is a relatively new medical breakthrough and that in ten human subject clinical trials, the

<sup>46</sup> *Ibid.* at 123

Arobert Baron, "Social Corroboration and Opinion Extremity" 32 J. Experimental Soc. Psych. 537 (1996); see also, Mark Kelman, Yuval Rottenstreich & Amos Tversky, "Context Dependence in Legal Decision Making" in Cass Sunstein, *Behavioral Law and Economics* (New York: Cambridge University Press, 2000) 61 (arguing that cautious persons who are unaware of the views of others are likely to choose a midpoint between relevant extremes. But if others appear to share your original point of view, you are likely to be more confident that you are correct and therefore take a more extreme position).

<sup>48</sup> See also Sunstein, "Laws of Fear", *supra* note 27 at 1133-1137.

<sup>&</sup>lt;sup>49</sup> [1993] 4 Med. L. Rev. 393.

<sup>&</sup>lt;sup>50</sup> *Ibid*. at 397.

The application of this principle is also found in other professions: Edward Wong Finance Co. v. Johnson Stokes & Master [1984] A.C. 296; Yeo Yoke Mui v. Ng Liang Poh [1999] 3 S.L.R. 529.

Amos Tversky & David Kehneman, "Belief in the Law of Small Numbers" (1971) 76 Psychological Bulletin 105; Sunstein, "Laws of Fear", *supra* note 27 at 1152.

dosage for treating neurocytoma was the same as that for treating malignant gliomas. In comes a patient who is being treated for neurocytoma. The physicians determine that because the previous dosages worked, they will likewise administer it for her. Therefore, they advise her that the procedure will be safe. There is a hint that this cognitive flaw might have been at work in *Gunapathy*. For instance, the radiation oncologist's total experience and knowledge were that he had attended a course on the use of the radiosurgery machine and had treated six patients before *Gunapathy*. Yet it does not appear from the record that he informed the patient of this fact. This implies the possibility that the radiation oncologist believed that if the procedure worked in the last six cases, then *Gunapathy's* case must be no different.

In these scenarios, the courts should be slow to dismiss as not negligent the lack of a warning. It is one thing to suggest that the procedure was safe for the last six patients; it is quite another to convey the impression that it will be safe for the next patient. While the court should be sympathetic to the fact that in cases where new technologies are employed, there will tend to be no real medical experience to go by, it should not condone doctors withholding the fact that they are operating in new territory. The *Bolam* test may fail to pick up on this distinction because if it is true that even trained experts succumb to this fallacy, it is quite likely that the defendant-doctor will be able to find a body of opinion that would argue that the lack of a warning is not negligent or contrary to current practice.

A more stringent strain of judicial oversight is therefore necessary for two reasons. The first is that it would remove the incentive for medical practitioners to ape the practices of their colleagues. If the courts were more willing to reach the substantive merits rather than adopt a more hands-off, merely procedural approach which readily accepts any practice so long as it conforms to a body of medical opinion, <sup>54</sup> it would serve as a more independent and effective check to practices that may be inconsistent with the patient's ultimate best interests. The second reason is a corollary of the first: that it would create, in Professor Cass Sunstein's language, <sup>55</sup> an incentive to dissent and prevent the sort of groupthink that may occur otherwise because there is less pressure to fit one's analysis with the others' in order to be protected under the law.

## III. THE RIGHTS-BASED APPROACH

The rights-based model proceeds on the twin assumptions of patient autonomy<sup>56</sup> and skepticism of the automatic assumption of medical beneficence.<sup>57</sup> Its central

<sup>53</sup> The author does not have first-hand knowledge of the witnesses and defendants and can base his analysis only on the facts presented in the opinions of the High Court and the Court of Appeal.

The Court of Appeal's elaboration of the appropriate test to be employed in *Gunapathy*, for instance, shifts the *Bolam* plus *Bolitho* test to one that is clearly procedural- and process-based, obliging the physician only to direct his mind to the comparative risks and benefits in coming to a defensible conclusion. A defensible conclusion, in turn, is one that is not inconsistent on its face and in terms of known medical practices and knowledge: at 433-434. Thus, "it is the process and not the result of the expert's reasoning that is material in the eyes of the court."

<sup>55</sup> Sunstein, Societies Need Dissent, supra note 42.

An excellent summary of the ethical values underlying informed consent may be found in Paul Appelbaum, Charles Lidz & Alan Meisel, *Informed Consent: Legal Theory and Clinical Practice* (Oxford: Oxford University Press, 1987) at 17-32.

<sup>57</sup> The Right Honorable the Lord Chief Justice of England and Wales, Lord Woolf, summarizes the reasons for the courts' increasing skepticism in Lord Woolf, "Are the Courts Excessively Deferential to the

premise is that "respect for the patient's right of self determination on particular therapy demands a standard set by the law for physicians rather than one which physicians may or may not impose on themselves."<sup>58</sup> The test is more objective, <sup>59</sup> less dependent on medical opinion and places emphasis on the patient's viewpoint. <sup>60</sup> The question is: what do patients know that doctors do not?

#### A. Doctors Don't Know Best, All the Time

If doctors are not impervious to cognitive biases, can the non-expert patient fare any better? Slovic thinks so.<sup>61</sup> He believes that laypersons make subtle judgments of value in what he calls the "psychometric paradigm."<sup>62</sup> They display a "rival rationality"<sup>63</sup>—taking into account a variety of considerations that statistically-minded technocrats may not. Thus, Slovic lists a long menu of factors that can make a particular risk more or less acceptable. For example, the controllability of the risk, whether it is dreaded or not, the consequences if the risk eventuated, and its impact on future generations all make a difference, assuming that the expected number of fatalities (which experts are concerned with) holds.<sup>64</sup>

In addition, an individual's background can, and often does, determine his decisions. Gender, race, economic status, and one's view of the world influence one's perception of risk. For example, those who work in a technologically-advanced field and are in control of science are more likely to be comfortable making choices about medical treatment than an uninsured, self-medicating adult.<sup>65</sup> They would also be more comfortable handling numbers and statistics without feeling alienated from the process.

