

# **Discourse:**

**Learning and Teaching in  
Philosophical and  
Religious Studies**

 **The** Higher Education **Academy**



# Discourse:

Learning and Teaching in  
Philosophical and Religious Studies



**Editor:** David J Mossley

+44(0)113 343 1166

david@prs-ltsn.ac.uk

**Assistant Editors:** Martyn Fletcher and Danielle Lamb

Distributed freely to all individuals and PRS departments in UK Higher Education and to those registered in our subject areas.

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## **Discourse**

### **Volume 4, Number 1, Autumn 2004-5**

Welcome to the seventh issue of the journal of the Subject  
Centre for Philosophical and Religious Studies, *now part of the  
Higher Education Academy*

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## Editorial: Into the Academy

Welcome to the first issue of *Discourse* from the Subject Centre for Philosophical and Religious Studies as part of the Higher Education Academy. As reported in the last issue and in the press, the functions of the LTSN, the ILTHE and a number of other learning and teaching bodies have been combined into the Higher Education Academy. While there are still some details to be finalised, it is clear that the internationally recognised work of the Subject Centres will continue for the foreseeable future in the form they have established and built upon with considerable success.

We have made some changes to the design of *Discourse* to match the branding of the Academy, which we hope you will appreciate. However, the editorial policy of promoting diverse and scholarly articles that explore all aspects of teaching in our disciplines—from the purely conceptual to reports on actual practice—remains unchanged.

This issue features the text of the first annual lecture supported by the Subject Centre, a brilliant and lively exploration of the great relevance and advantages of theology in secular universities, by the

eminent Oxford theologian, Keith Ward.

We update information on external pressure on teaching with a follow up to the article published by the Subject Centre Director, George MacDonald Ross, in 2002. And we have two articles covering practical teaching: using Shakespeare to teach epistemology and finding ways to foster independent thought.

We are also publishing reports on projects addressing the use of case studies in teaching ethics and cultural and religious diversity, both supported and funded by the Subject Centre. Indeed, the Cultural and Religious Diversity Project is ongoing and was recently covered by the Times Higher Education Supplement.

The second half of this issue presents a series of important articles on teaching logic—further details are available on page 114.

We hope you find something of interest in this issue and we look forward to receiving any feedback and comments you may have.

Best wishes

David J Mossley, Editor

## Erratum

In the last issue (Vol. 3, No. 2) we inadvertently referred to Judith R. Wester as 'Judith R. Webster' in the contents page and the running header of the printed version of the journal. We apologise to her and for any confusion caused.

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## **News and Information**



# The Higher Education Academy

**O**ctober 2004 sees the official launch of the Higher Education Academy. The central mission of the Subject Centre and the network remain broadly the same. The Academy will include a wider range of functions and activities than has been offered by the LTSN in the past. To find out more, visit the Academy's website:

**<http://www.heacademy.ac.uk>**

## The Subject Network

The Support Network is a network of 24 subject centres based in higher education institutions throughout the UK. It is funded by the four HE funding bodies in England, Scotland, Wales and Northern Ireland. It aims to promote high quality learning and teaching through development and transfer of successful practice in all subject disciplines.

## Activities

The Subject Network's core activities are:

- setting up, supporting and developing learning and teaching networks;
- promoting and sharing successful practice in learning, teaching and assessment through workshops, conferences, meetings and the interoperability of resources and databases of resources;
- facilitating the transfer of knowledge between users, experts, developers and innovators.



## **The Subject Centre for Philosophical and Religious Studies**

### **The Higher Education Academy**

The Subject Centre for Philosophical and Religious Studies is based at the University of Leeds and at a partner site at the University of Wales, Lampeter and covers the disciplines of Philosophy, Philosophy of Science, History of Science (including the History of Medicine and Technology), Theology, and Religious Studies.

#### **Activities**

**The mission of the Subject Centre for Philosophical and Religious Studies is to enhance teaching quality and improve the student learning experience for all in the context of a changing educational environment.**

#### **More specifically, we aim:**

- to be the accepted source of information and advice to PRS subject communities on subject-specific and relevant generic educational issues;
- to promote the discovery, development and brokerage of good and innovative practice in learning, teaching and assessment;
- to develop and maintain a national and international profile;
- to identify and disseminate current and future national policy objectives in learning and teaching and to assist departmental implementation where appropriate.

#### **We provide the following services and resources:**

- news and support advice on national developments and funding opportunities;
- individual and departmental consultations;
- departmental visits;
- grants and funding for learning and teaching mini-projects;
- a comprehensive website of electronic resources and reviews;

- *Discourse: Learning and Teaching in Philosophical and Religious*;
- *Discourse Supplement* for heads of departments and policy makers;
- a monthly e-bulletin;
- regional and departmental workshops and conferences.

**Visit the website for the Subject Centre for Philosophical and Religious Studies (formerly the PRS-LTSN) of the Higher Education Academy:**

**<http://www.prs-ltsn.ac.uk>**

or

**<http://www.prs.heacademy.ac.uk>**

# Departmental Visits, Workshops and Contacts

## Departmental Visits

We have now visited most of the departments in our subject communities. We have contacted all the departments (either via your departmental Subject Centre representative or your Head of Department) and if we have not yet set up a face to face meeting then please do not hesitate to contact us at the address below to arrange one. The aim of the visits is to gather information about existing effective practice and to find out what the most pressing issues for your department and for individual lecturers and tutors are, so that we can better direct our resources and efforts to serve the PRS community in all learning, teaching and assessment matters.

We also offer a programme of follow-up visits and workshops. These are designed to help us better help you with issues raised in our first visits and to see how things have changed in your learning and teaching environment. We aim to provide workshops and support advice on any learning and teaching issue that has a subject-specific dimension. These workshops can be tailored to your departmental needs and time and can cover topics such as plagiarism, assessment and tutor training. Please contact us to discuss how we might help your with a workshop for your department, free of charge.

## Contacts

Our list of departmental contacts continues to grow, but there is still a small minority of departments that have not registered a representative. If you would like to be a representative for your department, please contact:

<p><b>Martyn Fletcher</b> Subject Centre for PRS Higher Education Academy School of Theology and Religious Studies University of Leeds Leeds LS2 9JT Tel: 0113 343 4184 enquiries@prs-ltsn.ac.uk</p>
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# Philosophy in UK Higher Education

## Interim Report —Staff: Student Ratios

### Introduction

The purpose of this interim report is to update our 2003 report (*Philosophy in UK Higher Education: A report on the 'state of the discipline'*). Eventually we hope to update all the sections originally covered, but for the purposes of this section we requested information regarding just one area, staff:student ratios. The information in this report has been taken from a survey distributed to 53 philosophy departments, and gives staff:student ratios for the academic year 2003/04.

### The Survey

The survey was designed with ease of response in mind, hence the request at this stage only for the staff:student ratio, and how this was calculated. A follow-up survey of a smaller selection of departments will be conducted shortly, in order to provide more specific information.

Of the 53 surveys distributed, we received a total of 17 replies (a response rate of 32%). This is a considerable improvement over the response to the staff:student ratio section of last years survey (only 4 departments of the 56 to which the survey was sent responded to this section, a response rate of just 7%). While this clearly cannot be taken to be a comprehensive overview of staff:student ratios within the discipline, it does give us some idea as to the range likely to be encountered by students and staff.

## Results

Institution	Ratio	Method used to calculate staff:student ratio
<b>Institution 1</b>	1:12	FTE UG students divided by FTE staff
<b>Institution 2</b>	1:27	FTE students divided by FTE staff
<b>Institution 3</b>	1:27	FTE UG students at 31/12/03 divided by FTE staff at 31/12/03
<b>Institution 4</b>	1:20	FTE students divided by FTE staff
<b>Institution 5</b>	1:33	FTE students divided by FTE staff
<b>Institution 6</b>	1:23	FTE UG & MA students divided by FTE staff
<b>Institution 7</b>	1:34	FTE students divided by FTE staff
<b>Institution 8</b>	1:15	FTE UG & PG students divided by number of teaching officers
<b>Institution 9</b>	1:16	FTE students divided by FTE staff
<b>Institution 10</b>	1:29	FTE students (UG & taught PG & research PG) divided by FTE staff
<b>Institution 11</b>	1:15	FTE students divided by FTE staff
<b>Institution 12</b>	1:14	FTE students divided by FTE staff
<b>Institution 13</b>	1:14	FTE students divided by FTE staff
<b>Institution 14</b>	1:11	FTE students divided by FTE staff
<b>Institution 15</b>	1:15	FTE students divided by FTE academic staff (including occasional researchers)
<b>Institution 16</b>	1:27	FTE students divided by FTE staff

As can be seen from these results, most departments arrived at their staff:student ratios by merely dividing the number of full time equivalent (FTE) students by the number of FTE staff. Unless specified we have assumed that ‘FTE students’ include all undergraduate (UG), and taught and research postgraduate (PG) students, and that ‘FTE staff’ includes all members of staff who have any teaching responsibilities.

Whilst keeping the differences of method in mind, the range of the raw data is from 1:11 to 1:34. With ever-increasing student numbers, this range is likely to widen. The Subject Centre will continue to monitor this where we can, and support efforts to find the best means of responding and adapting teaching to these changing ratios.

If you wish to add to these results with your own information, please contact the Subject Centre: [enquiries@prs-ltsn.ac.uk](mailto:enquiries@prs-ltsn.ac.uk)

# Letter to the Editor

Dear Sir,

Regarding George MacDonald Ross' recent piece on plagiarism ("Plagiarism in Philosophy: Prevention Better than Cure", *Discourse*, 3(2), 2004: 23-57), can I applaud his generally constructive approach to this issue (in particular, the material on articulated questions was very helpful). However, it seems to me a few supplementary words of caveat are in order concerning the growing legalistic emphasis on *plagiarism as theft of intellectual property rights* (MacDonald Ross 2004: 29). Although this is a small element of MacDonald Ross' otherwise useful article, it's worth noting that this is a common element of American universities' approaches to this issue (we may note, for example, Harvard's definition that "plagiarism is the theft of someone else's ideas and work"<sup>1</sup>). Whilst this may well have a short-term utility in striking fear of litigation by publishers into the hearts of young students, I would argue that it is both misconceived and irrelevant as an approach to tackling plagiarism. There are three principal reasons for this:

- Firstly, it places the burden of responsibility for asserting that 'plagiarism is bad' outwith the pedagogic and institutional relationship, thus de-emphasising it as an academic issue about good practice and honesty within the educational context itself. This simply makes academics look like officious paeons of an increasingly centralised publishing industry. Plagiarism is a peculiarly academic issue, and academics need their own reasons for asserting its importance, if they are to be respected by students.
- Secondly, and more importantly, it fragments the actual nature of the problem. A student can, should they so choose, *purchase* the intellectual property rights for (shall we say) a senior student's essay and present it as their own: this would still be plagiarism, but at the same time be in no sense "the theft of someone else's ideas and work". Only some things that count as plagiarism constitute the theft of others' work, or a breach of copyright (in this regard, Harvard are simply wrong).
- Finally, the notion of 'theft', or even of intellectual property rights in this context, moves academics onto very thin ice indeed. From my own professional perspective as an anthropologist specialising in religion, the

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<sup>1</sup> <http://www.extension.harvard.edu/2001-02/policy/honesty.shtml#plagiarism>, 6 January 2003.

question of who *owns* the knowledge that is the bread and butter of my discipline is a vexed and litigious one. If a student, for example, argues that ‘Buddhist reliquary mounds represent the mind of the Buddha’, who *owns* this knowledge? The author of the book they got it from? The Buddhist monk that told the author? Their teacher in turn? Or perhaps Nagarjuna, the second century Buddhist saint and scholar whose works contain (to my knowledge) the first written mention of this notion? If I, as an anthropologist, claim ‘ownership’ to cultural knowledge that I have gleaned from my own local informants in Tibet, have I stolen it from them? Disputes such as these have crippled studies into, for example, the study of Native American traditions in the US, precisely because indigenous communities took reasonable offense at American academia’s claims to intellectual property rights over Native American cultural knowledge; similar arguments are emerging across the world in the context of indigenous medical traditions. To be frank, asserting the concept of ownership of knowledge as the basis of our understanding of plagiarism opens up far more cans of worms than it closes.

In short, plagiarism is *not* theft of intellectual property, and to assert that it is—even as a supporting argument—confuses the issue. Plagiarism at HE and FE level is *obtaining a higher education qualification by deceit*: the student has endeavoured to deceive their educational institution that they have carried out credit-bearing intellectual work when they in truth have not. In this sense, if plagiarism is theft of anything, it is theft of a degree.

Yours,

Dr. Martin A. Mills,  
School of Divinity, History and Philosophy,  
University of Aberdeen

# **Advance Notice of a Proposed STUDY DAY for Teachers of NT Greek**

**WEDNESDAY 2 MARCH 2005  
UNIVERSITY OF BIRMINGHAM  
10.00 am to 4.00 pm**

**This will be a practical day, and will enable teachers to exchange ideas and develop the existing network which has been encouraged by the LTSN, now being carried forward by the Higher Education Academy.**

At least three themes will be considered during the day:

- how we enable students to develop strategies for translation when they are approaching NT texts;
- how we teach participles to students at introductory and intermediate levels; and
- how we organise and construct beginners' courses in Greek (the latter to be led by Glenn Balfour, who had just completed a new text-book)

The cost will be around £20, including lunch and refreshments, thanks to a subsidy from the **Subject Centre for Philosophical and Religious Studies**.

Further details, including a registration form, will be sent out as soon as they are available, and will also appear on the *New Testament Gateway* website.

- Jane McLarty (Cambridge University) [jdm35@cam.ac.uk](mailto:jdm35@cam.ac.uk)
- Steve Walton (London School of Theology) [s.walton@lst.ac.uk](mailto:s.walton@lst.ac.uk)
- Geoffrey Williams (Spurgeons College)  
[geoffrey@gaw117.fsnet.co.uk](mailto:geoffrey@gaw117.fsnet.co.uk)



# Call for Papers:

## ***Future Discourse: Learning and Teaching in Philosophy***

Two day conference on learning and teaching in philosophy

**1-2 July, 2005**

**University of Leeds**

**Confirmed key speakers to date include Professor Simon Blackburn (Cambridge) and Professor E. Jonathan Lowe (Durham).**

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- Philosophy of Mind
- Philosophy of Language
- Modern European Philosophy
- History of Philosophy
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- Specific topics and philosophers

Small and large group teaching

E-learning and distance learning

Specific learning and teaching issues

Find out more and download the submission form from:

**<http://www.prs-ltsn.ac.uk/philosophy/events/conference.html>**

or

**<http://www.prs.heacademy.ac.uk/philosophy/events/conference.html>**

# British Journal of Middle Eastern Studies

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## EDITOR

Professor Ian Netton, *University of Leeds, UK*

The *British Journal of Middle Eastern Studies* is a refereed academic journal published for the British Society for Middle Eastern Studies (popularly known as BRISMES). Founded in 1974 as the *BRISMES Bulletin*, the *British Journal of Middle Eastern Studies* assumed its present title in 1991 reflecting its growth into a fully-fledged scholarly journal.

The editors aim to maintain a balance in the journal's coverage between the modern social sciences and the more traditional disciplines associated with Middle Eastern and Islamic studies. They welcome scholarly contributions on all aspects of the Middle East from the end of classical antiquity to the rise of Islam. Articles on the language, literature, history, politics, economics, anthropology, sociology, geography, and the religions and cultures of the region are encouraged.

The *British Journal of Middle Eastern Studies* also includes a vigorous review section covering publications on all subjects connected with the Middle East. This incorporates a wide range of reference and bibliographical material seldom reviewed elsewhere.

**This journal is also available online.**

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# Australasian Journal of Philosophy

New to Routledge  
for 2005

## EDITOR

Maurice Goldsmith, *Victoria University, New Zealand*

Supported by an International Advisory Collective

The *Australasian Journal of Philosophy (AJP)* is Australasia's oldest and leading philosophy journal. It was founded in 1923 and is now in its 82nd year of continuous publication.

The Journal is recognized as one of the best in the analytic tradition and is heavily cited in the general philosophical literature. In addition to Articles and Discussion Notes, the Journal publishes Book Reviews and Book Notes, and, from time to time, a commissioned Critical Notice of an important recent book. In 2004, a Special Issue in Honour of David Lewis was published (March 2004). Manuscripts are received from all continents, and the Journal has recently published submissions from American, European, Asian, and Australasian contributors. Close links are maintained with the sponsoring organization, the Australasian Association of Philosophy, to whom the Editor reports annually.

This journal is also available online.

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All the Subject Centre news on funding and events is available from our website:

<http://www.prs-ltsn.ac.uk/index.html>

or, our new address:

<http://www.prs.heacademy.ac.uk>

Also available are:

- our biannual *Discourse Supplement* (for heads of departments and policy makers);
- our *e-bulletin newsletter*. To receive the e-bulletin you need to be registered with Subject Centre (visit the website).

The e-bulletin will keep you up-to-date with:

- Events
- Funding
- Conferences in learning and teaching
- National developments

NB: some institutions block mass emails. If you are registered but do not receive the e-bulletin, please contact Martyn ([martyn@prs-ltsn.ac.uk](mailto:martyn@prs-ltsn.ac.uk)) with an alternative email address.

# **Articles, Discussion and Practical Teaching**



# Why Theology should be taught at Secular Universities

First Subject Centre Annual Lecture<sup>1</sup>

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**Keith Ward**

Regius Professor of Divinity  
Christ Church, Oxford

**T**he ancient Universities were founded in large part for the training of Christian clergy, and were for many years religious foundations, often limiting both teachers and students in all subjects to members of the Christian faith (and one version of it at that, though the version changed after the Reformation). So one simple answer to the question of why theology is taught in Universities is that European Universities were founded by the Church, and a major part of their original aim was the training of clergy. For many years, however, there was no subject called 'theology'. Peter Abelard perhaps first used the word 'theology' in the eleventh century, but it did not become a separate subject until the nineteenth century. The teaching of 'sacra doctrina' was part of the syllabus for a general education. It provided a training in logic, metaphysics, languages, literature, law and history, as well as a

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<sup>1</sup> Editor's note: This was the first national annual lecture from the Subject Centre and we were very pleased that Keith Ward, Regius Professor of Divinity at Christ Church, Oxford and author of many books on theology and the relationship between religion and science, was our first guest lecturer.

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formation in the Christian faith. What more could one want in a good liberal education? There was not felt to be any need for the compartmentalisation of knowledge that is such a marked feature of University life today.

All that presupposed that the Universities were Christian institutions, largely concerned with training people for positions in the Church. Things have changed considerably, and modern British universities are no longer funded by the Church, nor is the training of clergy a major part of their activity. In Britain there are many avowedly secular Universities, and it may seem particularly hard for them to justify the teaching of theology. I hope to show, however, that it is not at all hard. Indeed it is hard for them to justify not teaching it.

Theology, however, has always been a controversial subject. When theology was proposed as a separate academic subject for a degree in Oxford in 1870, Canon Pusey opposed it on the grounds that it might mean the Bible was taught 'like any other book'. He could see that the academy had become a place where ruthless criticism, as long as it was reasoned, was actually welcomed. As J.S. Mill argued, argument and criticism are among the best ways of establishing truth, for if belief-claims are meant to be based on argument or evidence, they must be tested as strongly as possible. In the area of the humanities, that is done by presenting and re-presenting various points of view, and letting arguments take their course.

Pusey, who also opposed the 1859 publication 'Lux Mundi', a volume that contained some moderately critical ideas by a group of Oxford Anglicans, was not in favour of opening the Bible and Christian doctrines to this process of criticism and argument. He thought that Christian truth should be expounded clearly and defended stoutly. He thought, more profoundly, that Christian theology could only be taught by those who loved the Christian faith, who practiced it in their own lives, and who could bring others to a lively experience of faith by their example.

Lest this should too quickly be dismissed as an archaic view, consider an analogous case, perhaps that of music. It would be plausible to say that, even as an academic subject, one aim of musical studies is to encourage the love of music, to achieve a high level of musical skill, and to appreciate music more fully. It might seem very odd to say that music should be taught by those who dislike it

intensely, who may be tone-deaf, or who are purely interested in technical or historical questions, and not at all in the beastly noises that musicians make.

In literary studies, too, should it not be part of any real educational discipline to increase the understanding and love of literature, and to distinguish literary excellence from the drivel that most of us produce when we sit down to write?

Even in history, which may be thought just to deal with facts, a good educational aim is to make students aware of the complexities of making historical judgments, to free them of prejudices, misconceptions and stereotypes, and to instil in them a sensitivity to human motivations and relationships that may enable at least some of them to make historical judgments for themselves.

There are skills of musicianship, literary appreciation and historical research. Some of those skills presuppose a love of their subject-matter, of music, literature and the stories of human lives. Argument and criticism are part of these disciplines, but it is rightly hoped that sensitivity and appreciation will be honed so that the student will be able to distinguish the beautiful, the perceptive, and the discriminating, and to admire and love it. Such an education is truly humane, and concerned with that intellectual training in intellectual and imaginative skills which is necessary in any developed culture.

Why should it not be so in theology? Should it not seek to increase understanding and love of Christian faith, to distinguish profound faith from superficiality, to correct misconceptions and stereotypes, and to instil a real sensitivity to religious motivations and experiences? The analogy with other humanities is not absurd, and Pusey was right to fear that if Christian faith became a purely academic study, one solely concerned with the abstract arguments of theologians, the linguistic or literary structure of the Bible, and the history of Christianity, with no attempt to cultivate and communicate a sense for Christian insights and experiences, something would be lost.

There is a major difficulty, however. Music and literature do not make truth-claims—at least, not of a very obvious sort. History does, but nobody denies that humans have a history, and that some things pretty certainly happened in it—Rome fell, Britain had an Empire, the Bastille was stormed. With theology it is otherwise. Many



intelligent people deny that Christianity is about anything at all. All its truth-claims fail. There is no God, there are no miracles, Jesus did not rise from the dead. Perhaps he did not even exist. So Christianity is palpably false. Not only that, it may be harmful—repressing women and animals, and breeding intolerance and violence.

Would anyone wish to advocate a sympathetic understanding and deep appreciation of something that is false and harmful? Obviously not. So some would argue that a sympathetic training in Christianity is obnoxious. Music and literature are not obsolete, but perhaps religion is. So any study of it should be only as a historical relic. We do not want to encourage people to have ‘religious feelings’, which would be dangerous and delusional.

Those who have visited the American Academy of Religion know that many religion departments in United States universities are virtually at war with Divinity schools, where theology is taught. It seems to be a motto of some American religions departments that if we are to study religion properly we should not believe it. We may seek to explain its existence, or treat it as a sub-discipline of anthropology—describing the strange things that some people do. But it is taken for granted that religious claims are false and irrational. In such departments it is heresy to be a religious practitioner.

That may be an extreme view. A less extreme version of it is that religious belief cannot be required of a student or teacher of any religion, so that the attempt to increase appreciation for religious life, sensibility and discipline cannot be a required part of any syllabus. For religion may be founded on a series of mistakes and delusions.

Where such an opinion is held by many intelligent and morally committed people and supported by argument, it must be taken seriously.

If Christianity is to be taught in secular Universities, it must be taught as the ambiguous and disputed phenomenon it is in such a society. That does mean, as Pusey feared, that it will be open to criticism as false. It does mean that we cannot any longer have as an educational aim simply an increased respect for and appreciation of Christian truth. Nevertheless, it is still of great importance to try to understand what it is about religion that has attracted the total commitment of so many people, what it is in it that they see as good, indeed as the best they know. It is still important to see the complexity

and diversity of religion, so that we do not dismiss all forms of religion at one stroke, as though they were all alike. It is important to distinguish the good from the naive, the profound from the shoddy, and so to develop discernment of what is regarded as excellent in religion. It is important that we correct misconceptions and stereotypes, and that we criticise intelligently and with sophistication, with a clear awareness of the presuppositions of our own beliefs, of the standpoint from which we criticise religion, and the sorts of justification that can be given for that standpoint. What we can aim for is a deeper understanding of what leads people to have Christian faith, a deeper knowledge of what the major theologians have said about faith, and a deeper feeling for the very various sorts of experiences that religious believers have. Religions are such an important and vital force in the modern world that it would be a dereliction of intellectual duty if its claims were not taken seriously, investigated carefully, and evaluated with reasoned criticism. Where would this take place if not in a University?

The intellectual qualities of discernment, appreciation, criticism, and informed and reasoned evaluation, exercised upon widely accepted, though disputed, and socially influential truth-claims concerning disclosures of what purports to be the ultimate reality, supreme objective value, and final goal of existence—there could be no more important intellectual discipline, both for the training of the mind in intellectual virtue, and for helping individuals to come to instructed decisions about their own ultimate values and goals. In a secular University it is hard to defend theology as a formation in Christian faith. But theology as ‘discourse about the gods’, as a discussion of the ultimate goals and values of individuals and societies, as a careful and critical examination of reasoned claims that there is a transcendent spiritual reality, and that its nature has been disclosed at various points in human history, is an essential study for any educational institution that claims to impart knowledge and enlarge understanding of human existence. That the truth-claims of any religion are disputed both by other religions and by the non-religious, is itself a fact of great interest about the human mind, and of major importance in seeking to understand and palliate some of the major social and intellectual problems of the modern world.

Theology became a separate academic discipline in Oxford, but Pusey managed so to influence the teaching of it that it became primarily an exposition of the Anglican Faith and the 39 Articles of Religion. In Scotland it was, naturally enough, the Presbyterian faith that was defended, and Lampeter served as an Anglican outpost in Wales. But that situation was bound to change. At the end of the nineteenth and the beginning of the twentieth centuries theology departments were opened in a number of English Universities. The Free Churches and the Roman Catholic Church both established an academic presence in a number of Universities, including Oxford and Cambridge. Since theology was a subject usually offered to all undergraduates, it inevitably became more ecumenical in outlook. It could no longer be an exposition of the beliefs of one church, an internal academic discipline of a religious institution. Such a view was not inappropriate when the Universities themselves were founded and supported by religious institutions. It became untenable when Universities became secular bodies, containing people of many faiths and none.

This history accounts for an instability that still exists within theology. Some see it as properly the systematic exposition of the beliefs of one religious organisation. John Henry Newman's defence of the Catholic University in Dublin, in 'The Idea of a University', assumed that the Catholic faith was simply and obviously true. There was knowledge of God and of the true revelation in the Catholic Church, and so it would be wrong to omit this department of knowledge from a fully rounded University education. In modern British society, however, this claim to knowledge would be widely disputed, and has arguably become a minority opinion. The idea of theology that I have briefly canvassed—though it is only part of my final view—as a critical appreciation and sensitivity to religious insight and experience—as anathema to Newman. It was, he thought, a Protestant heresy. Catholic faith was about intellectual truths. I think we would be more disposed today to say that Catholic faith may indeed contain truths, but they are seen as falsehoods by a great many people. They lack the overwhelming evidential or argumentative force that is needed for established knowledge. They are widely disputed by informed and intelligent people. A university, that should indeed provide knowledge of every major department of human life, would

be lacking in width of vision if it taught only one version of Christian faith, and that version as known to be true. We may rightly say, however, that many religious faiths *claim* to have knowledge about God or a supreme spiritual reality, usually founded on revelation. Much of Newman's argument can still stand, if we insert the word 'alleged' into his sentences. So when he says, 'Religious doctrine is knowledge', we must just remember to say, 'Religious doctrine is alleged knowledge'. That will be true, and theology differs from religious studies largely in this, that religious studies brackets out, or sets aside, questions of the truth and rationality of religious beliefs. Theology takes those questions as its central concern. In its study of revealed texts, of the development of doctrines, the writings of great thinkers, and the history of institutions, it always concentrates on what can reasonably be affirmed as true.

On this view, it can no longer be taken for granted that all teachers and students will accept the doctrines of a specific religion as true. So a different view of theology has grown up, as a study of religious beliefs by and for people of any or no religious commitment. Thus it is normally not permissible to limit teachers of theology in Britain to adherents of one religious viewpoint—though there are some major exceptions to this principle—I was one of them. And it is not permissible to limit students to members of one faith. Even Friedrich Schleiermacher, often called the father of liberal theology, thought that theology was the articulation of the beliefs of a particular religious institution. His own theology he thought of as an exposition of the dogmatic system of the evangelical protestant church. But in his 'Speeches' of 1799, he spoke of religion as something that exists in many particular forms, and tried to give an account of its general character. In his work we see a tension between giving an apologetic for one religious group, and providing a descriptive study of many religious groups. To complicate matters, his apologetic was in fact an original and often surprising interpretation of Calvinism, a personal interpretation of a tradition of which (some would say) he had a most unsound grasp. Another tension exists, between someone who seeks faithfully to defend doctrines received from an authoritative religious group, and one who seeks to give an original and creative interpretation of a growing, changing, tradition, but is ready to revise as well as to defend or simply re-present what is given on authority.

So theology may mean: a defense of the authoritative declarations of one religious group, or a personal exposition of one's own beliefs about ultimate reality and value, or a description of what one religious group, or perhaps of what many religious groups, believe.

The first interpretation is quite implausible for any secular University. The second is so individualistic that it hardly seems appropriate for it to be financed by a public educational institution. These interpretations have become obsolete in non-denominational Universities, though it is to be hoped that there will be available authoritative expositions of the beliefs of religious groups, and lively defences of personal religious (or anti-religious) viewpoints. Such expositions increase the sum of human knowledge, and such defences should inspire questioning and debate. It is important, however, that what is taught, even if including elements of apologetic, should be justly presented, and that full weight should be given to opposing positions.

Some of the best known atheists in academic life today are not concerned to produce a balanced view. Daniel Dennett, one of America's best known philosophers, in his philosophy lectures argues forcefully and vehemently in favour of materialism and against religion. It may be said that he does present different points of view, and is open to argument. But he ridicules Cartesian dualism mercilessly, he makes it unmistakably clear that he thinks materialism is both true and important, and makes no bones about trying to convince his hearers that this is so. This is on the boundaries of acceptability, as long as opposing views are given equal time, though it is still regrettable that ridicule and rhetoric often replace careful exposition and argument.

Academic opponents of Christianity are sometimes not concerned in the slightest to understand Christianity at its best. On the contrary, they look for the worst—which is easily found—and dismiss it without any study of the psychology and history of faith, or of the writings of major theologians and philosophers of faith. It is that view that is not worthy of being present in a University, and that is a standing disgrace to academic life. If a Professor of the Public Understanding of Science publicly misrepresents, ridicules and stereotypes Christian faith, what sort of understanding is he advocating? He is advocating ignorance, lack of research into things

that one dislikes, and ridicule and polemic as appropriate intellectual attitudes. Theology as a rational activity is important in Universities if only to counteract such views. But argument itself must be welcomed, as religious truth-claims are highly disputed, and need to be carefully weighed.

The fact that alleged religious truths are disputable and disputed is no surprise to theologians. Wherever theology is free of the constraint of having to conform to an authoritative set of doctrines, it immediately becomes clear that each theologian disagrees with every other, that Catholics do not agree with Protestants, that primitive Methodists do not agree with Wesleyan Methodists. Disagreement is the life-blood of theology, and to admit atheists, Buddhists and Hindus into the fold of theology is little more than an extension of the range of disagreement about truth that is already a marked feature of theological existence.

The positive argument for admitting them is that, in discourse about the gods, or, to reformulate that in my own terms, about the existence of a spiritual reality of ultimate reality and value, it is important that our knowledge should be as accurate and as extensive as possible. If we ask whether a transcendent spiritual reality exists, and is disclosed at various points in human history, we need to know how it has been perceived in the widest context, and what sorts of reasons and arguments have been used to support or deny its existence. On this matter, Newman's views were much too restrictive. Catholic faith makes claims to knowledge, but those claims are not evident to all. They are widely disputed, and in examining the grounds for dispute, we need to learn the views of Protestants, of atheists, of Muslims and of Hindus. As we widen the net of knowledge-claims, we come across new ranges of argument and bodies of alleged knowledge. Theology may be practised within and on behalf of a religious institution. I have no objection to that, though I would say that it is still important to obtain a correct and appreciative knowledge of other traditions, so that limitations of outlook may be overcome, and misunderstandings of other outlooks may be corrected. But in a secular University (where 'secular' is taken to mean, not anti-religious but not committed to the beliefs of any one religion), theology will be the study of truth-claims about spiritual reality, and it is then helpful to assess such truth-claims over the widest possible range.

