Plagiarism, Self-plagiarism and Other Unethical Conduct

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Science is the search for truth

(W.B. Cannon)

W.B. Cannon about Science

• “…curiosity, imaginative insight, keen powers of imagination, critical judgement, thorough honesty, a retentive memory, patience, generosity - the traits which have seemed to me important for a career of investigation” (Cannon, 1945)

Favorable Circumstances for Research Scholarship

• Freedom of action
• Feeling of security
• Time
• “…productiveness is favored, too, by absence of pressure to produce definite results promptly or within a given time” (Cannon, 1945)

• “Time ...is an essential requirement for effective research. An investigator may be given a palace to live in, a perfect laboratory to work in, he may be surrounded by all the conveniences money can provide; but if his time is taken from him he will remain sterile. On the other hand, as the history of science abundantly shows, an investigator may be poverty-stricken, he may be ill-clothed, he may live in a garret and have only meagre appliances for his use; but given time he can be productive.” (Cannon 1945)
• “Leisure is the mother of discovery”
  Michael Foster, English physiologist, cited in Cannon (1945)

• “It certainly seems reasonable that the government should support research generously with the expectation that valuable results would be obtained, that the citizenry would be enriched, and the public welfare promoted. The practical application of such a plan, however, should be safeguarded against possible abuses.”
• “Any agency set up to administer a fund…should, of course, be scrupulously fair in its decisions…” (Cannon 1945)

Present environment in which Most Scientists Work
• Freedom of action?
• Feeling of security?
• Time?

• Competition with peers, pressures to succeed, writing grant applications and peer reviews, supervising students….

A scientist…. is
• one whose activities make use of the scientific method to answer questions regarding the measurable universe. ...
  en.wiktionary.org/wiki/scientist

The Changing Face of Science
• growing numbers of scientists in various fields
• international collaboration, interdisciplinary approaches
• growing competition
• resources
• conflicts of interes
• profit to shareholders

Numbers of Scientists (USA)
• “De Solla Price claimed in the 1960s that the number of scientists grew with a doubling rate of 15 years over the last 300 years”
• US government sources: employment in science and engineering increased from 150,000 to 2, 685,000 between 1950 and 2001 (worldwide?) (Google, October 15, 2005)
• Ph.D. growth rate between 1996-2000 in biological sciences was 44%, in computer sciences 22% (Google, October 15, 2005)

Scientists elsewhere
• British Biochemical Society, between 1920-1970 grew at an average annual rate of 5.8%
• Gesellschaft für Biochemie und Molekularbiologie, between 1950-1970 grew at an annual rate of 16% (Google, October 15, 2005)
• India, China, Brazil, other countries? Q: EB

Money, money, money
• science (including biological and life sciences) has become the target of information business
• scientific journals owned by publishing houses (reprint prices of new articles: e.g. prohibitive 30 USD; library consortia)
• science itself and its results have become a huge business (pharmaceutical companies, use of molecular biology, DNA analyses etc.)

Pressures, pressures, pressures
• tenure
• prestige
• lure of fame and fortune

Problems in Science
• Honest errors
• Errors through negligence
• Misconduct in science
  – Errors that involve deception:
    – fabrication of data
    – falsification of data
    – plagiarism (+ self-plagiarism)
  – theft of intellectual property and data, illegal use of someone else’s illustrations

Plagiarism
• is the practice of using or copying someone else’s idea or work and pretending that you thought of it or created it
  – (Collins Cobuild English Dictionary, 1995, p. 1254)
• Plagiarism is an idea or a piece of writing or music that has been secretly copied from someone else’s work
  – (Collins Cobuild English Dictionary, 1995, p. 1254)
Plagiarism

- Literature, linguistics, history, medicine, psychiatry, social sciences, industrial photography

Plagiarism has a Long History

- Elizabethan times (e.g. Benson published a pirated version of Shakespeare’s sonnets)
- Imitation and plagiarism in French literature since renaissance
- Oscar Wilde accused of extensive plagiarism

WOS (key word Plagiarism), April 20, 2010

WOS (key words Fraud and Science), April 20, 2010

On plagiarism (The Veterinary Record, August 9, 1980)

- Comment: Plagiarism in scientific publications
- The story of E.A. Alsabti, a Jordanian scientist who published 23 papers in 1979/1980 within 17 months; identical or very similar to published work of other scientists (revealed in Lancet by one of the plagiarised authors and commented in Nature and B. Med. J.)