That a layperson's assessment of risk is "richer" and reflects legitimate concerns that are not usually captured by experts<sup>66</sup> is exemplified in how people are far more

Medical Profession?" (2001) 9:1 Med. L. Rev. 1. Lord Woolf also decided the case *Pearce v. United Bristol Healthcare NHS Trust* (1998) 48 B.M.L.R. 118 when he was Master of the Rolls in the Court of Appeals. There, he said that "if there is a significant risk which would affect the judgment of the reasonable patient, then in the normal course it is the responsibility of the doctor to inform the patient of the significant risk if the information is needed so that the patient can determine for himself as to what course he should adopt." This approach is remarkably similar to that espoused by the Australian High Court in *Rogers*, *supra* note 5.

- 58 *Canterbury, supra* note 5.
- <sup>59</sup> Sidaway, supra note 4 at 654 (per Lord Scarman).
- This is best exemplified in the *Rogers* test: *supra* note 5 at 490.
- 61 Indeed, it would be very strange, if not irresponsible, for the law to suppose, on the one hand, that individuals are incapable of deciphering medical information and yet mandate that they should have the right to accept or reject treatment.
- 62 Paul Slovic, "Perception of Risk" in Slovic, Perception of Risk, supra note 9 [Slovic, "Perception of Risk"] at 222.
- 63 Sunstein, "Laws of Fear", *supra* note 27 at 1144.
- Paul Slovic, Baruch Fishoff & Sarah Lichtenstein, "Facts and Fears: Understanding Perceived Risk" in Richard Schwing & Walter Albers Jr., eds., Societal Risk Assessment: How Safe is Enough? (New York: Plenum, 1980) at 181-214. See also, Lord Scarman's dictum in Sidaway, supra note 4 at 652, on how a patient's decision may reflect priorities which are from his doctor's.
- 65 Slovic, "Risk-Assessment Battlefield", supra note 11; Paul Slovic, "Trust and Democracy" in Slovic, Perception of Risk, supra note 9 at 316-326.
- 66 Slovic, "Perception of Risk", *supra* note 62 at 231.

willing to smoke<sup>67</sup> or not wear seatbelts<sup>68</sup> than to have marijuana legalized. This is despite the fact that smoking and not wearing seatbelts carry a much higher statistical probability of potentially fatal consequences. This stark attitudinal difference can only be explained on the theory that there are qualitative factors that come into play in the perception of risk by laypersons. Furthermore, because a layperson assesses risk by reference to his surroundings, a one percent risk may be considered significant at one point in his life but not at another.

Unfortunately, the courts currently seem willing to rest their judgment on just the statistical probability of a particular side effect eventuating. Note, for example, Lord Bridge's opinion in *Sidaway* in which he characterises "substantial risk" in terms of statistical risk, citing and rationalizing the ten percent risk in *Reibl* as a reason why the court found the physician negligent in that case. <sup>69</sup> But, as we have seen, patients do not comprehend risk in this way.

So, the question of what constitutes a substantial or material risk cannot be answered by meaningless line-drawing around statistical probabilities. After all, how substantial is substantial? As Kennedy and Grubb argue, this approach wrongly represents what is a *normative* concern as merely a statistical matter.<sup>70</sup> The concept of a material risk only has substantive content and meaning when reference is made to the peculiarities of the particular patient and consideration is given to how the patient perceives the risk.

Again, the *Bolam* test is insufficient to hold physicians to a proper standard of care. Because the test gives much weight to the experience of the physician and his professional colleagues, emphasis is invariably placed on the generalization of that experience rather than on the specific differentiating factors in each case. The test is blind to the unique circumstances of particular patient, merely asking, "What should a doctor usually say to *a* patient who asks about radiosurgery?" Instead, the question should be, "What should the doctor have said to *the* patient about radiosurgery?"

# B. To Err is Human, Indeed

Notwithstanding the advantages of the rights-based model in recognising the complexity of the decision-making process of any individual, it would be wrong to argue that laypersons are always going to reach a decision that is rational or in their best interests. Laypersons—and patients—do suffer from cognitive heuristics that may impair their judgment of the true extent of the risks involved in a particular activity.<sup>71</sup>

Paul Slovic, "Do Adolescent Smokers Know the Risk?" in Slovic, Perception of Risk, supra note 9 at 364-371.

Paul Slovic, Baruch Fishoff & Sarah Lichtenstein, "Accident Probabilities and Seatbelt Usage: A Psychological Perspective," in Slovic, Perception of Risk, supra note 9 at 73-79.

Sidaway, supra note 4 at 663.

No. See Kennedy & Grubb, supra note 10 at 692-693.

<sup>71</sup> It is important to keep in mind the following. First, much of the work of behavioural psychology grew out of a competition with economists' rational choice theory, and thus, focused on demonstrating how the human mind is susceptible to making inaccurate, if not irrational decisions. Some skepticism is therefore necessary. Second, it is not impossible, once we know of our cognitive biases, to learn how to overcome them so that our decisions are more accurate in the future. Thus, it is possible through education, and with the assistance of the physician himself, for a patient to make proper choices despite

The availability heuristic is the most important in understanding how risk is perceived. The argument is that one's perception of risk depends heavily on the ability to recall salient examples of where the risk eventuated. As such, the heuristic leads people to answer the question of probability by replacing a hard question (What is the statistical risk?) with an easy question (Do salient examples readily come to mind?). Therefore, if a patient is being advised on treatment with a particular possible side effect and, in the last week, has read two cases relating to the eventuation of that same side effect (with disastrous, permanently-debilitating consequences), he is highly likely to perceive the treatment as being particularly dangerous when those incidents might have been exceptional.

A good example is found in *Reibl*. In that case, the plaintiff was talking to his roommate about a proposed operation when the latter's wife, who was visiting, remarked that she had had a similar diagnosis but had refused to accept the operation. The plaintiff also learnt that "there had to be replaced a plastic tube for the artery." The plaintiff immediately expressed anxiety and sought reassurance from his doctor. This episode shows how powerful the heuristic can be. Because the plaintiff was aware of someone who had rejected the operation—with the obvious implication that it might be dangerous—he unquestionably applied it to his situation.

