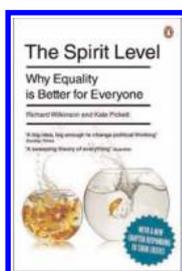


In the Bookstores

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The Spirit Level: Why Equality is Better for Everyone

by Richard Wilkinson and Kate Pickett;
Penguin Books, 2010.

ISBN: 978-0-241-95429-4.

10.99 GBP. 375 pages.

The Spirit Level

Ever had a 'ping' moment? This book might have been mine. I'm not a natural pessimist, but Western society today seems less cohesive and people more materialistic, stressed, unhealthy, and unhappy than in times gone by. Wealth and status seem to be valued above everything else. Consumerism is seemingly unstoppable as the world hurtles towards an Armageddon of its own making. My personal views are not that uncommon, as discussions with friends and family show. Why we are in this situation and what can be done about it is less obvious. What I really need is someone to join up the dots ...

Wilkinson and Pickett, both UK-based academics with economics and epidemiology backgrounds, present a compelling ideological argument, apparently underpinned with copious economic and political evidence. They hypothesise how material success has led to social failure and back this up with statistical meta-analyses of international (23 of the world's 50 richest countries) and US-based (50 American states) socioeconomic data. Graphs – with advice on how to interpret them – are used to convey key outcomes messages. The graphs mostly show income inequality (*x*-axis) in relation to various health and social outcomes (*y*-axis) with a regression line to show the 'best fit' relationship.

The outcomes are broadly defined as community life and social relations (including trust, women's status, and spending on foreign aid); mental health and drug use (including mental illness, mental distress, and use of illegal drugs); physical health and life expectancy (including infant deaths); obesity (both adults and children); educational performance (including literacy scores, high school drop out, and 15-year olds aspiring to low-skilled work); teenage pregnancy (both births and abortions); violence

(including homicide and children's experience of conflict); imprisonment and punishment (including prisoner numbers); and social mobility.

Most of the negative health and social outcomes, it seems, are more prevalent in more unequal societies, and the positive measures (levels of trust between members of the public and women's status [as a combined index of women's political participation, employment, earnings, and social and economic autonomy]) show higher values in more equal societies. This is apparently true both internationally and in the US. The authors claim that the relationships are too strong to be dismissed as chance findings; the differences between more and less equal societies are large, and these differences are applicable to whole populations rather than subgroups. The conclusion is '... that greater equality usually makes most difference to the least well-off, but still produces some benefits for the well-off'.

The individual outcomes are combined into a single index of health and social problems, shown in relation to income equality, in Figure 1.

The findings are balanced to an extent by limited discussion of whether or not inequality plays a causal role, and other possible explanations. In this 2010 edition of *The Spirit Level*, the authors address the critics of the original 2009 edition in a new chapter and add evidence that came to light after the spring of 2008 – when they finished writing the original book – and overwhelmingly supports their findings.

So, what can be done to iron out inequalities when political will is seemingly lacking? The authors assert that 'greater equality can be gained either from using taxes and benefits to redistribute very unequal incomes or by greater equality in gross incomes before taxes and benefits, which leaves less need for redistribution', indicating multiple routes to greater equality. Research apparently also suggests that many of us want to narrow income differences – just think of the banking and corporate bosses with more than 500 times the earnings of their average employees.

The alternatives include developing the already huge non-profit sector, including community schemes and co-operatives, and limiting business