There is a current view in some circles that it is impossible to assess the meaning and truth of religions or traditions other than your own, or to compare the truth-claims of different faiths. It has been said that we all necessarily stand within some specific tradition, and the best we can do is to expound that tradition, or to look at other traditions from within our perspective and, bluntly, preach to them if we feel moved to do so. In any case, we have nothing to learn from alien traditions, for they form incommensurable forms of life and thought, self-contained conceptual schemes, and it is unwise to try to take out isolated parts of them and incorporate them into our own scheme. There are a number of reasons why this view is mistaken.

Crucially, it is virtually impossible to define what ‘a tradition’ is, or to draw its boundaries clearly. Are we to speak of the Methodist tradition, or the Western tradition, or the liberal tradition, the semitic tradition, or are we allowed to speak of the human tradition? There are human groups that share a common language, some that have similar educational systems, some that share a political system, and some that feel strong kinship with others—often for no good genetic reason. In religion, I am an English-speaking Anglican Protestant, but for most of my life I had greater knowledge of certain Indian religious doctrines than I did of Christian beliefs. I have no difficulty with German or French theological writings, so while I see that there are different moods and ways of expressing thoughts, I do not believe that any linguistic term is strictly untranslatable, however ugly and prolix the translation must be, annotated with many comments about verbal connotations and cultural history. I think I now understand many Catholic theologians better than most non-academic Catholics do. If there is a breakdown of communication, it is with fellow English speakers who seem to me to write gobbledegook about theology. But they belong to the same church, and so I suppose to the same ‘tradition’ that I do. Human minds are often opaque to one another. But I realise that with enough patience and application—perhaps by attending a few courses on post-modernism—the conceptual gap can be overcome. I know that because I once wrote a research dissertation on Heidegger, while being a pupil of Gilbert Ryle, so I inhabited two conceptual schemes at the same time. At the moment, I inhabit the religious world of a specific sort of Indian thought—that of Ramanuja and the Vaishnavas—as well that of Anglican Christianity. I can tell

the striking similarities and differences between them, and while it is obviously important not to take over terms from one discourse and incorporate them crudely into another, it is in my experience as easy to compare them as it is to compare Lutheran and Catholic doctrines of the Eucharist.

There is no need to be locked into an allegedly identifiable religious language-game. I do, of course, have a specific historical situation, and that affects the things I know, the people and books that have influenced me, and the sorts of problems I find with my faith. I am very lucky that I can easily widen the range of my knowledge and experience. I can practice as a Buddhist, a Hindu or a Christian without moving from Oxford. If asked what tradition I belong to, I would find it almost impossible to say. I am closer to many Buddhists than I am to some Christians. I understand the beliefs of fundamentalist Christians very well, and could use their linguistic style if I chose, yet their beliefs are completely alien to me. And when a Buddhist speaks of mindfulness and of *dukkha*, suffering, I can understand why that translation might be misleading, and in what ways, and can come to understand quite well what is being said. If I doubt that, I can ask one of my Buddhist students, and be re-assured.

We do not exist in a world of closed conceptual systems, doomed never to communicate. We may choose not to communicate, or we can learn new languages, concepts and ways of speaking. Moreover people do, and I know large numbers of Christians who are also Buddhists or Hindus. There may be groups that disapprove of them, but it is silly to say that people with dual religious membership cannot understand themselves. Of course we have our own beliefs about whether there are ultimate goals and values, and if so, what they are. But those beliefs can change, and they are likely to be more informed the more we know about the beliefs of others on similar subjects. Human knowledge has grown most rapidly and creatively by interaction with disciplines and perspectives hitherto unknown to it. We should expect this to be so in matters of religion as well as in the sciences.

In its long history, Christianity has learned much from Platonic philosophy, even using concepts alien to Hebrew thought-forms to formulate its major doctrines. It learned much from Islam, as the writings of the Greek philosophers were translated from Arabic. It has



learned to reformulate its doctrines in the light of the evolutionary worldview that owes much to Darwin. Today even those who say it has nothing to learn from 'outside' have learned this from French linguists and philosophers and from a misinterpretation of Wittgenstein. From a theological point of view, to say that God has revealed nothing distinctive to any religious group but my own shows an intellectual arrogance and a determination to remain ignorant that is breathtaking.

Until we try, we do not know what Christianity has to learn from other faiths. We cannot issue an edict that faiths are incommensurable until we have done our best to understand them. It is an intellectual duty to find out these things, and not to decide the questions in advance. But whether or not one faith can learn from or be compared with others, it is apparent to anyone who studies human culture that there are many different religions with many conflicting beliefs. Unless we are going to privilege one religion over others in advance of examining them, it seems that the study of theology, conceived as the critical study of the truth and rationality of religious doctrinal systems, should not in principle be limited to the study of just one such doctrinal system. It should extend over as many as is reasonably possible—and local circumstances and resources will determine what that is.

Such a study should, however, be no dry and abstract recital and critique of alleged theoretical truths. To return to a theme I have briefly sketched, it should form part of what Newman called a 'liberal' education, an education in culture. This connects the study of theology with one of the central aims of a University, the development of a cultured mind (what Newman quaintly called the mind of a 'gentleman').

Culture is the training and disciplining of the intellectual and imaginative skills and sensitivities of human beings, as they are realised in various human societies. Of course universities should teach knowledge, but they should also teach understanding and that distinctive sort of creativity that produces or that is necessary to appreciate cultural artefacts in sculpture, art, poetry and music. In such ways people learn not only what has been established as true, but also how to discover new truths, and how to understand old ones. They learn to realise as fully as possible distinctively human skills.

Newman spoke of knowledge as its own end, and called this a ‘liberal’ education - perhaps the only sense of the word liberal of which he was able to approve. But he was not speaking of a bare ability to recite facts. He meant ‘to open the mind, to correct it, to refine it, to enable it to know, and to digest, master, rule and use its knowledge, to give it power over its own faculties, application, flexibility, method, critical exactness, sagacity, resource, address, eloquent expression’—in fact, to cultivate the intellectual virtues for their own sake, precisely because they are the expression of the very qualities that make us human.

A liberal education is an education in the capacity to appreciate the most developed products of human culture. It is also training in the capacity to discriminate between profound and superficial, helpful and harmful, reasonable and irrational. And it is a training of the mind that may enable it to form a balanced personal assessment of the goals and achievements of the many forms of human thought and activity that have existed in history.

Clearly the wider our knowledge of cultures the broader and more complete an educational programme will be. It is not enough to know our own culture and its history—though that is an essential starting place. We must see its relations to other cultures, and learn to appreciate them for their strengths, and criticise their omissions. It is of vital importance that we should not misunderstand alien cultural forms, and the test of this is whether we can state what those forms are in terms that would be accepted by their most respected and informed adherents.

We may rightly say that some cultural forms are worthy of appreciation—the music of Bach, the poetry of Shakespeare. Others, however, should be rejected—the ethical views of Hitler or the philosophy of Lenin—so should we learn to appreciate them? I think we should certainly seek to understand them, how they arose, what appeal they had, and what it was like to accept them. But that does not entail personal agreement, and it is important to view them critically—the misunderstandings about race and class, or the disregard of individual human lives that were part of them. Discrimination, appreciation, criticism, and evaluation are the four essential components of a liberal education, whose objects of study should ideally be extended as widely as humanity itself.

Is religion, then, an important part of culture? There can be no doubt that it is. The great Cathedrals, Mosques and Temples, Cantatas and imperishable musical masterpieces, sacred art works and texts are central to the life of almost every human culture. It follows that to omit the study of religion from a University curriculum is to neglect, not some fringe activity, but a major element of what it is to be human.

The only two objections I can think of to this obvious fact is first, that there are too many religions to make such a study feasible; and second, that there is no need to single out religion as a separate discipline. All can be subsumed under history, literature, music and so forth. These objections, however, apply to almost any subject we can think of, and are easily answered.

As to the impossible extent and diversity of religions, that is true—but no truer than the impossible extent of human history, which manages to be a University discipline with few objections. The remedy is twofold: first, try to give a global overview of human religious life, so that individual faiths can be located in place and time. Second, specialise, while not failing to pay attention to wider contexts where that is necessary or possible. This is why we should expect theology in Europe and America, for instance, to concentrate on Christian faith, whereas in Iran we might expect to find, and we do find, the theology of Islam. But these things can change, and in a multi-cultural society we might hope to have a range of theologies represented in a scholarly way, with some interchange of views between them.

Whether or not ‘religion’ can be defined, and treated as a distinct subject, is indeed disputed among experts in the field. But if we ignore the finer points of academic disputation, there is no doubt that we can pick out activities in almost every human society which bear a close analogy to what we know is religious activity—attending places of worship, conducting rituals, saying prayers, passing on authoritative teachings on the nature of reality and the destiny of human beings, and exhorting to follow a certain kind of moral life. If we set out to study the ultimate values and goals of a human group, we will quickly find ourselves discoursing about their gods—or possibly about why they have no gods, so that we need to know about the religion they reject.

To lack knowledge and understanding of religion is to lack knowledge of the most basic commitments that have moved people throughout history, their ‘ultimate concerns’, as Paul Tillich put it. It is to be condemned to misunderstand and dismiss some of the most intellectually able writings, some of the most demanding moral teachings, and some of the most powerful motivating forces in the world, and in our own history.

Religions typically claim knowledge of important truths, they are highly imaginative, and they differ from one another in ways that often lead to conflict and misunderstanding. To have some understanding of why these alleged truths are thought to be important, to see what drives the imagination of believers, to seek ways of resolving conflict and removing misunderstandings, is to grow in the understanding of human life. Naturally some knowledge of religion is implied in any serious study of literature or history. But that knowledge is too often of oversimplified and stereotyped presentations of religious beliefs. There has to be available in every liberal institution of higher education the scholarly expertise that can seek to discover what religious faith really is, what its problems, its costs and benefits to society are, and what its function may be. Since in the end the core of a religion is its authoritatively defined beliefs (its revealed doctrines, laws or way of life), theology is the discipline that is best suited to provide that expertise.

If theology exists in these terms, its aim will be to produce graduates who are aware of the attraction, the dangers and the profundity of religious belief, and equally aware of its diverse forms and of the strong challenges to such belief that exist in our society. In the case of Christian theology, knowledge of the history and diversity of Biblical interpretation, of the changes in moral viewpoint produced by the Enlightenment (including the abolition of slavery, the revision of strongly retributivist ideas of punishment, and equality of gender), and of the history and diversity of the Christian churches, should encourage a sense of the creative and changing nature of religious belief.

It is a mark of the continuing instability of theology that good intellectually able graduates can still so structure their studies, by careful choice of colleges and tutors, that they evade all awareness of these things, and retain an outmoded idea of theology as the

vindication of their own narrow religious views, and stereotypical condemnation of all alternatives. That such people are still widely taken to be typical theologians, rather than dinosaurs of academe, is a measure of the chasm between proper academic theology and what it is often popularly taken to be.

Academic theology in secular Universities is not and cannot be the defence of a particular confessional view. It is a pluralistic, critical and empathetic discipline that enables issues of ultimate human concern to be studied in an informed and scholarly way. It is as such a discipline that theology is essential to the educational programme of any University that claims to engender knowledge, understanding and informed critique of human culture and existence.

# External Pressures on Teaching: Three Years on

Information Article

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**George MacDonald Ross**

Director

Subject Centre for Philosophical and Religious Studies  
Higher Education Academy

In August 2001, I wrote an information article called ‘External Pressures on Teaching’, which was published in the then *PRS-LTSN Journal*, 1.2, Winter 2002, pp. 98–129. It is now time to update that article, and to add a number of subsequent developments. However, the original article, which explains the logic of the various QAA initiatives, is still valid apart from some points of detail that I shall highlight here. It is available on our website at:

<http://www.prs-ltsn.ac.uk/journal/index.html#1.2>

## **I. Updates to the original article**

### **I.1. QAA Review**

Institutional reviews have gone ahead under the new system. In England, they include subject reviews of about 10% of departments. As far as I am aware, no PRS departments have yet been selected for

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subject review, because they were among the last to be reviewed under the old system. The assumption is that subjects will be regularly and thoroughly reviewed through each institution's own quality assurance mechanisms, so that the QAA reviews are an audit trail to check that those mechanisms are operating satisfactorily.

As originally thought, there is evidence that internal reviews are sometimes more burdensome and prescriptive than the QAA intended. I have attended a number of meetings with QAA officials, and they are seriously concerned that their codes of practice, subject benchmark statements, and other such documents, are being interpreted as legally and universally binding. However, they insist that the codes are merely exemplars of good practice, and that institutions and/or subject areas are free to deviate from them if they have good reason to do so.

To give just one example, the QAA documentation makes it clear that it is good practice to make a sharp differentiation between the standards expected of students at level 2 and at level 3, and hence that it is not good practice for one and the same module to be available to students at both levels. However, there may be other, perfectly acceptable, reasons for doing just this (e.g. that a programme is designed with more emphasis on breadth than on progression, or that it is the only way for a small department to provide sufficient optionality); and it is in any case possible to conform to the guidelines by assessing students differently at different levels.

The fact that in the QAA subject review some departments were penalised for mixed-level teaching and others were not reveals more about inconsistencies between review panels than about QAA policies. Where departments are under pressure from their own institutions to change their practices on the grounds that the changes are required by the QAA, they should resist if there are sound educational grounds for retaining the status quo.

In Scotland, QAA subject reviews have been replaced by a series of 'quality enhancement themes', the idea being that time and money are better spent on raising awareness of good practice than on double-checking internal subject reviews. The themes for 2003/04 were *assessment* and *responding to student needs*, and those for 2004/05 are *employability* and *flexible delivery*. The outcomes of the

first two themes will be disseminated within the near future—see the Scottish quality enhancement themes website at:

**<http://www.qaa.ac.uk/scottishenhancement/>**

## 1.2. Teaching Quality Information (TQI)

When the decision was made to replace QAA subject review with a ‘lighter touch’, it was decided that there still needed to be public information about teaching quality in the light of the discontinuation of published subject reports. A Task Group was set up under Prof. Sir Ron Cooke, and it produced its final report in March 2002: HEFCE 02/15, *Information on quality and standards in higher education: final report of the task group*, at:

**[http://www.hefce.ac.uk/Pubs/hefce/2002/02\\_15.htm](http://www.hefce.ac.uk/Pubs/hefce/2002/02_15.htm)**

Since then the approach the Group recommended has been piloted, and after widespread consultation, in October 2003 the HEFCE published 03/51, *Information on quality and standards in higher education: final guidance*, at:

**[http://www.hefce.ac.uk/Pubs/hefce/2003/03\\_51/](http://www.hefce.ac.uk/Pubs/hefce/2003/03_51/)**

This guidance applies to institutions in England and Northern Ireland. Separate guidance will be issued by the Scottish and Welsh funding councils.

The main points of interest at the subject level are as follows:

- The information will be published on a special website at **<http://www.tqi.ac.uk/home/index.cfm>**. It was originally intended that full information would be available from December 2004, but at the time of writing it seems unlikely that this target will be achieved.
- People using the site (in particular, prospective students and employers) will be presented with the information in accordance with the JACS classification of 19 main areas, and they will be



able to drill down to the 141 principal subjects. History and Philosophy of Science, Technology and Medicine is not well served by the JACS system, though Philosophy and Religious Studies are clearly identified as V500 and V600 respectively, under 'Historical and Philosophical Studies'.

- Quantitative data (supplied by HESA) will include entry qualifications, retention rates, degree classes, and employment rates.
- Qualitative information will include summaries of external examiners' reports, summary reports on periodic programme reviews and responses to them, and programme specifications.
- In addition, it is intended to publish the outcomes of a national student survey, which is currently being piloted. However, this particular initiative has run into considerable difficulties, and it seems unlikely that it will be implemented in full in 2004, as planned.

### 1.3. Benchmark statements

The promised revision of benchmark statements has not yet taken place. However, the QAA has set up procedures for including subjects not previously covered. See:

**<http://www.qaa.ac.uk/crntwork/benchmark/consultation/proposed%5Frecognition%5Fscheme.htm>**

The statement produced by the history of science community under the leadership of Graeme Gooday of the Subject Centre for PRS is likely to be officially approved. See:

**[http://www.prs-ltsn.ac.uk/hist\\_science/events/benchmarking\\_31.rtf](http://www.prs-ltsn.ac.uk/hist_science/events/benchmarking_31.rtf)**

### 1.4. Programme specifications

The QAA's intention was that departments would implement a thorough review of their programmes, so that the methods of teaching and assessment in each individual module would be perfectly aligned with the learning outcomes specified for the programme as a whole. This is a perfectly sensible aim, but there is little evidence of its

having been achieved in practice. In general, there seems to have been a culture of compliance, in which departments have gone through a time-consuming process of writing specifications for every programme as it currently stands, without gaining the educational benefit of a more coherent structure. This is a pity, because it reinforces the prejudice that all external pressures are an unnecessary imposition, whereas some of them can in fact be a useful stimulus to increased efficiency and improvements in student learning.

The original proposal in the Dearing Review was that programme specifications would provide useful information for a range of interested parties, such as prospective students, current students, potential employers, and programme reviewers. I have attended a number of workshops on programme specifications organised by the QAA, and the consensus is that these objectives are incompatible—the level of detail and the language in which programme specifications are expressed for review purposes render them of little use for students or employers. Currently there are difficulties in having two supposedly equivalent sets of programme specifications: a detailed one in educational theoretical terms, and a shorter one in more accessible English. This issue remains unresolved.

## 1.5. Progress Files

By 2005/06, all students (research as well as taught) must have the facility for keeping progress files. Time is getting short, but there is still considerable confusion as to what they are for. CHERI (The Centre for Higher Education Research and Information) conducted a study on their implementation: John Brennan and Tarla Shah, *Report on the Implementation of Progress Files*, October 2003, downloadable from:

**<http://www.universitiesuk.ac.uk/progressfiles/>**

The main findings are that:

- Fewer than half of institutions had introduced formal policies on progress files;
- Some make them compulsory, others voluntary;

- Some gear them mainly towards employment, whereas others focus on academic development;
- Some include them in the curriculum, whereas others link them to the personal tutorial system;
- There is more enthusiasm for them in vocational than in non-vocational disciplines;
- Students tend to be sceptical about their value if staff are sceptical;
- There is little evidence of mere compliance—they have generally been introduced only by those who see value in them.

We are building up a collection of progress files used in our disciplines, for anyone to adopt or adapt, and we would welcome further examples. See:

**<http://www.prs-ltsn.ac.uk/generic/qualenhance/pdregg.html>**

## **I.6. QAA Code of Practice**

The QAA Code of Practice runs to about 200 pages with as many ‘precepts’. In July 2002, the Better Regulation Task Force of the Cabinet Office criticised it for being too long, too inaccessible, and too prescriptive (despite the QAA’s protestations that it was not intended to be prescriptive).<sup>1</sup> The QAA has now begun the lengthy task of shortening and simplifying the Code.

## **I.7. Research Assessment Exercise 2008**

Publications on subject-specific educational research were eligible for inclusion in RAE 2001; but, as far as I am aware, none were submitted in PRS disciplines. This may have been because there was no suitable forum before we started publishing *Discourse*, or because of a widespread suspicion that they would not carry the same weight as other research publications.

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<sup>1</sup> See the report by Phil Baty in the *Times Higher Education Supplement* of 16 July 2004.

Educational publications will again be eligible in RAE 2008. In order to demonstrate that they will be taken seriously, the HEFCE is ensuring that each disciplinary sub-panel has at least one member who has expertise in educational research as well as a reputation for subject research; or, if no such person can be identified, that someone with subject-specific educational expertise is appointed as a specialist adviser to the sub-panel. It is up to institutions to decide whether individual publications should be submitted to the subject sub-panel or to the Education panel. As a rule of thumb, they should go to the subject sub-panel if they involve subject-specific issues beyond the competence of a general educationalist—for example, a paper on the most appropriate system of logic for teaching first-year students, or on approaches to teaching Biblical languages. If, on the other hand, they are publications on generic educational issues, which just happen to have been written by someone outside an education department, then they should be submitted to the Education panel.

Arrangements for dealing with subject-specific educational research publications are still very sketchy;<sup>2</sup> but when the sub-panels have been appointed, one of their first tasks will be to draw up assessment criteria, and the Higher Education Academy (see below) has been invited to advise on the criteria for assessing educational publications.

## **2. The TQEC Report and the Higher Education Academy**

A Teaching Quality Enhancement Committee was set up to make recommendations for reducing the proliferation of agencies concerned with the improvement of the quality of teaching in higher education. It reported in January 2003,<sup>3</sup> and its main recommendations have

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<sup>2</sup> See paragraph 15 of RAE 03/2004: *Units of Assessment and Recruitment of Panel Members*, July 2004, downloadable from <http://www.rae.ac.uk/pubs/2004/03/> .

<sup>3</sup> *Final Report of the TQEC on the Future Needs and Support for Quality Enhancement of Learning and Teaching in Higher Education*, downloadable from <http://www.hefce.ac.uk/learning/TQEC/final.doc> .

already been put into effect. There is now a Higher Education Academy, based at York, which brings together the former Learning and Teaching Support Network, the Institute for Learning and Teaching in Higher Education, and the TQEF National Co-ordination Team. It is a charity owned by Universities UK and the Standing Conference of Principals, and it is funded by the funding councils, HEIs, and the individual subscriptions of registered practitioners (formerly members of the ILTHE). Its mission is to improve the quality of the student learning experience, and when it is fully up and running, its detailed policies will be determined by its members, and not by extraneous forces. For further details, see its website at:

**<http://www.heacademy.ac.uk>**

So far subject centres have been unaffected by the change, except that there has been an increase in funding to enable us to take on additional responsibilities. The operation of the subject centres is currently under review, but we do not anticipate any major changes. There is a clear commitment to the Academy as a permanent institution, and it will occupy its own purpose-built premises at York early in 2005.

There have been some worries as to whether the supportive role of the subject centre network might be affected by a closer relationship with the accrediting role of the former ILTHE. However, we do not see this as a problem, since the two functions are kept entirely separate within the Academy and accreditation is limited to PGCertHE programmes.

### **3. The White Paper**

In January 2003, the Government published its White Paper: *The Future of Higher Education*, downloadable from:

**<http://www.dfes.gov.uk/hegateway/uploads/White%20Pape.pdf>**

See also my review at:

<http://www.prs-itsn.ac.uk/generic/qualenhance/whitepaper.html>

The White Paper became law with very little amendment, and with very little discussion apart from the issues of top-up fees and the Office for Fair Access. Many of the proposals were poorly thought through, and the funding councils and other agencies, such as Universities UK, SCoP, and the Academy, have been left to turn them into workable policies. I shall briefly discuss the policies that are likely to have most impact on PRS teachers and departments. Although the Act applies directly only to England and Northern Ireland, there will be some knock-on effects for institutions in Scotland and Wales (particularly those aspects with funding implications).

### **3.1. The separation of teaching and research (§§2.7, 4.31, 4.33)**

The separation of teaching and research is one of the few areas in which the White Paper was based on research findings. It used an article by Hattie and Marsh to support the White Paper's claim that there is no correlation between quality of teaching and research activity. Both the interpretation of the article and the claim are contested. On the one hand, it seems plausible to suppose that teachers who are not themselves research-active are unlikely to be good at training up the next generation of researchers, or at keeping their courses up to date. On the other hand, staff whose primary interest is in research may neglect their teaching (or have no contact with undergraduates at all), and talk above the heads of their students. There is at least a consensus that it would be a good thing if teaching were fruitfully informed by research, and the Academy has commissioned research into ways in which the linkage between teaching and research can be strengthened.

However, the issue is more one of politics and economics than of educational theory. The Government seems to have a number of aims:

- It wants the UK to retain its status as punching above its weight in terms of internationally acclaimed research, and it believes that

this is possible only if resources are concentrated in a small number of institutions.

- It wants 50% of 18–30-year-olds to experience higher education by 2010 at the minimum extra cost to the Treasury. This is an uphill struggle because the number of 18-year-olds will steadily rise until 2010, and then decline again (a demographic fact not often noted); and the number of 18-year-olds with two A-levels is less than 50% of the cohort—and even the number with five GCSE passes at grade C or above is little higher. One solution is to encourage large industrial corporations, or public bodies such as the NHS, to turn their training arms into teaching-only universities, thus by-passing the traditional stress on academic entry qualifications.
- Given its free-market orientation, the Government probably sees teaching-only universities, whether for-profit or not-for-profit, as cheap and healthy competition for traditional universities, which are slow to change.

Against this it has been argued that:

- The case for concentration of resources applies only (if at all) to resource-intensive disciplines, and not to disciplines such as ours, where the main requirement for the lone scholar is *time*.
- Low-rated departments are constantly striving to improve their ratings—often successfully. These departments provide the seed-corn for new centres of international excellence, or for new recruits to existing centres. If they are deprived of research funding, there is a serious danger that existing centres of excellence will stagnate.
- The White Paper registers a marked shift from the European model of higher education, in which research activity is definitive of a university, and most universities are state-controlled, to an American model, in which there is much greater diversity between public and private institutions, and between research and non-research institutions. There is a serious question whether the Government's fixation with teaching-only universities and two-year foundation degrees will be compatible with the Bologna process towards harmonisation of European degrees by 2010. The

White Paper focuses exclusively on comparisons with the US, and it pays no attention whatever to the European context. (However, Charles Clarke has recognised this shortcoming, and he has promised a statement on the international dimension of HE in November 2004.)

### **3.2. Employability skills (§3.23)**

There is a clear statement that the HEFCE will work to integrate ‘the skills and attributes which employers need, such as communication, enterprise and working with others’ into HE courses in every subject. Although it might at first seem that this would be more difficult in non-vocational disciplines such as ours, we already foster many skills which are highly valued by potential employers of our graduates, and the main need is not to do things we are not already doing, but rather for both staff and students to articulate employment-related skills more explicitly. We hope that our new employability guides and case studies will be helpful in this respect. See:

**<http://www.prs-ltsn.ac.uk/employ/>**

### **3.3. Honours classification system (§4.10)**

Worried about grade inflation, the White Paper asks the HEFCE to review the honours classification system (1st, 2.1, 2.2, etc.), but without suggesting any alternative. We may end up with something like the American grade point average. However, it is difficult to see how a more finely-tuned classification system will address the problem of grade inflation (if it *is* a problem—perhaps our teaching and students’ capacity to learn are steadily improving). Nevertheless, there are good grounds for moving towards a grading system that gives more information about graduates’ strengths (including detailed transcripts).

### **3.4. Professional standards and staff development (§§4.14)**

The White Paper delegates to the Academy the task of defining a set of professional standards by 2004–05. By these it means ‘competences



required for all teaching staff'. The process has already begun; but so far it has yielded no consensus as to what these standards should look like. Candidates vary from general ethical principles (like codes of conduct in other professions) to lists of specific teaching skills, such as delivering a lecture clearly, or conducting a discussion group. Part of the problem is that different skills are needed in different disciplines (for example, philosophers and theologians do not need to know about laboratory safety regulations), and different skills are appropriate to different teaching styles. Although I have been involved in discussions, it is unclear what the final result will be, or whether it will be produced before the end of 2004–05. The issue is further complicated by the setting up of a Sector Skills Council for Lifelong Learning in 2004, which has an overlapping remit. It is likely that the Skills Council will commission the Academy to work on skills for teachers and researchers in HE.

Once the professional standards have been defined, institutions will have to ensure that their training programmes for new staff deliver those standards. From 2006, it will be compulsory for all new staff to obtain an accredited teaching qualification (I assume this is what is meant by 'it is expected that . . .'). Nor will existing staff escape, since 'We also expect that institutions will develop policies and systems to ensure that all staff are engaged in continuing professional development to maintain, develop and update their skills'.

It is a common complaint that courses provided by educational development units are too generic, and fail to address the everyday teaching problems faced by teachers within their own disciplines or sub-disciplines. The Subject Centre for PRS is therefore developing subject-specific materials, which can be used in association with, or as part of, courses for new staff. As far as existing staff are concerned, it is almost certain that institutions will accept attendance at events organised by the Subject Centre, or contributions towards its activities (such as researching and writing about teaching issues), as counting towards continuing professional development.

### 3.5. External examiners (§4.16)

The White Paper notes the lack of training and support for external examiners, whom it sees as key to the maintenance of consistent standards across the sector. The Academy was given the task of producing recommendations to be put in place by 2004–05. Its final *Report and Action Plan, a Guide for Busy Academics*, and other related documents can be downloaded from:

**<http://www.ltsn.ac.uk/genericcentre/index.asp?id=21232>**

To facilitate networking among external examiners, the Academy has set up an email discussion list, which can be joined at:

**<http://www.ltsn.ac.uk/genericcentre/index.asp?docid=21237>**

The project has been concerned all along to minimise any new burdens on external examiners, and to increase the supply of people willing and qualified to offer their services. The Subject Centre intends to set up a database of actual and potential examiners, in order to make it easier for departments to find replacements.

### 3.6. Rewards for good teaching (§§4.17ff.)

The White Paper announces three measures for rewarding excellence in teaching:

#### 3.6.1. Human resource strategies

Institutions will be given extra funding if they have in place robust strategies for rewarding and promoting staff for excellence in teaching, and not just in research. As American experience shows, it is not easy to develop fair and transparent criteria for assessing the quality of teaching, and one of the tasks the Academy has taken upon itself is to draw up some guidelines. These will relate closely to the definition of professional standards (see §3.4, above).

#### 3.6.2. National Teaching Fellowships

Each year there has been a national competition for 20 fellowships worth £50k each to enable holders to undertake a teaching project of their own choice. This number is to be increased to 50. So far none

have been awarded to teachers of PRS disciplines. We strongly urge colleagues with a good track record in teaching to apply and can offer supporting advice where appropriate.

### **3.6.3. Centres for Excellence in Teaching and Learning (CETLs)**

Teams of teachers who can demonstrate excellence were invited to bid for sums of up to £500k p.a. for five years, plus up to £2m in capital funding. For further details, see:

**<http://www.prs-ltsn.ac.uk/cetls/>**

At the time of writing, six bids involving a significant input from teachers of PRS disciplines had passed the first stage of the bidding process. The outcome of the second stage will be announced in January 2005. Although the original intention (‘written on the back of an envelope’, according to Margaret Hodge, the then Minister for HE) was that most of the money would be spent on financial rewards for staff, the HEFCE has subtly shifted the emphasis towards developing and disseminating good practice. CETLs are required to work closely with the Academy and its subject centres, and we shall do our best to help to ensure that the fixed-term injection of very large sums of money into a small number of departments (there will be about 70 CETLs) will have a beneficial effect, and to support the positive sharing of good practice and related research across departments.

### **3.7. Fair access (Chapter 6)**

The issue of fair access has been sufficiently publicised to need no further elaboration here. The main consequence for PRS departments is that, if the policy is successful, those in pre-1992 institutions will need to develop strategies for getting the best out of students with a wider variety of social backgrounds and educational achievements than before. As always, the Subject Centre for PRS is here to help and we are actively engaged in a number of related projects across the Academy covering such topics as cultural and religious diversity, where there is expertise within the Centre.

### **3.8. Top-up fees (Chapter 7)**

Again, this issue has been publicly aired almost to the exclusion of everything else. It is difficult to predict what the consequences will be for PRS disciplines, but possible knock-on effects include:

- greater difficulty over recruiting students from non-traditional backgrounds (thus potentially undercutting the policy of fair access);
- pressure on prospective students to opt for vocational rather than non-vocational degrees, thus leading to recruitment problems for PRS disciplines (although this may be a false dichotomy, see 3.2. above);
- increasing reluctance of graduates with large debts to proceed to PG programmes;
- more competition between departments at the expense of co-operation in improving the quality of learning and teaching;
- strained relations between those parts of the UK which charge top-up fees and those which do not.

## **4. Funding for educational research**

Large sums of money have been made available for research into improving the quality of education in particular disciplines in HE. However, virtually none of these sources of funding have been tapped by PRS departments. In our disciplines, there were no successful bids, and perhaps no bids at all, for the Teaching and Learning Technology Programme, the Computers in Teaching Initiative, or the ESRC's Teaching and Learning Research Programme.