The availability heuristic often combines with the affect heuristic to produce potentially misleading perceptions of the risks and the benefits of a particular treatment. Affect heuristic is a cognitive bias that leads ordinary persons to think that risky activities carry low benefits, and *vice versa*. Very few think that an activity can be both highly risky and highly beneficial—as may be the case in certain medical procedures. Thus, if examples of medical disasters come to mind easily, this would lead people to think the risks are especially high. In turn, this will lead people to think that the benefits are low.

A related, though different, cognitive bias that laypeople suffer from is called probability neglect. Essentially, what most do, when confronted with a situation, is to think of the worst possible outcome. By doing so, the question of the probability of the risk eventuating becomes moot. If one has an especially vivid imagination of the worst possible outcome, it will tend to crowd out all other factors that should be considered in making a decision.<sup>76</sup> Thus, a patient advised that he may suffer from paralysis as a result of a procedure may be willing to take the risk of not being treated in order to avoid even the small risk of paralysis.

his cognitive limitations. See Jeffrey Rachlinski, "The Uncertain Psychological Case for Paternalism" (2003) 97 Nw. U.L. Rev. 1165.

<sup>&</sup>lt;sup>2</sup> Cass Sunstein, "Probability Neglect: Emotions, Worst Cases and the Law" (2002) 112 Yale L.J. 61.

The flow of information through the media has an important has an important impact on our perception of risk. It is a major agent of amplification. The volume of information, the degree to which the information is disputed, the extent of the dramatization and the symbolic connotations of the information are all relevant factors in amplifying risk in the minds of the public. See Roger Kasperson, Ortwin Renn & Paul Slovic, "The Social Amplification of Risk: A Conceptual Framework," in Slovic, Perception of Risk, supra note 9 at 232-245.

This is a transcript of the plaintiff's testimony in the court of first instance, reproduced in the Supreme Court's judgment at *supra* note 5 at 18-19.

Melissa Finucane, Ali Alhakami & Paul Slovic, "The Affect Heuristic in Judgments of Risk and Benefits" in Slovic, Perception of Risk, supra note 9 at 413.

Cass Sunstein, "What's Available? Social Influences and Behavioral Economics" (2003) 97 Nw. U.L. Rev. 1295 at 1303-1306.

All these heuristics add to the stress of being a patient and having to make a decision between alternative treatments, all with their own risks.<sup>77</sup> It is a truly daunting prospect. As such, if the ultimate aim is that a balanced and well-reasoned decision is arrived at, the courts must not be too interventionist in their assessment of whether a physician has been negligent in his advice. If knowledge of a risk merely amplifies inaccurate and bad judgment, a full-blooded rights-based model may not always be desirable.

In this regard, it is interesting to note that even in Australia, there appears to have been a shift since *Rogers*. In *Rosenberg v. Percival*, <sup>78</sup> Justices Gummow and Callinan were at pains to emphasize that the notion of a "material risk that a patient was likely to attach significance to" was not an open-ended or fully subjective inquiry. <sup>79</sup> In Justice Gummow's opinion, the likelihood that a patient would attach significance to a particular risk is to be determined by the magnitude of the risk and the degree of the probability of its occurrence, balanced against the expense, difficulty and inconvenience of taking alleviating action and any other conflicting responsibilities that the *defendant* may have. <sup>80</sup> Justice Callinan stressed that in assessing whether the standard of care to be expected of someone had been breached, the word "reasonable" had "real work to do." <sup>81</sup> In these various formulations, the materiality of the risk turns on the physician's calculation of the risk. Little room is allowed for the consideration of how the patient would have viewed the risk. <sup>82</sup>

## IV. WHERE DO WE GO FROM HERE?

The question that remains to be answered is this—given the divergent ways in which doctors and patients perceive risk, how should the law shape the way physicians communicate risk such that it optimizes the chances that rational decisions are made?<sup>83</sup>

Benedict Carey "In the Hospital, A Degrading Shift from Person to Patient" New York Times (16 August 2005) A1, online: The New York Times <a href="http://www.nytimes.com/2005/08/16/health/16dignity.html?ex=1281844800&en=0be8bf61b4e04204&ei=5088&partner=rssnyt&emc=rss">http://www.nytimes.com/2005/08/16/health/16dignity.html?ex=1281844800&en=0be8bf61b4e04204&ei=5088&partner=rssnyt&emc=rss>; Jan Hoffman, "Awash in Information, Patients Face a Lonely, Uncertain Road" New York Times (14 August 2005) 1.1, online: The New York Times <a href="http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&ei=5088&partner=rssnyt&emc=rss>">http://www.nytimes.com/2005/08/14/health/14patient.html?ex=1281672000&en=6ec6abca057820c9&en=6ec6abca057820c9&en=6ec6abca057820c9&en=6ec6abca057820c9

<sup>&</sup>lt;sup>78</sup> (2001) 205 C.L.R. 434 [Rosenberg].

<sup>&</sup>lt;sup>79</sup> *Ibid.* at 458, citing *Wyong Shire Council v. Shirt* (1980) 146 C.L.R. 40 at 47-48.

<sup>80</sup> Ibid.

<sup>81</sup> Ibid. at 504.

<sup>82</sup> If one were to assume a fully objective interpretation of the first limb of the Rogers test, then the patient's subjective assessment of the risk only comes in at the second limb. Even so, the burden appears to be on the patient to make clear her concerns. No obligation is placed on the physician to engage in any sort of constitutive dialogue, a point that will be pressed in Part IV.

I must stress again that I am not saying that rational decisions should be made, and that it is the sole arbiter of a good system. However, this essay is not about those competing value systems *per se*. It proceeds on the assumption that such reasonable and rational decisions are in and of themselves not necessarily a bad thing, and that as far as possible we should try to arrive at them. Thus, I am only concerned with how the doctrine of informed consent should be formulated such that we maximize this possibility.

