Course Guide

Philosophy of Time Travel
(\textit{PHIL10125})

2012-13

Course Organiser:
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Department of Philosophy
School of Philosophy, Psychology and Language Sciences
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1. Course Aims and Objectives
This course will offer detailed seminars on key philosophical issues in the philosophy of time travel, largely with an analytical slant. Students should end this course conversant with a range of significant metaphysical (and other) issues surrounding time travel. No detailed logical, scientific or metaphysical expertise will be assumed, and the course is intended to be accessible to students with a wide range of philosophical interests and aptitudes.

2. Intended Learning Outcomes
To develop further the philosophical skills, and to extend and deepen the philosophical knowledge, acquired in previous philosophy courses. Transferable skills that students will acquire or hone in taking this course should include the following:

- written skills (through summative essays)
- oral communication skills (through Seminar-led and/or student-led seminar discussions)
- presentation skills (through giving and criticising student presentations)
- analytical skills (through exploring a carefully-chosen series of philosophical texts)
- ability to recognise and critically assess an argument.

3. Seminar Times and Locations

**Tuesdays 09.00 – 10.50**, 2.13 in the Geography (Old Infirmary) Building, at Drummond Street.

**Thursdays 09.00 – 10.50**, Dugald Stewart Building, Room G.06.

Please note that, because of high demand, this course is being taught twice in semester two on Tuesday and Thursday mornings. Please try to attend only one of the two seminar-slots week to week and please **do not attend** both seminars in any given week, otherwise the whole point of running the course twice (i.e. to afford more room both physically and for discussion) will be defeated.

4. Seminar Content and Readings
Asterisked items below are available from JSTOR. All other journal items should be available via the electronic journals access facilitated by the Library / MyEd. Any problems do please let me know.

Main texts:
What with this being a research-led course, driven by my ongoing monograph and spin-offs articles on sundry aspects of time travel, there isn’t yet a full-length book on
the philosophy of time travel – although I’m working on it. However, below is probably the best available introduction to space and time in general:

  Durham Acumen 2010, multiple copies should be available in the Library Hub Reserve (at shelf-mark BD632 Dai).

I spent the academic year 2008-2009 on research-leave, working on a raft of time-travel related articles plus a book. On request, I can circulate draft papers and other works-in-progress of my own.

Please note that the following lists of readings are prioritised, with the most important / useful readings at the top. So the recommended way to tackle the suggested readings is to start at the top of each list and work downwards.

**Week 1: Tuesday 15th and Thursday 17th January**

Introducing the Debate – What is Time Travel?
The Lewisian Analysis.
Recommended reading:


Useful background / of related interest:


**Week 2: Tuesday 22nd and Thursday 24th January**

Developments of, and Objections to, the Lewisian Analysis.
Recommended reading:


Useful background / of related interest:


**Week 3: Tuesday 29th and Thursday 31st January**

A) Introducing Relativity.


Further reading:
Week 4: Tuesday 5th and Thursday 7th February
The Cheshire Cat Problem and Other Spatial Perplexities.
Recommended reading:
Useful background / of related interest:

Week 5: Tuesday 12th and Thursday 14th February
Information Loops and Object Loops.
Recommended reading:
Useful background / of related interest:
Tuesday 19th and Thursday 21st February

*** Innovative Learning Week ***
- For more details, please see under heading below and follow the embedded link.

Week 6: Tuesday 26th and Thursday 28th February
   Recommended reading:
   Useful background / of related interest:

B) Time Travel and Non-Turing Computation.
   Recommended reading:
   - AR, ‘The Big Pitowsky: Doing Infinitely Many Tasks in (Less Than) No Time At All’, MS still in progress.
   Useful background / of related interest:

Week 7: Tuesday 5th and Thursday 7th March
Branching-Histories Time Travel.
The Autonomy Principle.
   Recommended reading:
   Useful background / of related interest:
   - Timothy Chambers, ‘Time Travel: How Not to Defuse the Principal Paradox’, Ratio, 12, 1999, 296-301.