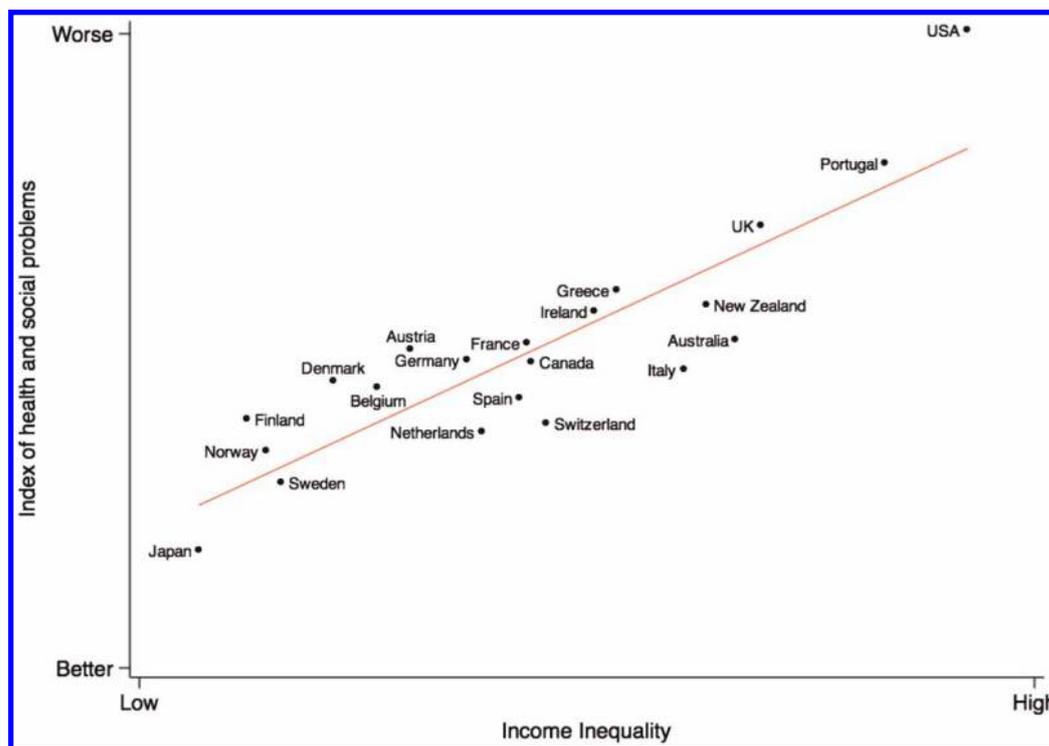


Figure 1: Index of health and social problems in relation to income inequality.

expenses and bosses’ pay. A key proposed solution is democratic employee ownership (where share ownership is combined with participative management). This leads to bottom-up rather than top-down management; the authors feel this could transform our societies. They assert that such a business model can co-exist with conventional models in operation now, so the transformation can be gradual, controlled, and gain in strength if supported by government incentives.

On a hopeful note, we should consider that the human urge for equality and fairness has continued throughout time, and that our ‘moment’ could conceivably be a blip. Let us hope so. In the meantime, visit the Equality Trust’s website (<http://www.equalitytrust.org.uk>), founded by the authors, for further insights into their ideas.

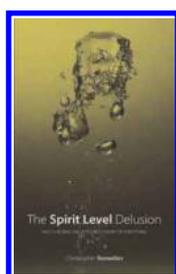
Now what did I say earlier about a possible ‘ping’ moment? As I read on, and as you may have detected, doubts began to creep in. Why did the authors narrow their 50 richest countries to only

23? Why was there little or no discussion around other possible causative factors besides inequality? Why, when this theory was publicised in 2009, have governments the world over not made drastic policy changes at grass-roots level? And why did the new chapter addressing their critics barely admit to any criticism, let alone address it? I’m no expert in socioeconomics or epidemiology. Time to find someone who is ...

Acknowledgements

The Equality Trust, on behalf of Richard Wilkinson and Kate Pickett, kindly granted permission for the use of Figure 1. Figure 1 is a reproduction of Figure 2.2 originally published in *The Spirit Level*.

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The Spirit Level Delusion: Fact Checking the Left's New Theory of Everything
 by Christopher John Snowden;
 Democracy Institute/Little Dice, 2010.
 ISBN: 978-0-9562265-1-8.
 8.99 GBP. 172 pages.

The Spirit Level Delusion

Snowdon, an author and freelance journalist based in the UK, systematically critiques the claims made in *The Spirit Level*. He reminds us that at the time of its release, *The Spirit Level* was ‘rapturously received by much of the media ...’ and became ‘...one of the publishing sensations of the year’. By early 2010, *the*

Spirit Level's analysis, oft-cited in the British House of Lords, was threatening to shape government policy.

Snowdon points out that Wilkinson and Pickett wrote their book as though they were informing the public about issues that were established and agreed upon by the academic community, although this was not so. He asserts that they often misrepresented other authors' work and based claims on their own published reviews of the work of others. Wilkinson and Pickett also misled by presenting only supportive data, leaving the (non-expert) reader with the impression that little or no debate existed among experts on the information they present as fact. When added to the fact that only 23 of the world's 50 richest countries were included in the analysis, and that more recent data was sometimes omitted, the suggestion is that data were selected and manipulated to fit an argument.