## A. Trust

The basic principle that the courts should take into account in structuring the doctrine of informed consent is trust. Why? We now understand that physicians and patients perceive risk and speak about risk differently. We cannot force one group to accept the decision of the other without each appreciating the contribution that the other makes to the decision. A physician is also less likely to be genuinely interested in the patient's welfare if he is not involved in it in a meaningful way. Similarly, the moment we equate risk information solely with technical information, which, in turn, is the sole purview of physicians, we grant exclusive privilege to a self-selecting caste of society and alienate patients. This alienation of patients from the medical process is, from a therapeutic perspective, undesirable. 85

It is necessary to find a way to bring these divergent views to the same table and to negotiate them. There needs to be a constitutive process between physician and patient. While the field of risk perception and communication is relatively new, the question of bridging divergent views is not. For those of us who live in democratic societies, it is something we deal with all the time. We may draw a parallel. In democracies, it is not enough that a government invites views. The public must trust that the government will take their views seriously, and continue to involve them. The government, on the other hand, must trust that its citizens would exercise their freedom to criticize in a constructive and meaningful way.

Informed consent, when properly formulated, can facilitate the fostering of trust. When a patient understands that he is not being bullied or patronized, he has more confidence to ask, probe and deliberate. Similarly, physicians have an incentive to remain involved in their patients' care because the law's focus—as I propose below—will shift from a narrow examination of the decision not to warn to an analysis of the process of risk communication and dialogue between the parties.

There is another benefit in engendering trust. One of the strongest objections to a rights-based model is that patients may reject a beneficial course of treatment if told of the inherent risks. It is suggested that when patients understand that their doctors are recommending a course of treatment with a full appreciation of their concerns and anxieties, they are more likely to believe that the proposed treatment is worth the risk. Conversely, if a patient thinks that his doctor is not aware of how he perceives the risk and why, an enthusiastic recommendation of a beneficial treatment is not likely to have much effect. As one study shows, patients are more likely to accept prescription drugs that have warning labels on

<sup>84</sup> See the U.K.'s General Medical Council's Guidance: "Seeking Patients' Consent: The Ethical Considerations" (November 1998), at para. 1, online: General Medical Council <a href="http://www.gmc-uk.org/guidance/library/consent.asp">http://www.gmc-uk.org/guidance/library/consent.asp</a>.

Sheila McLean, A Patient's Right to Know: Information Disclosure, the Doctor and the Law (London: Dartmouth, 1989) at 4. Not to mention the endorsement of the political philosophy of technocratic paternalism, a philosophy that most societies accept as being unfruitful and ultimately harmful to wider social goals. Such a practice will also amplify the dangers I analyzed in Part II (b).

As the majority opinion pointed out in *Rogers*, *supra* note 5 at 630-631: On the logic of the paternalistic model, even if a patient asks a direct question about the possible risks or complications, the making of that inquiry is of no significance since it is medical opinion that determines what is to be disclosed.

them—even when the side effects are high—than drugs without.<sup>87</sup> (One might suggest that there is a "better the devil you know" heuristic at work.) Thus, trust is both the reason for and the effect of a constitutive dialogue between physician and patient.

## B. Proposal for Reforming the Structure of Informed Consent

If the foregoing analysis is correct, then it is clear that the extreme positions of paternalism and the rights-based model must be rejected in favor of a more nuanced approach when it comes to the doctrine of informed consent. By adopting extreme positions, the courts do not give sufficient credit to the value of the contribution that each side makes to the final decision. Moreover, the courts' focus is inevitably on the singular omission itself. Under the more deferential approach in *Sidaway*, the courts ask whether the particular omission or piece of advice was sufficiently serious or crucial in the eyes of a body of responsible medical practitioners. Under the more skeptical approach, the courts ask if the individual patient would have attached significance and materiality to the particular piece of information if he had been told about it. What is woefully lacking is a consideration of the fact that healthcare is often a long-term relationship and that focus should center on the process of risk communication between physician and patient. This criticism was recognised in *Rosenberg*:

That the principle tends to view patient concurrence in important medical procedures as depending upon a single instance of warning and "consent" which consigns patient participation in decision-making to an unacceptably passive role. It fails to view the healthcare relationship, as best practice contemplates, as involving a continuous relationship. In a continuous dialogue, fears and concerns are explored and experience effectively communicated so that a meaningful choice may be made which takes into account the considerations personal to the patient as well as the experience of the practitioner and the advancing knowledge of his or her discipline.<sup>89</sup>

Reform of the current structure of informed consent must take these objections into account. I shall attempt to do so in the following paragraphs. Because of the complexity of the factors involved, I propose to state them in the form of general principles that the courts should take into consideration in deciding the extent of the defendant-doctor's duty of care in dispensing pre-treatment advice. Of course, the exact contours of this proposed formulation informed consent can only be fleshed out as cases come before the courts. As one commentator notes, private tort litigation is usually conducted "by self-interested litigants on the basis of narrow, often atypical fact situations". Accordingly, principles of law—as always—should not be

Paul Slovic, "The Perception and Management of Therapeutic Risk," in Slovic, Perception of Risk, supra note 9 at 262

Of course, the final decision as to what treatment to accept is, without doubt, the patient's sole prerogative. The issue is, and has always been, about the disclosure of information relating to the risk involved in the treatment being recommended.

<sup>89</sup> Supra note 78 at 479 (footnotes omitted).

<sup>90</sup> Peter Schuck, infra note 118 at 948.

treated as ossified and unyielding. They should be applied in a manner that achieves substantive justice.

The first principle is this. As much as the overriding decision as to whether advice was negligent should remain with the courts,  $^{91}$  the contribution of the medical profession cannot be ignored. Even cases adopting a rights-based approach recognize the crucial role that special training and technical information have in arriving at rational decisions. In *Reibl*, the court cited an article  $^{92}$  that had commented on the American line of cases including *Canterbury*  $^{93}$  as follows:

Even *Canterbury* specifically notes that expert testimony will still be required, in all but the clearest instances, to establish (1) risks inherent in a given procedure or treatment, (2) the consequences of leaving the ailment untreated, (3) alternative means of treatment and their risks, and (4) the cause of the injury suffered by the plaintiff-patient. Finally, if the defendant-physician claims a privilege, expert testimony is needed to show the existence of (1) an emergency which would eliminate the need for obtaining consent, and (2) the impact upon the patient of risk disclosure where a full disclosure appears medically unwarranted.<sup>94</sup>