More recently, the HEFCE's Fund for the Development of Teaching and Learning Phase 5 (FDTL5) was advertised. The original intention was that this source of funding would build on the QAA subject reviews, and disseminate good practice identified in the reviews. However, despite the fact that PRS disciplines did outstandingly well in the reviews, none of the bids were successful.

The Subject Centre for PRS is seriously concerned about the twin problems that teachers in our disciplines rarely apply for funding,

and that they are usually unsuccessful when they do. Unlike most other disciplines, virtually the only subject-specific research into teaching in PRS disciplines is that supported by small grants from the limited resources of the Subject Centre itself. However, a number of other disciplines (especially in the humanities) are in a similar position, and we are joining forces through the Academy to analyse and address the problem. One reason may be that PRS academics and educationalists use different research languages and methodologies, and thus do not always fully recognise the value of the others' contribution.

## **5. The training of postgraduates**

The Arts and Humanities Research Board (AHRB), in preparation for its forthcoming enhanced status as a research council, has been aligning itself more closely with the existing research councils. In particular, it has adopted the policy of requiring award holders to receive training in research skills, and in more general skills relevant to employment, whether in academia or not. The policy was first implemented in 2004, with a distinctly light touch. Its requirements may become more stringent in future.

At one time there was talk of setting a minimum size for postgraduate schools, in order that research students would have the experience of intellectual engagement with others working in the same area. Fortunately the research councils drew back from this idea. Instead, the AHRB invited bids of up to £10k to pump-prime collaboration between departments in the provision of specialised training. At the time of writing, we do not know how many bids were submitted by PRS departments, nor how many were successful. The Subject Centre made two, initially unsuccessful, bids for much larger sums to promote collaboration at a national level and we are currently exploring ways to enhance our applications next year by working with departments to build a co-ordinated programme with national 'reach' in 2005 and beyond.

## 6. Employment Equality Regulations

The Employment Equality (Religion or Belief) Regulations 2003 came into effect on 2nd December 2003. They can be downloaded from:

**<http://www.hmso.gov.uk/si/si2003/20031660.htm>**

There is a separate pamphlet for HE published by the Equality Challenge Unit: *Implementing the New Regulations against Discrimination: Practical Guidance*. It can be downloaded from:

**<http://www.ecu.ac.uk/publications/downloads/SO+RBguide.pdf>**

This pamphlet also covers similar legislation against discrimination on the grounds of sexual orientation, which came into force at the same time.

ACAS have also produced a very informative guide to the Regulations, with a number of very useful examples of how they may be applied. These can be found at:

**[http://www.acas.org.uk/publications/pdf/guide\\_religionB.pdf](http://www.acas.org.uk/publications/pdf/guide_religionB.pdf)**

and:

**[http://www.acas.org.uk/publications/pdf/guide\\_sexualO.pdf](http://www.acas.org.uk/publications/pdf/guide_sexualO.pdf)**

The reason for mentioning the regulations here is because they may have implications for the teaching of our disciplines in particular. One of the effects of the Regulations is to make it illegal to cause offence to anyone at their place of work in respect of their religious or similar philosophical beliefs. Regulation 20 makes it clear that the Regulations apply to students in higher education, although the examples it gives are restricted to issues such as admissions and access to benefits, and it is unclear whether they cover students being caused offence in the course of their learning. If they do—and only case law can settle the matter—there might be serious difficulties over the handling of sensitive issues in religion and philosophy. As academics, it is part of our function to get students to examine their

deepest held beliefs, and many of them find this process very disturbing. The Subject Centre for PRS is playing a leading role in raising awareness of this and similar issues across the Academy, and it will shortly be publishing a series of faith guides to help academics across all disciplines.

Religious equality is closely related to racial equality, which has already been covered in the Race Relations Amendment Act 2000. Universities Scotland has applied to the Scottish Higher Education Funding Council for funding to develop a race and religion audit tool for the HE sector. The application takes it for granted that the legislation applies to curriculum content and delivery, since the whole purpose of the audit tool is to help academics identify racial and religious biases in their teaching.

The project acknowledges its debt to the anti-racist toolkit developed by the Centre for Ethnicity and Racism Studies at the University of Leeds. See

**<http://www.leeds.ac.uk/cers/toolkit/toolkit.htm>**

Of special interest is §2.2 on Eurocentrism, which claims that concentrating on Western achievements implicitly disparages the achievements of other cultures, and could be deemed racist. The Subject Centre for PRS will report any future developments.

For further information about the Higher Education Academy's Cultural and Religious Diversity Project, which the Subject Centre is currently leading, please see the project's interim report on pp. 77-82 of this issue.

## **7. Other pressures**

There are a number of other ongoing developments which may have implications for PRS disciplines. In particular:

- *The Bologna process to harmonise European degrees by 2010.* So far this has received little attention in the UK, since the biggest changes, such as the introduction of the 3-year Bachelors degree, do not affect the UK. However, the requirement that a Masters

degree should be taught over two years will certainly affect us, as also the detailed implementation of the European Credit Transfer System, which is based on 60 credits for a year's full-time study. See:

**[http://europa.eu.int/comm/education/programmes/socrates/ec ts\\_en.html](http://europa.eu.int/comm/education/programmes/socrates/ec ts_en.html)**

- *The General Agreement on Trade and Services (GATS)*. Negotiations are proceeding very slowly, but the big question for us is whether the US will succeed in having higher education included within the Agreement. If so, it will mean that any subsidies to state institutions or to students attending them will count as unfair competition to private overseas universities offering higher education in the UK. Either the subsidies will have to be abolished, or the same subsidies will have to be provided to the overseas competitors. The implications of all this could be very far-reaching.
- *E-learning*. Despite the collapse of e-University UK, there are still strong pressures from the Government, the funding councils, and individual institutions to make greater use of computers in teaching. The introduction of e-learning has been very variable across institutions and disciplines, and the Joint Information Systems Committee (JISC) has recently committed over £1m in funding to the Academy and its Subject Centres for projects to research into and enhance the use of computers in the teaching of individual disciplines. The Subject Centre for PRS should be in a position to announce its plans in late 2004.

The Subject Centre will continue to monitor these and other developments, and will provide information and advice through its monthly e-bulletins, its website, and articles such as this one in *Discourse*.



# Shakespeare and the Analysis of Knowledge

## Discussion and Teaching Advice

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**Dan O'Brien**

Department of Philosophy  
University of Birmingham

In this paper I propose to show how the plays of Shakespeare can be used as a source of Gettier-type scenarios. There is an important pedagogical reason for doing this. Gettier's actual examples often strike students as highly artificial and psychologically implausible. Arguably, this does not diminish their philosophical importance, although it does reduce the chance of certain students taking them seriously. In fact, the artifice and Byzantine nature of the debate surrounding the analysis of knowledge in general has become somewhat infamous.

On the few occasions when I have taught the "analysis of knowledge" literature to undergraduates, it has been painfully clear that most of my students had a hard time taking the project seriously. The better students were clever enough to play fill-in-the-blank with 'S knows that p if and only if \_'. They could recognize the force of the increasing arcane counterexamples that fill the literature, and they occasionally produced new counterexamples of their own. But they could not, for the life of them, see why anybody would want to do this. It was a source of ill-concealed amazement to these students that grown men and women would indulge in this

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exercise and think it important—and still greater amazement that others would pay them to do it!' (Stich, 1990, p. 3)

My hope, then, is that convincing and psychologically plausible Gettier examples would contribute to making the analysis of knowledge more accessible. Literature can provide ideal source material, and analytic philosophy should not be shy of making use of it. After laying out Gettier's argument against the traditional account of knowledge, I shall give a short sketch of a Gettier example that can be found in *The Comedy of Errors*. Scenarios from certain other plays shall then be considered in more depth, and I shall show how the Gettier cases found there can be used to illuminate certain key epistemological issues such as those concerning the role of luck, self-knowledge and testimony.

## I. The Analysis of Knowledge and Gettier

A true belief does not necessarily amount to knowledge. Right now I just happen to believe that it is raining in Casablanca. I have no reason to hold this belief; I just do. And, as it happens, it is true. I cannot be said, though, to have knowledge of this occurrence. I have simply been lucky. An analysis of knowledge, therefore, needs to rule out such lucky episodes. In order to do this, knowledge has traditionally been seen as consisting of justified true beliefs. And, justification is provided by the possession of good reasons or adequate evidence in support of the truth of one's beliefs. Such a conception of knowledge has its roots in Plato.

THEAETETUS: ...I once heard someone suggesting that true belief accompanied by a rational account is knowledge, whereas true belief unaccompanied by a rational account is distinct from knowledge. (Plato, 1987, 201c-d)

There have been though, various objections to this traditional analysis. Some have claimed that justification is not necessary for knowledge,<sup>1</sup>

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<sup>1</sup> See Sartwell (1991) and Williamson (2000). The latter provides a radical departure from the traditional analysis. Knowledge is not described in terms of justified belief, but rather, the order of explanation is reversed: both belief and justification are explained in terms of the more fundamental mental state of knowing.

and others have claimed that one need not have belief.<sup>2</sup> The most influential attack, however, can be found in Gettier (1963). He suggested certain scenarios within which thinkers are seen to have justified true beliefs even though we would not want to say that they have knowledge. The following is one of Gettier's examples. Smith has always seen Jones driving a Ford, and by selecting three places at random, he considers the following three propositions.

- (i) Either Jones owns a Ford, or Brown is in Boston.
- (ii) Either Jones owns a Ford, or Brown is in Barcelona.
- (iii) Either Jones owns a Ford, or Brown is in Brest-Litovsk.

Given the car he has seen Jones driving, Smith is justified in believing all three. It turns out, though, that Jones does not own a Ford (it was a rented car), and, by chance, Brown happens to be in Barcelona. (i) and (iii), then, are false; (ii), however, is true, and, Smith is justified in believing this proposition. We would not, though, want to say that this is something that Smith knew. It was simply lucky that Brown happened to be in Barcelona. Gettier purports to show, then, that even justified true beliefs can be acquired by accident. And, as luck is anathema to knowledge, Gettier concludes that the traditional analysis is inadequate. It should be noted that such scenarios are far from a minority interest, and that Gettier's paper is probably the contemporary research paper with the highest 'interest per word' ratio (number of words written about the paper: number of words in the original). Gettier's paper is a mere three pages long, yet it has elicited hundreds of lengthy replies. A good survey of some of this work can be found in Shope (1983).

## 2. The Comedy of Errors

Antipholus and Dromio of Syracuse are the identical twins of Antipholus and Dromio of Ephesus. Consequently, one of the main themes of the play is that of mistaken identity. On arriving in Ephesus, Antipholus of Syracuse is greeted as an old acquaintance, even though he has never been there before.

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<sup>2</sup> See Radford (1966).

ANTIPHOLUS: There's not a man I meet but doth salute me  
As if I were their well-acquainted friend,  
And every one doth call me by my name.  
Some tender money to me, some invite me,  
Some other give me thanks for kindnesses.  
Some offer me commodities to buy.  
Even now a tailor called me in his shop  
And showed me silks that he had bought for me,  
And therewithal took measure of my body.  
Sure, these are but imaginary wiles,  
And Lapland sorcerers inhabit here. (Act 4, scene 3)

When Angelo the goldsmith addresses him as “Antipholus”, he reacts in surprise, “Ay, that’s my name”, to which Angelo gives the reply: “I know it well, sir.” (Act 3, scene 2). We should not, however, see this as a case of knowledge. The people of Ephesus think that this Antipholus is the one who lives locally, and it is simply coincidental that their usual acquaintance has a twin with the same name. We would, however, like to say that they have justified true beliefs concerning the name of this man. This is because his appearance is identical to the man they know to be called “Antipholus”, and, because they do not know that the latter has a twin. We have, then, justified true belief without knowledge, and so, a Gettier case.

### **3. Much Ado About Nothing**

Beatrice and Benedick are tricked into thinking that each is in love with the other. So as that Benedick can hear, his friends suggest that it is clear that Beatrice is in love with him (act 2, scene 3); and, similarly, it is engineered that Beatrice overhears a similar conversation concerning Benedick’s alleged love for her (act 3, scene 1). These stories are not, however, grounded in their true feelings; they are merely designed to make Beatrice and Benedick fall for each

other (although an alternative interpretation of this scene is discussed below). The plan works and Beatrice and Benedick do fall in love. (This scenario was copied in the recent French film, *Amelie*.) Benedick, then, believes that Beatrice is in love with him because he has heard stories of her pining. He has, therefore, a true belief, one for which he has good justifying evidence. However, his belief is true, not because of what he has heard, but because Beatrice falls for him as a result of their friends' deception. We would not say, then, that Benedick knows of her love, given that his reasons do not describe its actual source. Again, then, we have a Gettier case.

There are several features of this scenario that could be usefully explored in class discussion. Firstly, one could focus on the concept of luck and its relation to knowledge. It was suggested above that the Gettier examples are important because they show how even justified true beliefs can be acquired by accident, and thus, it is claimed that the traditional analysis does not provide sufficient conditions for knowledge. In this case, however, one would not say that the lovers acquired their beliefs by accident or that luck played any part in their acquisition. This is because the situation was deliberately engineered in order that Beatrice and Benedick come to have those particular beliefs. Thus, this scenario could be useful in helping students to articulate why Gettier cases should not be seen as constituting knowledge; more needs to be said than that they simply involve the "lucky" acquisition of justified true belief.

Secondly, this example could be used to lead into a discussion of whether belief is necessary for knowledge. Up to the third act, our protagonists are engaged in "a kind of merry war": they are constantly needling and insulting each other. It is not too difficult, however, to read into such behaviour a deep attraction between them. Beatrice and Benedick are seemingly fascinated by each other. It could be said, therefore, that even before their friends' intervention, there is an attraction between them, even love. Their friends, then, could be seen, not as instigating a love affair, but as forcing them to admit to themselves that they have been in love all along, and, that they have perhaps always known of the love of the other. (This is a claim that could be seen as supported by the fact that right at the start of the play Beatrice inquires as to whether Benedick has returned from the war.) Here, then, there is the suggestion that there may be knowledge

without belief, something to which the traditional analysis is opposed. The claim is that Beatrice and Benedick have known all along that they love each other; it is only, however, with their friends' intervention that they come to acknowledge this and that they come to actually believe, both that they love the other, and, that their love is reciprocated.

Thirdly, this scenario is relevant to the issue of self-knowledge. Benedick thinks that he distrusts all women because of their infidelity, and, therefore, he claims to believe that he will never get married. Similarly, right up until the end of the play, Beatrice professes to believe that there is no man worthy of her. These beliefs, however, turn out to be false: Benedick does get married (to Beatrice); and, Beatrice does find a man who is worthy of her (Benedick). Nevertheless, on a broadly Cartesian account of self-knowledge, Benedick and Beatrice cannot be mistaken about the content of their beliefs, that is something to which they have infallible access. In the play, though, it is suggested that some of the other characters know the thoughts of the lovers better than they know them themselves. To Don Pedro, and perhaps to us, it seems plausible that both Benedick and Beatrice do actually want to get married and that they do not have such negative views concerning the opposite sex. The ease with which they are thrown into each others' arms may suggest that this is so. We have, then, reason to doubt the Cartesian account of self-knowledge, or, at the very least, a useful scenario within which to discuss the possibility of other accounts.

## 4. Hamlet

Hamlet suspects that his uncle Claudius murdered his father, the King of Denmark. And, this is true. In order to test out his suspicions, Hamlet stages a play—'The Murder of Gonzago'—which in some respects resembles the supposed murder of his father (Act 3, scene 2). During the performance, Hamlet watches for Claudius's reaction, and, in the middle of the play, Claudius becomes upset and storms out. This provides Hamlet with good evidence of Claudius's guilt, and, therefore, he has a justified true belief that it was Claudius who killed the King. The key question, then, is whether or not we would want to say that he has knowledge of this fact. Interestingly, there are two

interpretations of Shakespeare's intentions with respect to this scene, and these interpretations provide different answers to this question.

One interpretation holds that Claudius's behaviour is not driven by guilt. During the play-within-a-play, Hamlet regularly interjects and provides a constant commentary. It is such behaviour that causes Claudius to be upset, and not the fact that the play reminds Claudius of his crime. It is, then, fortuitous for Hamlet that Claudius is so sensitive to his clumsy staging of the play, and it is coincidental that Claudius's sensitivity leads to the kind of behaviour, which could also be taken as indicative of his guilt. On such an interpretation, we would not want to say that Hamlet knows the identity of the murderer, even though he has a true belief backed up by seemingly good evidence.<sup>3</sup> This scenario, then, would constitute a Gettier case.

There is, however, a different interpretation of this scene. Claudius could be taken to be acting out of guilt. If this is the case, then luck is not involved in Hamlet's acquisition of this true belief concerning the murder of his father. It would, therefore, be plausible to say that Hamlet does have knowledge of the crime. Such competing interpretations could be incorporated into an in-depth look at Gettier, with students asked to offer their interpretation of the play, and an account of how their interpretation impacts on the relevance of this scene to Gettier and to the analysis of knowledge.

## **5. *Othello* and the Role of Lies in the Transmission of Knowledge**

In *Othello* there is a very important handkerchief. It is Othello's first gift to his wife, Desdemona, and it becomes the focus of his crippling and ultimately tragic jealousy, the main theme of the play. Desdemona drops this handkerchief and it is found by her maid, Emilia (act 3, scene 3). Before it can be returned, however, Iago—the villain of the piece—takes it from her. This handkerchief will be useful to him in his plan to make his master, Othello, jealous of Cassio, a rival employee. Iago tells Othello that Desdemona is having an affair with

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<sup>3</sup> For this interpretation, see Greg (1917).

Cassio, and he later claims that he has seen Cassio wiping his beard with the handkerchief. These are both lies; lies, however, that lead to Othello having a true belief, a true belief that Desdemona no longer possesses the handkerchief. This belief is also justified given the testimony of Iago, who Othello takes to be a trustworthy friend. Here, then, our first thought might be that we have a putative Gettier case since the reasons that Othello takes to justify his belief are not those that are actually operative in making his belief true. I, however, shall claim that this is not so, and, in order to do so, I shall first need to look more closely at the role that lies and falsehoods can play in the acquisition of knowledge.

One response to the Gettier cases has been to claim that justification cannot be provided by reasoning that involves false beliefs (see Feldman 1974). The rationale for this claim is that our conception of justification is that of possessing good reason or adequate evidence for taking one's beliefs to be true. A belief that is false, therefore, cannot provide such evidence or rational support. In our example, then, Othello should not be seen as acquiring a justified true belief concerning the whereabouts of the handkerchief because he arrives at his conclusion on the basis of Iago's false testimony. If this is so, then we do not have a counterexample to the traditional analysis. However, this prohibition against false beliefs has faced various problems. Notably, it cannot be seen to rule out all Gettier cases since there are other such scenarios in which no explicit reasoning is involved. Looking out of my window into the garden I come to acquire the belief that my tulips are in bloom, and, they are. What I am actually looking at, however, are some plastic flowers that a friend has left there: these flowers obscuring the real flowers behind. Given what I can see, though, I would seem to have a justified belief, and, as said, one that is true. One would not want to say, however, that I know that my flowers are in bloom. And, note that here there is no reasoning or inference involved: on looking into my garden I simply come to acquire this belief about my tulips. Such an example shows that not all Gettier cases can be ruled out on the grounds that one's justification involves false beliefs. I, however, would like to go further: I would like to suggest that falsehoods can actually make a contribution to justification and that they can be important in the transmission of knowledge. If I can show that this is so, then the lies that Iago tells



Othello may help Othello gain knowledge of the whereabouts of the handkerchief.

If we are to take the *Othello* example as a Gettier case, it would have to be our intuition that Othello does not know that the handkerchief is lost. It is not clear, however, whether this is what we should say. Othello does acquire his belief on the basis of Iago's lie, and, ultimately, this lie is intended to give Othello a false belief concerning Desdemona's infidelity. In order for this to be accomplished, though, Othello must first come to have the true belief that Desdemona does not possess the handkerchief. And, Iago lies in order that Othello comes to have this information. Therefore, Othello does not come to have his belief by accident. Iago knows the whereabouts of the handkerchief and he intends his speech act to convey this knowledge to Othello. I suggest, then, that here we have a case where the vehicle of knowledge transmission is a lie. If this is persuasive, then this example should not be seen as a Gettier case.

In order to support such an interpretation, we can turn to some familiar cases where it is plausible that lies or falsehoods are used to pass on knowledge. Such a method is often used by parents, politicians and schoolteachers. In chemistry lessons at school, we are told that an oxygen atom can combine with two yet not three hydrogen atoms. An explanation is given that involves conceiving of atoms as akin to tiny solar systems of sub-atomic particles. Thus, we come to believe that H<sub>2</sub>O is a stable molecule and that H<sub>3</sub>O is not. This is a true belief. The given explanation, however, is simply false: atoms are not like that. Thinking of them as so, however, enables us to learn a correct fact about water. This, of course, is intentional on the part of our teachers. The true explanation is too complex for us to appreciate, and this false story is told with the intention that it will enable us to pick up certain true scientific beliefs. And, here it seems clear that we can acquire scientific knowledge in this way.

Another such example appears later in *Othello*. After Iago leaves the handkerchief in Cassio's room, Cassio finds it and takes a liking to it. Again, based on Iago's lies about a fictitious affair between Cassio and Desdemona, Othello comes to believe that Cassio is in possession of Desdemona's handkerchief. This belief is true, even though it is based upon the lie that Desdemona has given it to him as a token of her love. One could, then, think that this is a Gettier-

type case since the reason the belief is true is distinct from the reasons upon which Othello's belief is based. Again, though, the role of Iago should make us resist this interpretation. Iago's hand in both the planting of the handkerchief, and in the testimony he gives to Othello, suggest that we should see this as a case of justified true belief and one of knowledge. This is because Iago intends his lie to provide Othello with the correct information concerning the whereabouts of the handkerchief. We have seen, then, that certain incidents in *Othello* may force us to rethink the role that lies can play in the transmission of knowledge.

When discussing *Othello* in the context of the problem that Gettier raises, we also have to be careful to specify just which belief is relevant to our discussion. In our first example, the belief with which we are concerned is simply that the handkerchief is lost, and not that Desdemona is unfaithful. The latter belief is false and, therefore, the question of whether this belief amounts to knowledge is not raised. This issue concerning the correct specification of the belief relevant to a Gettier case is what the next section goes on to explore.

## **6. Richard III: Specifying which Belief is Relevant to a Gettier Case**

The evil Richard of Gloucester produces a fake prophecy which tells his brother, King Edward, that "G of Edward's heirs the murderer shall be" (act 1, scene 1). This convinces Edward that his sons will be murdered and that the subject of the prophecy—the "G"—is his brother George Clarence. Edward arrests him and this gives Richard the opportunity to arrange to have Clarence killed. Even though the prophecy is a fake, however, it does turn out to be accurate. The G who orders the murder of Edward's heirs is actually Richard of Gloucester. Edward, then, has a true belief that G will be involved in the murder of his children. And, this is a belief that he perhaps has good reason to accept, given the prophecy and the fact that Richard also informs Edward that Clarence has children of his own who have much to gain if Edward's sons are killed. It is, however, accidental that he comes to have such a true belief given that his reasons are based on a fake prophecy, one that is merely intended to incriminate

the innocent George Clarence. Edward, then, cannot be said to know that the murderer is G, and thus, this is a Gettier case.

This example raises a question that students often find problematic, that is, the question concerning just which belief is relevant to a particular Gettier example, and whether it is plausible that the thinker in question has such a belief. One response to the *Richard III* case would be to say that Edward does not believe that just any G will murder his children. He actually believes that Clarence might; that is why he has Clarence arrested. The claim, then, is that Edward does not have a true belief since it is false that Clarence is involved in the murder, and thus, we do not have a counterexample to the traditional analysis. Such a response is in some ways parallel to that which is often given by students to Gettier's own example involving the job vacancy. Smith and Jones have both applied for a job. The boss, however, has told Smith that Jones will be selected. Smith has also seen ten coins in Jones's pocket. He has, then, good evidence and therefore justification for believing that Jones will get the job, and, that Jones has ten coins in his pocket. From this, Smith reasons that he has strong evidence for the belief that the man who will get the job has ten coins in his pocket. And, this belief turns out to be true. This, however, is because unbeknownst to Smith, he himself will get the job and he himself has ten coins in his pocket. It cannot be said, then, that Smith knew that the man who would get the job would have ten coins in his pocket. In class discussion, a common response to this case is to claim that Smith does not believe that just any man with ten coins in his pocket will get the job; he believes that this man is Jones. This belief, however, is false; thus, we do not have a counterexample to the traditional analysis. We have, then, parallel responses to these two cases; in both, it is denied that the thinker has a true belief about a general subject—one about *any* man—it is, rather, that he has a specific belief about a particular man, a belief that is false.

It is not, however, compulsory to interpret such cases in this way. It does have to be admitted that the reasoning which Gettier attributes to Smith is unusual; it would be an odd train of thought to have as one waited for the results of a job interview. But, nevertheless, it is certainly possible that one could reason in this way, and, if so, one could have the belief that Gettier specifies. In this case, then, an

inference is made from a belief concerning a specific person to a belief with a more general subject. In the *Richard III* example, I suggest that it is plausible that the opposite move is made. To arrive at the conclusion that the G must be George Clarence, it would seem that Edward must first believe the prophecy. And thus, at least until he has come up with the name of Clarence, he will think (perhaps only fleetingly) that *a* G—some G or other—will be the murderer. As said, this would be a true belief, and one that could ground a Gettier-type case.

Lastly, while we are discussing *Richard III*, it would be useful to consider the manner in which (in some performances of the play) the King's physical disabilities are taken to indicate that he is not trustworthy. Here we have an illustration of one possible misunderstanding that may arise with respect to the concept of justification. We may be tempted to say that our suspicions are justified by the fact that Richard does go on to perform certain evil deeds. And, this is certainly *a* way we have of talking about "justification": one might say that John's lifelong support of West Bromwich Albion Football Club has been justified by their promotion to the Premiership. This, however, is not the concept of justification that is relevant to the Gettier cases or to epistemology in general. Our main concern should be with epistemic justification, and this concerns whether our beliefs are likely to be true. The important question, then, is whether there is good reason to think that West Bromwich Albion will get promoted, and that Richard will turn out to be evil, before we come to see whether or not our beliefs are actually true or false. If so, then we have epistemic justification for accepting such beliefs; if not, then we may only have what one could call, "after-the-fact", justification. With respect to the character of King Richard, then, we may have this latter type of justification, but we do not have epistemic justification because such aspects of one's physique are not a reliable guide to one's moral character.

## 7. Potential Problems and Feedback

I have introduced such examples in a limited way to my epistemology lectures and tutorials and they have gone down well. The way I approached this, however, was through giving a précis of the various

plots, rather than by showing video clips of the plays or through readings of the actual text. The latter approaches, I think, would be more satisfying and they are something that I will try next year. There are, though, certain problems that I foresee and I wonder if anybody has any thoughts on how they could be overcome. Shakespeare is not easy: some of the vocabulary and grammar is old and alien to students; and, they are plays, written to be performed rather than simply read. Because of such factors, a video of Olivier's *Hamlet* at the National Theatre may not successfully engage students, nor will simply a photocopy from the Arden *Comedy of Errors* (excepting, of course, those students who are enrolled on Joint Honours English and Philosophy courses or those who have taken English Literature at A level). More useful, perhaps, would be the more accessible Hollywood treatments such as Brannagh's *Much Ado About Nothing* and Ian McKellen's 1930's *Richard III*. As said, I would welcome some suggestions here, and if anyone decides to use Shakespeare in this way (or if they already do so), some feedback on whether this could be a successful and illuminating way to teach the analysis of knowledge would be appreciated. From my limited attempts, it looks promising.

## 8. Conclusion

In this paper I hope to have illustrated some ways in which Shakespeare could be integrated into the study of the analysis of knowledge. This will have various benefits. At times, analytic philosophy takes an almost perverse pleasure in concocting bizarre examples and scenarios. These are sometimes very useful and illuminating (and often amusing), but to one not attuned, they can be off-putting. To counter such a reaction, I have shown here how other rich examples can be taken from literature. Such examples are beneficial because they help ground our philosophical concepts in psychologically plausible examples of human behaviour. They can also, perhaps, have a reciprocal effect on our appreciation of literature. A performance of *Othello*, for example, does not just tell us something about the vicissitudes of human jealousy and weakness, but also something about human knowledge.

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# Practical Suggestions for Teaching Students to Think for Themselves

Discussion and Teaching Advice

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**Anne Gunn**

Department of Philosophy,  
University of Kent

## Introduction: The Problem

This article will concentrate on practical techniques that I have developed to encourage independent thinking in 'A' level philosophy classes, some of which can, I think, equally be employed when teaching undergraduates. However, my main area of research is in defining the activity that we are trying to teach students to engage in. What are we doing when we teach Philosophy? I maintain that we are trying to do two things. First we want to introduce them to a body of knowledge that we call Philosophy and secondly we aim to teach them an activity, or practice, which we call Philosophising. It is this activity of philosophising that sparked my interest in teaching techniques. While researching the idea of what we are doing when we philosophise I inevitably had to ask myself how this activity is taught.

Teaching Philosophy at 'A' level is a tricky business in many ways. Students are expected to be familiar with a body of knowledge, which they will be examined on. They also need to learn how to craft this information into an ordered essay. The marking of 'A' level papers is done by large numbers of people, from varying academic

backgrounds and, in order to ensure an even vaguely coherent standard, marking schemes are specific about what is expected from students. Exam boards emphasise that there are a variety of potential responses of equal worth but they also emphasise the importance of scholarship. There is a temptation to ‘play safe’ with the ‘evaluation’ section of the answer and encourage students to reproduce arguments that have been made by well-known philosophers, which the students have ‘learnt’. There is a tension within the idea of what is expected of a good philosophy teacher. Teachers do have responsibilities towards their students but they also have a duty towards wider educational ideals. They would be failing in some respects if they did not help students to achieve good results, which requires an awareness of exam board requirements. However there should still be room to encourage students to think for themselves and to enjoy discussions. Although it is important for students to have models from which to learn the skill of philosophical thinking, they also need to acquire the habit, and the confidence, to think for themselves.

There are three issues that I feel are important. If a student can write a good ‘A’ level essay without ever having to really engage in any independent philosophical thinking then we need to question whether in fact we are actually being asked to teach them philosophy. Perhaps what they are being assessed on is closer to an understanding of the history of ideas. Secondly this approach sells the students short. Given the opportunity many of them are more than able and, having found out what philosophy is about, wish to go on to read philosophy at university. Which raises the last concern.

Having taught both ‘A’ level students and undergraduates it is easy to see why many incoming undergraduates experience problems during their first year. The assumptions which underpin the training of university teachers and those that ground school teaching are different. At both levels the emphasis is on the importance of getting the students to engage with the materials so as to do the learning for themselves. However, when ‘A’ level students extract information they do so from text-books, worksheets or information which has been pre-digested, filtered and quite often composed by the teacher. This inevitably encourages students to be the passive learners and recipients of authoritative learning that university philosophy



departments despair of a year later. It also fails to encourage the skills that students need as undergraduates.

Some of the techniques discussed might hopefully help resolve the tensions between the desire to teach students to think for themselves and the need to help them acquire the knowledge that will produce the grades, so ensuring a place at university.

## **Practical suggestions**

### **I. Knowledge and Understanding**

Lessons are loosely based on the lecture-seminar model. The first part of the lesson is spent introducing them to the information they need to know, whether through a reading, or explaining with the aid of an OHP or a handout. Sometimes the students have prepared a reading as their homework but the large amount of contact time in schools means this is not usually the case.

There are various ways to test the students' understanding of the texts. The arguments or information can be reproduced in the form of diagrams, flow charts, notes or mind-maps showing the relationship of ideas, e.g. how Ayer's views developed from the Logical Positivist position into responses to ethical and religious issues. These are then exchanged and shared with others in the group. Students may be asked to discuss one positive thing about someone else's note-taking skills or one thing they have learnt during feedback to the group. This helps them carry the practice of critical and reflective thinking into all their activities.