Week 8: Tuesday 12th and Thursday 14th March
The Nomological Contrivance Problem.
Bananas-Skins and Tomato-Rolling.
Recommended reading:

Useful background / of related interest:

**Week 9: Tuesday 19th and Thursday 21st March**

A) Travel in Multi-Dimensional Time.
Recommended reading:
- G. C. Goddu, ‘Time Travel and Changing the Past (or How to Kill Yourself and Live to Tell the Tale)’, *Ratio*, 16, 2003: 16-32.

Useful background / of related interest:

B) Testimony to Time-Travel.
 Recommended reading:

**Week 10: Tuesday 26th and Thursday 28th March**

A) Free Will and Determinism
Recommended reading:

Useful background / of related interest:

B) Personal Identity
Recommended reading:

Useful background / of related interest:

*Week 11: Tuesday 2nd and Thursday 4th April*

Recapitulation / Revision.

5. **PPLS Undergraduate Student Handbook**

The PPLS Undergraduate Student Handbook has more information on Student Support and academic guidance; late coursework and plagiarism; illness and disability adjustments, and useful sources of advice.

The Handbook can be found here: [http://www.ppls.ed.ac.uk/students/undergraduate/documents/PPLS_Student_Handbook_FINAL.pdf](http://www.ppls.ed.ac.uk/students/undergraduate/documents/PPLS_Student_Handbook_FINAL.pdf)

6. **Assessment Information**

This course will be assessed by a mixture of written and presented instruments of assessment, which will encourage not merely written responses but active participation in the seminar from all students.

1. A short presentation (10% of the overall mark):
   Generally at the relevant seminar but no later than the end of teaching.

2. A short (no more than 1,500 word) essay (35% of the overall mark):
   Due no later than **4 pm, on Thursday 28th of February 2013**.

3. A final long (no more than 3,000 word) essay (55% of the overall mark):
   Due no later than **4 pm, on Thursday 25th April 2013**.

**Word Count Penalties**

Essays must not exceed the word limit, which includes footnotes but excludes bibliography. The precise word count must be written on the coversheet. Overlong essays will be penalised according to the following rule: 5% will be deducted for every 100 words, or part thereof, over the word limit. So, 1-100 words over lose 5%; 101-200 words over lose 10%; 201-300 words over lose 15%; and so on.

**Penalties for Late Submission of Essays**

Essays submitted late without an extension may not be marked, but, if marked, will incur a penalty (in accordance with section 3.8 of the University Undergraduate Assessment Regulations at: [http://www.docs.sasg.ed.ac.uk/AcademicServices/Regulations/UG_AssessmentRegulat](http://www.docs.sasg.ed.ac.uk/AcademicServices/Regulations/UG_AssessmentRegulat)
For each working day that the work is late there will be a reduction of the mark by 5% of the maximum obtainable mark (e.g. a mark of 65% on the common marking scale would be reduced to 60% up to 24 hours later). This penalty applies for up to five working days, after which a mark of zero will be given.

### 6.1 Presentations
You can elect to do your presentation in one of two ways. **EITHER:**
- a) Give a short (c. 10 minute) presentation summarising/criticising one or more of the assigned course readings, ideally at the seminar for which the reading(s) is (are) assigned. If you like, PowerPoint slides or a handout can be used but these are *not* compulsory.

**OR:**
- b) Submit a short comprehension text (up to 1,000 words long) summarising/criticising one or more of the assigned course readings.

I would stress that either option a) or option b) is fine by me. However, whichever format you adopt, please submit the text of your presentation electronically to me ([A.Richmond@ed.ac.uk](mailto:A.Richmond@ed.ac.uk)), NOT to the Teaching Office. Experience from previous years suggests that it’s vital that I have a record of receipt of presentations.

### 6.2 Essay Questions
Below are some suggested questions for the **short mid-term** (no more than 1,500 word) essay. The same questions may be used for the **longer final** (no more than 3,000 word) essay but please note that for long essay purposes, students will be expected to supplement the suggested readings above, either through their own research and/or through consultation with course organiser.

Additional / alternative readings and/or questions can be provided on request.

1) Did David Lewis successfully establish the logical possibility of backward time travel?
   Reading as for week 1.

2) Discuss at least three objections to time-travel and explain which you find most convincing.
   Reading as for week 2.