This is an undoubtedly correct description of the role that medical evidence can and should play. The courts, after all, cannot invent risks out of thin air. If they are to find a duty that a particular risk ought to have been disclosed, they should do so by applying their minds to the comparative advantages and disadvantages of the various options open to the physician so that they are able to decide whether the physician has been negligent in his advice. However, the current practices of the medical community should not always be decisive. The courts should not only look at the practice *per se*, but at the reasons for adopting the practice so as to check that the practice does not merely stem from a "residual adherence to out-of-date ideas". The probative value of common practice will increase the more it is demonstrated that it is logically defensible and takes into account technological advances and common sense. <sup>95</sup>

The second principle is one that is readily gleaned from the foregoing discussion, and it is that emphasis should be placed on the role that the patient can play in his own healthcare. As one author notes:

Many studies of community responses to risk have shown that citizens are capable of learning extraordinary amounts of technical information, and indeed of

Even the majority in Sidaway recognised that there might be circumstances where the proposed treatment involved a substantial risk of grave consequences in which a judge could conclude that, notwithstanding any practice to the contrary accepted as proper by a responsible body of medical opinion, a patient's right to decide whether to consent to the treatment was so obvious that no prudent medical man could fail to warn of the risk save in emergency or some other sound clinical reason for non-disclosure.

Linda Babbitt Jaeckel, "New Trends in Informed Consent?" (1975) 54 Neb. L. Rev. 66 at 90-91.

<sup>93</sup> Supra note 5.

Reibl, supra note 5 at 13-14; see also Lord Scarman's opinion in Sidaway, supra note 4 at 654, where he stressed that medical opinion was important in determining what risks exist and whether the doctor was justified in not disclosing the risk. However, His Lordship did not go far enough—merely equating materiality of the risk to the likelihood of it occurring and the consequences, without reference to whether and how the patient would attach materiality to the risk had she been told of it.

<sup>95</sup> Gunapathy, supra note 4 at 450-454: The medical opinion must be internally consistent on its face and does not fly in the face of "proven extrinsic facts" or "known medical facts or advances in medical knowledge".

participating actively in creating new knowledge, where the stakes are high enough...[T]he lay person can become an expert in a very short span of time, and her expertise will be all the more formidable because it combines formal technical knowledge with local knowledge that is as relevant as it is unstructured and informal.<sup>96</sup>

However, a necessary implication of the idea that patients place emphasis on qualitative factors means that each patient will place different emphasis on different qualitative factors. Hence, it is not enough for the court to merely ask whether the reasonable patient would have regarded the information as significant. It must also ask whether the particular patient would have thought so.

This approach might be criticized as being inherently uncertain. Is a doctor supposed to second-guess his patient? Two responses are in order. First, as a matter of practicality, doctors are trained to take the medical histories of their patient so that at the very least they can be expected to understand the medical circumstances and background of the individual. Thus, to cite an extreme example, if a patient has already lost an eye, it can be readily assumed that he will attach great significance to even a small probability that the proposed treatment may result in his other eye failing. Accordingly, the only real extension that this principle calls for is that the doctor understands the personal circumstances of the patient. Even so, this extension is not as drastic as it may sound. In many cases, it would be easy to say whether a plaintiff would have found the risk material—there are side effects that obviously no one would not attach some significance to, such as paralysis, loss of sight and so on. In other cases, there may be special concerns. But a patient who consults a physician for an operation or procedure is already likely to inform him of any of his unique circumstances or anxieties.

The second response is that as a matter of legal principle, it would be ridiculous to expect that doctors can read the minds of their patients. As always, context is important in assessing what is reasonable to impose on physicians. Therefore, if the patient asks questions or makes information about his background known that would alert a reasonable physician that a particular fact would be regarded as material, then the physician is negligent if he does not inform the patient of that fact.<sup>97</sup> This scenario was spectacularly demonstrated in Rogers, where the patient, who eventually suffered from sympathetic ophthalmia, had incessantly questioned the physician on the possible complications of the surgery, including the danger of unintended or accidental interference with her only good eye. Her only fault was her failure to ask a specific question as to whether the operation on her right eye could affect her left eye. In such a situation, it is not good enough, as the High Court of Australia found, to simply assert that a body of opinion in the medical profession would agree that the warning should be administered only if there had been a specific inquiry directed at the possibility of the left eye being affected by the operation in the right eye. This is not only pedantry in the extreme, but a resoundingly obvious example of the

See Sheila Jasanoff, "Bridging the Two Cultures of Risk Analysis" (1993) 13 Risk Analysis 123 at 127-128, quoted in, Timothy Earle & George Cvetkovich, "Risk Communication: The Social Construction of Meaning and Trust" in Brehmer & Sahlin, *supra* note 32 at 145.

Rosenberg, supra note 78 at 491: The law should not only hold a doctor liable if the patient "asks the right question" but also if he has made it clear that he is generally concerned about the possible complications of the procedure.

dangers in meekly subscribing to the views of the medical profession. A physician who willfully blinds himself to the obvious should not be able to seek refuge in the practice of his fellow professionals. A focus on the constitutive process of risk communication means that the courts should be examining whether the physician has made a reasonable attempt at deciphering the patient's core concerns by asking, probing and sharing with the patient. It should not be enough simply to say that the patient did not ask.

The final principle is this. One of the more important contributions that psychological analyses have made is that we now appreciate that it is not only what is disclosed but *how* it is disclosed that makes the difference. At one level, the information must be described accurately, although presented in a way that is understandable. At another level, given the cognitive biases at work, conveying the information cannot just be a dry briefing. Thus, if a patient is almost certain to die without treatment and he feels that a 5% chance of paralysis is too high, the doctor may pitch it another way. He may say that 19 out of 20 patients do well and the odds are in his favour. Or, suppose the patient reveals a severe underestimation of the 5% risk, the doctor may suggest that out of 20 surgeries per month, there is one death. 99

Manipulation is, of course, possible. In *Reibl*, the doctor was able to manipulate the patient's choice by minimising the risks involved in the procedure while playing up—graphically—the consequences of not proceeding with the surgery. The courts ought to be alive to this problem and pay attention to how risks are communicated. The doctor should employ our understanding of the layperson's mind to check that the patient has a realistic understanding of the risk involved, not to manipulate his consent.