Groups can be subdivided into smaller groups, of mixed or similar ability, to prepare a presentation that explores an issue in depth. Different groups can work on different aspects of a topic and share their findings. OHPs, whiteboards and different coloured markers make the task more attractive. The students take it in turns to present the findings of the groups so that by the end of the year they will all be used to standing up and talking to the rest of the class. The presentations take the form of illustrations, raps (I have had a couple of musical students who have produced memorable results), bullet points, diagrams or notes. As the year progresses the students become much more adventurous about how they present their findings as their

confidence increases. A convention of trust, and respect for each others ideas, is crucial if students are going to benefit from these types of activities and positive teaching approaches help establish the model for relationships between students.

At the end of each particular section of study students are asked to stand back and produce an overview of the section. If for instance they have been studying various meta-ethical theories, Emotivism, Intuitionism and Prescriptivism, they might be asked, working in groups, to draw a plan of the relationship between the various theories, comparing and contrasting them. They might then be asked to decide on a phrase, key word, drawing or even rhyme that will act as a summary of the theory which enables the teacher to assess their understanding. These are also useful memory triggers that will help them revise and later recall the various theories during their external exams. This type of approach is obviously very useful for students with visual learning preferences. By visually grouping the theories so as to accommodate ideas such as naturalism the students have to engage with the ideas in order to be able to reproduce the information in a different form.

Occasionally students are asked to explore ideas through role-play. Importantly for students in the early stages this allows the various rather abstract theories to become concrete. A good scenario is Bernard Williams' dilemma of *Jim and the Indians*<sup>1</sup>. Groups are asked to assign roles, including director, to the various members. The actors then act out the scene in the jungle clearing. They have to explore the various views of the protagonists and incorporate these into the production. So they have to explore ideas from a particular social position, e.g. to plead for a relative to be spared but having, in the process, to justify the fact that one innocent member of the community will have to be sacrificed. Putting a student into a role-play situation can encourage them to explore views which they might not previously have considered in depth and consider all angles of a question, rather than becoming entrenched in one position. This type of exercise works better by the end of the year when students know each other well and are used to performing in front of the group. It only takes one or two

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<sup>1</sup> Williams, Bernard, "Jim and the Indians" In Ed. Singer, Peter, *Ethics*, (Great Britain, Oxford University Press, 1994). 339-345 pp.

students to enter into the spirit of the thing to get the others to dump their inhibitions, but the students need to know that the teacher is looking forward to being entertained and that there is an expectation that sessions will be enjoyable.

## 2. Philosophising

The second part of the process involves the students exploring their own ideas and starting to 'do' philosophy for themselves. This may take the form of assessing a theory critically; trying to work out what criticisms they have and what criticisms later philosophers might have had. In the following lessons we will then compare their evaluation with the 'official' criticisms that named philosophers made. Students will usually start these discussions in pairs or threes, which allows them an opportunity to work their ideas through in a fairly private setting and test them on other students. These small groups will then be joined into larger groups or the whole group will work together, with each sub-group feeding back their conclusions. The teacher needs to work their way round the groups restricting their input to asking an occasional question, helping them test an idea or acting as a sounding board. It is important to resist the temptation to jump in and help them; they should be left to do the work themselves at their own speed.

Dilemmas or thought experiments, such as Robert Nozick's *Experience Machine*<sup>2</sup> to consider the notion of happiness, help students form their own opinions, particularly at the beginning of the year. Examples from current affairs and films also provide a concrete starting point for the discussion. As they become more experienced and used to the expectation that they must think for themselves they do start being much more creative in their thinking. Encouraging the use of counter examples, as a way of testing their ideas, helps them start to build on each other's ideas.

Sometimes rather than thinking about and evaluating the responses of the thinkers they have studied they can be asked a general philosophical question. Having looked for instance at Kant's

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<sup>2</sup>Nozick, Robert "The Experience Machine" in Ed. Peter Singer, *Ethics*, (Great Britain, Oxford University Press, 1994) pp 228-229.

response to Hume on the subject of moral knowledge they can explore what their own responses would be to the question “can we know moral truths?” “Can we ‘know’ what the right action is?” can initially be applied to a particular scenario such as lying to a friend. So they are asked to consider the same basic question as the philosopher they are studying. It is important to keep these questions simple. We go back to the basic question and try to think the ideas through as a group. By interacting with these ideas at a personal level they are beginning, hopefully, to learn in an ‘active’ way, rather than superficially absorbing information which they will regurgitate at a later date<sup>3</sup>. So rather than just memorising facts they develop a personal engagement with the ideas and a much wider understanding of the questions under debate.

### 3. Assessment

Inevitably, essays and readings, usually with questions, form the bulk of assessment. However, during the year it makes sense to assess the students on their presentations. The groups will be given longer to prepare for these presentations, usually as a homework as well as class work, and each student will have to take part in the verbal presentation. Their mark will consist of 50% of the mark for the assessment being given on the group material, which will include any overhead projector slides or other resource used, and 50% based on the oral performance of that individual student, reflecting their ability to communicate their understanding. These marks are obviously purely internal but they are a good way of encouraging students who perform better in a verbal context.

### Note

I would be most interested to hear from anyone who has any thoughts on the subject of what we are doing when we teach philosophy or who is researching in the same field. Please contact: Anne Gunn, [vag2@kent.ac.uk](mailto:vag2@kent.ac.uk)

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<sup>3</sup> Brockbank, Anne & McGill, Ian, *Facilitating Reflective Learning in Higher Education*, (Bury St. Edmunds, Suffolk, Society for Research into Higher Education & Open University Press, 1999).

# Supporting Cultural and Religious Diversity

## Interim Project Report

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**Emma Tomalin**

Researcher

Subject Centre for Philosophical and Religious Studies

Higher Education Academy

**T**he Subject Centre for Philosophical and Religious Studies has been working with other parts of the Higher Education Academy (including other Subject Centres) to explore the implications of cultural and religious issues in higher education. For example, *how does cultural and religious diversity impact upon teaching style, content, assessment and student support?* The project was set up in response to interest from the academic community as they find themselves working with an increasingly diverse student population. Moreover, new legislation has recently been introduced which has given rise to concerns, and some uncertainty, about implications for the curriculum. The Employment Equality (Religion or Belief) Regulations 2003, introduced in response to the Employment Directive, outlaws discrimination on grounds of religion or belief in employment and vocational training. While this will have implications for students engaged in work-based learning, there is no consensus as to whether it applies to academic study more broadly. Further information about this legislation can be found at:

[http://www.acas.org.uk/publications/pdf/guide\\_religionB.pdf](http://www.acas.org.uk/publications/pdf/guide_religionB.pdf)

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The aim of this interim report is to provide an overview of the work already achieved (from 1<sup>st</sup> June-30<sup>th</sup> September 2004), as well as to indicate future directions that will be taken once additional funding is secured. The need for a thorough analysis of the impact of cultural and religious diversity upon learning and teaching is of clear relevance to the widening participation agenda as well as employability. These are issues that are becoming increasingly important to higher education recruitment, retention and quality of student experience. Not surprisingly, there has been significant interest in this project and a recent THES four page supplement, to mark the launch of the Higher Education Academy, is to include an article about this initiative.

## **Overview**

The initial phase of the project involved the dissemination of a questionnaire *via* the subject centre websites (<http://www.prs-itsn.ac.uk/diversity/index.html>). Owing to the excellent rate of response the closing date for the return of questionnaires was extended by one month, to the end of October 2004 to ensure that other colleagues had the opportunity to reply. The questionnaire was designed to encourage colleagues to share their experiences of working with students from a range of religious and cultural backgrounds, to outline any difficulties experienced and to give examples of how they dealt with challenging situations. Respondents were asked if they were prepared to submit a case study at a later date. We have received around twenty offers of case studies: these are to be requested during the next phase of the project and will be posted on the project website.

However, another central aim of the questionnaire was to ask colleagues what resources could be provided in order to help them to accommodate cultural and religious diversity in their work. On the whole, colleagues requested resources that provide examples of good generic practice that can be replicated or extended to suit different situations. The case studies will be a relevant contribution to this end. There was also a desire for factual information about the content of cultural and religious traditions that can be easily referenced and

digested. During the initial phase of this project, the team has begun work on a searchable on-line resource that will make use of reliable and informative material on the web. Colleagues will be able to search for information relevant to their experience of working with religious and cultural diversity, from details about the dates of different religious festivals (so that they can be avoided in timetabling and assessment deadlines), to the meanings of various dress and dietary customs. The 'Faith Guides' that are being produced by subject centre (not a part of this project) will also complement this aim. The subject centre is also involved in the development of the SHEFC (Scottish Higher Education Funding Council) race/religion toolkit.

## Key finding of questionnaires

In July 2004, the project team at Leeds organized a day's workshop with the other participating subject centres and during this meeting it was decided that a list of *frequently asked questions*, which had emerged from the questionnaires, would be provided on the subject centre website (<http://www.prs-ltsn.ac.uk/diversity/index.html>). The minutes of this meeting as well as a power point presentation will also be available here.

We have received about 130 responses to the questionnaire, from colleagues working in a range of disciplines (although around half were submitted anonymously). While the highest response level has been from staff working in health-related departments (eleven responses), psychology (eight), and education (seven), other areas are also well represented including student counselling/welfare, engineering, business, biology/ecology, law, geography and computing. Interestingly, our own subject area, philosophy, theology and religious studies, did not show a high response (only three from theology and religious studies, and none from philosophy).

There were four main areas that emerged as of particular concern:

- **Religious festivals and holy days:** colleagues did not know the dates or significance of such occasions but recognized the need to avoid these dates when timetabling courses or arranging assessment deadlines (*see*

<http://www.support4learning.org.uk/shap/>

*The left hand column—‘religious calendars on-line’—enables you to choose from series of resources. The first one, produced by City of Bradford Metropolitan District Council, can be printed off as a wall chart. However, it does not indicate which days need to be ‘no work days’ for members of different traditions. The resource produced by the ‘East of England Faith’s Council’ provides this information and can be found at*

<http://www.eefaithscouncil.org.uk/calen.htm> *A calendar of religious festivals can be ordered from*

<http://www.shap.org/calendar.html>—‘*The Shap Calendar of Religious Festivals*’).

- **Course content:** colleagues were concerned either that course content reflected a ‘western’ perspective or that certain subjects were problematic for some students (e.g. evolutionary theory, sex(uality) or vivisection). Also, respondents were keen to retain the critical openness of academic inquiry but felt constrained by their desire to be sensitive to the cultural and religious views of particular students.
- **Teaching styles:** colleagues had noticed that some international students, in particular, experienced difficulties adapting to UK learning and teaching methods (e.g. independent study, group work or questioning the views of the tutor or classmates). Respondents indicated a lack of knowledge about teaching styles in other countries. (*We are in the process of putting together an annotated bibliography of academic articles that discuss, as well as critically assess, the issue of divergent teaching styles according to cultural context. This will be made available on our website*).
- **Student participation:** colleagues noted that some students found participation in social events difficult if their dietary customs were not catered for or if alcohol was available or were uneasy about working in mixed sex groups. (*A useful article can be found at [http://www.salesvantage.com/news/etiquette/taboo\\_offerings.shtml](http://www.salesvantage.com/news/etiquette/taboo_offerings.shtml)—“*Taboo Table Offerings: The Intricacies of Intercultural Menu Planning*” for a brief discussion of different cultural attitudes towards food and alcohol*).



There was an opportunity on the questionnaire for respondents to state the ways in which they had dealt with problematic situations. Suggestions include to:

- Stress that the course content reflects a western perspective and welcome comparative and contrasting views from students wherever possible.
- *Also* stress that there are divergent opinions on topics and that from an academic perspective it is important to be aware of these. Awareness of diverse views can also make one's own position stronger—one needs to be able to withstand critique.
- Try to illustrate to students that evolutionary theory is not necessarily incompatible with religious perspectives on creation.
- Avoid using the word 'we' when discussing examples as this suggests that there is one viewpoint to which everyone subscribes.
- Mix students from different cultural backgrounds in the classroom setting so that they can learn from each other.
- Ask students their views beforehand and make it possible for students to opt out of sections of the course if necessary (e.g. dissection, watching videos with sexual content).
- Avoid topics during particularly politically sensitive periods. One institution issued guidelines to all staff not to discuss terrorism and the Middle East in the build up to the Iraq war.
- Find out from international students what teaching styles they are used to and how staff can make it easier for them to get used to the British method. One-to-one sessions at the beginning of a module would enable colleagues to gather student views. Problems arise when students are 'thrown in at the deep end' and have no opportunity to adjust.
- To organize social events that are 'alcohol free' and to liaise closely with catering staff to ensure that food is clearly labelled according to different religious restrictions.

## Future Directions

The questionnaire replies revealed a very strong emphasis upon the need to avoid stereotyping. However, without appropriate knowledge

and resources many felt unable to sustain this important educational value. We consider that the work undertaken so far by this project has confirmed the initial premise that cultural and religious diversity is of importance to teaching and learning in higher education, but that it has not yet received the prominence it warrants. Moreover, our questionnaire responses have indicated a need for further work in this area in terms of higher education recruitment, retention, quality of student experience and employability.

In response to this we are about to run a series of focus groups with students to canvas their needs and concerns. While the questionnaires targeted members of staff, the student view is essential in order to provide a comprehensive assessment of the various challenges facing an agenda which aims to support cultural and religious diversity in the university environment. This will mark the end of the first phase of this project.

During the next phase of the project we will develop a module for staff training on cultural and religious diversity that would then be delivered in-house in different educational contexts. The need for such a training module was expressed in a number of questionnaire responses, and it was felt that this was an initiative that the Subject Centre for PRS was qualified to undertake. We also aim to investigate ways of incorporating the development of ‘cultural and religious literacy’ into the higher education curriculum. Our questionnaire responses have indicated that cultural and religious diversity issues cut across all academic disciplines. However, considering the rigid boundaries that exist between academic disciplines, tutors do not know how they can build these issues into their courses.

Nevertheless, the importance of religious and cultural literacy as a key employability skill has been recognised by this project. The introduction of the Employment Equality (Religion or Belief) Regulations 2003 suggests a broader social commitment in the UK to the creation of culturally inclusive places of work. Also, both the Home Office and the Department for International Development have recently expressed their commitment towards working more closely with faith communities and encouraging interfaith dialogue. All these developments reveal a need for students from UK universities to acquire the skills and knowledge that reflect this growing concern for cultural and religious literacy in British society.

# Analysis of Contextualised Healthcare Ethics Scenarios (ACHES)<sup>1</sup>

ETHICS Project Report

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**N. Athanassoulis, J.C. Jackson, C. Megone**

School of Philosophy  
University of Leeds

## Introduction

**T**his paper presents a report on an ETHICS project conducted at the University of Leeds.<sup>2</sup> The aim of this project was to examine the use of case studies couched in a philosophical framework and to explore and develop resources to provide useful philosophical underpinning for case analysis. For the purposes of the

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<sup>1</sup> Paper originally presented to Learning and Teaching Conference, Leeds, 8<sup>th</sup> January, 2004.

<sup>2</sup> The authors would like to acknowledge funding from the ETHICS project in the PRS-LTSN, now the Subject Centre for Philosophical and Religious Studies of the Higher Education Academy, and the help of Dr. Susan Illingworth, the ETHICS project coordinator. We are also most grateful to our external assessors, Dr Piers Benn, Dr Heather Draper, and Dr Doris Schroeder, to all who attended the project symposium, and especially to all our students who undertook the SSCs on which this work was based. ETHICS was a project exploring **E**thics **T**eaching **H**ighlighted in **C**ontextualised Scenarios.

Discourse: Learning and Teaching in Philosophical and Religious Studies,

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study we used case studies on Pre-implantation Genetic Diagnosis; active and passive euthanasia; and incompetent patients and best interests. In the paper we begin by presenting the context in which these case studies were used, noting first the growth in the use of case studies in teaching philosophy, and second the location of the particular projects examined within the medical curriculum and Leeds. We then outline the methodology employed in carrying out the project before turning to an analytical description of each author's experiences in using his/her chosen cases. Specific comments attach to some of the case studies, but in the final section of the paper we present some more general reflections on the use of case studies in teaching ethics.<sup>3</sup>

## **Context: Case Studies and Philosophy**

The teaching of philosophy has evolved. Philosophy has always been a subject taught through direct interaction with students, encouraging them to engage with the ideas, construct their own arguments and defend their positions. However, whereas previously small group teaching was mainly accomplished through tutorials, made up of two or three students discussing long essays, which they had written for this purpose, nowadays most departments have had to accommodate significantly larger numbers of undergraduates. As a result, tutorials are now largely reserved for final year undergraduates or postgraduate students, while for the most part undergraduates are taught in groups made up of twelve students or more. Such group sizes require a different method of teaching, one that ensures that each student has the opportunity to contribute to the discussion. At the same time, tutors have to ensure that discussions are meaningful, i.e. that relevant points are raised, that misconceptions or inconsistencies are challenged, that appropriate reference is made to significant philosophical ideas, that all students understand what is being discussed, etc. One of the methods used in order to stimulate discussion and provide focus for such a large group discussion is that of case studies.

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<sup>3</sup> In doing this we have drawn heavily on points of feedback received from students and external assessors, and on the discussion at the concluding symposium.

Not only are case studies useful in managing large group teaching in undergraduate philosophy, but they also have a significant role to play in teaching philosophy to non-philosophy students. Over the last few years, a number of professional organisations have recognised that philosophical training (and often ethics in particular) should be a crucial part in their educational curricula. So, for example, medical students, nurses, students in biomedical sciences, genetics, computing, business studies, etc. are required to take courses in philosophy. Case studies are extremely useful for such students as they are a direct way of illustrating the relevance of philosophical theories and concepts to their practical, applied concerns.

With case studies playing an ever-increasing role in teaching, this project was set up to elucidate the role of philosophy in using case studies. Case study work can potentially prove frustrating and unproductive. The concern is that the case study may well succeed in stimulating discussion, but, in a sense, it may succeed too well. The case study may well provoke contributions, but these may lack focus, coherence or relevance and as a result the discussion may become disjointed, confusing and ill-defined.

## **Context: The Ethics Theme within the Medical Curriculum at the University of Leeds**

The General Medical Council's document "Tomorrow's Doctors" which makes recommendations on undergraduate medical education, lists ethics as one of the requirements of a comprehensive medical degree. In response, the University of Leeds Medical School in co-operation with the School of Philosophy have set up the Ethics Theme (ET). As a theme, the ET contributes to a variety of courses over the first three years of undergraduate teaching and makes up 7% of the medical degree. The Theme uses a variety of teaching methods, but its overall objectives are to integrate fully philosophical teaching within the clinical curriculum and, over time, help students develop their ability to recognise, reason about, understand and, possibly even resolve, ethical issues. In its early years, the ET relies on lectures, which introduce philosophical arguments and theories, followed by small group work, which allows students to engage with the ideas and

attempt to structure their own views. Later on, as students become more proficient and gain other general skills, such as IT, research, and presentation skills, the Theme allows for greater flexibility and student choice. In later years, students are expected to take an active role in guiding their own work, framing their own questions and through self-directed learning finding answers to those questions. Whereas in the early years it is the role of the tutor to stimulate and clarify, in later years the tutor acts more as a research supervisor, guiding and helping out when needed.

The ET covers a variety of topics, some, such as autonomy, confidentiality, justice, resource allocation, etc., are taught to all students, whereas others, which tend to be more specific, are chosen based on individual student preferences. Examples of the latter include “Organ allocation within the Leeds Trust”, “Three philosophers on abortion”, and “Patient lifestyle and entitlement to treatment”. The ET is fully assessed within the courses in which it takes place, using a variety of methods, such as long essays, group presentations, process, and short reports. The Theme receives feedback from both students and external examiners.

For this project we concentrated on the latter years of the Theme. In the third year, medical students undertake a Student Selected Component (SSC) course entirely on ethics. This is a compulsory course, in that all students have to take it and pass it in order to progress. However, it is designed to allow for student choice and for the expression of individual preferences. Students are offered over 70 projects each year, ranging from theoretical philosophical topics, to applied ethical questions closely linked to clinical practice. Tutors are drawn both from academic philosophy and from medical colleagues with an interest and qualifications in ethics. The students work in small groups of 4-5, meeting with their tutor three to five times over one semester (about a three-month period). They are allocated four hours per week study time to work towards an individual essay (of 3,000 words), and a group presentation. Thus although the students pursuing these SSCs will have undertaken preliminary work in ethics as described above, this is their first opportunity to undertake sustained examination of an ethical issue that might arise in medical practice.

The overall mark for these SSC courses is made up of a process mark for each student, the individual essay mark and a peer assessed mark for the group presentation. The emphasis is very much on student choice, not only in the selection of particular topics, but also in how the project shapes over the weeks and how they wish to develop their research and the content of the assessed work. Resources are provided to support the students' self-directed learning. The Ethics Theme has a web site with suggestions for further readings, useful sites, etc. and we make use of Leeds' virtual learning environment to post information on how to read and write philosophy, short introductions to the main philosophical arguments and theories, and guides on how to structure research.

## Methodology

For our project, the Analysis of Contextualised Healthcare Ethics Scenarios (ACHES), each of the writers selected a theme and two cases around which to shape our students' learning. We liaised with the ETHICS Project Coordinator to select the cases and we met to discuss how we might draw on philosophical and other sources to facilitate their use in teaching. Over the early months of the project we each developed in outline a sketch-plan of how we would present the material for study, indicating what readings we would direct students to. We also sought guidance on our project from three external assessors each of whom was experienced in this kind of teaching. We put to them the following questions:

- 1) If you were teaching on these topics, how helpful would you find our notes/plans?
- 2) What would you add/scrap?
- 3) Are there questions we should raise that we have overlooked?
- 4) Are there any important philosophical issues raised by these issues that we have not covered?
- 5) Are there better angles for shaping how students work on these topics?
- 6) What resources would you use to guide the discussion of these issues? Can you suggest other readings —e.g. on the web?

In the next stage of the project, we forwarded to our externals the final plans for our teaching. Towards the end of the session in which the teaching occurred, we held a symposium that was attended by our students, external assessors and by other colleagues at Leeds who are involved in this form of teaching.

At the symposium, which was the culminating stage of the project, we reported on our experience of using case studies within a philosophical framework. In addition, the students who had been at the receiving end of this teaching gave feedback, as did each of the external assessors. This was followed by general discussion which ranged over all aspects of the study including: the aims of this type of teaching, the particular value of case studies in pursuing those aims, the extent to which philosophical skills were involved in the teaching and the problem of finding suitable readings.

## **The Case Studies**

### **I. Case studies on Pre-implantation Genetic Diagnosis**

This part of the project examined the use of case studies in looking at some of the ethical issues that may arise around the technique of Pre-Implantation Genetic Diagnosis.

#### **I. The Cases**

**A. The Hashmi Case:** The Hashmi case involved a couple with a four-year old child with Beta-Thalassaemia. They wanted to conceive a second child by IVF, and desired that the embryos produced should be given pre-implantation genetic diagnosis (PGD) both for that disease itself and for the compatibility of the future child as a bone-marrow donor for the existing sick child. The parents requested that only an embryo satisfying both these conditions be implanted.

**B. The Whitakers case:** This was a quite similar case. However the Whitakers wanted their IVF-conceived embryos to be subject to pre-implantation genetic diagnosis (PGD) simply to determine the compatibility of the future child as a donor for an existing child and not because that future child him/herself was likely to suffer any serious congenital disease.



## Key issues

Both cases involve issues concerning screening for therapeutic and non-therapeutic purposes; best interests; the interests/rights/value of embryos; consent and non-competents, in particular parental consent for children.

What follows will first outline the intended approach to using these case studies for the purposes of examining ethical issues in PGD. The second section describes what actually happened.

## 2. How it was intended to go

### Stage I

The students taking the SSC are asked to make contact with their tutor to arrange a first meeting. In preparation for this meeting the students will be asked to:

- a) find out all they can about the two cases, the clinical facts, patient arguments, court rulings and HFEA directives; and perhaps identify any other cases they think raise similar ethical issues. One possible source here will be the HFEA website.
- b) “brainstorm” about the cases, each writing up to two pages in note-form in which s/he identifies as many ethical questions as s/he can that s/he deems to be raised by the cases;
- c) try to organise the questions they raise into provisional ethical themes to address in examining the cases.

In the first meeting itself, we will aim to clarify the medical aspects of the case. We will examine the ethical questions the students deem to be raised by the case and try to distinguish ethical issues from others, for example from legal, medical, or psychological issues. We will try to identify some main ethical themes and will select one of these to work on for the next session.

The “brainstorming” activity already mentioned will drive the themes that follow. However likely themes will include those such as best interests, referred to above. In each case the students will also be

asked to consider how, if at all, those themes bear on the cases presented.

### Stage 2

The students will be asked to consider the issue of best interests and its application here. Some possible readings on best interests are:

- Feinberg J. *The Moral Limits of the Criminal Law: Vol. 1; Harm to Others* NY, OUP 1984: 31-51
- Dworkin R. *Life's Dominion* London, Harper-Collins: 201-8.  
Allmark et. al JME 2001

Discussion will consider whether, in either case, the use of PGD or the treatment of the embryo is consistent with the requirement to act in a child's best interests.

### Stage 3

The students will be asked to consider the status or value of the embryo and its relevance here. Some possible readings are:

- Holm, S. "Ethics of Embryology" in Chadwick, R. (ed.) *The Encyclopaedia of Applied Ethics*
- Hursthouse, R.: *Beginning Lives*, Ch. 6
- Chadwick, R, *Ethics, Reproduction and Genetic Control*
- Steinbock, B. *The Moral and Legal Status of Embryos and Fetuses*
- Possibly Marquis, D "Why abortion is immoral" as reprinted in Kuhse, H and Singer, P. *Bioethics* Oxford, Blackwell

Discussion will consider both the question in itself and how it bears on these cases.

### Stage 4

The students will be asked to consider non-competence, and the issue of consent and its relevance here. Possible readings are:

- Moreno, J, Caplan A, Wolpe, P "Informed Consent", in Chadwick, R (ed.), *The Encyclopaedia of Applied Ethics*
- Buchanan, A. and Brock, D.: *Deciding for Others*

- Faden R, and Beauchamp, T.: *A History and Theory of Informed Consent*

At each of stages 2, 3, and 4, students will be expected to produce in advance a piece of written work of about 1500 words, and discussion will focus on the issues raised by these pieces.

### Stage 5

Students will be asked to come with a draft of a group presentation focused around the two cases mentioned, drawing together themes developed in stages 1-4. They will also be asked to come with draft essay plans for their individual essays on the topic.

## 3. What actually happened

### Stage 1

For the first meeting the group had been asked to try to find out in advance all they could about the medical and ethical aspects of the two cases, and the HFEA website had been mentioned as a possible source of information. Regrettably the meeting itself, at which they reported and discussed their findings, was interrupted by a fire alarm, which was somewhat disruptive! Nonetheless the group had identified several issues.

- a) Best interests. They distinguished the two cases with respect to this issue. In the Hashmi case the parents were screening for the sake of the child's best interests and for the sake of the other child's interests. However in the Whitaker case the screening might be seen as only undertaken for the sake of the other child's interests.
- b) The moral status or value of the embryo.
- c) The issue of consent. The parents might be seen as consenting on behalf of a non-competent entity.

Finally, the group wanted to know (d) how important the science involved in the procedure was, and what to say about that.

### Stage 2

In preparation for the second meeting the group did not write essays, but they did make further inquiries into all the four areas mentioned

above. With respect to (d), they had uncovered more detail on the diseases involved and the actual procedures undertaken in PGD. They had not made much progress on the issue of consent (c) in these cases. On topic (b) they had established some preliminary ideas. They had uncovered that the HFEA currently takes 14-days as the cut-off point in embryo development and why this is supposed to be significant. They had come across the notion of personhood, in various guises, and its supposed relevance to the debate. Finally they noted conception as another possible cut-off point at which an entity of value comes into existence. They had made limited progress on (a), the concept of best interests, and its relevance here.

In addition to this they raised the new issue of screening for the purposes of sex and discussed how this might relate to the two principal cases under consideration. They conceived this latter procedure as screening for a social reason, and suggested this might involve slippery slopes. The tutor tried to steer the group away from pursuing this further case at length, being worried that they would end up with too much material to cover.

At the end of this meeting the group agreed on a division of labour. Some wanted to pursue the question of the value of the embryo, some wanted to explore the concept of best interests and its application here, and some wanted to examine the cases under both lights. One group was given some readings on the status or value of the embryo and the concept of personhood as outlined above, but further readings by Tooley, Singer, Harris, Hursthouse and Ford ('When did I begin?') were added. For the other students Feinberg and Dworkin on interests were mentioned. However the tutor faced the difficulty of identifying reading material in this area that was appropriate both to give them some philosophical depth, and yet to allow them to apply the ideas discussed to their cases.

### Stage 3

For the third meeting some long essays were produced. Several of the group gave good descriptions of what PGD involves from a scientific point of view. The discussion in the tutorial was mainly on the status of embryo. The students had made impressive progress wrestling with some difficult articles on personhood theories and potentiality arguments. Those working on best interests had noted that the cases

raised the question of respecting the preferences/interests of parents and also respecting those of the live sibling. In the tutorial they also discussed whether embryos have interests, and whether it is better to be alive with disease, or whether the agent is sometimes better off dead.

#### Stage 4

For the fourth tutorial meeting there was further examination of the written work produced by the students. This time the focus was on best interests. Some discussion considered the repercussions of the view that embryos have no interests. If this were so, what would it mean to respect such entities? And why have constraints on PGD at all in this case? The interests of parents and the interests of the second child involved in these cases were also raised. Some time was given to outlining the nature of a philosophy essay, and to running through the barebones of the group presentation. So the group never returned to the question of consent in these cases.

## II. Case studies on incompetent patients and ‘best interests’

This part of the project examined the use of case studies in look at ethical issues concerning parental proxy-decision making regarding surgery on children:

### I. The Cases

**A. The case of Tyrell Dueck:** Tyrrell was a thirteen year old with leukaemia. Doctors had urged the necessity of amputation of one leg to prevent the spread of disease. The parents and the child did not wish this surgery to be performed and the doctors sought a court order to override parental refusal. While the court decision was pending Tyrell’s parents were debarred from visiting him for fear he might be abducted. Tyrell was assessed by a psychiatrist and deemed to be of normal intelligence but immature in that he said that he could not conceive of ever disobeying his father. The court ruled in favour of the doctors but meanwhile the disease had progressed to such a point that the doctors decided the surgery would not arrest its spread. The parents were then allowed to take their son to Mexico as they had wanted to all along—for alternative therapy. He died some months later.

**B. The case of Re B 1987:** B was a seventeen year old with a mental age of five to six years. She was epileptic. It was alleged that she could not be made to understand the causal connections between intercourse, pregnancy and birth. She had the sexual inclinations of a normal seventeen year old. If she were given oral contraceptives there was estimated to be a 40% chance of her keeping to a daily regimen. There would be serious side effects. She was also obese and had irregular periods so that if she became pregnant this might not be discovered early. B's mother, advised by the social worker, gynaecologist and doctor, applied for her sterilisation to be authorised to avoid the risk of pregnancy.

### Key issues

Both cases raise issues concerning children's competence to be involved in decisions; the notion of 'interests': how these are related to wishes and welfare; the notions of best interests and best health interests; the role of parents in assessing best interests and parental rights in deciding for their children.

What follows describes the tutor's experience of using these cases by describing the first meeting with the students and then presenting: 1) a copy of the handout that the tutor prepared for the students who opted for this study; together with 2) a summary of subsequent reflections on how it might be improved.<sup>4</sup>

### First meeting

At the first meeting with the students the tutor presented the students with a handout and explained that their group project was to be based on one or both of the cases above along with mention of any other cases raising similar issues that they might want to include. For their individual essays, though, they were encouraged to select any cases within the realm of incompetence. Thus, some might have preferred to discuss incompetence in the context of palliative care or in relation to participating in clinical research. It was pointed out that cases in these different areas might raise slightly different ethical issues and students were advised to consult the tutor when fixing on their particular essay

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<sup>4</sup>These reflections owe much to the input of our external advisors, colleagues and the students involved, all of whom attended our ACHES symposium.

topic both for reading suggestions and for flagging up of the relevant issues.