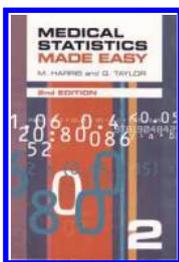
In *The Spirit Level*, countries with populations of under 3 million (to incorporate tax havens) together with countries without reliable data on inequality were excluded. Snowdon agrees that tax havens should have been excluded, but he suggests – rather sensibly – that known tax havens should simply have been ignored, rather than being excluded through an arbitrary population cut-off of 3 million. He also re-examines the exclusion of countries with 'unreliable data' and reinstates those inexplicably excluded where reliable data clearly are available. Reinstated countries include notable absentees from the Wilkinson/Pickett list of 23 of the 50 richest countries, such as Slovenia, Singapore, Republic of Korea, Hong Kong, Czech Republic, and Hungary. In his analyses, he retains the same measure of inequality and use of linear regression analysis as in *The Spirit Level*, adds the

square of the correlation coefficient (allowing easier comparisons between datasets), and encourages readers to use their own judgement for scatter graph interpretation. The same sources of data are used as in *The Spirit Level*. Further methodological detail and discussion are available at www.spiritleveldelusion.com.

Graphs based on the expanded country cohort for the outcomes in *The Spirit Level* show the disappearance of the relationship between the outcomes and inequality, with the odd country outlier here and there. Snowdon re-examines all outcomes investigated in *The Spirit Level* and rightly discusses other possible causative factors including culture, religion, diet, race, and genetics, as well as considering the differences between individual countries in methods of recording data and in their welfare, prison, and other national systems. The myth of inequality as the root cause of just about all social ills is dismantled.

Wilkinson emerges as a somewhat isolated figure in his own academic community, with a known history of questionable selection of data in order to make a point. Snowdon's thorough appraisal of available data and literature, and examination of alternative causes – all underpinned by acerbic wit – sees to that. Snowdon reminds us to remain sceptical at all times – as indeed we must, both here and in aspects of our work as medical writers too. This paired book review is a noteworthy reminder of our profession's responsibility to remain objective; exacting in research; and mindful of the implications and ramifications of drawing conclusions from 'selected' data.

Reviewed by Sam Hamilton
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Medical Statistics Made Easy 2
by M Harris and G Taylor;
Scion Publishing Ltd., 2008 (2nd
edition).
ISBN: 978-1-904-84255-2 (trade
paperback).
15.99 GBP. 116 pages.

Any book title that promises *Made Easy* or the more widely imitated, jocular *For Dummies* stokes our hopes in big ways. We expect its topic to be unquestionably demystified. We expect it to transmit its contents to us instantly, as if through a metempsychotic education. Not infrequently, however, what

we get is less than what we want, and we surrender in our quest of effortless learning. A book *For Dummies* on building websites, to give one example, is organised for effortless navigation between its sections, but it is 760 pages and weighs just short of 1.2 kg. To its credit, it is presented as a 'desk reference'. *Medical Statistic Made Easy 2* (MSME2), on the other hand, is free of most of the common deterrents to the satisfying use of books specifically targeted to neophytes to a topic. It endears itself even as it emerges out of its shipping bindings. It is sized to be handled comfortably and with a tactile pleasure enhanced by its satiny cover. The smile-inducing colourful graphics of its cover bring to mind a

luscious ice cream cone – and the intense urge to lick it.

An uncustomary amplitude of white space in this book strikes the reader on first glimpse of its innards. On reflection, this aspect is entirely logical and compatible with, in fact necessary to, the fulfilment of the promise of the book's title. First, it increases readability. Second, definitions and descriptions are given discrete individualities by being separated from each other by extra spaces (a sort of highlighting by excision of neighbouring chaff). Crucial ideas stand out without being run into each other in long, dense paragraphs. Finally, to render any text 'easy', it must be edited and pared extensively down to the fundamentals of its topic. It takes hard work to make things look easy to learn. The blank spaces in this book are the results of a Herculean effort to simplify concepts to their bare bones. I imagine the authors sitting down with a much longer text and highlighting (in yellow, let's say) essential ideas, and then debriding and excising a lot of repetitious/prolix passages, and leaving in their places white spaces. The authors clearly know medical statistics; otherwise we would have had a longer book with pretensions of having made its topic 'easy'.