With these principles in mind, how should a judge decide? He would first ask whether a responsible body of medical opinion would concur in the doctor's conclusion that the risk of the particular side effect accruing is low. He would also ask if that responsible body of medical professionals would have decided against disclosure. If the answer to both is yes, he should go on to examine the reasons underlying their concurrence of opinion. The more these reasons are inherently cogent and congruent with known medical facts and knowledge at that time, the more likely the evidence should persuade the judge that the defendant did not breach his duty of care. This reasoning process ensures that the physicians themselves are not reaching their conclusions based on their own cognitive biases. Thus, the initial inquiry focuses on what a reasonable physician would have told an ordinary patient.

However, the analysis must go on. Notwithstanding the medical evidence, the court must ask itself whether the physician ought to have known that the particular patient would have attached significance to the risk. The court can assess this by looking at all the facts that have surfaced. In particular, the court should be concerned with whether the defendant had made a reasonable attempt at engaging in a meaningful dialogue with the patient about the risks and benefits of the proposed course of treatment.

The standard to be expected is one that should ultimately be decided by the courts rather than by the medical community. To do otherwise would be to defeat the

<sup>98</sup> Jasanoff supra note 96

<sup>99</sup> I borrow these examples directly from Dr. Balaji Sadasivan's speech: supra note 2.

<sup>100</sup> Reibl, supra note 5 at 19.

purpose of the reform. Nonetheless, the law should not set impractical standards. <sup>101</sup> As such, the courts should be sensitive to context. For example, medical practitioners in public or general hospitals or polyclinics face time pressures that are quite different from private specialist clinics. <sup>102</sup> It is also common practice for junior medical staff at general hospitals to be in charge of explaining the risks and benefits of treatment, whereas patients at more exclusive hospitals or clinics would probably receive more individualized care. There will also be less opportunity for proper dialogue in emergency life-saving cases than in elective surgeries. <sup>103</sup> This is no more than a reflection of the general tortious principle that a defendant is liable for the level of skill or standard of care that he holds himself out to possess. <sup>104</sup> Still, the courts should not be too deferential. As Kirby J rightly pointed out in *Rosenberg*:

[R]eality demands a recognition that sometimes (as in the present case) defects of communication demand the imposition of minimum legal obligations so that even those providers who are in a hurry, or who may have comparatively less skill or inclination for communication, are obliged to pause and provide warnings of the kind that *Rogers* mandates.<sup>105</sup>

The courts should also be sensitive to another potential problem, which is that the patients themselves may be willing to "let the doctor decide" and may not be very interested in participating in the sort of constitutive dialogue proposed here. Indeed, given the longstanding tradition of unquestioned compliance with a doctor's prescription and an Asian deference to authority figures, this is likely to be a problem initially. <sup>106</sup> As such, the fact that no such dialogue occurs should not itself be decisive in ascertaining if the physician has done what was reasonable in the circumstances to initiate and encourage dialogue.

## V. OBJECTIONS TO REFORM

I will now turn to consider briefly the other possible objections to my proposed approach, many of which are set out in Lord Bridge's and Lord Diplock's opinions in *Sidaway*. I will then consider the issue of the costs involved in and the efficacy of reforming the doctrine of informed consent.

In *Sidaway*, Lord Bridge stated three objections to a more rigorous scrutiny of negligent advice. First, a physician's clinical judgment is based on his own clinical judgment and the doctor cannot set out to educate the patient to his own standard of medical knowledge of all the relevant factors involved. Second, it is unrealistic in any medical negligence action to confine the expert medical evidence to an explanation of the primary medical factors involved and to deny the court the benefit of evidence

<sup>&</sup>lt;sup>101</sup> Latimer v. A.E.C. [1953] A.C. 643.

See e.g., the difference in workload between "concierge clinics" and the average clinic in "For a Retainer, Lavish Care by 'Boutique Doctors" New York Times (30 October 2005) 1.1, online: The New York Times <a href="http://www.nytimes.com/2005/10/30/health/30patient.html?ex=1288328400&en=920272decb5c0918&ei=5088&partner=rssnyt&emc=rss>.">http://www.nytimes.com/2005/10/30/health/30patient.html?ex=1288328400&en=920272decb5c0918&ei=5088&partner=rssnyt&emc=rss>.</a>

<sup>&</sup>lt;sup>103</sup> Hopp v. Lepp [1980] 2 S.C.R. 192.

Wells v. Cooper [1958] 2 Q.B. 256; The Lady Gwendolen [1965] P. 294; Luxmore-May v. Messenger May Bayerstock [1990] 1 W.L.R. 1009.

<sup>105</sup> Supra note 78 at 480.

<sup>&</sup>lt;sup>106</sup> See generally Jay Katz, The Silent World of Doctor and Patient (New York: Free Press, 1984).

of medical opinion and practice on the particular issue of disclosure which is under consideration. Third, an objective approach is imprecise and would cause uncertainty in this area of litigation. <sup>107</sup>

The first objection is refuted by the analysis above, mainly, that lay persons are capable of understanding complex matters if the information is communicated to them in a manner that respects their intelligence and has regard to their background. It is certainly true, as Lord Bridge argues, that some patients would tend to exaggerate the risks in their mind. But the solution to this problem is not always less information; it may well be more information. As argued above, a constitutive dialogue will, in fact, engender trust. This, in turn, aids in physicians having credibility when they seek to persuade their patients to accept treatment.

The second objection is also answered by our analysis above, that is, that medical evidence is important in determining whether advice was properly given. However, the main thrust of the proposed approach is that such expert opinion should not be conclusive. Each patient is different and requires different levels of disclosure. The minimal standard of what a reasonable physician would have done is often based on the hypothetical, generalized stereotype of what a patient would want or could handle. Such an approach would fail to pick up the unique differences between each patient.