At this first meeting the group discussed the two cases in outline seeking opinions a) as to the ethical issues needing study in this case; b) their own initial views on how adequately the cases were resolved.

## I. The Study Plan (Handout given to the students who undertook this SSC)

### Before next (second) meeting

Find out what you can about the two cases—especially regarding the *clinical* factors (in case of Tyrell, alternative treatments, prospects for recovery; in case of Re B, alternative precautions; health implications of proposed measure).

Also, find out what you can of what was said by the parents, the doctors concerned and by the courts in these cases. You should also see if you can find other recent cases raising similar issues, by way of comparison. If you do, you might decide to make use of these in your essay submission.

### Second meeting

We will seek an overview of the issues that these cases raise (see above) and the points of comparison between the two cases. At this meeting we will make a start in distinguishing how clinical, legal and ethical considerations might bear on decisions on these cases. The focus at this meeting will be mainly on the clinical aspects.

### Before third meeting

Explore the *legal* aspects of these cases—and seek some other cases for comparison (e.g. young anorexics refusing treatment). You should meet and discuss your readings and decide what questions to raise at our third meeting. Two aspects deserve special attention:

- 1) assessing competence in children: how competent must they be to have a say? What is ‘Gillick competence’? Was Tyrell ‘Gillick competent’? Why/Why not?;
- 2) parental rights to make choices for their children. Why do they have such rights? When are they justifiably overridden? If parents and doctors disagree: who should decide and why? Can you find other cases where parental rights have been an issue? How were they decided? Do you agree with how they were decided? Why/why not?

### Readings

- Jonathan Montgomery, *Health Care Law* (Oxford 2003);
- Priscilla Alderson, *Parents’ Consent to Surgery* (Oxford, 1990);
- Jean McHale et al, *Health Care Law* (London, 1997);
- Ian Kennedy, ‘The doctor, the pill, and the fifteen year old girl’, in *Moral Dilemmas in Modern Medicine*, ed. Michael Lockwood, Oxford, 1985.

### Third meeting

The focus of this meeting will be mainly on the legal aspects of the cases. Come prepared to discuss the legal position regarding parents’ proxy role and the assessing of children’s competence. Attention will be paid in this seminar to the distinction between what is ethically required and what is legally required. Different measures of competency will be reviewed—their bearing on our cases. We will also discuss the trend away from medical paternalism *vis a vis* children (Children Act 1989). What lies behind this trend? Is it a sign of moral progress?

Some advice will be given about planning for group presentations and about choice of individual essay topics.

### Before fourth meeting

You should reflect on some of the underlying *ethical* concepts and on their bearing on these cases: especially the notion of ‘interests’: taking note of the distinction between what is in one’s interests and what one



is interested in; the related notions of welfare, happiness and one's good. Consider the connections between health and happiness; and between one's health interests and one's good or one's welfare.

Prepare your own draft essay plan: one page outline + readings that will be used; bring these to the fourth meeting to hand in for comment.

### Readings

For readings on best interests, welfare and happiness: look up encyclopaedia entries under headings: *interests*, *needs*, *happiness*, *welfare*. The philosophy encyclopaedias are housed at A0.19 in the Brotherton, philosophy shelves. Look in Becker and Becker's *Encycl. Of Ethics*, the Routledge *Encycl. of Philosophy* and, on 'Welfare Policies', in Chadwick's *Encycl. of Applied Ethics*. Come prepared to discuss the readings. We will hope to draw from discussion of these some pointers for clarifying and resolving our cases.

### Fourth meeting

The focus of this meeting will be on the ethical issues in these cases, drawing so far as possible on philosophical readings to address these. At this meeting we will discuss whether 'best interests' is the appropriate ethical standard for proxy decision-making and whether when deciding on treatments the child's best interests may sometimes be balanced against other familial concerns (as with living sibling donation). We will also consider what weight if any should attach to the child's wishes if these are deemed by others to run contrary to the child's welfare. Attention in this seminar will be paid to the extent to which assessment of best interests requires medical expertise. We will also draw on some philosophical analyses of human good and happiness.

At this meeting we will discuss plans for the group presentation: what will be its focus? What materials you will need/use? How each of you will contribute? You will hand in your one page draft for essay (see above) at this meeting.

### **Before fifth meeting**

You should meet as a group at least twice. At first meeting: agree on overall shape of group presentation; how each member will contribute to it and what each needs to do to prepare their bit. At second meeting: report findings and rehearse presentation; discuss what gaps need filling.

### **Fifth meeting**

The aim of this meeting is to advise on work to be assessed: group presentations and individual essays. You will report on your progress with the group presentation and be advised on content and style of presentation.

Supervisor will return individual essay plans.

## **2. Specific Reflections on how this teaching material (the Study Plan) might be improved**

### **Structure of the study plan**

The division into clinical, legal and then ethical aspects seemed to work well for the students. It allowed them to begin from where they felt most secure and confident in gathering relevant information and bringing it to bear on the cases. Of course, the division between legal and ethical is not a sharp one and it would not have been sensible to try and force it. The focus in the legal analysis needed to include some discussion of how we should distinguish legal from ethical aspects? Ideally, the discussion of legal aspects of the cases should bring home the need for further probing of the ethical aspects that the law does not address or leaves fuzzy. If the law seems not always consistent, ethics begins to seem more attractive. Why, for example, does the law say that children can consent but cannot refuse?

### **The Content of the Study Plan**

Here experience suggested some significant changes. One should not choose to focus on these same two cases for comparison again. Patients who are incompetent fall into a number distinct categories

and it would make better sense to select cases of patients who fall within the same category. Thus, there are:

- 1) patients who were competent but will be no more;
- 2) patients who fluctuate sometimes being competent and sometimes not;
- 3) patients who will be but are not so yet;
- 4) patients who never were and never will be.

The above study plan straddled the Dueck case (category 3) and the Re B 1987 case (category 4). In fact the students found other category 3 type cases that were better for comparison with Dueck. They sensibly chose to concentrate on these. But they were free to take up (and did) other cases raising some different issues in their individual essays.

Since 'best interests' was a central notion for this study, the tutor was concerned to find readings that would help the students to analyse this notion in a relevant way. The students did not find the encyclopaedia references as helpful as had been hoped. In part this was because they were expecting that the notion would lend itself to easy definition. But ethics is not like that. Definitions, if appropriate at all, come in at the end of our enquiries not at the outset.

On the other hand some other sources, though, could be provided to students another time. One is an extract from Joel Feinberg's *Harm to Others*, Oxford, 1984, in which he distinguishes one's interests as 'all things one has a stake in'. He goes on to distinguish preference-interests (what one is interested in) from welfare-interests (what is in one's interests). This latter distinction is of central importance for patient-treatment decisions. Patients generally can be expected to be better informed than their doctors concerning the former sort of interests; not so, concerning the latter. But of course, the former sort of interests can have a bearing on the latter, and doctors need to be mindful of this.

Another aspect of 'best interests' that could usefully be emphasised in teaching on this topic is how best interests relate to the injunction to 'Do no harm!' It is important not to assume that this injunction means the same as 'Always act in the patients' best (welfare) interests!'. Even if doctors should stand by the strict 'Do no

harm!’ are there not some cases where they may be justified in choosing sub-optimally for their incompetent patients (for patients who are not able to consent). Mightn’t doctors be justified in choosing first a sub-optimal but adequate drug for a patient as an economy? (The sub-optimal drug might be incompatible with alcohol but otherwise equally effective and safe.) If this is defensible in regard to competent patients, is it not likewise so in regard to incompetent patients?

An interesting aspect of the Dueck case was how the law sided with medical opinion against the parents’ opinion. The doctors were better placed to judge their treatment to be a better bet for the boy than the Mexican alternative. But did they factor in the benefits of faith, prayer and trust in God, that obviously lay behind the parents’ choice? How could the doctors factor these considerations in? Were the religious concerns of the parents irrelevant to their child’s best interests? Does the law in discounting parental proxy decisions based on such religious considerations treat religion as a life-style choice (for adults only)?

### Final thought

Under the heading ‘best interests and incompetent patients’ the tutor selected only one sort of incompetence, concerning older children. It would be equally useful and instructive to explore other areas—for example, concerning elderly frail patients with fluctuating or fading competence. It is important, though, to guard against superficiality and to select cases for comparison that illustrate one particular type of incompetence.

## III Case studies on active and passive euthanasia

This part of the project examined the use of case studies to explore ethical issues concerning euthanasia.

### The Cases

<p><b>Miss B:</b> Miss B, a 43 year old woman paralysed from the neck down as the result of a blood clot lodged in the spinal cord, appealed to the Courts to allow her breathing machine to be switched off against the wishes of her doctors. She had only a 1% chance of recovery from paralysis and wanted</p>
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to die. Miss B was mentally competent, and did not wish to switch off the machine herself as she thought this would look like suicide and would affect her relatives. The Courts ruled in favour of Miss B, who died shortly after her ventilator was switched off.

**Diane Pretty:** Diane Pretty, 43 years old, terminally ill with motor neuron disease, went to the European Court of Human Rights to seek assurances that her husband would not be prosecuted for helping her to die, an act which she was physically incapable of carrying out herself. Diane lost her case in Court and died shortly after.

What follows presents the tutor's original thoughts on how this case study should be taught, together with reflections following the teaching.<sup>5</sup>

### Before the first meeting

The students were asked to find out as much as they could about the two cases. In particular, the tutor wanted them to find out about the clinical diagnosis of the two patients, prospects for recovery, possible treatments, effectiveness of palliative care, etc. This was important firstly because she wanted them to become familiar with the clinical context of the two cases, but also because, as will become clear below, the clinical details of the cases impacted on the ethical questions. Also, she asked them to identify as many of the arguments used by the patients themselves, their solicitors, the doctors, and the Courts. This was intended to give them a first glimpse of the types of problems which were raised by these two patient requests and the kinds of arguments which were used either in favour of, or against, granting them.

### First meeting

Half of the first meeting was spent looking at the facts of the case. The students had worked hard to get these details together and it was good to give them the opportunity to contribute right from the start. This made the students feel more confident and confirmed, right from the start, the course's objective, i.e. that the students should shape the

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<sup>5</sup> These reflections have benefited from the valuable feedback received from this project's commentators and the students who selected this topic.

research. The clinical details were discussed in depth, as many of them were relevant to the ethical issues. For example, clinical details about the two women's states of mind were of relevance to categorising these two requests as voluntary requests. Immediately this gave the project some focus, as it was agreed to set aside other cases of euthanasia, such as the non-voluntary. Furthermore, facts about Miss B's life expectancy and the amount of pain she was suffering compared to Diane Pretty's situation, raised questions about how one should determine quality of life and when life is not worth living. Palliative care, and what can be done to make the end of life as bearable as possible were also discussed, which led to questions about the nature of death, and whether death is always a bad thing.

Significantly, the tutorial also spent a long time looking at the nature of the patient's request. Questions such as the following were raised: What exactly is the patient asking for? Who will carry out the request? What will be the consequences of the request? What are the intentions of the person carrying out the request? Is the patient physically able to carry out the request herself? If yes, should she be allowed to do so and why is she not choosing to do so? This was a preliminary discussion for drawing out what would turn out to be the main difference between the two cases, namely the difference between passive and active euthanasia.

In retrospect, one aspect of these cases was not touched upon, but should have been. This was the legal and medical definition of passive euthanasia, and the classification of Miss B's request as a request for withdrawal of treatment rather than passive euthanasia. Although the tutor aimed to avoid letting her personal philosophical views influence her students unduly, this was one case where her own judgement, that the distinction between the withdrawal of treatment and passive euthanasia, at least in this case, is mistaken, did influence her teaching. It would have been better to ask the students to look into this possible distinction and to find out about professional guidelines, whether they are philosophically plausible or not.

This discussion was intended to be fairly general and aimed at raising questions rather than answering them. The objective was to open up possible avenues for further research, rather than to try to give answers to really complex questions. A variety of different

questions raised by the cases were looked at, as an incentive for the students to read further on the topics which interested them.

The second half of the seminar was spent looking at the question of consistency. All the students who took this course, arrived with pre-conceived ideas on euthanasia. At this stage the tutor did not want to so much challenge their ideas, as to ask them to consider whether those ideas were internally consistent. This was done by asking the following question about the topics below: “Is the following practice (morally) acceptable?”

Practice	Answer	
Suicide	yes	no
Assisted suicide	yes	no
Active euthanasia	yes	no
Passive euthanasia	yes	no

The question was understood rather broadly, asking whether it was morally acceptable for an agent to carry out this practice, stand by or even to encourage others or to participate in the practice. One aim of the exercise was to help students challenge their own beliefs in terms of internal consistency. For example, a student who thought suicide was unacceptable because human life was always sacred, might be expected to answer “no” all the way down the column.

Another aim was to make specific points about the nature of the practices. The first three practices are ordered in terms of the involvement of another person in bringing about the death. Suicide can be carried out independently of others (it may require that they refrain from preventing it, but it requires no assistance). By contrast assisted suicide requires some assistance and active euthanasia requires that something be done to the person killed. Passive euthanasia was set to one side with respect to this question, anticipating the debate over the role of the doctor who carries it out,

i.e. the issues of act/omissions and intentions. At the same time, trying to give answers to the questions imposed some order on the students' own thoughts. For example, two thoughts emerged during the discussion of suicide. Some students thought that we should not interfere with competent adults who decide to end their own lives for plausible reasons, such as terminal illness and severe pain. At this point the tutor made the connection with previous teaching they had had on Mill's conception of autonomy. However, some students thought that it was wrong to attempt suicide as it went against our duty to our own selves to prolong our lives. Here the tutor introduced Kant's account of autonomy and encouraged students who were interested in these views to read further.

### Before the second meeting

The tutor suggested the following readings, which were given to students at the end of the first seminar, and reflected the topics raised there, as well as expanding on related issues:

- Stoffell B. "Voluntary Euthanasia, Suicide and Physician-assisted Suicide", in Kuhse H. and Singer P., *A Companion to Bioethics*
- Singer P., *Practical Ethics*, Chapter on euthanasia
- Beauchamp T.L. and Childress J.F., *Principles of Biomedical Ethics*, Ch. 4 Nonmaleficence, killing and letting die

### Second meeting

The aim of this meeting was to introduce a wide variety of different considerations as related to what the students had read, deal with any misunderstandings arising from the readings, and provide as wide a field of research for the students to choose from as possible.

In this seminar the tutor asked the students to make a list of the topics they had read and talk a bit about them. As the readings were divided between the students, their task was to introduce the ideas they had read about to the rest of the group. The following ideas were raised in no particular order, but the tutor initiated discussion on them in such a way as to link them together as much as possible:



- A good death: there was a long discussion on what constitutes a good death, but also whether death itself is necessarily a bad thing, or the worst thing that could happen to someone. They talked about death as the end of existence as well as possible religious views on afterlife. They also talked about making judgements about the end of life, and whether a certain amount of pain and suffering is worse than death.
- Quality of life: this tied in well with the previous discussion as they moved on to asking how we should make judgements of quality of life, whether doctors should be making them on behalf of others, the value of quantity of life and the value of life itself.
- Sanctity of life: quite a bit of time was spent on this idea and Singer's criticism of it, especially as related to Kant's ideas discussed in the previous seminar. Some students had read further on Kant and were quite interested in the two points of view.
- Mental competence: although in the first seminar it was assumed that the Courts were correct in pronouncing both Miss B and Diane Pretty as mentally competent, this idea was revisited. There was a lengthy discussion on whether anyone who wants to die can be rational; whether it is circular to judge irrationality on the evidence of the one disputed belief; whether pain and suffering distort one's perception and limit one's ability to exercise autonomy. The discussion highlighted the severe and irreversible nature of the decision to die.
- Role of medicine: finally the role of medicine was discussed, and whether it is acceptable to ask doctors to take part in (or stand by) a process which leads to the patient's death.

All these points were developed from and related back to issues raised by the two cases, for example, Miss B's reluctance to commit suicide, and Miss B's doctors' refusal to take part in a course of action which did not conform with the goals of medicine, Diane Pretty's request for her husband to assist her to die, and the fact that both women were mentally competent and able to make decisions about their own best interests.

The tutor's role during this seminar was purposefully minimal. The group of students were particularly hard-working and bright. They had read quite a bit on the topic and had gotten together to

discuss the issues before they met with the tutor. As a result they had quite a lot to say and felt comfortable talking to each other. Despite the divergence in opinion between the students on what can be a sensitive subject, they got on together very well as a group and found it easy to respect each other's opinions while challenging them.

### Before the third meeting

At the end of the second meeting the students were asked to read, take notes on, and prepare questions on:

- Rachels J., "Active and Passive Euthanasia", in Kuhse H. and Singer P., *Bioethics: an anthology*
- Nesbitt W., "Is Killing No Worse Than Letting Die?", in Kuhse H. and Singer P., *Bioethics: an anthology*
- Kuhse H., "Why Killing is Not Always Worse—and Sometimes Better—Than Letting Die", in Kuhse H. and Singer P., *Bioethics: an anthology*

This collection of readings was set in order to get to the heart of the distinction between active and passive euthanasia and to raise all the main questions about the doctrine of double effect, acts and omissions, and intentions and consequences.

### Third meeting

This meeting concentrated on the major difference between the two cases, namely that Miss B's request was deemed an acceptable request for withdrawal of treatment/care (according to the Courts), whereas Diane Pretty's request was deemed (by the Courts) an unacceptable request for active euthanasia. The tutor was expecting this to be a particularly difficult seminar, however the students surprised her by having read well beyond her expectations and coming to the seminar with particularly sophisticated ideas (as indicated below).

The discussion began by looking at James Rachels' example of Smith and Jones, which discusses the moral evaluation of agents and the role intentions play in such evaluations. The discussion first involved listing the different components of an action, such as the intentions or motives, the act (as in what is done or omitted), and the consequences. They then talked about how we should evaluate a variety of acts, such as non-culpable accidents, negligence,

intentionally harmful acts, unintentionally good acts, etc. At this point the students brought up the differences between the ways in which different normative theories evaluate actions, noting how consequentialists focus on results in order to do this, whereas deontologists emphasise intentions. This insight was then linked to the disagreement between Rachels, Nesbitt and Kuhse, which the students had read about.

The group then went on to draw up another table bringing earlier distinctions made with respect to euthanasia together with the recent thoughts expressed on actions:

<b>Practice</b>	<b>Intention?</b>	<b>How is it carried out?</b>	<b>Consequences</b>
<i>Suicide</i>	certainty of death	directly	is death a harm?
<i>Assisted Suicide</i>	unclear	limited action	not under the doctor's control
<i>Active Euthanasia</i>	killing	act	Certain death
<i>Passive Euthanasia</i>	letting die	omission	foreseen but uncertain death

The discussion of the intentions of the person carrying out these practices allowed the group to talk about the distinction between killing and letting die and the doctrine of double effect. The discussion of the act itself, gave rise to the acts/omissions distinction, whereas consequences were relevant to the certainty of the outcome and related to whether the outcome was intended. Different students gave different answers to these questions. For example, some students felt that we are not as responsible for deaths which result from omissions as for deaths which result from actions. This type of disagreement between the students was particularly welcome, as the aim at this stage was not to impose a uniform solution to these philosophical debates, but to give the students a framework within which they could understand their ideas, and how those ideas related to the views of

others and to different topics, as well as to what kinds of objections they were vulnerable to.

Euthanasia can often be a very confusing topic because of the large number of related questions which are often confused with each other. The aim of this session was to create a “mental map” of how different arguments are related and how they work together or against each other.

### **Before the fourth meeting**

At the end of this meeting the tutor reminded the students of the assessment requirements for the course and the need to start focusing their group work towards the presentation. She also encouraged them to think through an individual essay plan for the next meeting.

### **Fourth meeting**

The aim of this meeting was to go over the preparations for the assessed work. The students gave a brief outline of the group presentation, both in terms of its structure and presentation skills and in terms of its content. They were also given an opportunity for a trial run of the presentation, after which the tutor gave them detailed comments on content and style. The presentation focused on two questions: “Is euthanasia morally acceptable?” and “Is there a difference between passive and active euthanasia?” Both were discussed in the form of a debate, with a chair summarizing the arguments and applying them to the cases of Miss B and Dianne Pretty. This group’s presentation was judged by a cohort of their peers and other course supervisors to be one of the best four from the year.

The tutor also spent some time with each student, on an individual basis, discussing their essay plans. Interestingly each student had different ideas about what he/she wanted to work on. One student argued against active euthanasia because of the role of the doctor in bringing about death, but for passive euthanasia on the basis of the doctrine of double effect and the classification of passive euthanasia as withdrawal of treatment. Another student argued in favour of active euthanasia based on quality of life issues and the claim that death is not always a harm, and went on to argue further

that active euthanasia was preferable to passive euthanasia because of its more immediate and guaranteed results.

## **Some reflections on our experiences**

We conclude this report with some general comments on the use of case studies in a philosophical context that arose from reflecting on our experiences with the three projects above.

### **1. What were our aims in using case studies for the teaching of philosophy?**

We all agreed that we wanted the students to begin to think in some philosophical depth about an ethical issue, to practice philosophical methods and to appreciate their bearing on practice.

### **2. And how did the case studies help in these aims?**

Case studies facilitate this development in various ways. In the case studies the students could begin from where they felt most secure and confident in gathering relevant information and bringing it to bear on the cases. They could also express their initial pre-conceived views as a basis for further examination. As tutors we can then help them examine these ideas. They can be challenged for internal consistency. They can be asked ‘why?’ questions which probe those ideas for justification. And they can develop the skill of identifying the issues on which beliefs and justification matter in the cases in question. In sum the cases provide a focus on which they can work towards clarifying the issues and the arguments. Thus a topic such as euthanasia can often be very confusing, but starting from cases they can work towards a ‘mental map’ which lays out how different arguments are related and how they work together or against each other.

Student respondents reported that this was the first time in the medical course that they had engaged in a sustained (3 month long) piece of thinking on a single topic in this way. However this was also seen as a beneficial and enjoyable aspect of the module, and they

recognized the way in which their ethical thought had developed through that process.

A related point is that at first sight these case studies present themselves to the students as examples of an attractive high-profile topic, but the groups soon found that they were entering deep philosophical waters. For example they needed to think quite deeply on the value of embryos, and on interests, who can have them, where they lie.

### 3. Choice of cases

This last point has a bearing on a tutor's choice of cases. As noted above, in one of the projects in our sample we felt, on reflection, that more closely related cases would have been a better choice. This is because the cases chosen need to serve as a focus for discussion. If, whilst related, the case content is too diverse (in the example above, too diverse in the kinds of incompetent agents considered) then the cases serve to spread the students' investigations rather than focus them. We felt that tutors using case studies for philosophical teaching need to bear in mind the goal of depth rather than superficiality.

### 4. Relations between cases and ethical themes

The chosen cases exemplify issues raised within a theme, incompetent patients and best interests, for example. However we all allowed the students to develop their own responses to the cases, and this in a range of ways. Some considered other cases pertinent to the theme. Others focused their examination on just some of the central issues raised by the cases. And naturally, despite working in groups, they would often defend quite different judgements on the cases. The case study method is clearly amenable to such student led development.

Having said that, in the first project above, for example, the tutor found that that the group were raising new issues such as sex selection, slippery slopes, and eugenics (which PGD might raise), beyond those specifically raised by the cases. Addressing these in addition to those of the status of the embryo, best interests, and consent would have been too much, so tutors may need to encourage students to focus their investigations. Also in this case, because of the

group work, students had to bear in mind the need for some degree of coherence in their group presentation.

Two of us allowed the students to identify key issues themselves at the outset. The third gave the students their plan for five meetings (as presented above), which included an identification of key points. There is something to be said for both these approaches. The one encourages the skill of recognizing ethical issues in context, whilst the other allows the students to move straight on to the examination of their own beliefs.

## 5. Model answers

Allowing students to develop their ideas in the ways mentioned above militates against the notion of producing model answers for any case study based work, (though of course the essays will need to have the standard virtues of clear well-structure development of an argument). As noted, students wanted to develop different lines of argument, to focus on different issues within the cases, or sometimes to bring in other cases which raised similar but different issues. All of this was fine from our point of view.

## 6. Group work

We all found that there were several benefits to including group work in the use of these cases. Given the wealth and complexity of themes to pursue, the students could divide their labours, for example sharing out readings and reporting to each other on them. It also gave them an insight into team-working, where professionals with different perspectives need to learn to listen to those perspectives and reason about them. (In the feedback session one of the students also argued that group assessments also accurately mirrored real-life team work where one might sometimes be faced with needing to achieve goals even though colleagues were not pulling their weight.) In addition group working encourages dialectical engagement which is a crucial pedagogical tool for the development of an individual's own ideas.

## **7. Transferable skills**

Case studies used in these ways enable medical students (in this case) to develop transferable skills not always honed by other aspects of their studies. They encourage learning to read critically, and to develop a systematic and extended line of argument, to mention but two.

## **8. Who can teach this kind of thing? (Role of experts?)**

We have made a case for using case studies in a philosophical way. This involves tutoring techniques which professional philosophy encourages (dialectical) but need not be confined to such professionals, so long as the aims of this kind of use, and the means to achieve them, are recognised by the tutors involved.

## **9. What kind of level of outcome?**

There was some disagreement about the quality of outcome to be expected from students engaged in such projects. This was partly because some of the attainments by students at Leeds have been outstanding. But given that this was the first time these students had been asked to produce an extended piece of philosophical work the consensus at the colloquium expect the students to reach the attainment levels of a first year philosophy student (but adapted to an inter-disciplinary exercise).



## Focus on Formal Logic, 2004

**E**arly in 2002 the first Subject Centre workshop on learning and teaching issues in logic was held in Leeds. Since then we have continued to support logic as a vital and evolving component of the philosophy curriculum. We have published a number of articles in this journal covering formal and informal logic and critical thinking, which we know, from feedback received, have been appreciated and are of real value. Logic teaching requires highly specialised skills and insights, but logic teachers are often working in isolation, in departments that cannot support more than one formal logic specialist. We hope that the expertise that already exists can be shared more widely, and we will continue to support workshops, pedagogic research, papers and projects in logic to acknowledge its centrality and encourage its diversity.

We are now pleased to bring together the following papers that (in part) developed from a second workshop in May 2004 in London and other discussions. We are particularly pleased that we are able to publish papers and notes by Paul Tomassi and Peter Milne, both internationally recognised UK logic scholars and teachers and Marvin Croy who, as the Chair of the Committee on Philosophy and Computers, American Philosophical Association, is a key innovator of logic teaching in the USA.

We will be holding a third workshop the first half of 2005. If you are interested in taking part or just wish to express an early interest, please contact David Mossley at the Subject Centre:

**david@prs.heacademy.ac.uk** .

# On Elementary Formal Logic

## Article

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**Paul Tomassi**

School of Divinity, History and Philosophy  
University of Aberdeen

### Introduction

**T**hat the *Subject Centre for Philosophical and Religious Studies* (PRS SC) recognises the importance of formal logic within the Philosophy curriculum is ably demonstrated by the two Logic Workshops which have already taken place under those auspices, and, indeed, in the enthusiasm expressed at the second meeting for a third. Arguably, the same recognition is also apparent in the first issue of Volume 3 of *Discourse*<sup>1</sup>. However, Helen Beebee's article on the subject can be read in a negative light. Indeed, like many no doubt, I was struck by the following remark:

The reader may suspect at this point that I am going to be suggesting that IFL courses be 'dumbed down'. That is indeed exactly what I am going to do. (Beebee: 55)

This conclusion is drawn from two premises which are themselves inductive generalisations derived from descriptions of that author's own experience of (i) the 'fear and loathing' which characterises the reaction of many students to the subject prompting

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<sup>1</sup> Beebee, H. (2003) 'Introductory Formal Logic: Why do we do it?', *Discourse learning and teaching in philosophical and religious studies*, Volume 3, Number 1, pp. 53-62.

Discourse: Learning and Teaching in Philosophical and Religious Studies,

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an ‘ostrich’-like tendency to bury their heads in the sand (Beebee: 55) and (ii) the failure of many students to carry forward either the content or analytic methods which logic courses attempt to inculcate in them (Beebee: 55). In light of these considerations, the following recommendation is made:

... if we concentrate on what students actually learn from IFL courses, rather than what we attempt to teach them, it is clear that a majority of students do not get far beyond the basics anyway. For those students, cutting the harder material would not result in any loss at all; indeed, they may well benefit from the less intimidating nature of the course and actually learn more. (Beebee: 55)

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There is much that one might quarrel with here. The pedagogical experience described above is ultimately anecdotal and may not accurately reflect everyone’s pedagogical experience. Speaking personally, I could not agree that a majority of students fall into the category described nor could I agree that teaching formal logic is costly to my department in virtue of having ‘significantly less pulling power’ (Beebee 2003: 53). At the University of Aberdeen, registrations for PH1010 Formal Logic 1 approximate the most popular Level 1 Philosophy course (PH1509 Moral Philosophy 1) with 20-30 registrations and, while Formal Logic 1 is technically compulsory for approximately 30 students, registrations now approach 130. Further, and more seriously, while in F.P. Ramsey’s famous dictum, logic itself is, in some sense, a normative science, one may feel that the recommendation to adapt the curriculum to the empirical unit of the fearful student *qua* lowest common denominator has the tail wagging the dog here.

The points engaging the nature of the reaction of the majority of students to formal logic and the cost effectiveness of such courses are, however, mere quibbles. We surely can safely predict that fear, loathing, head burying and failure to carry forward skills and content will constitute some part of every logic teacher’s pedagogical experience. Thus, the existence of the phenomena is not in doubt. The only issue is the degree to which such phenomena make themselves

felt in any given cohort of logic students. Moreover, whether or not one agrees with the rationale for the curricular recommendation outlined above, that recommendation is at least valuable in promoting reflection upon fundamental issues as regards the nature of teaching and learning in formal logic courses at Level 1. Key among these is the question featured in the title of Helen Beebee's article: why do we do it?

## II

In part at least, the answer to that question must be historically constituted. We represent the contemporary phase of a modern, relatively new, tradition of formal logic rooted, above all, in the works of Frege and Russell. As is well known, the ancient Scottish universities were relatively slow on the uptake here and as I lecture at King's College Aberdeen in a hall (KCF8) with a marble bust of Professor William Leslie Davidson, Professor of Logic at Aberdeen 1895-1926, prominently displayed on the wall behind me, the point is not lost to me that he would not have made available to his students any of the more sophisticated formal techniques, syntactic or semantic, which we make available to ours<sup>2</sup>. Further, what was, eventually, accepted into Philosophy curricula at the ancient Scottish universities in general and Aberdeen in particular as the systems of logic proposed, in turn, by J.S. Mill, Alexander Bain, F. H. Bradley and Bernard Bosanquet were finally displaced was, speaking precisely, *Elementary Formal Logic*. Moreover, despite the equivocations of certain authors, this locution does not mean 'formal logic: the easy bits'. Quite the opposite. This technical term of art

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<sup>2</sup> Indeed, the logic text adopted after Davidson (as used, for example, in academic year 1927-1928), was *An Introductory Text-Book of Logic* by Sydney Herbert Mellone, then its seventeenth edition. The aim of the work is: "... to connect the traditional doctrine with its Aristotelian fountainhead ..." (Mellone 1916: v). The scope of the work is "... intended to stop short of giving what is supplied in Professor Bosanquet's *Essentials of Logic*." (Mellone 1916: v). For Mellone, "The most important works in which [Logic] has been developed are those of Herschel, Whewell and John Stuart Mill." (Mellone 1916: 6). However, 'formal logic' is properly defined as "... the logic which the mediaeval writers developed out of such acquaintance with Aristotle as they possessed." (Mellone 1916: 6).

denotes both propositional logic (PL) and quantificational logic (QL) through to, and including, first-order predicate logic with relations and identity. In one sense, that is why we teach what we teach.

Of course, the historical account sketched here underdetermines an exact curriculum: is proof-theory for first-order predicate logic with relations and identity thereby included? What of semantic methods at this level? This point brings us to the fundamental question; a question to which the remainder of Beebee's paper can be understood as providing one putative answer, namely: within any Philosophy curriculum significantly informed by both the logical and philosophical works of Frege and Russell, what exactly is the minimal set of formal-logical learning outcomes necessary to enable students to successfully complete their degree programme?