3) Did Gödel successfully argue that time is ideal?
Reading as for weeks 3.

4) Are any of the following philosophically intolerable: a) information loops, b) object loops, c) both, d) neither?
Reading as for week 5 and week 6 A).

5) Would time travel oblige us to accept the existence of many histories?
Reading as for week 7.

6) Would time travel worlds necessarily have peculiar physical laws?
Reading as for week 8.

7) Would impact might time travel have on our conceptions of freedom and personal identity?
Reading as for week 10.

6.3 Selected Additional References / Further Reading


- John W. Carroll, ‘Self Visitation, Traveler Time and Non-Contradiction’, MS available online at: http://www4.ncsu.edu/~carroll/SVTTNC.pdf


- Timothy Chambers, ‘Gödel’s ‘Time-Traveling Universes: True or ‘Refreshng Surprises’’, Transcendent Philosophy, 6, 2005: 147-152.


• Mark Hogarth, ‘Deciding Arithmetic Using SAD Computers’, British Journal for


- David B. Malament, ‘Classical Relativity Theory’, archived at: http://philsci-


• Steven S. Savitt, ‘There’s No Time like the Present (in Minkowski Spacetime)’, *PSA: Proceedings of the Philosophy of Science Association*, 67: Supplement, Part II: S563-S574.
• Peter B. Vranas, ‘Do Cry Over Spilt Milk – Possibly You Can Change the Past’,
The Monist, 88, 2005


6.4 Selected on-line resources:

6.5 Some articles of mine:
Over the last ten years or so, I’ve published a few things on the philosophy of time travel, mainly academic articles but some popular too, as follows:
6.6 Some fictions and films:

A short word on historical precedence first: Unlike most metaphysical topics, time-travel has drawn forth rather a large fictional literature too. I used to think that H. G. Wells or Mark Twain had invented time travel fiction between them with *The Chronic Argonauts* (1888) and *A Connecticut Yankee in King Arthur's Court* (1889) respectively. Well, how wrong I was. A special mention goes to Edward Page Mitchell (1852 - 1927), who I reckon for the first writer (in English at any rate) to pen an unequivocal time travel story, complete with causal loop. The story in question was first published in 1881 and it's called 'The Clock That Went Backward', available online at: http://www.forgottenfutures.com/game/ff9/tachypmp.htm#clock

Another interesting Page Mitchell nugget is 'An Uncommon Sort of Spectre', from 1879 which features what I think is the first appearance in fiction of a ghost from the future and is available here: http://www.horrormasters.com/Text/a2228.pdf

Both the above Page Mitchell stories can be found in a fascinating anthology edited by Chad Arment, called *About Time: The Forerunners of Time Travel and Temporal Anomalies in Science Fiction and Fantasy* (Coachwhip Press, Landisville, Pennsylvania, 2009). This anthology also includes what may be (setting definitional subtleties to one side) an even earlier tale of backward time travel, 'An Anachronism, or Missing One's Coach', published anonymously in the *Dublin University Magazine* for 1838.

Completeness and fairness alike demand that I acknowledge Enrique Gaspar, and his 1887 story *El Anacronopete*. Although not yet available in English translation (hence I haven’t been able to read it, monoglot Anglophone as I regrettably am), *El Anacronopete* is due to appear in the English for the first time next year under the title *The Time Ship: A Chrononautical Journey*. See BBC News item at: http://www.bbc.co.uk/news/world-europe-12900390

Anyway, the following list cannot possibly claim to be exhaustive but here are a few stories I found interesting, (although I don’t necessarily claim literary merit in all cases):

- **Stephen Baxter**, *The Time Ships*, (1995). Authorised centenary sequel to Wells’ *The Time Machine*. (Features not only Wells himself but also Gödel.)
- **John Crowley**, ‘Great Work of Time’, (1989), reprinted in Crowley’s collection *Novelty*. Pushes the notion of changing history about as far as it can possibly go … and a bit further.
- **Lester Del Rey**, ‘My Name is Legion’, (1942), reprinted in *The Best of Lester Del Rey*. Perhaps the pinnacle of multi-occupancy stories – also contains some intriguing advice on what to do with (the obviously then still-living) Adolf Hitler.
- **Philip K. Dick**, ‘A Little Something for Us Tempunauts’, (1974), reprinted in *The Collected Short Stories of Philip K. Dick, 5: We Can Remember It for You Wholesale*. Genuinely disturbing (to this reader at least) fusion of time travel and
eternal recurrence.