The third objection may be addressed as follows. It is certainly true that under the approach advocated, the courts are required to undertake a more thorough analysis of the case, paying attention to the particularities of the patient in question. While this may entail a more specific fact-finding process, it does not necessarily entail so much uncertainty or subjectivity as to cause confusion. This is because the proposed structure of informed consent does not do away with the vital role that prevailing medical opinion play under the paternalistic model. It only makes it less decisive; a move that has not triggered an apocalypse in terms of litigation in those jurisdictions that have adopted a more rights-based model.

Moreover, Professor Schuck, for example, has proposed that the courts could instill stability in their analytical framework by creating categories of differentiated informed consent doctrines that would form the reference point from which the infinite variation of factual matrices could be examined. These different doctrines would impose varying obligations depending on a range of factors such as the nature of the treatment, the setting in which the advice takes place, the number and type of alternatives that are practically available, the degree of medical uncertainty as to the risks, the special capacities or vulnerabilities of the patient and so on. <sup>108</sup> As such, the courts may require more stringent scrutiny in cases where the risks involved are great, or conversely, informed consent might be more easily inferred where the risks are infinitesimal. The law of torts is no stranger to such a categorical approach. In

<sup>&</sup>lt;sup>07</sup> Sidaway, supra note 4 at 662.

Peter Schuck, *infra* note 118 at 954. Professor Schuck cites Professor Katz's article for examples of what such categories might look like: (1) relatively minor, time-limited disorders involving relatively low-risk treatments; (2) acute disorders that require a physician to intervene immediately and to keep the patient relatively anxiety-free; (3) elective procedures or situations in which many treatment and non-treatment options are available and the decision is not rushed; and (4) conditions in which prognosis is dire and fatal outcome is a likely prospect. At note 216 in Schuck's article, he cites Jay Katz, "Physician-Patient Encounters 'On a Darkling Plain'" (1987) 9 W. New Eng. L. Rev. 207 at 221-222.

assessing the standard of care required of a physician in treatment and diagnosis, it matters, for instance, whether the physician is a specialist or a general practitioner.

The courts can also create more predictability by enumerating the obligations expected of a physician in each of these categories. Guidelines may also be provided by Parliament, as they are in New Zealand, <sup>109</sup> or by the Singapore Medical Council. <sup>110</sup> Once the basic philosophical premise of this article is accepted, there is no reason why these bodies would be unable to assist the courts in formulating more precise obligations in consultation with the public and the medical community.

The advantage of this approach is that it relies on professional judgment as to the medical risks involved, which prevents the analytical framework from being too subjective. The courts will require more of the physician only as the medical risks involved become more pronounced. But it also has the flexibility to allow the courts to take into account a whole range of factors, including the patient's peculiarities, in assessing whether the physician has done enough to explain the risks and benefits of the proposed course of treatment.

Lord Diplock, in *Sidaway*, raised another important conceptual point: why not treat the area of advice merely as one part of the doctor's comprehensive duty of care and apply *Bolam* to it? Is it not artificial to carve out singular duties and apply different tests to them?<sup>111</sup> While the seductive simplicity of this argument is appreciated, it should be clear by now why the issue of advice is very different from the other duties of a doctor, such as diagnosis and treatment. In the latter cases, the skill that is being exercised is one of purely clinical judgment and the courts would be very wary—and justifiably so—of intervening, especially since they do not have the expertise to do so. On the other hand, when it comes to the issue of advice and consent, the patient is perfectly capable of understanding the risks and can actively contribute in the decision-making process. His contribution to the decision-making process should not be "limited to the narration of symptoms and relevant history." There is an active, participative role that patients can, and should, play. In addition:

No special medical skill is involved in disclosing the information, including the risks attending the proposed treatment. Rather, the skill is in communicating the relevant information to the patient in terms which are reasonably adequate for that purpose having regard to the patient's apprehended capacity to understand that information.<sup>113</sup>

A couple of articles have been written criticizing the distinction between the treatment of doctors (in Singapore, deferentially) and the treatment of experts in other fields outside medical negligence.<sup>114</sup> Whatever may be said of the fact that experts

See Joanna Manning, "Informed Consent to Medical Treatment: The Common Law and New Zealand's Code of Patients' Rights" (2004) 12 Med. L. Rev. 181.

<sup>110</sup> The U.K.'s General Medical Council has issued guidelines on what information a doctor should reveal: supra note 84.

<sup>&</sup>lt;sup>111</sup> Sidaway, supra note 4 at 657 and 659.

Rogers v. Whitaker, supra note 5 at 632.

<sup>113</sup> Ibid. at 632-633.

See Disa Sim, "Dr. Khoo James & Anor. v. Gunapathy d/o Muniandy and another appeal: Implications for the Evaluation of Expert Testimony" (2003) Sing. J.L.S. 601; Kelvin Low Fatt Kin & Lee Yuan Zhen, "Special Treatment for Doctors? Dr. Khoo James and Anor. v. Gunapathy d/o Muniandy and another appeal" (2003) Sing. J.L.S. 610.

disagree and that the "[t]he very lack of experience and knowledge which justifies the admissibility of expert evidence ought surely to disqualify the judge from playing the "super-expert", the authority which decides between experts," the situation is different when it comes to the doctrine of informed consent. This is because, under my proposal, expert opinion is helpful but not decisive. What is more important is whether accurate information was communicated in a way that facilitated the particular patient to assess the risk and benefits involved in the recommended procedure as rationally as possible. This issue is to be approached with commonsense, which is not the exclusive purview of medical experts.

Next, there is the concern of costs. Under the proposed model, doctors will have to invest more time and energy than they previously did. Obtaining informed consent will no longer be a perfunctory inconvenience. In the early stages of implementation, litigation is to be expected. But the costs are worth it for several reasons. One reason is that in the long term, patients will not only begin to gain a better understanding of their medical situation, but also feel more confident and trusting and less suspicious of their relationship with their physicians. This, in turn, has been shown to be therapeutically beneficial. 116 Secondly, by taking ownership of their decisions, patients are also less likely to feel aggrieved at a bad or unfortunate outcome, leading to fewer malpractice claims. 117 Thirdly, taking this step is necessary because of the need for independent oversight. While reform may initially be viewed as a nuisance, the practice of engaging in a constitutive dialogue with patients will eventually become internalized as the impact of the law trickles downstream and medical education includes training in risk perception and communication. Finally, from a jurisprudential viewpoint, such reform will create more consistency in the law of medical negligence. It is disconcerting that patients are given the right to accept and reject treatment, but have little recourse to insist on receiving information they deem necessary to make that choice. It is unreal that the law thinks patients unintelligent enough to understand the information given and yet abandons them to make the final decision themselves. There is a gap in what the law demands patients to do (make the choice) and in what it entitles patients to (receive information and engage in a constitutive dialogue with their physicians). The proposed reform will narrow that gap.