Intellectual honesty in this regard requires an anecdote of my own. As the product of a curriculum at the University of Edinburgh that embraced elementary formal logic wholeheartedly, I had most initial exposure to Neil Tennant's (1978) *Natural Logic* and the second edition of Benson Mates' (1972) *Elementary Logic*, proof theory for the quantificational fragment of which was examinable and, invariably, examined—despite the delivery of a written petition against examining quantificational proof theory (signed by most other students in my year) to the logic lecturer. As a tutor and, later, lecturer at Edinburgh, logic teaching centred upon a set of notes (*The Logic 1 Notes*) prepared by my PhD supervisor, Dr John Slaney, as a supplement to E.J Lemmon's (1965) *Beginning Logic*. These texts formed the basis of a 12-week module covering both propositional and quantificational logic through to first-order predicate logic with relations and identity, and, again, including proof-theory at that level. That course, Logic 1h, (and those course materials) was, and still is, compulsory for progression to Honours Philosophy at Edinburgh.

The fact that many students met the challenge presented by Logic 1h successfully should not be overlooked but despite one-to-one teaching, coaching and marking of extra homework each and every year, a number of individuals failed to meet that challenge and did not progress to Honours Philosophy. More than once, the former fact led to both men and women actually weeping with disappointment and frustration in my office—a genuinely distressing situation for all involved—while the latter fact no doubt altered career paths in ways

which are not ultimately quantifiable. On arriving at Aberdeen, I anticipated, that the logic curriculum there would follow the same pattern as that at Edinburgh, St Andrews and elsewhere. However, I quickly discovered that the tradition at Aberdeen differed significantly. In essence, the familiar 12-week module was split down the middle into two six-week modules only the former of which was compulsory—a tradition that had endured at Aberdeen for many years. Colleagues anticipated that I would want to bring Aberdeen into line with Edinburgh, St Andrews and elsewhere here. Instead, I chose to confront the question which presently concerns us: what exactly is the minimal set of formal-logical learning outcomes necessary to enable students to successfully complete their degree programmes in Philosophy? And further: could that set of outcomes be delivered within a 6-week module?

### III

What then is the bare curricular minimum? Like Helen Beebee, I recognised the fundamental importance of the logical analysis of natural language arguments and their translation into both propositional and quantificational form. Moreover, I also believed that a minimal grasp of traditional proof theory at the propositional level was essential. More specifically, I believed that a grasp of at least one strategic rule of inference was essential in order to characterise, and distinguish, categorical and hypothetical reasoning. Further, I also recognised the importance of achieving a balance between syntactic and semantic methods, and the fundamental importance of the ability to generate counterexamples. Thus, for example, the method of Comparative Truth-Tables appeared essential within any minimally apt curriculum. What remains? Again, it seemed to me that the ability to translate natural language arguments into quantificational form was essential and, indeed, that analysis of the validity of such arguments (even if only informally or via shallow analysis) was also essential. Thus, the notions of truth, validity and a QL-interpretation were unavoidable, again, even if only in informal guise. Finally, given that my methodology here cast formal logic as handmaiden to (if not servant of) the larger philosophy curriculum, an eye had to be kept to the formal constituents of courses in later years (which may vary both

within and across curricula). Thus, where the Theory of Descriptions or Frege on sense and reference was germane, I taught numerically definite quantification. Where quantifier-switch fallacies were germane I taught multiple quantification. Where contemporary analytic ontology was germane I would teach sortal quantification, and so on.

At this point, it is worth pausing to emphasise that ensuring integration between the elements of formal logic courses and the wider philosophy curriculum within which such courses are properly contextualised is not only an essential virtue quite generally but is also one which will bring rewards to both staff and students. Moreover, there is no shortage of opportunity here. When introduced to material implication, students frequently ask whether the arrow represents causation? The fact that a negative answer is what is required here does not imply that there is nothing positive to be gained from exploring why that should be so: here there are prime opportunities to motivate the universal quantifier, modal operators, to talk about counterfactuals and so on. Again, some students will balk at augmentation thereby opening up the possibility of a discussion of Relevant Logic. And why do we bother distinguishing DNE from DNI? Well, consider Intuitionist Logic. Or what of bivalence? Consider, sea battles and three-valued semantics, realism and anti-realism. A lecture on Modus Tollens is an opportunity to talk about Popper, Falsificationism, and scientific reasoning more widely. Thus, the integrity between formal logic and philosophy can be reinforced while the ultimately philosophical character of formal logic itself is disclosed. Finally, if all that is just to state the obvious there is a further obvious fact to state, namely: tell students about the relationship between the formal logic course(s) and the philosophy curriculum. Students are unlikely to *try* to carry their logical skills forward if they are not aware that they will later be needed.

To return to the present proposition, the learning outcomes for PH1010, Formal Logic 1, can be seen vividly in the constitution of the one-hour class examination in which the course culminates. This consists of four equally weighted sections, A through D. Section A consists of two natural language arguments to be translated into PL wherein they are to be proved. Typical proofs range from seven to eleven lines and always involve at least one discharge rule so that Premise Introduction can be distinguished from the Rule of

Assumptions. Section B consists of two PL sequents whose (in)validity is to be established by Comparative Truth-Tables. These are typically up to 8 rows in length (level of difficulty aside, the length of examination imposes a constraint here) and invariably involve one invalid case to which a counterexample must be constructed. Section C consists of two natural language arguments to be translated into the monadic fragment of QL and assessed informally or via shallow analysis for (in)validity. The elements of Section D are constituted on the wider basis of the Philosophy curriculum.

## IV

A little reflection quickly reveals significant agreement between my answer to the question: what exactly is the minimal set of formal-logical learning outcomes necessary to enable students to successfully complete their degree programme? and that proposed by Helen Beebee. For example, both of Beebee's 'fundamental and overarching aims' A1 and A2 are met:

**A1** A general understanding of the logic of philosophical argument.

**A2** A basic understanding of and competence in PL and QL.  
(Beebee: 56)

All three 'bald suggestions' for core curricular content, (a) through (c), are also satisfied, though these, I will argue, require some qualification. Consider (a):

(a) *Languages of logic*. Basic PL and QL, with the emphasis on 'basic'. Students don't generally need to be able to construct a 16-row truth table, or learn how to say 'there are at most two cats on the mat' in QL, or to tell a symmetric relation from a reflexive one. (Beebee: 59)

To be clear, students do need to know how to construct a sixteen-row truth table. Whether or not such lengthy tables are actually examined is another question however.

Further, taking seriously the thought that the upper end of the QL constituents within the curriculum should be dictated by the



formal components of courses in later years opens up considerable flexibility. As noted above, where the Theory of Descriptions is germane, teaching numerically definite quantification will provide useful (and *enabling*) preparation. The ability to identify formal properties of relations can also be helpful. Transitivity failure may (or may not) be common in modal and counterfactual contexts but such failures are certainly common in everyday argument. And if, in a slightly more remote possible world, the definition of number were germane, then formal properties of relations would be essential. Consider (b):

(b) *Proof Systems.* Junk the truth-trees and concentrate on natural deduction. But don't make them do proofs that are twenty-lines long. They don't need to be able to prove theorems either. (Beebee: 60)

Speaking strictly, the Truth-Tree Method is a semantic method: the method of Semantic Tableaux. To omit semantic considerations from the teaching thereof is not to provide a course in proof-theory, if it were, students could master proof-theory without even knowing the names of the rules of inference. And while I agree that mastery of proof-theory can be exemplified in proofs of less than 20 lines, given that the three most fundamental logical laws: Identity, Excluded Middle and Non-Contradiction are all theorems, saying *something* about theorems seems unavoidable.

(c) *Meta-Logic.* Students do need to understand the semantic notion of validity, and it is certainly worth getting them to understand that the rules of inference are truth preserving. (After all, this is what gives the rules their normative character.) But they don't need to even know what soundness and completeness are: the chances are that most of them will never even come across these expressions again. (Beebee: 60)

For both PL and QL, the proof establishing that within such systems every syntactically valid sequent is semantically valid is a proof of Soundness. A proof of Completeness shows that, despite the co-existence of syntactic and semantic methods, only one notion of logical consequence is under investigation. Explaining to students of formal logic that proofs of both results are available is essential and

reassuring (though not as reassuring as decidability); working through a proof of either result will require a separate module on Metalogic.

Finally, the emphasis upon the fundamental importance of the identification, reconstruction and logical analysis of natural language arguments and their translation into propositional and quantificational form is intended to obviate the need for any independent, auxiliary or alternative course in ‘Informal Logic/Critical Thinking’ (Beebee: 60-62). Given the nature of the normative logical standards presupposed by any such enquiry, the best student of informal logic must be the student who has mastered the basics of formal logic<sup>3</sup>.

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<sup>3</sup> Some readers may feel that if this is not a conclusion too far, it must, at least, be one that is too quick. I acknowledge that the relationship between these subjects (if, indeed, these are independent subjects) or between these skills (if, indeed, these involve independent skills) and formal logic, merits a paper of its own. However, I would make the following points here. If informal logic and/or critical thinking are genuinely skills or subject-matters ultimately independent from both formal logic and Philosophy then the case for such courses can ultimately be made out by non-logicians and non-Philosophers. In other words, Philosophy would appear to have no *special responsibility* for any such course. But, if that is so, a further case must now be made out as to how (and why) any such course relates (at all) to formal logic? *Ex hypothesi*, no such course would have any obvious special significance for either Philosophy in general or formal logic in particular. Thus, proponents of such a view would talk themselves out of the debate.

The alternative, that the two (informal logic/critical thinking and formal logic) share some (subject-matter and/or skills-based) point of intersection is *prima facie* more plausible: both formal and informal logicians might be interested in argument reconstruction, for example, or the identification of fallacies. But now my earlier point looms large. Are we to say that fallacies are inferences that fail to establish their conclusions? If so, by which standard? Could the conclusion be false while the premises are true? If so, we avail ourselves of the semantic (modal) definition of validity. Can we construct counterexamples to such inferences? If so, we avail ourselves of a notion of logical form. If not, why settle for less when formal logic patently offers more? Further, consider argument reconstruction. Minimally, this must involve identification of reasons given for a conclusion or conclusions. But isn't the notion of a reason irreducibly normative? Is this a good reason or a bad reason for that conclusion? Again, we seem to require recourse to a notion of validity here. If not, how are good reasons distinguished from bad, and, indeed, good arguments from bad? Considerations of this kind prompt my conclusion in the main text. Further, while proponents of informal logic/critical thinking may propose criteria definitive of good argument which are less than central to classical logic, such as relevance of premises to conclusion, it does not follow that *formal logic* has

## V

If the foregoing picture (PH1010 Formal Logic 1) constitutes an acceptable answer to the question I have canvassed as fundamental here then the way is then open to augment what has been achieved with a further six-week module (PH1306 Formal Logic 2) which builds upon what has gone before but which, specifically:

- i. presents a complete picture of PL proof theory, including both primitive and derived rules, within which students may run amok to 30 lines or more (though few such sequents require such lengthy proofs).
- ii. provides students with proof theory for quantificational logic through to and including relations and identity, and
- iii. continues to ensure an adequate balance of syntactic and semantic methods at both levels by including coverage of the Truth-Tree Method—a semantic method which, unlike the method of Comparative Truth-Tables, easily extends to sequents of QL—to deprive students of that method is not only to deprive students of any effective semantic method for monadic QL but is also to prohibit easy access to high-quality introductions to metalogic such as Boolos and Jeffrey (1989) and, indeed, recent introductions to modal logic and modal philosophy such as Rod Girle’s (2001) *Modal Logics and Philosophy* or Beall and Van Fraassen’s (2003) *Possibilities and Paradox: an introduction to modal and many-valued logic*.

In combination, the content of PH1010, Formal Logic 1, and PH1306, Formal Logic 2, outstrips most traditional conceptions of elementary formal logic curricula (few, if any, of which would have included semantic tableaux while those that did might well involve no account of proof-theory) and requires more by way of examination—two hours of examination in formal logic represents a 33% increase over the traditional 90-minute Class or Degree examination. Further, in my experience at least, the confidence-building effect of mastering

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no insight to offer here. To make any judgement on that matter, however, appears to presuppose some familiarity with Relevant (and Relevance) logic.

the Formal Logic 1 curriculum naturally motivates registration to Formal Logic 2—approximately 60% of students at Aberdeen continue to pursue their logical studies immediately while others take the course the following year. Thus, all but the weakest students are likely to learn more logic than was originally required by the elementary formal logic curriculum.

## VI

To be precise, I have argued that any minimally adequate introduction to formal logic should ensure that students who successfully complete such a course are thereby enabled to:

- demonstrate knowledge and understanding of the nature of valid and invalid reasoning.
- demonstrate understanding of some key issues and arguments in formal and philosophical logic.
- exploit and appropriately apply logico-philosophical terminology.
- identify the logical form of arguments in natural language and construct counterexamples to invalid arguments.
- translate natural language arguments into PL.
- construct formal proofs of sequents of PL.
- conduct comparative truth-table tests to determine the validity/invalidity of sequents of PL and, on that basis, identify counterexamples to invalid forms.
- translate natural language arguments in natural language into QL and assess such arguments for validity/invalidity by appeal to the definition of validity and/or shallow analysis.

If my claim on behalf of this set of learning outcomes is correct, the question of how such outcomes are to be delivered in the contemporary context remains to be answered. As noted above (Section 1), the existence of the ‘fear and loathing’ to which Helen Beebe draws attention is undeniable but ways to ameliorate such phenomena are available. The accessibility of the curriculum is clearly essential but successful formal logic courses also require friendly

human faces<sup>4</sup>. Methods of assessment are equally crucial here. Like myself, many logic teachers will have inherited rather than designed assessment procedures. The format traditionally adopted in the ancient Scottish universities consists in the submission of weekly handwritten homework exercises marked by the Tutor and returned in tutorial. Summative assessment is completed by Class (or Degree) Examination. At Aberdeen, that regime was productively amended as follows: weekly homework is retained as a purely formative element of assessment: written comments are made, proofs corrected and so on but no numerical mark is recorded—successful completion of the course depends upon the submission of the exercises not upon marks awarded. Model solutions to exercises are issued in hard copy after the last tutorial of the week and are then posted on the web (the complete set of solutions in electronic form to all exercises in *Logic* is available free from myself to lecturers using the text).

Even so, the contemporary context in which such learning outcomes are delivered is perhaps as challenging as it has ever been. Most of my students have jobs (some full-time)—a factor which inevitably interferes with attendance at class—while others face any of a plethora of life/work issues including family-related commitments (which may involve acting as carers) or disability-related issues. Given the cumulative character of teaching and learning definitive of formal logic courses, attendance-gaps pose a significant challenge, especially so as regards Arts students who may have explicitly intended to avoid all further contact with mathematical reasoning by pursuing Philosophy at university. On the other hand, successful completion of a course in formal logic course can be enormously rewarding for anxious students—not only in terms of acquisition of transferable skills but also with respect to self-esteem and personal development.

At Aberdeen, the response to this challenge has focussed on the use of electronic media to enhance the accessibility of the curriculum by providing alternative means to manifest the learning outcomes associated with homework exercises and, potentially, examinations in PH1010 Formal Logic 1. More specifically, with the

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<sup>4</sup> In my experience, ensuring a gender balance among teaching staff can be a significant factor here.

help of the staff of the Learning Technology Unit at the University of Aberdeen<sup>5</sup>, websites featuring a number of Exercises from *Logic* in electronic form were designed and made available to students. This strategy alleviates attendance-based problems at least in so far as entirely open 24/7 access to homework exercises is thereby provided. Further, the project also provides the opportunity to manifest the learning outcomes associated with PH1010 *measurably* in ways alternate to traditional paper-based methods. A student's level of success during completion of the exercise is monitored throughout—this is visible on screen as a percentage and can easily be recorded. Thus, completion of assessment on-line can readily constitute homework submission.

Completion of exercises on-line promotes autonomy and self-reliance in the learning process but the opportunity to gain immediate feedback and support via completion of exercises on-line is equally crucial here. Indeed, with respect to non-attendance, that is the heart of the issue. Therefore, a key aim of the project, particularly as regards the first exercise, Logic Exercise 1, was to supply unprecedented levels of feedback across a range of different question types<sup>6</sup>. For that purpose, LTU staff exploited QuestionMark Perception to support both logic-based *question banks* and a wide range of *branching feedback mechanisms* capable of delivering both single feedback items and combinations thereof<sup>7</sup>. From the first, both questions and items of feedback were self-consciously designed to enable quick identification of common traps and pitfalls. A further guiding principle was the need to eliminate guesswork-based approaches to completion of exercises. Thus, for example, while the opening question of Logic Exercise 1, on the identification of arguments in natural language, initially invites a 'yes/no' answer, the next question invites the student to identify (up to) three reasons (from five) for their first answer whether or not that answer was correct.

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<sup>5</sup> See <http://www.abdn.ac.uk/diss/ltu/> .

<sup>6</sup> This particular feature of the electronic media in question would constitute much of the basis of my response to the objection that any existing programme or package might serve the present purpose adequately.

<sup>7</sup> See <http://www.questionmark.com/uk/> .

In all honesty, while I believe that the collaboration with the LTU has provided a useful, self-diagnostic tool promoting a genuinely accessible curriculum for PH1010 Formal Logic 1, descriptions of the electronic media involved are no substitute for actually engaging with them. Therefore, for demonstration purposes, the following website (for Logic Exercise 1 only) was constructed:

**<http://question.abdn.ac.uk/q/open.dll?session=0416999670872971>**

Access to this website is free, no password is required and any user name will be accepted. Further, a comprehensive evaluation report based upon a voluntary pilot of the scheme with the PH1010 Formal Logic 1 class (2002-2003) is available at:

**<http://www.abdn.ac.uk/diss/ltu/projects/21phil.htm>**

I should also state that this project (which was demonstrated at the second Logic Workshop, King's College, University of London, May 7<sup>th</sup> 2004) is presently the part of a consultancy between myself and the *Subject Centre for Philosophical and Religious Studies* whose support for formal logic in general and this project in particular I gratefully acknowledge.

## Conclusion

In essence, the present proposal has argued for a compromise between, on the one hand, proponents of the elementary logic curriculum traditionally conceived and, on the other, those who propose significant revision/dilution of any such curriculum. Given, from the former viewpoint, the Formal Logic 1 curriculum proposed here might appear to settle for less than the traditional syllabus required. In mitigation, the following points should be borne in mind. First, if the minimal set of formal logical learning outcomes has been identified correctly then the less settled for is nonetheless *adequate* with respect to the Philosophy degree curriculum. Second, it is no part of the present proposal to reduce in any way the *provision* of formal logic within the curriculum. Indeed, as noted in Section V, in combination, the content of PH1010, Formal Logic 1, and PH1306,

Formal Logic 2, outstrips most traditional conceptions of elementary formal logic and requires more by way of examination. Thirdly, while Formal Logic 2 is not compulsory on this model it does not follow that the course should not be strongly recommended to students. Again, as noted, my experience is that the confidence-building effect of mastering the Formal Logic 1 curriculum will naturally motivate registration for Formal Logic 2.

Those who subscribe to more revisionist views will appreciate not only that the present proposal constitutes an accommodation of such views but also that in its explicit concern with the fundamental importance of the identification, reconstruction and logical analysis of arguments framed in natural language, the proposal in effect seeks to motivate formal logic on an ultimately informal basis. Moreover, by way of amelioration of the kind of pedagogical phenomena, which tend to despondency in staff and students alike, this proposal seeks to supply, via electronic media, a support mechanism that recognises the character of the contemporary learning environment in general and the problem of non-attendance in particular. Finally, even if, as I have already acknowledged, the nature of and relations (if any) obtaining between formal logic and Informal Logic/Critical Thinking merits another paper, the following thought is worth perusal. Those institutions which have been or are now considered to be of the very highest quality as regards Philosophy are most unlikely to eliminate formal logic from their curricula in the foreseeable future. Given the highly competitive character of the graduate job market generally and postgraduate awards in particular, a question of intellectual conscience naturally arises: with respect to the ability to compete with their peers in such pressing matters, would any further revision/dilution of the elementary formal logic curriculum constitute a service or disservice to students of Philosophy?

p.tomassi@abdn.ac.uk

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## Web Addresses

### Logic Exercise 1:

<http://question.abdn.ac.uk/q/open.dll?session=0416999670872971>

Note: Access to this item is free and no password is required.

Home of the software used for Logic Exercise 1:

<http://www.questionmark.com/uk/>

LTU (Learning Technology Unit) pages: <http://www.abdn.ac.uk/diss/ltu/>

Patricia Spence (LTU Manager): e-mail: [p.spence@abdn.ac.uk](mailto:p.spence@abdn.ac.uk)

Tel: 01224 273924

Paul Tomassi/Logic: The Solutions Book: e-mail: [p.tomassi@abdn.ac.uk](mailto:p.tomassi@abdn.ac.uk)

Tel: 01224 272375

**Note(s):** a complete set of solutions in electronic form to all exercises in Paul Tomassi's *Logic* are available free from myself to lecturers using the text.

# The Case for Teaching Syllogistic Logic to Philosophy Students

Discussion Article

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**Brendan Larvor**

School of Humanities  
University of Hertfordshire

**T**he case for *not* teaching syllogistic logic is easy to state: syllogistic logic is a superseded theory. Teaching Aristotle's logic in the presence of modern mathematical logic is not quite as perverse as teaching his physics in the presence of modern physics, because syllogistic logic successfully identifies those valid arguments that fall within its scope (but as it is a monadic logic, its scope is rather narrow). Aristotle's physics, on the other hand, is unsuccessful even within its proper bounds. Nevertheless, syllogistic logic has been overtaken by mathematical, polyadic logics, and some motivation must be given for according it a place in an overcrowded syllabus.

This demand naturally raises the question of why we teach logic to philosophy students at all. Many of the familiar reasons do not tell strongly for or against syllogistic logic in comparison with modern logic. For example, it is important that students should get hold of the idea of a valid argument as such—but you can teach this notion with any logical system, ancient or modern. We should like philosophy students to understand that some arguments owe their validity solely

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to their logical forms—but again, you can teach this using any system of formal logic, including syllogistic. What is more, one can teach these notions in a single lesson, so what is the rest of the module for? There is, in addition, the rather dubious claim that studying logic makes one a more careful thinker. Insofar as this is true, I am inclined to think that almost any rigorous discipline will achieve the same. Learning foreign languages in a relatively formal fashion probably does as much to improve students' analytical *nous* as formal logic, if not more (what better way to develop a nose for equivocation than regularly translating between natural languages?). In any case, when we meet bad arguments in real life, the fallacies are almost never those errors of reasoning such as quantifier-shift that mathematical logic is uniquely equipped to expose, nor does one often find examples of illicit process or undistributed middle terms in newspaper columns. Informal fallacies such as equivocation, hasty induction or *ad hominem* attack are far more common, which is why those institutions that are seriously worried about their students' analytical acumen tend to put on critical thinking courses rather than courses in formal logic. In short, the familiar reasons for teaching logic do not especially favour modern logic over the ancient. Indeed, syllogistic logic may be a better vehicle for teaching general notions such as validity and formality simply because many students find it easier than mathematical logic.

One reason for teaching modern mathematical logic rather than syllogistic logic is to prepare students to participate in those philosophical research programmes that depend on it. It is, of course, one of the aims of an undergraduate degree to prepare students for postgraduate study, but not the only one. When philosophy is widely studied within modular schemes, only a tiny minority of philosophy undergraduates progresses to postgraduate work, and of these a yet smaller minority works on the sort of philosophy that demands mastery of modern logic. So this is only a weak reason for subjecting all philosophy undergraduates to extensive and possibly compulsory mathematical logic.

So the case *against* teaching syllogistic logic is weak, but to justify making time for syllogistic in the syllabus we need some positive reasons for teaching it. These come in two groups: there are the benefits that arise from teaching syllogistic logic on its own, and

there are the benefits that arise from the contrast made available by teaching syllogistic and mathematical logic together.

In the first group, there is the fact that the categorical sentences of syllogistic logic look like sentences of natural language. Those students who panic at the sight of a blackboard covered in mathematical symbols find syllogistic logic less intimidating. The force of this point really depends on the student body; where philosophy is taught as part of a humanities scheme, many of the students will have deliberately done no mathematics since GCSE. Recent years have seen a decline in mathematics in schools and a flight from most of the numerate disciplines in universities. Philosophers should take account of this. As mentioned already, syllogistic logic offers a way to achieve most of the general goals of logic teaching listed above with those students who simply would not cope with mathematical logic.

Second, syllogistic offers two tests for validity: Venn diagrams and the theory of distribution. Having two tests for validity makes vivid and concrete the distinction between the concept of validity itself, and the means of testing for it. In mathematical logic, these can be obscured as students often learn by rote a technique for testing for validity, without really grasping the notion itself (they might, of course, learn more than one technique in mathematical logic too, but this is a much greater undertaking than learning both syllogistic techniques).

A third motivation for teaching syllogistic logic arises from the historical character of philosophical training. Philosophy students are taught largely through the classic texts of the discipline, many of which predate mathematical logic. Those great dead philosophers who wrote before Frege and who placed logic near the centre of their philosophical projects are difficult to read unless one appreciates the shortcomings of the logic with which they were equipped. Consider, for example, Leibniz's definition of truth, or Kant's definition of analyticity. These definitions were supposed to encompass the whole of rational discourse, but they are cast in the impoverished logic of their times and are therefore restricted to its narrow scope (categorical statements and simple conditionals). This leaves our two historical rationalists struggling to get their basic philosophical machinery to work. These struggles make the texts less clear than they might

otherwise have been, and consequently, the relevant passages are barely intelligible unless one learns a bit of syllogistic logic first. If we are serious about getting students to read primary sources, we have to give them the means to make sense of them. For early modern rationalists, amongst others, that includes syllogistic logic.

Further motivations appear when we consider the contrast between syllogistic and mathematical logics. With both kinds of logic in view, it is easy to raise the question of the existential import of universally-quantified sentences. Syllogistic logic usually takes it that if *all S are P* then there must be some Ss, while  $\forall x(Sx \rightarrow Px)$  may be true even if there is no  $x$  such that  $Sx$ . In other words, syllogistic logic assumes that universally-quantified sentences *do* have existential import, while mathematical logic assumes that they *do not*. Natural-language examples can push one's intuitions either way, and this naturally leads to a discussion about the relation between ragged, unsystematic natural languages and perfectly tidy formal languages. This example helps students to see that the tidiness is achieved at the cost of some arbitrariness and insensitivity to particular cases.

One of the weaknesses of many undergraduate modules in mathematical logic is that students are presented with just one logical system, and go away thinking that there is only one. There is no prospect of teaching so-called deviant logics as a matter of course, so students may imagine that the 'correct' analysis of the logical form of a sentence is unproblematic and philosophically uninteresting. At least if they learn syllogistic and mathematical logics together, they can see that there may be more than one way to analyse a given sentence. Tutors can use this to remove some of the authoritarian arbitrariness of logic teaching. To return to the example of existential import, some students will feel inclined to agree with Aristotle. We teachers of syllogistic logic don't have to say, "I know you feel that  $\forall x(Sx \rightarrow Px)$  makes sense only if there are some Ss, but in this system it is true when there is no S, and this is the system you'll be examined on, so shut up". Of course, no-one would say anything quite like that, but the effect of teaching mathematical logic only can be the same. If students do not see their intuitions reflected anywhere in the syllabus, they become alienated from it. And for a teacher trying to make the conventions of mathematical logic seem plausible, it is tempting to brush unhelpful intuitions aside (as kindly as possible, needless to

say). With syllogistic in view, we can say, “Some great logicians of the past agreed with you about this, and that is why their system was set up thus. But the cost of assuming existential import for universally-quantified sentences is....” What were unhelpful intuitions are now the basis for a meta-logical discussion.

Whenever possible, logic teachers should find and discuss respectable logicians who share the intuitions commonly experienced by students. Otherwise students may feel that their objections to some of the arbitrariness of logical theory have been ignored rather than answered. To conclude, let me give another example of this. The traditional square of oppositions divides categorical sentences thus:

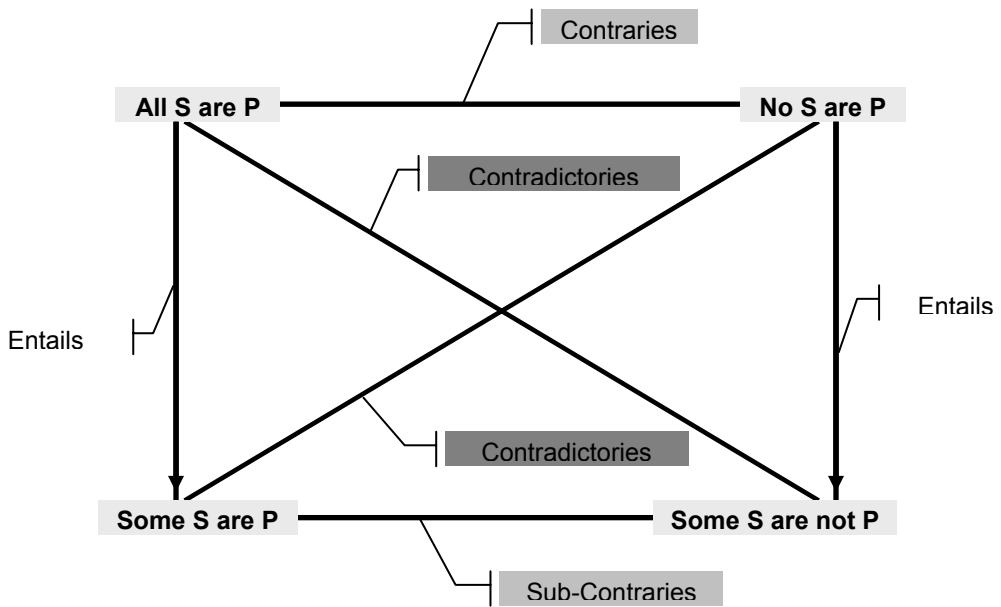


Fig. 1 Square of Opposition

This can conflict with natural intuitions because for good Gricean reasons, ‘Some S are P’ normally entails that some S are not P. Otherwise, one would say ‘All S are P’, or ‘As far as we know, all S are P’. It may be significant here that natural languages do not have single words to refer to the bottom right-hand corner, the particular

negative. Perhaps instead of a square of opposition there should be a triangle of contraries:

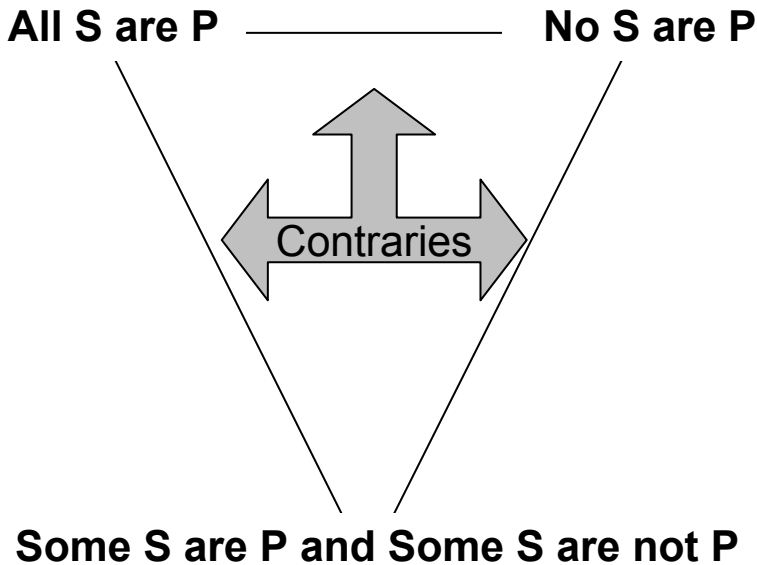


Fig 2. Triangle of Contraries

This though is a rather impoverished basis for logic. Instead, the French logician Robert Blanché proposed a hexagon of oppositions, formed from the traditional square by adding ‘Some S are P and some S are not P’ at the bottom and ‘All S are P or No S are P’ at the top (*Sur l’opposition des concepts*’ *Theoria* vol. **19** (1953) pp. 89-130). There is no need to explore this idea in detail; a mention of it will reassure students that their natural intuitions are not silly or evidence of a lack of talent for logic. On the contrary, the student who spontaneously sniffs out the oddness of saying ‘Some S are P’ and meaning ‘Some, possibly all, S are P’ is to be praised.