The book is for '... health care students and professionals who need a basic knowledge of when common statistical terms are used and what they mean'. For each concept of statistics, the authors first note, on a scale of 1-5 (using stars for example), a measure of importance (frequency of use [read incidence and prevalence] in medical literature). They follow that with a rating of how easy the concept is to understand (the frequency of use of a concept in medical literature does not coincide with increased comprehensibility of the concept). The situation in which a statistical concept would be used is described next, and following that its meaning, i.e. what information it communicates to the reader of a clinical report, for example. Clear graphs and tables (where appropriate) and applied examples (in boxes) complement the textual treatment of each concept. Under the subheading 'Watch out for...' the authors post alerts to potential misconceptions and common pitfalls and how to avoid them.

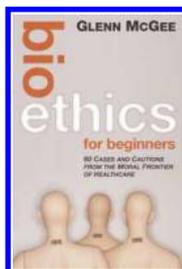
The motivated reader is going to find the authors intelligent, reflective, and reassuringly dedicated to their readers. Deep and honest reflection will convince many of us that many statistical concepts are contrived constructs. To demystify a subject that is in part comprised of conventions, one must be ready to adopt slightly irreverent attitudes. Who

would not be alerted, cheered, and edified by free-standing declarations the authors make, such as 'Even easier than mean!' (about the comprehensibility of median)? Or de-stressed by the statement 'It is not an intuitive concept' (about standard deviation)? Or by 'It is not important to know how the *P* value is derived – just to be able to interpret the result'. 'Aha' one says, and stops feeling like a dense, maladroit dummy. In another chapter, titled *Statistics At Work*, the authors present extracts from some papers actually published in journals such as *BMJ*, *The Lancet*, and *NEJM*, and discuss the statistical treatments used in them.

Infrequent inconsistencies in formatting (copyediting and productional oversights) and the occasional distraction provided by telegraphic sentence fragments aside, I did not discover any errors or omissions in my reading of this book. The contents of this book are a distillate of the corpus of medical/scientific statistics. Nothing important or relevant seems to have been left out. A reliable opinion on the volume's accuracy and completeness should, however, come from a qualified statistician. A glossary at the end is quite useful: its entries recapitulate the principal concepts and, like a supplemental index, refer the reader to the sections where they were elucidated. Surprisingly improvident, and inexcusable, is the absence of a short list of suggested readings from this non-fiction, instructional book. A 5-, 6-item bibliography (there are a couple of seminal titles that come to mind immediately) would have staved off this criticism; and it would have served well those who may wish to delve beyond the excellent introductory distillate the authors have provided.

Although many of us medical writers and editors do not need to have an operational command of medical statistics and do statistical analysis *per se*, we do need to have familiarity with its concepts and applications. For that purpose, I would recommend taking an introductory workshop (such as those offered at EMWA conferences or by AMWA) *and* at the same time buying *MSME2* – to browse for review, for additional details, or for reference. Its utility aside, the pleasure and reassurance provided by the knowledge that such user-friendly books can be, and are, written and published is well worth the price of what rightly can be considered the eminently provident ultimate chapbook of medical statistics.

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Bioethics for Beginners 60 Cases and Cautions from the Moral Frontier of Healthcare

by Glenn McGee;

Wiley-Blackwell, 2012.

ISBN-13: 978-0470659113.

14.99 GBP. 169 pages.

Deeply flawed (non-)introduction to bioethics

Bioethics for Beginners comprises 60 “Cases” – short articles (mostly opinion pieces) written by bioethicist Glenn McGee for blogs and magazines – that are intended to introduce the reader to some of the ethical issues around science and medicine. Some of its better passages provide interesting introductions to subjects such as ethical training for researchers, the unacceptable exploitation of poor and uneducated people in clinical trials in India, and conflicts of interest. Other highlights are Cases 20, 37, 40, 41, and 50, which respectively deal with human cloning, quarantine, sanitation, codes of conduct for Internet health, and the misrepresentation of case reports.

The problem is, for a book purporting to be about bioethics, there is very little discourse on ethics. Rather there is much discussion of pragmatic issues relating to biotechnological advances. For example, the essence of Case 1 is that synthetic organisms are okay if there are safeguards. This is not bioethics! Instead of debate, we get opinion, hearsay, and politics. Case 2 can be summarised as McGee dislikes the teaching of intelligent design. So do I, but this is just opinion. The book’s title led me to believe that it would illustrate key bioethical issues with pertinent examples. It doesn’t. Most cases are simply not instructive.

According to the information on the inner front cover, the book boasts ‘the very latest from the frontiers of science and medicine’. That is plain misleading. Some of the material dates back as far as 1998, and certain statements are dreadfully dated (‘Most physicians know about and have used the Internet in some way’ – find me one who hasn’t). Updating the book to include mentions of Facebook, Twitter, and apps does nothing to hide the fact that much of the content is old.

