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### Editorial: Copyright Control

Will G Hopkins, Sport and Recreation, AUT University, Auckland 1020, New Zealand. [Email](#). Sportscience 9, 21-22, 2005 ([sportsci.org/jour/05/inbrief.htm#copyright](http://sportsci.org/jour/05/inbrief.htm#copyright)). Reviewed by Steve Olivier, Social and Health Sciences, University of Abertay Dundee, Dundee, UK. Published Dec 7, 2005. [©2005](#)

Before the Net, authors of scientific articles used to sign over the copyright to a publisher without much concern. Now we may be in breach of copyright when we put excerpted material in our handouts or re-publish part or all of the articles at our websites or blogs. Sometimes the copyright transfer allows us to do some of these things, provided we credit the publisher. But with some copyright transfers, even sending an electronic copy to a colleague is forbidden.

I object to limitations on my freedom to use my creative work for relevant and useful ends in whatever manner I choose. One of the reasons I set up this site was to retain that freedom. Unfortunately, for the sake of the academic bean counters and my credibility, I still have to get some papers into recognized journals. So I sign over the copyright from time to time.

The advent of a new journal gave me an opportunity to test the waters with its publisher, Human Kinetics. The editor of [International Journal of Sports Physiology and Performance](#), had invited me and Alan Batterham to write a commentary for the first issue, due out early in 2006. I had already suggested to the editor some months earlier that the publisher might like to consider waiving the copyright transfer for invited commentaries, but by the time the article was written and submitted, there had been no response from the publisher. When the copyright transfer arrived and I refused to sign it, negotiations began.

Meanwhile, I sent a request to the [Sportscience mailing list](#) for any information about journals that allow authors to keep the copyright. The only really useful reply was

from Jim Feeley, a freelance editor/journalist, who sent me some information about an endeavor called [Creative Commons](#), where you can customize and download your own license to allow others to use your creative work at whatever level you choose. An offshoot called the [Science Commons](#) is dedicated to the cause of open access for scientific literature: "digital, online, free of charge, and free of most copyright and licensing restrictions".

Jim included a link to the [Public Library of Science](#), which now hosts six biomedical journals that allow full free public access and that allow authors to keep copyright. It would be great to have a PLoS journal in exercise and sport science, but I can't see it taking off while the page charges for authors of PLoS journals are so high: currently US\$1500 per article. (It took me a lot of searching at the site to find this information.) I am also concerned that a charge of this magnitude makes affluence of the researchers a factor contributing to the publishability of a manuscript. In fairness, the PLoS site does state that the publisher will waive the charge for authors who plead poverty, and that it won't check on the truth of the plea.

Jim expressed an interest in a "commons sports science journal". I pointed out that Sportscience was an attempt at such a journal, but that researchers and practitioners in our discipline are apparently happy to read it but not to contribute to it.

I also got a reply from Hakan Gur, editor of the electronic-only [Journal of Sports Science and Medicine](#). He told me that he requires authors to transfer copyright, because he is

concerned about "legal problems". I asked him to elaborate, but he did not reply.

There are two other purely e-journals in our discipline that I know of: [Journal of Exercise Physiology Online](#) and the new [Journal of Quantitative Analysis in Sports](#). JEPonline requires authors to "transfer all copyright ownership to the JEPonline". JQAS states that it allows authors to keep the copyright, but the statement is nonsense: one clause effectively stops the author from doing anything with the article for five years (including, presumably, sending someone a copy of the article), and another clause allows Berkeley Electronic Press to do anything with the material forever.

So, how did it work out with Human Kinetics? My starting position was that I keep the copyright, and that I grant HK the right to use the work to turn a profit in their usual ways. HK's representative countered that the agreement would require something like the following clause: "The author grants the publisher exclusive and unrestricted right to make use of the content in any way it wishes in perpetuity." I was prepared to build an agreement around such a clause, but he wasn't. My fall-back position was to add the following clause to their copyright transfer: "The publisher grants the authors exclusive and unrestricted right to make use of the content in any way they wish in per-

petuity." Alas, HK's representative would not agree, although he appreciated the irony. Their copy editor was similarly uncooperative about our objections to pointless and annoying stylistic changes she had made to the article.

In the end I signed the copyright transfer, partly because it actually gives authors considerable freedom—possibly more than any other traditional academic publisher bestows on its authors. Indeed, I am permitted to include part or all of the text in other publications, and only the figures, if unmodified, require citation of the original publication. An [augmented version](#) of the paper in its original style and with modified figures therefore appears in this issue. Will Human Kinetics tighten up its transfer after this incident? I hope not.

