



MHIS215

Problems in Big History

S2 Day 2017

Dept of Modern History, Politics & International Relations

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General Information

Unit convenor and teaching staff

David Baker

david.baker@mq.edu.au

Credit points

3

Prerequisites

MHIS115

Corequisites

Co-badged status

Unit description

This unit will explore some of the fundamental problems raised in the transdisciplinary first year course MHIS115 as they play out across multiple disciplines. Is there a universal long-term trend towards rising complexity? Does the notion of Universal Darwinism work outside the biological realm? What new mechanisms of change can be observed with the appearance of our own species, Homo sapiens? What are the main similarities and differences in methods of studying the past as we move from the realms of physics to those of geology and biology and eventually to human history? The course will explore these and many related questions. The choice of topics will be determined in part by discussions in the first week. In a problem-based course, lectures are less valuable than group discussions, so the classes will combine short informal lectures with group discussions and debates. The unit will also explore a flipped classroom model that will deliver some unit content and learning tasks digitally through the iLearn learning management system.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

Interdisciplinary thinking

Critical analysis

Research skills

Devising new research agendas

Writing accessible & engaging histories

General Assessment Information

- Submit your assessments on Turnitin via iLearn.
- Recognising the typical pressure of multiple course loads, extensions will be given out with relative ease, provided there is advanced notice and a good reason, *though this may delay feedback that can be applied to your next assessment.*
- Late penalties are -2% per day, maxing out at a -20% penalty after 10 days. And, given the point above, there is no reason to turn in assessments late. If you are falling behind, inform your lecturer.

Assessment Tasks

Name	Weighting	Hurdle	Due
<u>"Little" Big History</u>	20%	No	25/08/2017
<u>Complexity Literature Review</u>	20%	No	15/09/2017
<u>Research Proposal</u>	10%	No	06/10/2017
<u>Research Essay</u>	40%	No	17/11/2017
<u>Attendance & Participation</u>	10%	No	All session

"Little" Big History

Due: **25/08/2017**

Weighting: **20%**

A short history of any object, person, animal, or concept of the student's choice over 13.8 billion years from the Big Bang to modern day. Learn to draw connections between epochs and major disciplines and reinforce your grasp of the grand narrative. Learn to write histories cogently, concisely, and in a style that is engaging to read. 1000 word maximum, worth 20%, due August 25th.

On successful completion you will be able to:

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Writing accessible & engaging histories

Complexity Literature Review

Due: **15/09/2017**

Weighting: **20%**

Compare two course readings on how complexity can be defined and measured. Are nodes and building blocks more reliable, or are flows of energy? What are the flaws and strengths of each approach? Identify the key components of complexity and what establishes one structure or system as "more complex" than another. 1000 word maximum, worth 20%, due September 15th.

On successful completion you will be able to:

- Interdisciplinary thinking
- Critical analysis
- Research skills

Research Proposal

Due: **06/10/2017**

Weighting: **10%**

Propose a Big History research topic for your final paper. Identify the main research question you want to ask, the types of sources and data that are required, and the aspects of Big History you will need to investigate. Provide any hypotheses that you will seek to put to the test. 500 word maximum, worth 10%, due October 6th.

On successful completion you will be able to:

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas

Research Essay

Due: **17/11/2017**

Weighting: **40%**

Identify and explore a major research agenda in Big History, i.e. an interdisciplinary topic that examines broad trends. The topic can be the exploration of an entirely new research agenda, or the expansion of an existing one. Essays must be well sourced and well written. 2500 word *minimum*, worth 40%, due November 17th.

On successful completion you will be able to:

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas

- Writing accessible & engaging histories

Attendance & Participation

Due: **All session**

Weighting: **10%**

Students must not miss three or more classes without medical certificate or another valid means of excuse, or will forfeit the 10%. Full marks will be awarded to students who contribute regularly to class discussions and debates with either comments or questions. Middling grades will be awarded to those students who contribute semi-regularly, and low grades will be awarded to those students who show up and sit mostly in silence.