And just who is McGee’s audience? While he makes multiple references to films such as *Blade Runner* and TV shows such as *Star Trek*, indulges in cheap plays-on-words, and describes joining DNA sequences as ‘stacking the bits together like

toy blocks’, he uses words such as mesenchymal, pluripotent, and parthenotes without defining them. The truth is there is no one audience. These articles were written for different blogs/websites/magazines with different readerships/users.

The inner front cover describes *Bioethics for Beginners* as ‘eminently readable’ and demonstrating ‘clear thinking’. Nothing could be further from the truth. This passage from Case 8 (*Stem Cells: The Goo of Life and the Debate of the Century*) is not unrepresentative:

Everyone is up in arms about stem cell research: adult versus embryonic, iPSCs, and parthenotes. And maybe not up in arms exactly. But certainly everyone has a champion, a favorite kind of stem cell, the cell on the verge of curing cancer, macular degeneration, or male pattern baldness.

You what?!

Many of the articles that make up the book are poorly written. Some sentences I read several times without making sense of them. There are problems with logic, typos, (‘sue of the raw materials’), and repeated explanations of the same thing. The president of an institute is quoted as saying ‘What will not stop this from happening misgovernment oversight.’ I’ll bet he didn’t say that! And then there is the logic-defying reference to ‘more than both senses of the word’. These and the many other issues suggest a complete lack of editorial involvement, while the following note, appended to one case, gives a clue as to how much care McGee invests in his writing:

A previous version of this story incorrectly said that 45 to 100 million Americans die each year of medical mistakes.

Perhaps trying to connect with non-scientist readers, McGee revels in his own ignorance: ‘If you are like me you won’t be able to read the articles about the human genome in the prestigious journals *Nature* and *Science*. ... the articles are no more comprehensible than the actual DNA code itself – TAC, CTA, GAS and so on’. He confesses to being ‘clueless about what it is that nanotechnology means’, while his statement that ‘We don’t really know how to turn genomics on and off, and we can’t quite figure out whether it is working for us or against us’ shows that he has not even bothered trying to understand genomics.

Bioethics for Beginners has a clear US perspective, rooted in ‘American family values’, money, fear of

bioterrorism, and controversy surrounding stem cell research, and assumes a fair amount of knowledge of US institutions. More than this, it has a partisan tone that borders on the offensive. McGee writes that 'the real concern isn't that the other guys are winning, it is what happens when they bend the rules to do so'; that 'ethics can get forgotten as other nations ... race to fill the void'; that 'Only a properly funded US stem cell research program will guarantee oversight and the protection of all involved.' A lot of this seems to stem from the Hwang Woo-suk cloning scandal in Korea, which McGee returns to over and over again and which appears to have coloured his view of non-US research. He refers, insultingly in my view, to a 'grossly irresponsible lack of American leadership in the regulatory and funding arena' in the context of the Woo-suk case.

The book's standout passage is Case 59, an extended and highly enjoyable introduction to and repudiation of William Hurlbut's pseudoscientific stem cell research, which has been challenged in several forums, including the *New England Journal of Medicine*.^{1,2} But how many readers will make it that far? Viewed individually, many of the articles that make up *Bioethics for Beginners* are deeply flawed. Viewed as a collection, they are a total mess. This book was poorly conceived and poorly executed. The idea of assimilating an author's multiple works on a range of subjects under a misleading heading ('bioethics') is a shabby contrivance.

Those seeking a more coherent introduction to the subject could do worse that get hold of a copy of *White Coat, Black Hat* by Carl Elliott,³ on whom McGee repeatedly (and inexplicably) pours scorn in his writings.

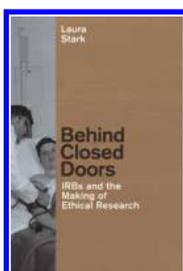
Wrapping things up after the last case, McGee argues that the race to make scientific advances must not lead to ethical issues being ignored, but embarrasses himself by explaining (again) who Woo-suk is, having previously referred to his fraud at least half a dozen times. The disjointed nature of this conclusion, which comprises unrelated articles originally published in 2005 and 2007, encapsulates one of the book's main problems: a lazy approach, and one that should not be rewarded with your money.

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Behind Closed Doors: IRBs and the Making of Ethical Research
by Laura Stark;
University of Chicago Press, 2012.
ISBN-13: 9780226770871.
£18.00 GBP. 229 pages.