- Michael Moorcock, Behold the Man, (1969), original short story version appears in Moorcock’s Book of Martyrs. Centred on a remarkable feat of historical impersonation. (I say no more.)

- Audrey Niffeneger, The Time Traveler’s Wife, (2004). Very intriguing attempt at depicting (with complete consistency) a life whose personal time is very convoluted indeed. Lewis might well have applauded.


- Christopher Priest, ‘Palely Loitering’, (1979), reprinted in Priest’s collection An Infinite Summer. Poignant tale of revisited chances that also oddly anticipates real physical speculation about (e.g.) time-travel by Alcubierre warp-tube (of which more anon).


- Mark Twain, A Connecticut Yankee at King Arthur’s Court, (1889). Transmigration of epochs, no less – transplants a then-contemporary American to the British Dark Ages, and all quite independently of Wells’ efforts.


Likewise, a few time-travel films seemed interesting to me too:

- La Jetée, (1962), written and directed by Chris Marker. Beautiful, haunting short film told almost (but not quite) entirely in stills.


- Primer, (2004), written, directed and produced by Shane Carruth. Not at all Lewisian but thoroughly intriguing – watch it at least twice, ideally the second time with director’s commentary, some string and a notepad handy

- Time Crimes (Los Cronocrimenes), (2007), written and directed by Nacho Vigalondo. Also thoroughly Lewisian, albeit to some very strange, film noirish, ends. Another “watch at least twice” job. (Due, I hope, to be the subject of a showing / follow-up talk / Q&A during this year’s Innovative Learning Week.)

I am always in the market for more recommendations however.
7. Feedback

It’s very important that you should know what sort of standard of feedback you can expect on my courses and how quickly I aim to turn work around. I aim to make my feedback as useful as I can and to help you pinpoint not only those areas where improvement might be indicated but also those areas where you’ve done well. Because there are three units of assessment for this course (presentation, short essay and long essay), I’m afraid I will not be undertaking to mark or make comments on draft work. However, please note that besides written feedback on summative work, you can also obtain feedback by making an appointment to see me, by sending me questions or concerns via e-mail. For written feedback, I aim to produce a completed comments sheet with a mixture of quantitative and qualitative feedback for each and every piece of work you submit.

For short or long essays, I aim to complete coversheets and return work to the Teaching Office (DSB floor 4) for you to collect within two working weeks of initial submission. Turn-around for presentations can typically be a lot faster, but to be on the safe side, let’s say that you’ll get your presentations back within no more than ten working days of initial submission.

If you’ve any questions relating to feedback or any other aspect of the course, please don’t hesitate to get in touch.

8. Learn

This year we will be piloting electronic submissions for all Honours coursework. For essay submission instructions please see the instructions on LEARN. Please note you should not include your name or matriculation number on coursework, only your exam number.

9. Useful Information

i. This course is completely independent of my Honours option course ‘Philosophy of Time’. Some topics inevitably may reflect each other across the two courses but neither course is required for the other.

ii. Students may elect to do their presentation on the same topic as either their short or long essays, but I would greatly prefer it if short and long essays were on different topics. So, you may elect to do two of your three units of assessment on the same topic but no more than two.

WEEK 6 INNOVATIVE LEARNING WEEK (18 - 22 February 2013). Normal teaching slots will be suspended and in their place will be a range of other activities such as master classes, a research day, a science fair, and guest lectures. More information will follow nearer the time so please check the School website where details will be available on the PPLS Events page: http://www.ppls.ed.ac.uk/events/view/innovative-learning-week-18-22-february-2013
### 10. Common Marking Scheme