On successful completion you will be able to:

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas

Delivery and Resources

SEMINARS:

The course will be taught in 2 hour weekly discussion seminars. The current timetable has slated these seminars on Tuesdays, 3pm-5pm in E5A 180. If there is a great deal of enrollment a second time and location may be established.

TEXTS:

David Christian, Cynthia Stokes Brown and Craig Benjamin, *Big History: Between Nothing and Everything*, New York: McGraw-Hill Education, 2014. The basic text from MHIS115.

Optional text:

David Christian, *Maps of Time: An Introduction to Big History* (Berkeley, CA: University of California Press, 2004). More expansive than basic text with very useful bibliography.

Where to Get Texts: Required and Optional texts will be available for purchase at the Co-Op bookstore on campus. External students can also contact the Co-Op via phone at (02) 8986 4000, fax at (02) 8986 4099 and the internet at <http://www.coop-bookshop.com.au> and arrange for texts to be sent to them.

In all, you have 3 options for purchasing '*Big History: Between Nothing & Everything*'. Please read the options carefully before choosing which to purchase!

1. PRINTED TEXTBOOK

RRP **\$87.95 AUD**. ISBN 9780073385617. Purchase from the Co-op Bookshop:

<http://www.coop.com.au/bookshop/show/big-history-between-nothing-and-everything-christian-b>

enjamin-brown/9780073385617/

2. SMARTBOOK

An adaptive online eBook. SmartBook facilitates the reading process by identifying what you know and don't know. As you read, the material continuously adapts to ensure you are focused on the content you need most to close specific knowledge gaps. Learn more about SmartBook here:

\$47.95 AUD. 1 year access. Purchase from McGraw-Hill Education at:

<http://www.mheducation.com.au/9781259324604-aus-smartbook-online-access-for-big-history/>

3. EBOOK

A downloadable eBook. Allows you to search, highlight and add notes.

\$46 USD. (*This transaction will likely be converted back to AUD by your bank and this will be at the currency rate of the day.*) Purchase from McGraw-Hill Education at:

<https://create.mheducation.com/shop/#/catalog/details/?isbn=9781121743687>

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If you have any queries regarding these options, please visit <https://www.mheducation.com.au/contact-us> to contact McGraw-Hill Education.

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Unit Schedule

Unit Schedule

MHIS215 PROBLEMS IN BIG HISTORY: WEEKLY SEMINAR TOPICS

Week	Seminar Topics	Assessment Deadlines
	Seminars: Tuesdays 3pm to 5pm E5A 180	
1	THE UNIVERSE: Why did the Big Bang happen? - Leading theories, hypotheses, and the evidence for them. What role do the Laws of Thermodynamics play in Big History? - The impact of the 1st and 2nd law at all stages of the narrative. (August 1st)	