The Veterinary Record, August 30, 1980

- A.W. Ellery replies: “…the motives involved are really very straightforward. I can imagine no other way of collecting 23 entries for one’s c.v. in less than 18 months. So long as the ability of a research scientist is so widely considered to be directly proportional to the number of papers he has published, then the more common plagiarism will become.”
Plagiarism

"In the veterinary field we are privileged to deal with a flow of communications whose authority is manifest and whose quality is high. The profession is relatively small and its members known to each other to a greater extent that may be the case elsewhere. But what a sorry thing it would be if we had to view with suspicion any submission from an unfamiliar source."

Veterinary medicine/ medicine (WOS)

Key words (4/30/2010)

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2007: two cases of attempted duplicate publication (detected in WOS, Acta would have been the second journal)

2008: a second (corresponding) author put his name first at the proof stage; the original first author sued him

2009: another case of attempted duplicate publication; two cases of first authors including others as authors without their consent; two cases of self-plagiarism prevented
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- 2009: three cases of authors claiming to have corrected all problems as suggested by reviewers; the manuscript was sent back to Editorial Office without having done any of the corrections

Cultural Differences?

- Despite targeted education in many countries, plagiarism and other forms of misconduct exist
- In former communist countries education in ethics was and is lacking at earlier steps of education ....
- Western vs. oriental culture?

Growing Awareness of the Problem

- Conference on plagiarism, University of Ottawa, September 26-28, 1991
- Colloquium on Documentary Culture, Florence and Rome 1992

Plagiarism in Focus of Scientific Interest

- Northumbria University, Newcastle upon Tyne, England:
  - 2004 - first International Conference on Plagiarism (27 lectures)
  - 2006 - 4 keynote speakers, 23 guest speakers
  - 2008 - 4 keynote speakers, 4 workshops, 24 guest speakers
  - 2010 - 4th conference, June 21 - 23-
Information and Materials Available at


- The themes for the 2010 conference place a positive emphasis on the value of true academic endeavour with highly innovative practice. Keynote speakers: J. Carroll, T. Fishman, I. Nisbet, A. Slater

Themes 2010

- Creating a culture of honesty
- Ensuring authenticity in non-text-based disciplines and multimedia
- Ensuring the integrity of research and published work
- Open themes

Detection of Plagiarism

- “Scientific literature on the www became a double-edged sword: allowing plagiarism to be more easily committed and simultaneously enabling its simple detection through the use of automated software.”
  (Long et al. 2009)

Detection of Plagiarism

- Ithenticate (http://ithenticate.com)
- TurnItIn (http://turnitin)
- CrossRef (http://www.crossref.org) - a new product CrossCheck
- ….and others

Veterinary Editors - what can we do?

- Be aware of the problems
- Protect our journals (e.g. share information on authors involved in misconduct?)
- Provide clear guidelines and policy or
- Formulate an “International code of conduct”, publish these guidelines online, adapt them when necessary

Veterinary Editors - what can we do?

- Educate our authors, reviewers, board members
- Use tools available to detect plagiarism where appropriate
- Collaborate with organisations such as ORI, COPE, WAME, EASE
What can we *all* do about it?

- Educate at all levels:
  - undergraduate courses on science writing, include ethical conduct, consequences
  - post-graduate courses - example: Czech Academy of Sciences: one-week for PhD students initiated in 2003; since 2008 lectures on plagiarism included
  - Slovakia: a new Act on University studies including the rules on how to handle plagiarism

Further Information

- www.ease.org.uk; links to other resources and their materials (COPE, CSE)

Further Information


References

- Cobuild English Dictionary, 1995
- Roig M: Plagiarism in the science? What do we really know? Lecture, Barcelona, 29.10.2006
- Bretag T, Mahmud S: Self-plagiarism or appropriate textual re-use? Journal of Academic Ethics Advance, 2009, online copy DOI 10.1007/s10805-009-9092-1

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P.S. Circumstances for Science

- “full liberty of learning, the most potent condition for giving to mankind control of the powers of nature, is not yet assured” (W.B. Cannon, 1945)
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Thank you

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