Finally, let me offer some evidence that syllogistic logic is intellectually interesting as well as pedagogically and historically useful. Another French logician, Jean-Yves Béziau, has taken Blanché’s hexagonal model and generalised it to include modal operators and non-standard forms of negation (para-consistent and para-complete). This gives him enough hexagons to create a stellar

dodecahedron of oppositions. This is tantamount to a representation theorem for modal logic in solid geometry. As a result, relationships between modal logics can be modelled using coloured sticks and blobs of putty.



# Notes on Teaching Logic

## Discussion Article

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**Peter Milne**

School of Philosophy, Psychology and Language Sciences  
University of Edinburgh

**T**hese notes don't reach any conclusions. Their purpose is to point to issues one needs to think through seriously when thinking about logic teaching. They indicate some of the relevant literature where some of these issues are addressed, but they also raise points that seem to have been overlooked. They aim to promote informed discussion. That indeed was their origin: they are descended from an internal discussion document prepared a few years ago when the then Department of Philosophy at the University of Edinburgh was reviewing its logic teaching.

## §1 Three views of the aim and purpose of logic teaching

**1.1** The fundamental issue that must be resolved before questions of course content and teaching methods can be addressed is the aim and purpose of teaching logic. Closely tied to it are questions regarding the role of logic in philosophy and the nature of logic itself.

There are, it seems to me, three overlapping views of the purpose of teaching logic: I'll call these the therapy, the toolkit, and the body-of-knowledge views. Summarising each:

### 1.2 *Therapy*

We teach students logic so that they become better able to recognize and to construct good arguments themselves in philosophy and other disciplines.

### 1.3 *Toolkit* (or *organon* if you prefer the classical allusion)

Formal logic is an indispensable tool (weapon) in the toolbox (arsenal) of every philosopher (or at least every analytic philosopher). The most obvious occasions when logic is used in this way occur when the formal language of first-order logic is invoked for the perspicuous representation and/or disambiguation of theses whose natural language expression is less than straightforward. The toolkit view suffers the disadvantage that it is paid lip-service but no more: in teaching philosophy we often fight shy of using logic outside philosophy of science and philosophy of language. Rarely is epistemic logic employed in teaching epistemology; even less frequently is deontic logic used in teaching moral philosophy.<sup>1</sup> If the toolkit view is intended seriously then logic ought to be integrated into the teaching of other parts of philosophy, most obviously metaphysics and epistemology but also other areas. I know of only one example of a textbook that adopts this line: William Brenner's *Logic and Philosophy: An Integrated Introduction*.<sup>2</sup>

### 1.4 *Body-of-knowledge*

Much as in, say, an introductory course in moral philosophy there is a standard set of concepts, theories involving those concepts, forms of argument and ragbag of tricky cases that is played off against moral intuitions, and perhaps used to subject those intuitions to critical scrutiny and to refine them, so logic comprises a similar stock of

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<sup>1</sup> 'One reason why an understanding of logical notation [is] essential [is] the practical one that it is often used in the books and articles which students are required to read. Students would have a greater motivation to master the symbolism if it were used more often by non-logic teachers.' From the online report on the session 'Overcoming Fear of Formal Notation, and Making Logic More Attractive' at the PRS-LTSN's first Teaching Logic meeting, University of Leeds, 22nd February, 2002. <http://www.prs-ltsn.ac.uk/philosophy/events/logicrep.html> .

<sup>2</sup> William Brenner, *Logic and Philosophy: An Integrated Introduction*, University of Notre Dame Press, 1993.

concepts, theories, forms of argument, and tricky cases that is played off against intuitions about “what follows from what”. This much logic has in common with, to stay with the example, moral philosophy on the body-of-knowledge view, but it also differs in that, like the sciences rather than other parts of philosophy, it aims at a systematic account of a body of “phenomena” on which there is good agreement; moreover it makes appeal to formal methods of representation (a feature of logic that goes back at least to Aristotle’s schematic use of letters and the Stoics’ of ordinal numbers) and formal techniques. Unlike the sciences, the standards of assessment are not by-and-large empirical; unlike mathematics, logical theories can be assessed critically much in the way moral theories are. (A defect of much logic teaching and many logic textbooks is to present the subject as cut-and-dried, ignoring the sometime fractious debates in logic—or in the philosophy of logic, if you prefer—that have occurred especially in the twentieth century. Many of these debates are not so recondite that the issues cannot profitably be raised in undergraduate and even first-year teaching.)

1.5 I have devoted most space to the body-of-knowledge view as it tends to be overlooked in discussions of logic teaching. (For example, I discern no trace of it in Helen Beebee’s ‘Introductory Formal Logic: Why do we do it?’<sup>3</sup>.) The three views do overlap, especially the therapy and toolkit views, so that arguments both for and against aspects of logic teaching practice may presuppose elements of more than one of these perspectives.

## §2 Logic and reasoning

2.1 Neither the therapy nor the toolkit view immediately suggests that the benefits of education in logic should be limited to philosophy. Indeed, one of the familiar defences of logic teaching is that it imparts a transferable skill, i.e. one which can be put to good use in other branches of philosophy and in other disciplines. What evidence is there that this is so? Precious little, as Alec Fisher observes:

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<sup>3</sup> Helen Beebee, ‘Introductory Formal Logic: Why do we do it?’, *Discourse: Learning and Teaching in Philosophical and Religious Studies*, 3/1 (2003), 53-62.

Like many others I hoped that teaching logic would help my students to argue better and more logically. Like many others, I was disappointed. Students who were well able to master the techniques of logic seemed to find that these were of very little help in handling real arguments. The tools of classical logic ... just didn't seem to apply in any straightforward way to the reasoning which students had to read in courses other than logic.<sup>4</sup>

This experience is in line with the ideas of psychologists such as William James, Jean Piaget and Peter Wason, who have all denied that training in following systems of abstractly presented rules has any effect on everyday reasoning. Fisher has a ready explanation:

[I]f you look at almost any modern formal logic book you will be struck by the remoteness of its examples from the kind of reasoning anyone would actually use. [...] Not only are most of the examples discussed by modern logic remote from real reasoning, modern logic explicitly restricts attention to reasoning of very particular kinds. [...]

For modern formal logic, the object of study is mostly the kind of argument which can be displayed on the model of a mathematical proof, leading from premises to conclusion, aimed at a universal or no particular audience, and evaluated in terms of whether it 'establishes' its conclusion by generally objective standards and *not at all* in terms of whether it convinces the intended audience.<sup>5</sup>

Moreover, the model of mathematical proof in question belongs to what philosophers of science call the context of justification: it is an idealization of the sort of mathematical proof one finds in expositions of mathematical results or theories from Euclid on. It has little to tell us about how to find, construct and develop arguments and for just this reason has been held to do a disservice to mathematical education.<sup>6</sup> What goes for mathematical education presumably goes doubly for philosophical education. Fisher urges that we philosophers

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<sup>4</sup> Alec Fisher, *The Logic of Real Arguments*, Cambridge University Press, 1988, p. vii.

<sup>5</sup> Alec Fisher, 'Re-engaging with Real Arguments', in A. Phillips Griffiths (ed.), *The Impulse to Philosophise*, Royal Institute of Philosophy Supplement: 33, Cambridge University Press, 1992, p. 90 (emphasis in the original).

<sup>6</sup> Morris Kline, 'Logic versus Pedagogy', *American Mathematical Monthly*, 77/3 (1970), 264-82.

leave formal logic to computer scientists and seek elsewhere for a general theory or science of reasoning.<sup>7</sup>

**2.2** Fisher's conclusion is much too hasty, not least because it fails to take account of alternatives to the therapy and toolkit views of the purpose of logic teaching. It fails to distinguish between logic and a descriptive science of reasoning. It fails to do justice to the hard-won insight that, in Ramsey's phrase, logic is a normative science; logic, since Frege, has been clearly separated from psychology. Logic is "the ethics of belief";<sup>8</sup> in Frege's terms it seeks "the laws of truth", not "the laws of thinking".<sup>9</sup> This is not to say that formal logic has no connexion with ordinary reasoning. Of course it does, and the criteria formal logic uses for the evaluation of what it considers to be arguments are arrived at in the attempt to achieve reflective equilibrium between, on the one hand, intuitions about good inferential practices and the aims of deductive inference and, on the other, our systematic (and usually formal) theories of valid inference. (The theories involve both syntactic specification of rules of inference and criteria for the semantic evaluation of inferences.)

**2.3** Given this view of the nature of logical inquiry, it would not be in the least surprising if the typical examples of reasoning considered in a first logic course are somewhat stilted and artificial: one aims first to obtain a viable theory that treats these cases adequately before tackling the full range and subtlety of argument in everyday usage.<sup>10</sup> As in any scientific enterprise there are hazards in artificially isolating

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<sup>7</sup> Fisher, 'Re-engaging ...', p. 107.

<sup>8</sup> Michael Resnik, 'Logic: Normative or Descriptive? The Ethics of Belief or a Branch of Psychology?', *Philosophy of Science*, **52** (1985), 221-38.

<sup>9</sup> See Wolfgang Carl, *Frege's Theory of Sense and Reference: Its Origin and Scope*, Cambridge University Press, 1994, Chapters 1 & 2, for an extended discussion of this aspect of Frege's philosophy of logic.

<sup>10</sup> Be it noted that in their recent textbook, *Critical Thinking: A Concise Guide* (Routledge, 2002), Tracy Howell and Gary Kemp say (p. viii),

We do not entirely accept the view that examples in a book on critical thinking should be real, or even realistic. [...] Unrealistic, trumped-up examples are often much more useful for illustrating isolated concepts and points of strategy.

cases, but there are also rewards for by doing so one cuts down the range of phenomena to be dealt with initially to a manageable size. One then extends the resulting theory with the aim of progressively accommodating the diversity and complexity of actual cases. This is the case with logic too, where there are, e.g. modal, temporal, deontic and epistemic extensions of propositional and first-order logic which draw into the ambit of formal logic types of inference not amenable to standard logic.

The development of expert systems in artificial intelligence has spawned a vast amount of work attempting to model in greater detail everyday reasoning (or at least the better episodes in the everyday reasoning of experts). What is important here is that this work is much less a corrective to the logic familiar to philosophers than an extension of it: the methods and results of, primarily, first-order logic are presupposed in the work of those who seek to systematize the very sorts of argumentation that Fisher claims are remote from those examined in the teaching of elementary logic.<sup>11</sup> As Paul Krause and Dominic Clark say:

The irony is that the formal models of practical reasoning ... are more complex than classical logic; it is harder to grasp the intuitions that underlie them, and they are computationally intractable in the general case.<sup>12</sup>

**2.4** It should perhaps be pointed out that none of the above shows that the techniques for the evaluation of arguments that are taught in

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So, is, then, the difference between the unnatural arguments of formal logic and the unnatural arguments of critical thinking one of kind, of degree, or is there no difference on this score?

<sup>11</sup> For introductions to the extensions of first-order logic used in the design of expert systems see Gerhard Brewka, *Nonmonotonic Reasoning: Logical Foundations of Commonsense*, Cambridge University Press, 1991, Brewka, Jürgen Dix and Kurt Konolige, *Nonmonotonic Reasoning: An Overview (CSLI Lecture Notes, vol. 73)*, CSLI Publications, 1997, or Karl Schlechta, *Nonmonotonic Logics: Basic Concepts, Results, and Techniques (Lecture Notes in Artificial Intelligence, vol. 1187)*, Springer, 1997. For a brief, nontechnical discussion of some of the issues see David Israel, 'The Role of Logic in Knowledge Representation', *Computer*, **16/10** (1983), 37-41.

<sup>12</sup> Paul Krause and Dominic Clark, *Representing Uncertain Knowledge: An Artificial Intelligence Approach*, Kluwer Academic Press and Intellect Books, 1993, p. 191 of the Intellect edition.

formal logic cannot be applied to arguments encountered in philosophy and other disciplines. They can, sometimes with a great deal of success. Furthermore, even if the techniques cannot always be applied, this is not to say that the discipline instilled in the mastering of the techniques is not indirectly beneficial. This takes us back to a claim of Ryle's, who likened the learning of formal logic to the parade-ground drill of soldiers: the drills are not performed on the battlefield but it is because of the discipline instilled in drilling that the soldier can perform effectively on the battlefield.<sup>13</sup>

**2.5** Because most of the critical discussion of the teaching of formal logic has concentrated on its inapplicability to “real arguments”, I have concentrated here on the application of formal logic to arguments. This disregards other uses of formal logic, such as the perspicuous representation of logico-grammatical form and the development of the semantics of perspicuously represented forms. Parallel to the debate on argument, move and counter-move can be made: formal logic deals with a narrow range of examples; divide and conquer; the semantics of more complex forms is not straightforward as, say, Russell's theory of descriptions and Davidson's analysis of the logical form of action sentences shows; the project of formal semantics in linguistics does not, by-and-large, correct but builds upon the results and methods of formal logic, and in any case issues in analyses more complex than those encountered in a first course in formal logic.<sup>14</sup>

### **§3 Critical thinking and informal logic**

**3.1** Especially in North America, the critical thinking and informal logic movement has gained much ground in the past thirty to thirty-

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<sup>13</sup> Ryle's analogy came up again in the Leeds PRS-LTSN Teaching Logic meeting. In the online summary of ‘Overcoming Fear of Formal Notation ...’ it is reported,

If students complained that logic cannot be applied directly to philosophical arguments, they could be told that it is like military drills, which are different from what you do in battle, but none the less necessary training.

Fisher casts doubt on the aptness of the analogy, ‘Re-engaging with Real Arguments’, p. 94.

<sup>14</sup> On formal semantics, see, e.g., the papers collected in Paul Portner and Barbara H. Partee (eds.), *Formal Semantics: The Essential Readings*, Blackwell, 2002.

five years. Many have converted to the movement for reasons similar to Fisher's: disappointment with the results of teaching formal logic and dissatisfaction with its perceived lack of application to ordinary reasoning. (Notice that the therapy view is often an implicit, if not explicit, presupposition of those who follow this route into the movement.) Further impetus was given by the revival of interest in rhetoric due in significant part to the work of Chaim Perelman.<sup>15</sup> Fisher likens the present debate on logic teaching to a Kuhnian scientific revolution, critical thinking/informal logic being the new paradigm now competing against the old mathematics-based model. To his credit he notes that, as such, the movement is confused and exploratory.<sup>16</sup> Some of the confusion is worth exploring further.

### 3.2 *Critical thinking vs. informal logic*

As is common practice I have written of the critical thinking and informal logic movement and for many authors the only distinction to be drawn is that, perhaps, critical thinking has a broader compass. For others there is not just difference but opposition. The basis of their claim is a distinction between, on the one hand, informal logic as a "logic of argumentation", especially practical, everyday argument, differing from formal logic in its use of non-formal methods in analysis and evaluation,<sup>17</sup> and, on the other, critical thinking as a

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<sup>15</sup> See, e.g., Chaim Perelman and Lucie Olbrechts-Tyteca, *The New Rhetoric: A Treatise on Argumentation*, University of Notre Dame Press, 1969. (Translation of French original from 1958.)

<sup>16</sup> Fisher, 'Re-engaging ...', pp. 95 and 106-7.

<sup>17</sup> Informal logic stresses non-formal methods in analysis and evaluation. Thus Ralph Johnson and J. Anthony Blair said,

By informal logic we mean to designate a branch of logic which is concerned to develop informal standards, criteria, procedures for the analysis, interpretation, evaluation, critique and construction of argumentation in everyday discourse.

'The Current State of Informal Logic and Critical Thinking', *Informal Logic*, 9/2-3 (1987), 147-51, p. 147.

More recently they have described informal logic as 'a complex mix of practical and theoretical enterprises related to argument evaluation' ('Informal Logic in the Twentieth Century', in Douglas Walton and Alan Brinton (eds.), *Historical Foundations of Informal Logic*, Ashgate, 1997, p. 160).

A "logic of argumentation" can be approached formally, in which case techniques and notations similar to those of orthodox formal logic return; see, e.g., F. van Eemeren *et al.*, *Handbook of Argumentation Theory*, Foris, 1987, §3.4. Michael Gilbert gives a brief history of argumentation theory in Ch. 1 of his



discipline often said to be closer to epistemology than logic, a sort of mental hygiene practised so as to encourage critical attitudes to arguments and their construction. Thus John McPeck has said that ‘critical thinking can be described as the propensity and skill to engage in an activity with reflective scepticism’;<sup>18</sup> Mark Battersby has claimed that critical thinking concerns epistemological norms rather than rules of logic and has likened it to applied ethics.<sup>19</sup> Trudy Govier, author of *A Practical Study of Argument*,<sup>20</sup> one of the most highly regarded of the second generation of textbooks in the area, asserts that critical thinking ought to go beyond the analysis and criticism of arguments, both in the modes of evaluation it employs and in considering types of discourse other than arguments.<sup>21</sup> Harvey Siegel maintains that an epistemology underlies critical thinking, the latter being concerned with the warrants for belief and the performance of actions on the basis of reasons.<sup>22</sup> (Unexpectedly, one line of complaint some proponents of informal logic run against critical thinking is the latter’s dependence on the methods of formal logic in evaluating arguments.<sup>23</sup>)

Informal logic textbooks often comprise little more than a dilution of formal logic, including elements of propositional logic and

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*Coalescent Argumentation*, Lawrence Erlbaum, 1997. For a recent overview of the discipline, see van Eemeren, ‘Argumentation: an overview of theoretical approaches and research themes’, *Argumentation, Interpretation, Rhetoric* (online journal), issue 2 (2002) at [http://www.argumentation.spb.ru/2002\\_1/papers/1\\_2002p4.html](http://www.argumentation.spb.ru/2002_1/papers/1_2002p4.html).

<sup>18</sup> John E. McPeck, *Critical Thinking and Education*, Robertson, 1981. In Ch. 4 the author contrasts critical thinking and informal logic.

<sup>19</sup> Mark Battersby, ‘Critical Thinking as Applied Epistemology: Relocating Critical Thinking in the Philosophical Landscape’, *Informal Logic*, 11/2 (1989), 91-100. Battersby, it should be noted, does not distinguish critical thinking from informal logic in this regard; in his opinion, informal logic should also be applied epistemology.

<sup>20</sup> Trudy Govier, *A Practical Study of Argument*, Wadsworth, 1985.

<sup>21</sup> Trudy Govier, ‘Critical Thinking as Argument Analysis?’, *Argumentation*, 3/2 (1989), 115-26.

<sup>22</sup> See, e.g., Harvey Siegel, ‘Educating Reason: Critical Thinking, Informal Logic, and the Philosophy of Education’, *Informal Logic*, 7/2-3 (1985), and ‘Epistemology, Critical Thinking, and Critical Thinking Pedagogy’, *Argumentation* 3/2 (1989), 127-40.

<sup>23</sup> See, e.g., Ernest Marshall, ‘Formalism, Fallacies, and the Teaching of Informal Logic’, in F. van Eemeren et al. (eds.), *Argumentation: Analysis and Practices*, Foris, 1987, pp. 386-93.

traditional syllogistic together with a strong emphasis on classifying fallacies under either traditional terms or the author's own—‘The bread and butter of the informal logician is the fallacy’<sup>24</sup>—and so ignore rhetorical topics such as the persuasiveness of arguments. As Brenner observes, a danger lurks:

It is better to forget all the fallacy labels learned ... than to develop an “uncritically critical” attitude in our use of them. For unless we get in the habit of carefully justifying our applications of fallacy labels, we may be adding to the sophistry in the world rather than combatting it.<sup>25</sup>

A further danger is that without some theoretical framework in which to place the activity of fallacy-spotting it can lead to an overemphasis on the particular at the expense of the general and a negative view of logic and reasoning as taught subjects.<sup>26</sup> Leo Groarke and Christopher Tindale suggest that if criteria for constructing good arguments are to be taught more than the avoidance of fallacies must be invoked: the negative criteria testing for bad arguments that are provided by fallacies must be used as a basis on which to construct positive criteria for good arguments.<sup>27</sup> Formal, rather than informal, logic may have a

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<sup>24</sup> Gilbert, *Coalescent Argumentation*, p. 22. An overstatement to be sure, but one with more than a grain of truth in it. For a more nuanced account of the (evolving) content of informal logic see §§2 & 5 of Leo Groarke, “Informal Logic”, *The Stanford Encyclopedia of Philosophy* (Winter 2003 Edition), Edward N. Zalta (ed.), <http://plato.stanford.edu/archives/win2003/entries/logic-informal/>.

<sup>25</sup> Brenner, *Logic and Philosophy*, p. 89.

<sup>26</sup> Ideas as to which inferences are instances of fallacies and why have changed from Aristotle to the present day; there is also theoretical disagreement amongst contemporary theorists as to the nature of fallacies. See van Eemeren *et al.*, *Handbook ...*, pp. 90-94.

Intending, I believe, no distinction between critical thinking and informal logic, Claude Gratton, ‘Counterexamples by Possible Conjunction and the Sufficiency of Premises’, *Teaching Philosophy*, **26**/1(2003), 57-81, pp. 57-8, complains that while producing counterexamples aplenty to demonstrate the fallaciousness of various fallacies ‘a surprising number of critical thinking textbooks’ offer little or nothing in the way of advice on the construction and evaluation of counterexamples. On why the evaluation of counterexamples is no simple matter see Adrian Heathcote, ‘Abductive inference and invalidity’, *Theoria*, **61**/3 (1995), 231-260.

<sup>27</sup> Leo Groarke and Christopher Tindale, ‘Critical Thinking: How to Teach Good Reasoning’, *Teaching Philosophy*, **9**/4 (1986), 301-17. Groarke and Tindale pursue

role to play here<sup>28</sup> as may formal methods akin to those developed in formal logic. Douglas Walton, one of the most prolific authors in informal logic and argumentation theory, informs us that

[The] new [informal] logic is, or should be, based on new theoretical foundations including abstract structures of formal dialogues and pragmatic structures of discourse analysis.<sup>29</sup>

The theoretical framework behind informal logic is likely to be more, not less, complex than formal logic.

### 3.3 *Critical thinking vs. informal logic vs. argumentation theory*

While some clearly do not see much difference between critical thinking, informal logic, and argumentation theory, for others the dispute over aims and methods can become a little heated. Thus on the one hand Gerhard Preyer and Dieter Mans, editors of a volume of *ProtoSociology* on reasoning and argumentation, say, ‘Since the 70’s there are broad researches on the theory of argumentation called “informal logic” and “critical thinking”’, going on to clarify that they

prefer the terms “analysis of arguments” and “theories of argumentation” over “informal logic” or “critical thinking” simply because the word “argumentation” points to the type of work we are doing.<sup>30</sup>

On the other hand, McPeck, champion of critical thinking, complained that textbooks in informal logic ‘are too preoccupied with getting on with the business of naming and describing fallacies to devote much space to explaining precisely what informal logic is supposed to be’. Aware that proponents of neither would like the comparison, he likened informal logic to classical rhetoric.<sup>31</sup>

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this approach in their text-book, *Good Reasoning Matters!: A Constructive Approach to Critical Thinking* (third edition), Oxford University Press, 2004.

<sup>28</sup> See W. Kistner, ‘A Note on Formal Logic in Teaching Critical Thinking’, *South African Journal of Philosophy*, 7/2 (1988), 123-5.

<sup>29</sup> Douglas Walton, *Informal Logic: A Handbook for Critical Argumentation*, Cambridge University Press, 1989, p. xi.

<sup>30</sup> Gerhard Preyer and Dieter Mans, ‘On Contemporary Developments in the Theory of Argumentation’, *ProtoSociology: An International Journal of Interdisciplinary Research*, 13 (1999), 3-14, p. 3.

<sup>31</sup> McPeck, *Critical Thinking in Education*, pp. 67 & 68.

Later he was to continue the attack,

It is clear to [Harvey] Siegel, and to me, that the ILM [Informal Logic Movement], continues to proceed along a high-profile path without the slightest knowledge of the more serious literature in the philosophy of education.<sup>32</sup>

On why that's not the *non sequitur* it may appear to be, note Groarke's characterization of the Critical Thinking Movement 'which has as its goal the development of a model of education which places more emphasis on critical inquiry'.<sup>33</sup> In the hands of some of its advocates, critical thinking aims at a restructuring of the whole practice of education at all levels.<sup>34</sup>

Writing in 1981, McPeck called 'correct' the opinion expressed by Ralph Johnson and Anthony Blair that 'there is not, at the moment, anything resembling an adequate theory of argument'.<sup>35</sup> It is startling, two decades later, to find Frans van Eemeren, mainstay of the Amsterdam school of argumentation theorists, expressing in similarly trenchant manner, similar qualms about the lack of precision in the methods of informal logic:

Blair and Johnson have indicated what they have in mind when they speak of an informal logical alternative for the formal criterion of deductive validity. In their view, the premises of an argument have to meet three criteria: (1) relevance [to the conclusion], (2) sufficiency and (3) acceptability. These criteria are introduced in Johnson and Blair (1977 [= 'The Current State of Informal Logic and Critical Thinking']) and they are, sometimes under different names, adopted by other informal logicians ... . In the case of 'relevance' the question is whether there is an adequate (substantial) relation between the premises and the conclusion of an argument; in the case of 'sufficiency' the question is whether the premises provide enough evidence for the conclusion; in the case of 'acceptability' the question is whether the premises themselves are true, probable or

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<sup>32</sup> John McPeck, *Teaching Critical Thinking: Dialogue and Dialectic*, Routledge, 1990, p. 122. This book comprises a selection of McPeck's articles, critical comments by Paul and Siegel *inter alia*, and McPeck's responses.

<sup>33</sup> Groarke, 'Informal Logic', introduction.

<sup>34</sup> See, e.g., Mark Weinstein, 'Critical Thinking: Expanding the Paradigm', *Inquiry: Critical Thinking Across the Disciplines*, XV/1 (1995), 23-39.

<sup>35</sup> McPeck, *Critical Thinking in Education*, p. 78.

in some other way trustworthy. None of the criteria has been more clearly defined.

Informal logic is not yet a fully-fledged theory of argumentation.<sup>36</sup>

### 3.4 *Critical thinking as a learnable skill*

Probably the single most important controversy within the critical thinking and informal logic movement has concerned whether critical thinking/informal logic can be taught as a “contentless”, context independent subject. John McPeck has been most prominent in the attack, Robert Ennis, Richard Paul and Harvey Siegel in the defence.<sup>37</sup> McPeck maintains that (i) critical thinking cannot be reduced to a collection of subject-independent logical rules and that (ii) the evaluation of arguments involves context-dependent information. The information needed is not necessarily common knowledge, often being highly specialized. Moreover, what count as good reasons depends on the field in question, so even given the requisite, possibly context-dependent, information the criteria of evaluation may also depend on the context. McPeck’s view makes transferability of critical thinking skills from one domain to another unlikely, though not impossible.

This would not be the proper context in which to evaluate McPeck’s extensive writings and the large counter-literature even were I competent to do so. Two observations are in order, though. Firstly, while much disputed in North America McPeck’s views are orthodoxy in the United Kingdom critical thinking/informal logic movement.<sup>38</sup> Secondly, at least with respect to background

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<sup>36</sup> van Eemeren, ‘Argumentation: an overview ...’, §3.2. van Eemeren’s strictures are perhaps too harsh. David Hitchcock, ‘Relevance’, *Argumentation*, 6 (1992), 251-70, provides an extended treatment of relevance although not one that lends itself to formal representation.

<sup>37</sup> See McPeck, *Teaching Critical Thinking*.

<sup>38</sup> As reported by Fisher, ‘Effective Learning and the Critical Thinking Movement’, in M. Coles and W. Robinson (eds.), *Teaching Thinking: A Survey of Programmes in Education*, Classical Press, 1991. The observation is endorsed by Victor Quinn, ‘In Defence of Critical Thinking as a Subject: If McPeck is Wrong He is Wrong’, *Journal of Philosophy of Education*, 28/1 (1994), 101-11, who argues against the orthodoxy. It is endorsed again, more recently, by Rupert Wegerif, *Literature Review in Thinking Skills, Technology and Learning (NESTA Futurelab Report 2)*, NESTA Futurelab, 2002, p. 12, citing Stephen Johnson, *Teaching Thinking Skills (IMPACT 8)*, Philosophy of Education Society of Great Britain, 2000, in support of

information the context dependence is similar to the problems besetting the work on knowledge representation and expert systems in artificial intelligence mentioned in §2.3 above.

There is debate as to whether critical thinking is a skill or an ability or neither. John Passmore likens it to a character trait that is to be fostered.<sup>39</sup> Others see critical thinking as an ability requiring, as McPeck would insist, understanding of particular disciplines, and not reducible to mastery of certain skills.<sup>40</sup>

Empirical tests on the teaching of critical thinking yield equivocal evidence, not least because it is far from clear that the numerous extant tests measure what they purport to measure and the experimental methodology is sometimes doubtful. Also, some tests deal with subject-specific teaching of critical thinking, not critical thinking as a transferable skill. Among claims made on the basis of empirical research are these: that just one year of university or college education, independently of discipline, suffices to enhance ability in critical thinking; that education in philosophy generally (i.e. philosophy, not logic) increases ability in critical thinking; that while conventional education does improve critical thinking, teaching reasoning skills improves it more except among those who think ably initially, who may be adversely affected. The testing methods used have come in for a good deal of empirical evaluation and theoretical criticism, not least from McPeck.

Tim van Gelder has surveyed various tests of the efficacy of critical thinking teaching and comes to admittedly tentative but none the less cautionary conclusions, of which these two stand out:

Currently it is difficult to make a convincing case—i.e., one that would survive hard scrutiny from good critical thinkers—that CT courses are of any substantial benefit. On one hand there are various studies indicating no significant benefit from CT instruction. On the other, there are some studies which do appear to find some benefit.

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the claim that ‘in Britain something like this [McPeck’s] position appears to have strong support amongst philosophers of education’.

<sup>39</sup> John Passmore, *The Philosophy of Teaching*, Harvard University Press, 1980, Ch. 9.

<sup>40</sup> See, e.g., Robin Barrow, ‘Skills Talk’, *Journal of Philosophy of Education*, **21/2** (1987), 187-95.

The belief, common among CT teachers, that CT courses are better for improving CT than formal logic courses does not appear to be supported by the available evidence, such as it is.

Hardly surprising, then, that he draws the conclusion that ‘there is a serious need for more and better research on this issue’.<sup>41</sup>

**3.5** The fires that raged in the 1980s and early 1990s seem to have died down. The “Great Debate” seems to have fizzled out in dull compromise, recognition that

Different elements may be either general or specific in different ways on different occasions of their use. The issue is less whether there are general elements to be employed, but at which level of generality skills components are most effectively identified and at which level they are most efficacious for teaching and learning in different contexts.<sup>42</sup>

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<sup>41</sup> Timothy van Gelder, ‘The Efficacy of Undergraduate Critical Thinking Courses: A Survey in Progress’, Preprint 1/2000, online at <http://www.philosophy.unimelb.edu.au/reason/papers/efficacy.html>. In reviewing the more general literature on the teaching of thinking skills in pre-university education, the same conclusion, that more research in the evaluation of programmes for teaching thinking skills is needed, was reached by John Nisbet, *Teaching Thinking: an Introduction to the Research Literature (SCRE Spotlight, 26)*, Scottish Council for Research in Education, 1990, and, ten years later, by Valerie Wilson, *Can Thinking Skills be Taught? (SCRE Spotlight, 79)*, Scottish Council for Research in Education, 2000.

In ‘Critical thinking: Some lessons learned’, Adult Learning Commentary Number 12, 30 May 2001 (online at <http://www.ala.asn.au/commentaries/2001/Gelder3005.pdf>), van Gelder briefly shares some of the lessons he has learned concerning the teaching of critical thinking.