Bottom line... if you want control of your own work, start asking for it. You won't get it yet, but things won't change until enough of us make a fuss. Tell the editor of your manuscript that you object. Scrawl an objection over the top of every copyright transfer. Don't feel humiliated by publishers' patronizing attitudes and don't be misled by their fatuous arguments. Raise the issue at editorial-board and institutional meetings. And make the terms of the copyright transfer a consideration when you choose a journal for your work.

### **EPO Abuse: a Test Case**

Will G Hopkins, Sport and Recreation, AUT University, Auckland 1020, New Zealand. [Email](#). Sportsscience 9, 22-23, 2005 ([sportsci.org/jour/05/inbrief.htm#EPO](http://sportsci.org/jour/05/inbrief.htm#EPO)). Reviewed by Iñigo Mujika, Mediplus Sport, Vitoria-Gasteiz, Basque Country, Spain. Published Dec 7, 2005. [©2005](#)

When one of your athletes tests positive for a banned substance, and you *know* the athlete is not a cheat, what do you do? Iñigo Mujika decided to challenge the test.

The substance in this instance was erythropoietin (EPO), the hormone released by the kidney to control production of red blood cells. Injections of recombinant EPO (rEPO) produce major enhancements of endurance performance by increasing transport of oxygen to exercising muscles. Detection of trace amounts of injected rEPO in urine is the basis of the test.

To Mujika the test was obviously wrong, so his first question was this: what's the false positive rate? It turned out that there isn't one. Apparently the World Anti-Doping Authority (WADA), which oversees drug tests of athletes, did not see the need to determine the false positive rate or identify factors that might increase

the false positive rate. Mujika's enquiries revealed one such factor: long hard exercise, which can result in an increase in the concentration of proteins in urine, including either EPO itself or other proteins that the EPO test erroneously identifies as rEPO. Mujika's athlete tested positive after an Ironman triathlon. He soon got her acquitted. Three other athletes have been exonerated recently under similar circumstances. You can read the [full story](#) and keep abreast of new developments at the [Cycling News](#) site.

And now for the statistician's spin... Testing an athlete for a drug is no different in principle from a doctor testing a patient for a disease. When the result comes back from the lab, the doctor takes into account not just the result of the test but all the other signs, symptoms, patient characteristics, and local factors that

help reach a diagnosis. WADA could adopt a similar approach to testing for abuse of EPO and other drugs by taking other factors into account quantitatively using Bayesian statistics. For example... How much change has there been in the athlete's world ranking recently? Have there been any positives recently amongst the athlete's team-mates or compatriots? What is the attitude to cheating in the athlete's sport and in the athlete's home country? What other

test can be ordered on the spot, such as a blood test for hemoglobin concentration or other blood constituents that have unusual levels with EPO abuse? By itself, this extra information does not constitute a test for EPO abuse, but in conjunction with the main urine test, it may raise or lower the odds that the athlete is a true positive by a factor of 10 or maybe even 100. The research needs to be done to establish how useful this approach could be.

### Sport Scientists' Top 10 Sites

Will G Hopkins, Sport and Recreation, AUT University, Auckland 1020, New Zealand. [Email](#). Sportscience 9, 23, 2005 ([sportsci.org/jour/05/inbrief.htm#Top10](http://sportsci.org/jour/05/inbrief.htm#Top10)). Reviewed by Ken Daley, Exercise and Sport Science, Maharishi University of Management, Fairfield, Iowa. Thanks to Mike Barnes, Dan Becque, Louise Burke, Gordon Chalmers, Ken Daley, Lindsay Edwards, Patria Hume, Bill Misner, Carl Paton, Ken Quarrie, David Rowe, Martin Sellens, and others. Published Dec 7, 2005.

I recently sent a request to the [Sportscience list](#) for favorite links in exercise and sport science. A summary of responses appears below.

I have kept the focus on original material and have therefore not included several suggestions I received for links that were little more than pages of more links. Sites promoting sales of supplements and several racy but dubious strength-training sites also did not make the cut. Colleagues in Germany sent a link to their [Sponet](#) site, but at the time of writing there were still a few translation problems with the English version. If you put "Sponet" into [Google](#), you can opt for Google's translation of the original German pages. By the way, no-one suggested Google—evidently we now take this information miracle for granted.

I originally did not include someone's sug-

gestion for [Google Scholar](#) for finding journal articles, because it doesn't sort the hits or import them into a reference manager such as Endnote. However, it appears to be at least as comprehensive as [SportDiscus](#) for obscure sport journals and articles, and the interface is much better than the dreadful institutional Ovid version of SportDiscus. (Did they ever trial it with real end-users?) And Google Scholar is free! Most folks default to [Pubmed](#) for searching biomedical journals indexed by Medline, but the [Medscape](#) version is more flexible and puts the hits straight into a reference manager. It's in the list.