A fascinating insight into how IRBs operate and why they exist

Researchers and investigators the world over must look upon ethical review as a pesky hurdle to overcome before getting started with a study, but just how do institutional review boards (IRBs, ethics committees) operate and how did our system of ethical review come into being? In *Behind Closed Doors: IRBs and the Making of Ethical Research*, assistant professor Laura Stark seeks to answer both these questions.

In part one (of two), Stark describes her experiences of the decision making process from sitting in on meetings of three IRBs. Her source material includes recordings of 19 IRB meetings, complemented by interviews with 33 IRB members and a random sample of 20 IRB chairs. The far reach of ethical review is highlighted by the fact that the author's proposed research for this book was itself subject to IRB scrutiny.

The three chapters that make up this half of the book collectively describe the ways IRB members argue for their views to be accepted, and how the handling of previous applications guides the way IRBs deal with new ones. Other interesting topics that are highlighted include situations where consent can be waived and times when ethics and laws come into conflict. The author also considers the way requests for minor language changes in study documents can affect the conduct of a study.

Her account is revealing. The operations of the IRBs she observed were greatly affected by the

biases/prejudices/backgrounds of their members, and researchers were judged based on the writing of their applications, including typos and inconsistencies.

What becomes clear is that IRBs operate by a process of case-based learning (using previous decisions as the basis for future ones), rather than the application of a general set of rules or principles. This leads to different IRBs making different judgments, which can be a big problem for multi-site studies, where IRBs covering different sites may request different amendments. As a way of increasing consistency in decision making, the author proposes training IRB members with a common set of real cases.

Stark argues cogently that the fact that IRB meetings are closed allows subjective experience (e.g. the experiences of family members and acquaintances) to have a greater influence on decision making than it might if the meetings were open. Interestingly, she further asserts that IRB meeting minutes provide a selective picture, obscuring disagreements, giving the impression of consensus, and shielding individual board members from being linked to particular requests for changes, thereby enabling them to make such requests without fear of reprisal.

The book's second half paints a less than noble picture of ethical review as a form of insurance, a way of preventing lawsuits, a system instituted to protect the interests of researchers, the National Institutes of Health (NIH), and the NIH Clinical Center, rather than those of patients.

Stark explains how the system of medical research ethics we have today was developed at the NIH Clinical Center in the 1950s and 60s, including the move away from trusting in the judgement of the individual researcher, in matters relating to patients/research subjects, to reliance on committees of experts. She argues that the obvious alternative, a code of ethics, was not adopted because it would have curbed the freedom of researchers to a greater extent, and also claims that the policy at the Clinical Center in the early 1950s was that research came first, patients second.

To place the development of research ethics at the Clinical Center in context, Stark provides details of its operations during its formative years, which included efforts to increase the number of healthy research subjects ('Normals') by recruiting prisoners and conscientious objectors (to whom becoming a test subject was sold as an heroic service). Some of these research practices, by today's standards, defy

belief. Take this telling description of one Normal's time at the Clinical Center:

After a year on several other wards for studies of the thyroid and of new steroids, Sarah moved to the 3-West nursing ward as the only person in the control arm of Dr. Savage's studies that examined whether LSD helped schizophrenics in psychotherapy.

A year? The only person in a control arm? This is not the kind of research the *New England Journal of Medicine* is interested in.

One especially absorbing chapter is devoted to consent. Here Stark describes the initial resistance to the use of signed informed consent forms; the battle over signed consent/liability release forms between lawyers who wanted to protect the NIH from litigation, and researchers who wanted to do as they pleased; and the astonishing argument that there must be something inherently wrong with young people who volunteer for medical testing, and that they are thus incapable of providing meaningful consent.

In the final chapter Stark outlines how and why ethics committees spread to other sites, arguing that it was a way of transferring liability from the NIH to the institutes where it funded research, and of placating Congress (responsible for approving NIH funding) and a concerned public. While somewhat less fascinating than the rest of the book, this discourse nevertheless reinforces the author's apparent view that ethical review was established in the interests of anyone but patients and research subjects.

In summary, Stark's exploration of the history and workings of IRBs should appeal to anyone with an interest in research ethics. Those keen to find out more about topics of particular relevance to medical writers – the importance of ethics applications being well written and targeted to the right audience, and the potential role of medical writers in preparing such applications – could perhaps also read the reflections of a current EMWA member who sits on an ethics committee.^{1,2}

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