Finally, it may be argued that the trial system is ill-suited to deal with these problems, given that they appear to be systemic or inherent in the profession. Such skepticism proves too much. No reform of any sort—more so those involving human behaviour and psychology—ever occurs by virtue of a single factor. While it is certainly true that education, for instance, might be more meaningful, one should not underestimate the cascading effect that legal standards could have in influencing the decisions that individuals make, <sup>118</sup> even if it is likely that the gap between the

 $<sup>^{115}\,</sup>$  Michael Hor, "When Experts Disagree" (2000) Sing. J.L.S. 241 at 243.

Peter Schuck, infra note 118 at 943.

<sup>&</sup>lt;sup>117</sup> *Ibid*.

See e.g. Peter H. Schuck, "Rethinking Informed Consent," (1994) 103 Yale L.J. 899 at 935; and the Supreme Court of California's decision in Arato v. Avedon (1993) 23 Cal.2d 131 at 138 n.7, stating that indications are that certain legal decisions have helped to effect a "revolution" in attitudes among patients and doctors alike regarding the desirability of full and frank disclosure of risks. The High Court of Australia endorsed the view of noted commentator Professor Katz that "principles can 'nag and prod and disturb and ultimately bring about some change": Rosenberg, supra note 78 at 481. See also Chester, supra note 3 at para. 58, where Lord Hope observed that "the law cannot play a direct

reality on the ground and the law on the books may remain unsatisfactorily wide. At the very least, they add an opportunity cost—the possibility of a lawsuit—into one's calculation as to whether to conform to the requisite legal standard. 119

## VI. A WORD ON CAUSATION

In two significant cases, Chappel<sup>120</sup> and Chester,<sup>121</sup> the High Court of Australia and the House of Lords effectively held that the requirement of causation in negligent advice cases is no longer critical. In both cases, the plaintiff suffered from the eventuation of a risk that she was not warned about. However, it could not be demonstrated that she would not have elected to undergo the operation had she been told of the risk—only that she might have delayed the operation or sought a second opinion. Thus, the plaintiff in both cases could not show that but for the lack of warning, she would not have suffered the injury. Given, further, that the risk was inherent in the procedure, it was also impossible to show that she was exposed to a higher level of risk as a result of her doctors' negligent advice. However, in a stark departure from established principles of causation, both courts held that it was not necessary for the traditional principles of caution to be established. All that was decisive was that there was a breach of the doctor's duty.

These cases are significant. In shifting the focus away from whether the injury would have been prevented had the patient been warned, the damage that forms the gist of the tort is no longer the physical injury but the fact that the patient was unable to decide for himself. Thus, the emphatic importance of the duty of a doctor to his patient in warning him about the inherent risks of an operation is brought to the fore by these cases. But the deeper question remains: why is this duty so fundamental and paramount that its breach should be all but actionable *per se*? Lord Hope, in *Chester*, said it best:

Patients may have, and are entitled to have, different views about these matters. All sorts of factors may be at work here—the patient's hopes and fears and personal circumstances, the nature of the condition that has to be treated and, above all, the patient's own views about whether the risk is worth running for the benefits that may come if the operation is carried out. 122

role in setting out detailed rules by way of guidance to doctors, but it can have a powerful symbolic and galvanising role."

It should also be observed that tort law, apart from being based on sound policy reasons such as whether it will positively affect physician-patient relationships, is also concerned with compensating victims of negligent practices. Thus, an equally important consideration is whether the allocation of risk is just, fair and reasonable. If so, it would provide a good enough reason for the reform.

<sup>120</sup> Supra note 3.

<sup>121</sup> Supra note 3. The adoption of Chappel in Chester is perhaps the more surprising of the two cases because of the more restricted way in which English law viewed the patient's right to know and the doctor's obligation to warn. It was even more surprising to see the majority of their Lordships explicitly endorse Lord Scarman's dissent in Sidaway, which argued for a more rights-based model. It may well be that Sidaway will be reconsidered in light of Chester.

<sup>&</sup>lt;sup>122</sup> Supra note 3 at para. 86.

In other words, patients perceive risks differently, weigh their materiality differently and are perfectly capable of participating in the decision-making process. <sup>123</sup> The doctor's role is to facilitate that process and, in my view, facilitate it by engaging in a constitutive dialogue with the patient.

## VII. CONCLUSION

The oft-stated rationale for the doctrine of informed consent is that we respect patient autonomy, and we want him to make the best choice possible for himself. Unfortunately, little analysis has gone into how best we can communicate risk to the patient, creating instability in the courts' conceptual understanding of how to formulate the rights of patients and the duties of physicians. With this essay, I hope to have taken the discussion further. By understanding how physicians and patients narrate risk in their own way, we can appreciate how the law should be structured to facilitate the making of the most rational choices. It must encourage a constitutive dialogue based on and resulting in trust. To do this, it must avoid dogmatic extremes. It must place emphasis not only on medical opinion, but also on the particular patient. It must pay careful attention to how—not just what—risk is communicated. It must remain flexible because the human mind is not.

<sup>123</sup> It is also worthwhile to note that an inquiry as to whether a patient would have chosen not to undergo the treatment had he been warned of its risks is often circular, if not meaningless. This is because most of us suffer from a hindsight bias that leads us to imagine that "we would have done something different if only we had known" partly as a result of overconfidence in our ability to make the right judgments given full disclosure of all the relevant information. See Paul Slovic, Baruch Fischoff & Sarah Lichtenstein, "Cognitive Processes and Society Risk Taking," in Slovic, Perception of Risk, supra note 9 at 39. Associate Professor Kaan has also pointed out the shortfalls of the but-for test: supra note 6 at 42.