<table>
<thead>
<tr>
<th>Grade</th>
<th>Mark Range</th>
<th>Description</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>90-100</td>
<td>Excellent</td>
<td>Outstanding in every respect, the work is well beyond the level expected of a competent student at their level of study.</td>
</tr>
<tr>
<td>A2</td>
<td>80-89</td>
<td>Excellent</td>
<td>Outstanding in some respects, the work is often beyond what is expected of a competent student at their level of study.</td>
</tr>
<tr>
<td>A3</td>
<td>70-79</td>
<td>Excellent</td>
<td>Very good or excellent in most respects, the work is what might be expected of a very competent student.</td>
</tr>
<tr>
<td>B</td>
<td>60-69</td>
<td>Very Good</td>
<td>Good or very good in most respects, the work displays thorough mastery of the relevant learning outcomes.</td>
</tr>
<tr>
<td>C</td>
<td>50-59</td>
<td>Good</td>
<td>The work clearly meets requirements for demonstrating the relevant learning outcomes.</td>
</tr>
<tr>
<td>D</td>
<td>40-49</td>
<td>Pass</td>
<td>The work meets minimum requirements for demonstrating the relevant learning outcomes.</td>
</tr>
<tr>
<td>E</td>
<td>30-39</td>
<td>Marginal fail</td>
<td>The work fails to meet minimum requirements for demonstrating the relevant learning outcomes.</td>
</tr>
<tr>
<td>F</td>
<td>20-29</td>
<td>Clear fail</td>
<td>The work is very weak or shows a decided lack of effort.</td>
</tr>
<tr>
<td>G</td>
<td>10-19</td>
<td>Bad fail</td>
<td>The work is extremely weak.</td>
</tr>
<tr>
<td>H</td>
<td>0-9</td>
<td>Bad fail</td>
<td>The work is of very little consequence, if any, to the area in question.</td>
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#### Grade-related Marking Guidelines

**Explaining the function of these guidelines:**

1. These are only guidelines; marking still requires discretion and judgment.

2. The guidelines are “bottom up” — each band presupposes that the student has at least satisfied the criteria laid down under the lower bands. So to get a first, it
is assumed that you at least satisfy all the criteria for a 2-1, etc.

(3) Each set of guidelines should be understood not as providing necessary and sufficient conditions for a mark in the band specified. Rather, the guidelines under each band provide a kind of “cluster” which defines a paradigm of a piece of work falling within the band in question. A piece of work might deviate from the paradigm in certain respects but still fall within the band. It might help to explain the idea of a paradigm being invoked here. By way of comparison, an ornamental chair (as one might find in a museum, and that is not fit for sitting on) is a less paradigmatic instance of a piece of furniture than an ordinary sofa, but plausibly an ornamental chair still counts as a piece of furniture all the same. This is because it satisfies enough of the criteria in the cluster of concepts associated with being a piece of furniture, though it satisfies fewer of those criteria than an ordinary sofa. Similarly, a piece of work might be a less than fully paradigmatic instance of a 2-1 but still count as a 2-1 all the same.

(4) Although they are written in a way that might naturally suggest a binary reading, the guidelines are generally scalar – satisfying each of them comes in degrees, and is not all or nothing. This is important, and relevant to the “paradigm” point above, in that doing better with respect to one criteria under a given band could offset doing slightly less well with regards to another. Also, precisely where within the band a piece of work is assessed will typically reflect how well the work does in terms of each of these criteria.

(5) The guidelines apply most clearly for essays. In the case of exam questions, part of the exercise will be for the student to work out the extent to which the question calls for something going beyond pure exegesis.

(6) For history of philosophy classes, where the instructor explicitly indicates this is the case, the contrast between exegesis and original argument may be less clear. In these cases, the original argumentation may be an original argument for an interpretation or reading of a text, for example. Individual instructors have some discretion in explaining how the specific details of their course mean these guidelines should be interpreted. As mere guidelines, they provide only a sort of “default setting” rather than a one size fits all set of prescriptions, amenable to only one canonical interpretation.

General Guidelines

- Clarity:
  - Is the writing clear?
  - Is the grammar and spelling correct?
  - Is the language used appropriate?
- Structure:
  - Is a clear thesis or position stated?
  - Is an argument, or arguments, offered in support of the thesis?
  - Does each part of the essay/exam have a clearly indicated purpose?
- Understanding:
  - Is a sound understanding of relevant issues demonstrated?
Is the exposition of others’ views accurate?
Are technical terms adequately defined?