<sup>42</sup> Mark Weinstein, ‘Critical Thinking: The Great Debate’, *Educational Theory*, **43/1** (1993), 694-720. The deeper issues that Weinstein identifies as still outstanding mesh to some extent with feminist concerns about logic, argument, and reason. See, e.g., Phyllis Rooney, ‘Feminism and Argumentation: A Response to Govier’, (online at [http://venus.uwindsor.ca/faculty/arts/philosophy/ILat25/edited\\_rooney.doc](http://venus.uwindsor.ca/faculty/arts/philosophy/ILat25/edited_rooney.doc)), a paper presented at IL@25, University of Windsor, May 2003; see also, e.g., Rooney, ‘Recent Work in Feminist Discussions of Reason’, *American Philosophical Quarterly*, **31/1** (1994), 1-21, and the Symposium on Feminism and Reason, *Australasian Journal of Philosophy*, **71/4** (1993).

[T]here are general cognitive skills; but they always function in contextualized ways.<sup>43</sup>

Few experts in the field would now support the claim that universal thinking skills exist outside any context. Thinking skills are not an abstract logical structure. They are embodied practical skills that are learnt in a context and then, often with the help of teachers, taken out from that context to be applied in a new context. If these relatively general skills are taught in an abstract form, then careful work needs to be done by teachers to embed them in a context where they can be applied.[...]

Few experts in the field would now support the claim that there are universal thinking skills or completely general strategies for learning and problem solving. However there is consensus that there are a range of relatively general learning strategies that can be disembedded from some contexts and re-embedded again in new contexts.<sup>44</sup>

Critical thinking, informal logic and argumentation theory nowadays consort in more than merely peaceful co-existence.<sup>45</sup> The point of raking over the coals again is to flag issues that must be addressed if one is to teach one or more of critical thinking/informal logic/argumentation theory, either in addition to or instead of formal logic. In the jargon of the moment, one must think through the

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<sup>43</sup> David N. Perkins and Gavriel Salomon, 'Are Cognitive Skills Context-Bound?', *Educational Researcher*, **18/1** (1989), 16-25; cited in David Billing, 'Generic Cognitive Abilities in Higher Education: an international analysis of skills sought by stakeholders', *Compare*, **33/3** (2003), 335-350. Perkins and Salomon's much-cited article reviews empirical evidence regarding transfer of thinking skills. Billing summarises their findings in saying, 'General cognitive skills [sometimes called meta-cognitive skills] are tools for wielding domain-specific knowledge' (Billing, *loc. cit.*).

<sup>44</sup> Wegerif, *Literature Review ...*, pp. 13 & 20. Wegerif's report covers the teaching and learning of thinking skills at primary, secondary and tertiary levels. The skills debate rumbles on. For two recent contributions, see Geoffrey Hinchliffe, 'Situating Skills', *Journal of Philosophy of Education*, **36/2** (2002), 187-205, and Gerald Smith, 'Are There Domain-Specific Thinking Skills?', *Journal of Philosophy of Education*, **36/2** (2002), 207-227.

<sup>45</sup> See for example the papers presented at the IL@25 conference, a conference celebrating the twentyfifth anniversary of the First International Symposium on Informal Logic; the papers are available online at

<http://zeus.uwindsor.ca/faculty/arts/philosophy/ILat25/index.htm> .



teaching and learning aims and outcomes, and the methods appropriate to them.

For those who would *substitute* for the study of formal logic in the philosophy curriculum critical thinking, informal logic, or argumentation theory (or some melange of all three), one question must be addressed: is there anything in the nature of critical thinking, informal logic and argumentation theory that indicates that they are best pursued and/or taught by philosophers? Any answer takes a stand on the nature and content of these disciplines, a stand that is controversial in ways in which no parallel controversy attends formal logic. Van Eemeren says,

The study of argumentation is characterised by its interdisciplinary, or in any case multidisciplinary, character. Its progress depend on contributions from a great variety of fields: philosophy, logic, (speech) communication, linguistics, psychology, sociology, rhetoric, law, etc.<sup>46</sup>

All well and good, but who is going to teach this to philosophy undergraduates? (And why?)

The Summer 2000 issue of *Informal Logic* (issue 20/2) contains a series of essays on the relation of informal logic to philosophy: ‘Informal Logic & Its Implications for Philosophy’, by Alec Fisher; ‘The Place of Informal Logic in Philosophy’ by James B. Freeman, ‘The Significance of Informal Logic for Philosophy’ by David Hitchcock; ‘How Philosophical is Informal Logic?’ by John Woods. In part because proof, demonstrative argument, the construction of a certain kind of argumentation, is only one part of modern formal logic, questions about the philosophical significance and philosophical content of formal logic answer themselves; there is no need for the same kind of debate. Logic concerns not just inference but also implication, i.e. logical consequence: we infer; sentences or propositions imply others.<sup>47</sup> How do inference and implication match up? Formally, soundness and completeness theorems tells us: perfectly. But which, if either, has primacy? That depends on the kind of theory of meaning one favours, truth conditional or something more

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<sup>46</sup> ‘Argumentation: an overview ...’, §5.

<sup>47</sup> See, e.g., John Corcoran, ‘Conceptual Structure of Classical Logic’, *Philosophy and Phenomenological Research*, 33/1 (1972-73), 25-47.

inferential (conforming to the slogan “meaning is use”). Logical truths are usually taken to be a priori (for they can be established by reason alone, as completeness guarantees), but first-order logical truth is undecidable: so what is the nature of the norm that enjoins us to believe logical truths? Applied arithmetic, both addition and multiplication, can be mimicked in first-order logic with identity; what does this tell us about arithmetic and arithmetical knowledge? And then there are the more prosaic, less tractable issues: truth, vagueness, the indicative conditional.<sup>48</sup>

**3.6** What may we conclude? Philosophy generally, and therein formal logic but only as one among equals, may improve the critical thinking of students although perhaps no more than other subjects. Logic, it seems, has no special role to play here. Informal logic, if differentiated from a more broadly conceived critical thinking, has to be taught with care if it is not to be merely an emasculated form of formal logic. Thus some formal logic seems to be a necessary ingredient for informal logic if it is to do more than catalogue rhetorical devices and fallacies. Moreover, if McPeck is even half right the evaluation of everyday arguments calls for rather more than any single course could reasonably be expected to teach in the way of specialized knowledge. And if much of artificial intelligence is not barking up the wrong tree, the theory behind the reasoning and argumentation of various

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<sup>48</sup> The discoveries of late nineteenth and twentieth century *mathematical* logic have been of immense significance for the philosophy of mathematics—for the *philosophy* of mathematics, not for mathematical practice and only marginally for mathematical theory, given the breadth of mathematics. (A mathematical education can easily, and not improperly, leave the mathematics graduate entirely ignorant of mathematical logic.) Of course, in large measure because it presupposes these results in mathematical logic and, in addition, is best done by those who have some acquaintance with university level mathematics (just as the philosophy of physics is best done by those who have some acquaintance with university level physics and the philosophy of law is best done by those who have some acquaintance with legal theory and practice), the philosophy of mathematics is thought of as a narrow, high-level specialisation. This is unfortunate, because consideration of the very special nature of mathematics has important consequences for general metaphysics and, perhaps even more so, though this is even less recognised in undergraduate teaching and elsewhere, for epistemology: thinking about the infinite is a very special human accomplishment.

disciplines is best analyzed from a starting point that takes for granted the methods and techniques of formal logic.

Philosophical logic and philosophy of logic are only the most obvious philosophical progeny of formal logic; it has been a well-spring of philosophical theorising. Critical thinking, informal logic, and argumentation theory do not promise half so much.

## §4 The practice of logic teaching

4.1 The major difficulty faced in teaching formal logic is not, I submit, that the arguments it deals with are unnatural or unlike “real” arguments (although that may well be the case and for good reason);<sup>49</sup> rather it is that in learning formal logic students have to learn how to think about abstract matters, i.e. to recognize patterns (or structures) and to think about the patterns themselves rather than their instantiations. In requiring this ability modern formal logic differs at most in degree from traditional logic but we must recognise that it is an ability that modern education and society does little to foster and hone. Carl Chung says,

From the point of view of most of our first-year students, logic is hard. It is hard because it is abstract, detailed, and rigorous in the context of a society that stresses the concrete, the soundbite, and the quick rhetorical conclusion.<sup>50</sup>

He reports Julie Gowen’s alarming argument that ‘up to forty percent of introductory logic students are unable to engage in abstract reasoning, since they are, according to the Perry scheme, “concrete operational thinkers”’.<sup>51</sup> The literature on the Wason selection task might be taken to show that few of us naturally think at an abstract

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<sup>49</sup> The arguments considered in formal logic differ at most in the degree of their unnaturalness with what survives or natural, “real” arguments after analysis in informal logic. See, e.g., the examples throughout Fisher, *The Logic of Real Arguments*, and van Eemeren *et al.*, *Handbook ...*, pp. 27-35.

<sup>50</sup> Carl Chung, ‘Enhancing Introductory Symbolic Logic with Student-Centered Discussion Projects’, *Teaching Philosophy*, 27/1 (2004), 45-59, p. 46.

<sup>51</sup> Julie Gowen, ‘Can We Teach Introductory Logic?’, *Teaching Philosophy*, 16/3 (1993), 237-48, p. 241. The Perry scheme, part of a theory of cognitive development, comes from William Perry, *Forms of Intellectual and Ethical Development in the College Years: A Scheme*, Holt, Rinehart and Winston, 1970.

level (which, of course, isn't to say that such thinking cannot be learned by the majority).

From their pre-university education, students are most likely to encounter abstract reasoning in mathematics and, to a lesser extent, physics. There is plenty of anecdotal evidence that the level of abstract thinking systematically encountered in school mathematics has waned over the past quarter-century (despite an increased emphasis on the teaching and learning of thinking skills in secondary education!). Thus, if the anecdotal is more than merely anecdote, students come to university increasingly ill-prepared for engaging in the kind of thinking formal logic requires.

One thing is certain: the level of mathematical competence expected of first-year students taking logic courses has declined since Tarski wrote his *Introduction to Logic and the Methodology of Deductive Sciences* (1940) and Morris Cohen and Ernest Nagel wrote Book I, the logic part, of their *An Introduction to Logic and Scientific Method* (1934). It is not just the absence of natural deduction and/or truth-trees that makes it unlikely that any teacher of logic uses either of these as their basic text (although both have been re-issued in paperback in recent years): both presuppose rather more mathematical knowledge than any logic teacher would dare assume today.

**4.2** Another difficulty faced in teaching logic as part of a philosophy curriculum is that students often come to the subject unaware of the nature of academic philosophy and, more particularly, the nature of formal logic. Some introductory texts make a fair job of indicating what logic is about, what its subject matter is, and how it is approached (e.g., Blackburn's *Think*, Teichman and Evans' *Philosophy: A Beginner's Guide*, Nuttall's *Introduction to Philosophy*), but perhaps it is the case that only a dedicated logic text can make clear what is really involved in a ten or twelve week long course in formal logic, what the experience of having to work at it will be like.

Teaching logic to arts and humanities students, another difficulty arises. Like mathematics and science courses, but unlike most arts and humanities courses, including other philosophy courses, logic is more or less relentlessly cumulative; it does not cover one topic then pass on to another independent one.

**4.3** Like Carl Chung, Helen Beebee makes much of the difficulty some students experience in learning logic—or, in some cases, failing to learn it.<sup>52</sup> Perhaps one should not make too much of this, for while certainly some students experience great difficulties, others find logic easy. The range of marks obtained in logic courses is much wider than the all-too-common bunching in the 2.i band that one finds in other philosophy courses. Of courses taught in arts and humanities faculties, only linguistics and some language courses manage to generate anything like the same spread. We should take pleasure in the high marks some students—and, it bears emphasising, not just those with a strong background in mathematics—achieve but it is of course the tail of low marks that causes the problems.

**4.4** In response to the difficulty experienced by students and what she reports as an inability to retain even the most fundamental of ideas from their course in formal logic, Beebee advocates the dumbing down of introductory formal logic courses. There is in this suggestion a danger that imperils logic as practised by philosophers, imperils indeed the very existence of logic pursued as a branch of philosophy.<sup>53</sup>

Much of what is now taught in first-level courses becomes, if logic is dumbed down, second-level; what is currently second-level becomes graduate level. And many philosophy departments will not run logic courses at graduate level because, due to the increased specialisation at that level, there will be insufficient demand to justify putting them on. And so the really cool stuff in formal logic will disappear from the philosophy curriculum. But then departments won't need to employ logicians—people who really understand logic, who think about it, and who contribute to its development—because what little logic that remains can be taught by philosophers whose

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<sup>52</sup> Beebee, 'Introductory Formal Logic ...'.

<sup>53</sup> There is also, I think, a hint of a suggestion that logic is unusual in that the basics are forgotten by students who have passed exams. I suspect this is not so. I could offer anecdotal evidence from my experience teaching other philosophy courses; instead I offer something rather better researched, namely E.M. Carson and J.R. Watson, 'Undergraduate Students' Understanding of Enthalpy Change', *University Chemistry Education (The Journal of the Tertiary Education Group of the Royal Society of Chemistry)*, 3/2 (1999), 46-51.

main interests lie elsewhere. And so interest and competence spiral down.

**4.5** The dismal picture I have just painted runs counter to the Association for Symbolic Logic's 'Guidelines for Logic Education'.<sup>54</sup> Moved by 'the increasingly technical demands placed on people by the information revolution [which] makes it all the more important that people understand basic logical principles of reasoning', the ASL recommends that all post-secondary education institutions should teach first-order logic, including formal proofs and discussion without proof of the soundness and completeness theorems, and that a course encompassing this material should be available to *all* students.<sup>55</sup>

If this proposal seems fanciful, we would do well to remember that philosophy graduates do get jobs on the strength of the transferable analytic skills their education is thought to impart. As far as some employers are concerned, their training in formal logic is by no means a negligible factor in this.<sup>56</sup>

Peter.Milne@ed.ac.uk

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<sup>54</sup> 'Guidelines for Logic Education', *The Bulletin for Symbolic Logic*, 1/1 (1995), 4-7. The guidelines were prepared by the ASL's Committee on Logic and Education.

<sup>55</sup> 'Guidelines ...', p. 5.

<sup>56</sup> 'Organisations such as the Council for Industry and Higher Education and the Association of Graduate Recruiters value philosophy graduates precisely because of their training in formal logic.' From 'The Way Forward', in the online report of the PRS-LTSN's Leeds Teaching Logic meeting. Billing, 'Generic Cognitive Abilities ...', establishes a ranking of core skills and attributes as sought and/or valued by "stakeholders" (employers, mostly). What are called 'analytical, evaluative, logical and critical skills, conceptual thinking, and skilful diagnosis' rank ninth amongst UK stakeholders but come top in the USA.

# Making Useful Comparisons of Traditional, Hybrid, and Distance Approaches to Teaching Deductive Logic

Project Report

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**Marvin J. Croy**

Department of Philosophy  
University of North Carolina at Charlotte

**T**eaching deductive logic has long been seen as an ideal target for applications of instructional technology, and exploring this possibility can proceed in several directions. One alternative is to supplement traditional classroom instruction with computer technology (a hybrid format) while another approach is to replace the classroom meetings altogether (an asynchronous distance format). Once different course formats are developed, questions naturally arise concerning how various formats compare to one another. Even when the differences are quantitatively established, questions remain as to how observed differences bear on various pedagogical and administrative decisions. In particular, what proportion of each format should be offered in the curriculum? Should technology intensive methods continue to be developed in the course? Are some faculty better suited for teaching various formats? These questions are raised

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here in the context of comparing traditional, asynchronous distance, and hybrid formats for a course in introductory deductive logic. Although these comparisons are in their early stages, an overall plan for their implementation has been framed. (Richardson (2000) provides a helpful overview of issues involved in making such comparisons.)

Having multiple formats for teaching a given course may be one consequence of emerging instructional technologies. For example, Mugridge (1992) distinguishes “dual mode” from “single mode” distance education. In dual mode enterprises, the same academic unit offers the same course in two different delivery modes, one on-campus and one distance. Often, an effort is made to make the content and method of the course identical whatever its means of delivery. This is the case at UNC Charlotte where deductive logic has been taught for many years as an undergraduate offering fulfilling a general education requirement, and recently the course has begun to be taught in multiple formats. It is clear that there is student demand for different formats, and our present decision concerns ways of proportionately responding to this demand. Also, having data based upon measures of relevant factors allows a cogent response to institutional initiatives which may emphasize one format over another for reasons of cost or accessibility. Academic quality as defined by both learning and performance is crucial in this regard. Student attitudes and persistence are also potential indicators of academic quality. Meta-analyses involving these variables provide general overviews of comparisons of traditional, distance, and hybrid formats (Allen, Bourhis, Burrell, and Mabry, 2002; Bayraktar, 2002; Lowe, 2002; Machtmes and Asher, 2000; Thirunarayanan and Perez-Prado, 2002;). It is important to recognize, however, that decisions concerning particular implementations are best made using local data. Questions then arise concerning what data to collect, how much data to collect, and how to analyze and interpret the data. The present report involves one course taught by one instructor in multiple formats: traditional, hybrid, and distance. This study will initiate a process of securing reliable data for informing allocation of course formats in the present context. Hence, there are two questions addressed here: one concerning any empirically demonstrable



differences between teaching a course in different formats and one concerning the practical, pedagogical import of any differences found.

## **Context of the Study**

Course: Philosophy 2105, Deductive Logic, teaches the theory and application of deductive inference. This semester length course fulfills a general education requirement at the sophomore level and is taken by a wide range of majors. In this course, logical inference is taught as a procedural skill modeled on state transition problem solving (Croy, 1999). The heart of the course is proof construction in symbolic, propositional logic using both working forwards and working backwards techniques (Croy, 2000). Once the validity of rules of transition are established via truth tables and proofs are mastered, students apply these procedural concepts to database searching, Internal Revenue Service tax form comprehension, and natural language argument analysis. The course includes three 80 minute exams, spaced out in equal thirds across the 15 week semester. Exams focus on execution of problem solving or decision making techniques.

Recent Developments: During the Spring of 2002, a WebCT version of the course was built around interactive java applets, and this version of the course began to be taught in both a distance version (no classroom instruction) and a hybrid version (classroom instruction integrated with the WebCT exercises). Prior to the design and development of the WebCT version, the course was taught in traditional mode emphasizing classroom centered practice and hand-graded, homework assignments. The course has been based on the same text, sequence of topics, and exercises regardless of format. It should be emphasized that the computer based exercises in the WebCT component increased the number and complexity of homework assignments. Also, students communicated directly with the instructor in the traditional class, via e-mail only in the distance class, and both directly and electronically in the hybrid class.

## Method

Subjects: A total of 179 students (90 females, 89 males) enrolled in six sections of Deductive Logic provided data in this study. Two sections of this course (36 and 39 students respectively) were taught in the traditional mode (75 students total: 38 males, 37 females). Two sections (22 and 24 students respectively) were taught in distance mode (46 students total: 25 females, 21 males; with approximately one third overall being non-traditional, adult students). Two sections (24 and 34 students respectively) were taught in hybrid mode (58 students total: 27 females, 31 males).

Data Collection and Analysis: Measures included a pretest and posttest, three exams, an attitude survey, and indicators of non-completion. The 25 item multiple choice pretest was administered during the first week of class and again at semester’s end. A gain score (posttest minus pretest) was calculated for each student. The three 80 minute exams required students to construct solutions to problems or provide analyses of arguments. There were no multiple choice or essay exam components. (Students in the distance sections took exams either at off-campus sites or on campus.) The attitude survey was completed during the last week of the semester and was comprised of five scales made up of 6 Likert style items each. The scales assessed student attitudes toward (1) the instructor, (2) the course, (3) computers, (4) self, and (5) other students. Indicators of non-completion included counts of non-participants (students who enrolled but neither attended nor logged into the course) and dropouts (students who began but did not finish the course).

## Results

Table 1 shows the results of pretests and posttests categorized by course type.

Course Type	Pretest		Posttest		Mean Gain	df	t	p
	Mean	SD	Mean	SD				
<b>Traditional</b>	12.56	4.08	14.85	4.19	2.29	65	5.99	<.0001
<b>Hybrid</b>	11.52	3.62	16.31	3.28	4.79	51	10.77	<.0001
<b>Distance</b>	11.52	3.05	14.87	3.72	3.35	45	6.24	<.0001

Table 1. Pre-test and Post-test Results by Course Type

The average pretest score was 12.56, 11.52, and 11.52 respectively for the traditional, hybrid, and distance versions of the course. The average posttest score was 14.85, 16.31, and 14.87 respectively for the traditional, hybrid, and distance versions of the course. A paired t test shows that the difference between pretest and posttest scores is highly significant for each group ( $p < .0001$ ). (An unpaired t-test shows that no group differences between pretest scores were significant.) Table 2 shows the results of comparing the gain scores achieved in each course type.

Course Comparisons	Mean Difference	Mean Difference		
		df	t	p
<b>Traditional, Hybrid</b>	2.50	116	4.28	<.0001
<b>Traditional, Distance</b>	1.06	110	1.66	.1006
<b>Hybrid, Distance</b>	-1.44	96	-2.08	.0399

Table 2. Mean Differences in Gain Scores by Course Comparison

An unpaired t-test shows that the difference between gain scores of the hybrid and traditional group were significant ( $p < .0001$ ), as was the difference between the hybrid and distance groups ( $p = .0399$ ), but the difference between the gain scores of the distance and traditional groups was not significant ( $p = .1006$ ).

Table 3 provides the mean exam scores (total percent correct) for each course type.

Course Type	Exam Score	
	Mean	SD
<b>Traditional</b>	71.05	8.65
<b>Hybrid</b>	74.64	11.92
<b>Distance</b>	64.69	10.73

Table 3. Exam Scores (Percent Correct) by Course Type

The mean percent correct was 71.05 for the traditional version, 74.64 for the hybrid version, and 64.69 for the distance version. Table 4 shows the results of an unpaired t-test used to compare exam scores by course type.

Course Comparisons	Mean Difference	df	t	p
Traditional, Hybrid	3.59	131	2.01	.0461
Traditional, Distance	-6.36	119	-3.58	.0005
Hybrid, Distance	-9.96	102	-4.42	<.0001

Table 4. Mean Differences in Exam Scores by Course Comparison

Each of these comparisons yields significant results.

Figure 1 depicts the results of the attitude survey administered to all students at the end of the course and provides the mean score for each course type on each scale.

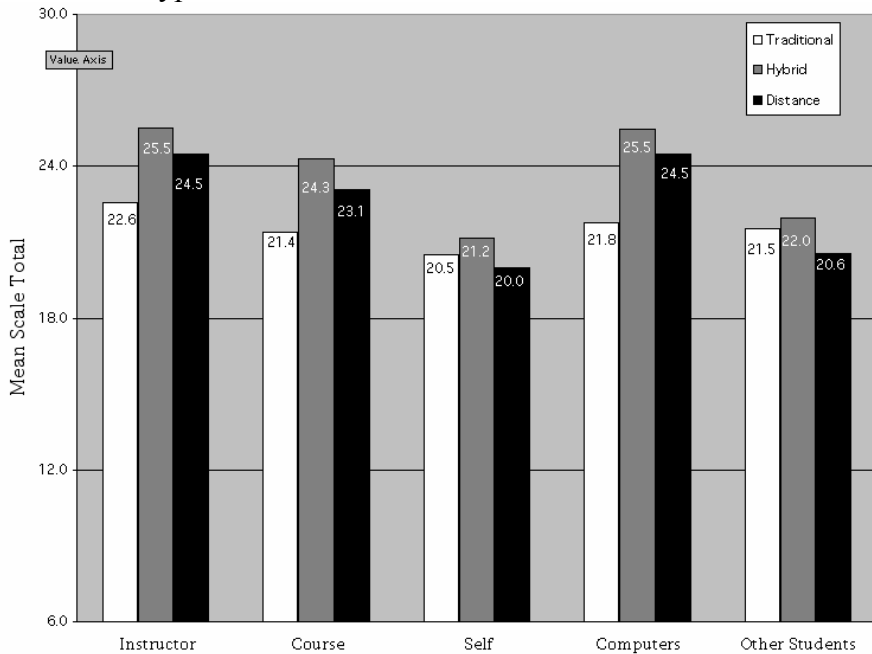


Figure 1: Attitudes by Course Type

Each scale was composed of 6 Likert type items that were scored from 1 (strongly disagree) to 5 (strongly agree). This produced a range of 6 to 30 for each individual on each scale. In previous studies (Croy, 1993; Croy, 1995), Chronbach’s Alpha (a measure of scale consistency) ranged from .786 to .933 for these scales when the questionnaire was administered at semester’s end.

Table 5 shows the results of subjecting this attitude data to a nonparametric Kruskal-Wallis one way analysis of variance by ranks.

Scale and Course Type	Mean Rank	H	p
<b>Instructor</b>		19.8	<.0001
Traditional	64.1		
Hybrid	102.0		
Distance	87.5		
<b>Course</b>		19.9	<.0001
Traditional	65.0		
Hybrid	103.6		
Distance	84.1		
<b>Self</b>		3.0	.2243
Traditional	83.0		
Hybrid	89.6		
Distance	72.9		
<b>Computers</b>		27.8	<.0001
Traditional	60.3		
Hybrid	104.7		
Distance	90.3		
<b>Other Students</b>		4.7	.0952
Traditional	84.0		
Hybrid	90.8		
Distance	70.0		

Table 5. Results of Kruskal-Wallis Analysis of Ranks by Questionnaire Scale and Course Type

This analysis produces the statistic, H, which in this case is corrected for ties. Group differences are significant ( $p < .0001$ ) on three of the five scales, namely, attitude toward instructor, attitude toward the course, and attitude toward computers. On each of these scales the most favorable attitudes were expressed by students in the hybrid course, followed by those in the distance course, followed by those in the traditional course.

Table 6 shows enrollment and non-completion data for each version of the course.

<b>Course Type</b>	<b>Initial Enrollment</b>	<b>Non Participants</b>	<b>Dropouts</b>	<b>Final Enrollment</b>
<b>Traditional</b>	<b>92</b>	<b>5 ( 5.4%)</b>	<b>12 (13.0%)</b>	<b>75 (81.5%)</b>
<b>Hybrid</b>	<b>77</b>	<b>13 (16.9%)</b>	<b>6 ( 7.8%)</b>	<b>58 (75.3%)</b>
<b>Distance</b>	<b>72</b>	<b>13 (18.1%)</b>	<b>13 (18.1%)</b>	<b>46 (63.9%)</b>

Table 6. Measures of Persistence by Course Type

The initial enrollments were 92, 77, and 72 students for the traditional, hybrid, and distance versions, respectively. The number of students who enrolled but did not participate in the course was 5 (5.4%) for the traditional version, 13 (16.9%) for the hybrid version, and 13 (18.1%) for the distance version of the course. The number of students who participated but dropped during the semester was 12 (13.0%) for the traditional version, 6 (7.8%) for the hybrid version, and 13 (18.1%) for the distance version of the course. The total number of students who completed the course was 75 (81.5%), 58 (75.3%), and 46 (63.9%) for the traditional, hybrid, and distance formats, respectively.

## **Discussion**

This study employed a measure of performance, learning, attitudes, and persistence in comparing traditional, hybrid, and distance versions of the deductive logic course. All statistically significant differences favored the hybrid version of the course. While the pre- and posttest comparisons showed that learning occurred in each type of course, the largest mean gain score occurred in the hybrid course. On this measure of learning the hybrid course was clearly superior to both the traditional and distance courses, but there was no significant difference between the traditional and distance courses. In respect to exam performance, hybrid was again superior to the traditional and distance formats, but here the traditionally-taught students outperformed those in the distance course. So, in respect to learning and performance, the hybrid format clearly predominated, while the relative predominance of the distance or the traditional format was not as clear. In respect to attitudes, a hybrid-distance-traditional hierarchy

prevailed on the three scales (instructor, course, computers) where differences were large enough to be statistically significant.

These differences may be undermined by differences in student drop out rates. While controversial, some studies have shown higher drop rates for distance courses. Students with lower performance and more negative attitudes may have disappeared from the distance course. Non-completion is variously defined in different studies. Some studies exclude student failures in their definition of successful course completion. For example, Kemp (2002) operationally defined non-completers to include non-starters, withdrawals, and student failures. In the present study, student failures were counted as having completed the course, and many who did not finish were non-starters who never participated in the course or developed relevant attitudes toward the course or various aspects of it. Differences in non-completion rates for the traditional, hybrid, and distance students in this study decline dramatically when only those who participated in the course are considered. If as few as four more students had completed the distance course, the drop rate for the distance version (18.1%) would have fallen below that of the traditional course (13.0%). This hypothetical change might undercut the significance ( $p = .0399$ ) of the gain score superiority of hybrid over distance taught students, but it would likely have no effect on the significance of differences in exam scores ( $p = .0005$ ,  $p < .0001$ ). Nor would it likely jeopardize the significance of attitude differences where these were statistically viable ( $p < .0001$ ). So, while there is some concern about the influence of non-completion on course comparisons, that concern is not sufficient to appreciably undermine current findings. Similarly, the predominance of the hybrid version of the course is not called into question by student non-completion assuming that non-completion is defined in terms of the drop rate among participating students. The drop rate for hybrid taught students (7.8%) was the lowest of any version of the course, so the loss of students with potentially negative attitudes and/or low performance rates is of less concern than for other versions of the course.

Aside from the general superiority of the hybrid format, the comparison of the distance and traditional format is of interest. Here, exam scores and completion rates favor the traditional mode, but no significant difference exists in gain scores, and attitude differences,

where significant, favor the distance format. It is not difficult to understand why the increased activities and engagement provided by the hybrid format produced higher levels of student performance and learning, but understanding the performance, attitudes, and drop levels of the distance students will be a challenge in the future.

## **Practical Significance**

The point of these analyses is not to prove one course format as being universally superior to others. Indeed, the results of such comparisons are context dependent. Comparisons of different course formats will vary with differences in the characteristics of instructors, students, and subject matters. The aim here is to use these data to inform local pedagogical decisions. For example, approximately eight sections of Deductive Logic are offered each semester at UNC Charlotte. How many sections of which format should be offered in a particular semester and which faculty should teach various sections? While no exact formula is to be expected, decisions will be guided by our evaluative comparisons.

Should the current hierarchy persist, offerings of our distance format will either be severely limited and/or restricted to only the best suited students. Some students thrive in a distance format. These students are good time managers and self-teachers and they can successfully mold the course activities into their own schedules. Other students need direct human interaction, not just to have a more emotionally satisfying experience, but to have any learning experience at all. The rapid rise of technology in education means that students must understand themselves in terms of which of these types they best approximate (perhaps in which contexts). Either we must devise some means of characterizing students in these terms and guiding them in the right direction, or students will have to learn for themselves, probably through their mistaken choices.

Just as some students are better suited to learn given certain course types, some faculty are better suited to teach under certain course formats. Our plan is to continue making comparisons involving other instructors as their teaching format varies in this course. Two additional faculty are already engaged in this process, and two others have expressed an interest in doing so. We expect to collect data on at



least two sections of each course type per faculty, so we are only in the early stages of making comparative evaluations.

## Conclusion and Future Direction

The present study has initiated a process of systematically collecting and assessing data concerning the academic quality of different modes of teaching an undergraduate course in deductive logic. These results will inform local allocation of course formats and faculty assignments. The finding of the general superiority of the hybrid format over traditional and distance formats of the deductive logic course is limited to one instructor. Future studies will make comparisons involving other instructors as their teaching format varies in this course. Evaluation is seen as an on-going process, and the introduction of new technologies in the course will call for additional comparisons. It is difficult to predict what pressures or factors may become relevant to future decisions concerning desirable formats for this course, but the current data will provide one important source of input into any such decision. Various emphasis may be placed upon factors such as cost, accessibility, student demand, and overall institutional aims, but having local data that bears directly on course quality will place such decisions in an appropriate context and in line with the strengths and values of the faculty and students most directly affected.

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School of Theology and Religious Studies  
University of Leeds  
Leeds LS2 9JT  
United Kingdom  
Tel: +44(0)113 343 1166  
[david@prs-ltsn.ac.uk](mailto:david@prs-ltsn.ac.uk)

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