<p>2</p>	<p>THE UNIVERSE, pt.II: What does the Heat Death of the Universe tell us about complexity? - Scientific, historical, and philosophical reflections.</p> <p>What are the prospects for human complexity in the Deep Future? - The Kardashev scale and methods of foresight.</p> <p>(August 8)</p>	
<p>3</p>	<p>UNIVERSAL DARWINISM: Does the Darwinian algorithm manifest itself outside of biology? - Chems, Genes, and Memes.</p> <p>How can different forms of the algorithm be measured? - Reality vs. Metaphor.</p> <p>(August 15)</p>	
<p>4</p>	<p>HOW TO "SCIENCE": How do the natural and social sciences represent the world accurately? In what ways do they fail? - The trials and tribulations of truth.</p> <p>In what ways do our worldviews impede our interpretation of Big History? - Scientism, Eurocentricism, Anthropocentrism, and the Postmodern Mess.</p> <p>(August 22)</p>	<p>Little Big History Due Friday 11:59pm</p>
<p>5</p>	<p>COMPLEXITY: How is complexity defined and how is it measured? - Building blocks, Energy Densities, and "Information".</p> <p>What makes one structure or system more complex than another? - The inanimate, animate, and cultural.</p> <p>(August 29)</p>	
<p>6</p>	<p>THE GREAT COMPLEXITY DEBATE: Three teams: two declared positions, one impartial. What is the more effective way of measuring complexity? What are the implications for what we regard as more or less complex? Where does this place human cultural complexity?</p> <p>(September 5)</p>	
<p>7</p>	<p>EVOLUTION & CULTURE: When and why did our ancestors evolve collective learning? What were the anatomical and environmental factors that enabled it? - Primates, Cavemen, and Connoisseurs.</p> <p>What other species outside of primates give signs of having collective learning, or at the very least elements of it? Why would they have evolved those traits? - Questioning the division between "man and beast".</p> <p>(September 12)</p>	<p>Literature Review Due Friday 11:59pm</p>
	<p>SESSION 2 RECESS</p> <p>NO CLASS SEPTEMBER 19TH</p>	
	<p>SESSION 2 RECESS</p> <p>NO CLASS SEPTEMBER 26TH</p>	
<p>8</p>	<p>NATURE AND NURTURE: What are the roles of biological and cultural evolution in the formation of human society? - Foraging, Agrarian, and Modern.</p> <p>In what way do nature and nurture overlap, and in what way are they separate? - Power, hierarchy, gender, class, and human nature.</p> <p>(October 3)</p>	<p>Research Proposal Due Friday 11:59pm</p>

9	<p>THE GREAT NATURE/NURTURE DEBATE: Three teams: two declared positions, one impartial. Was hunter-gatherer life one of "affluent foragers" or "nasty, brutish, and short"? Where is there continuity with agrarian and modern society, and where is there discontinuity?</p> <p>(October 10)</p>	
10	<p>CLIODYNAMICS: How do macro-historical trends impact micro-historical events? - Demography, ecology, collective learning, and sociopolitical instability.</p> <p>How do we prove broad trends in human history and what are some examples? - Looking for patterns in hyper-complex systems.</p> <p>(October 17)</p>	
11	<p>SCENARIOS FOR THE ANTHROPOCENE: What are the most likely problems and possibilities facing us in the next one to two centuries? - Techno-Utopias, Green-Utopias, Creative Descent, and Collapse.</p> <p>What potential solutions are there to the problems threatening human complexity? - Forecasting problems and solutions.</p> <p>(October 24)</p>	
12	<p>RESEARCH ESSAY WORKSHOP: A chance to float your research questions, hypotheses, and give and receive constructive critiques from your peers.</p> <p>(October 31)</p>	
13	<p>PROBLEMS IN BIG HISTORY REVISITED: An overview of major Big History research agendas and a chance to revise and review the more troublesome concepts of the course.</p> <p>(November 7)</p>	
		<p>Research Papers Due Friday, November 17th 11:59pm</p>

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy_2016.html

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Complaint Management Procedure for Students and Members of the Public http://www.mq.edu.au/policy/docs/complaint_management/procedure.html

Disruption to Studies Policy (in effect until Dec 4th, 2017): http://www.mq.edu.au/policy/docs/disruption_studies/policy.html

Special Consideration Policy (in effect from Dec 4th, 2017): <https://staff.mq.edu.au/work/strategy->

[planning-and-governance/university-policies-and-procedures/policies/special-consideration](#)

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [ask.mq.edu.au](#).

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Proposal
- Research Essay

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Critical analysis
- Research skills
- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Proposal

- Research Essay
- Attendance & Participation

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Research skills
- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Proposal
- Research Essay

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Proposal
- Research Essay

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Proposal
- Research Essay

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Critical analysis
- Research skills

- Devising new research agendas

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Proposal
- Research Essay

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Research Proposal
- Research Essay
- Attendance & Participation

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Proposal
- Research Essay
- Attendance & Participation

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Proposal
- Research Essay
- Attendance & Participation