Originality:
Is there evidence of independent thought?
Is there critical engagement with the material?

Argument:
Is the argument convincing?
Are the inferences valid?
Are obvious objections anticipated?

Grade Bands

Fail (less than 40)

Third Class (40–49):

- Writing is generally unclear. Frequent spelling or grammar mistakes, incorrect language, and/or excessively convoluted sentence structure.
- Neglects clearly to state a thesis or position and/or fails to support this with arguments. Contains irrelevant material, or material whose relevance is not adequately explained.
- Demonstrates a barely adequate understanding of central issues. Contains several errors in exposition or in explanation of concepts.
- No evidence of independent thought or critical engagement. Merely rehashes arguments from readings or lectures.
- Where arguments are given, these are weak, depend on invalid inferences or implausible premises. Fails to anticipate obvious objections.

Lower Second Class (50–59):

- Writing is generally clear, but there are occasional spelling/grammar infelicities and/or poorly constructed sentences.
- A thesis/position is indicated but not clearly defined. Some arguments given, but their structure often unclear.
- Demonstrates a basic grasp of key concepts, but occasional inaccuracies in exposition/explanation.
- Little evidence of independent thought. Some suggestion of original ideas, but these are under-developed and/or expressed unclearly.
- Arguments generally weak or unconvincing.

Upper Second Class (60–69):

- Writing is generally clear, marred only by the rare spelling/grammar infelicity or poorly constructed sentence.
- A thesis/position is indicated and clearly defined. Arguments are given with relatively clear structure. It is generally clear what is going on in each section, why one section follows on from the previous one, and how the essay as a whole hangs together.
- Demonstrates a solid understanding of the key concepts, and the exposition is generally accurate and thorough.
- Substantial evidence of original thought – either an original argument of some kind for a familiar position or an original argument for a novel position. In either case, the argument should be reasonably well developed.
- The author’s original arguments are interesting and promising, but fairly central or glaring problems with the argument are not discussed or addressed in any way, or are given only a highly cursory treatment.

**Low First Class (70–79):**

- Writing is very clear and engaging throughout. Where examples are used they are both relevant and memorable. The writing will also be concise.
- The essay’s structure is not only clear and well defined; it also provides a satisfying narrative arc.
- Demonstrates a deep understanding of the key concepts. Explains other philosopher’s ideas in the author’s own terms, clearly presenting those ideas in a way that indicates that the author has “made them his/her own.” Where technical terms are used they are always carefully defined.
- Highly original thought, with well developed arguments. The exegesis will generally be sufficiently concise as to allow the author to develop his or her own arguments in considerable detail.
- The author very carefully considers the most central and obvious problems with his/her original argument(s) and has interesting things to say about them.

**Mid-First Class (80–89):**

- Writing is crystal clear and highly engaging throughout. Memorable examples are used to underscore key points. The writing is concise without coming across as terse or stilted.
- The essay’s structure is clear and well defined, with a highly satisfying narrative arc.
- Demonstrates a deep understanding of key concepts. Not only explains the ideas of other philosophers in a way that shows he/she has “made them his/her own,” but that actually casts new light on how we might charitably understand the ideas of those philosophers.
- Very original thought, above and beyond what we would normally expect from an undergraduate. These original ideas will be developed in great detail.
- The author very carefully considers the most central and obvious problems with his/her original argument(s) and has prima facie convincing rejoinders. Author may also consider more subtle objections to his/her argument(s)/view(s).

**High First Class (90–100):**

- Writing is extremely clear, concise, and engaging — of a publishable quality.
- The essay’s structure is extremely clear and well-defined, with a highly satisfying narrative arc.
- Demonstrates a deep understanding of key concepts. Not only explains the ideas
of other philosophers in a way that shows he/she has “made them his/her own,” but that actually casts new light on how we might charitably understand the ideas of those philosophers.

- A highly original and well developed line of argument and/or novel view, such that the essay is publishable, at least in an undergraduate or postgraduate journal, perhaps bordering on being publishable in a mainstream professional journal.

- The author considers the most important objections to his/her arguments/views. The replies are generally convincing and subtle. If space allows, less obvious objections may also be discussed in interesting ways.