[Sportscience](#) should be in the list, but I suppose such a link is superfluous from this page. I would have included [A New View of Statistics](#) if anyone had suggested it.

#### Biomechanics

- [Coaches' Information Service](#)

#### Cycling

- [Analytic Cycling](#)

#### Employment

- [Exercise Careers](#)

#### Exercise Physiology and Endurance

- [Stephen Seiler's MAPP](#)

#### General Info (courses, conferences, etc.)

- [SPORTQuest at SIRC](#)

#### Injury Prevention

- Research: [Oslo Sports Trauma Research Center](#)
- Practice: [SportSmart](#) and [RugbySmart](#)

#### Journal Article Search

- [Google Scholar](#)
- [Medline at Medscape](#) (needs registration)

#### Journal Names and Abbreviations

- [National Library of Medicine/Journals](#)

#### Nutrition

- [Australian Institute of Sport/Nutrition](#), including [Ask a Question](#)
- [Gatorade Sports Science Institute](#)

#### Physical Activity

- [National Center for Bicycling and Walking](#)
- [PE Links 4U](#)

#### Physiology and Medicine

- Merck Manuals: [Diagnosis/Treatment](#) and [Med Info](#)
- [Karolinska Institute's Resources](#)

#### Training

- [Exercise Prescription on the Net](#)
- NSCA's [Position Statements](#) and [Perform](#) (free journal)
- [Peak Performance Online](#)

### A Spreadsheet for Fully Controlled Crossovers

Will G Hopkins, Sport and Recreation, AUT University, Auckland 1020, New Zealand. [Email](#). Sportscience 9, 24, 2005 ([sportsci.org/jour/05/inbrief.htm#copyright](http://sportsci.org/jour/05/inbrief.htm#copyright)). Reviewed by Alan M Batterham, School of Health and Social Care, University of Teesside, Middlesbrough, UK. Published Dec 8, 2005.

In 2003 I published an [article](#) to accompany a spreadsheet for analysis of straightforward controlled trials. Actually there were two spreadsheets: one for fully controlled trials and one for crossovers. On several occasions since then I have had a request for a third spreadsheet for use when the control group in the fully controlled trial consists of the same subjects as the experimental group. The design, in other words, is a fully controlled crossover, in which there is a pre-test, then a treatment, then one or more post-tests, then a washout, then a repeat of the pre- and post-tests with another treatment (e.g., a control). The subjects are randomized, preferably in some balanced fashion, to receive one or other treatment first.

I developed the spreadsheet by modifying the one for a fully controlled trial. The p values

for the effects in that spreadsheet were derived from the unequal-variances unpaired t statistic. I simply changed those cells into the p value for the paired t statistic. I also changed "difference" into "change" everywhere, because all the effects were for changes in changes in the same group of subjects, not differences in changes between two groups. Finally I deleted the comparison of pre-test standard deviations. To download the spreadsheet, right-click on [this link](#) and Save Target As... something sensible somewhere.

The reviewer made several suggestions for this item and even wrote a commentary. In the end we decided to convert the commentary into a jointly authored article on [design and analysis of controlled trials](#), for inclusion in this issue of the journal.

### Copyright-Free Images and Information

Peter Mellow, Sport and Recreation, AUT University, Auckland 1020, New Zealand. [Email](#). Sportscience 9, 24, 2005 ([sportsci.org/jour/05/inbrief.htm#copyright](http://sportsci.org/jour/05/inbrief.htm#copyright)). Reviewed by Will G Hopkins, Sport and Recreation, AUT University, Auckland 1020, New Zealand. Published Dec 15, 2005.

It's always good to add images to your articles, presentations and handouts, but using the [Google image search](#) usually brings up images under copyright. I have found two new online clipart collections that have copyright-free images: Wikipedia [Commons](#) and Microsoft Office Online [Clipart and Media](#).

[Wikipedia](#) is the open source encyclopaedia. Free access to content is part of their goal, as they see sharing of resources as the most important function of the Internet. Scroll down the Commons [Main Page](#) and click on the links to the sports, medicine or other sections. The im-

ages are sorted into subsections. There are even many images from Gray's Anatomy of 1906. You should acknowledge the source and you aren't supposed to alter images or text.

The images at the Microsoft [Clipart and Media](#) site are sorted by topic (sport, healthcare, leisure, food...) but not by subsections. Having ticked the photos you want, you choose download and the images will be added to the Microsoft library on your computer. Or you can copy them to the clipboard one by one. You need to be running Internet Explorer to do it. All photos are good print quality (150-300 dpi).