

Methods of Argument Analysis and Construction in Public Policy

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Focus

In 1993, Frank Fischer and John Forester published *The Argumentative Turn in Policy Analysis and Planning*. Turning to argumentation, they argue, is necessary because all human knowledge about reality is inevitably selective and framed from a certain vantage point. There is no view from nowhere. Thus, the possibilities of objective knowledge and truth are always and principally limited. This point can also be made by hinting at the fact that any formulation of knowledge depends necessarily on conceptual frameworks, theories, and models which change over time. Based on that it should be clear that “our language ... profoundly shapes our view” of the world.

This means, however, that a crucial part of the practice of policy analysts and planners must be the critical analysis of the language used in public policy. This is not easy. While it became more and more clear since Fischer and Forester published their book that the best language in public policy is the language of arguments, not much has been done to answer the following questions: What is a *good* argument? What kind of *standards* do we have to evaluate the quality of argumentations? And: What is the best *method* to analyse and construct arguments? Although there is a huge research tradition on argumentation in philosophy that has hardly been reflected in public policy, the real challenge is not catching up to the state of the art in argumentation theory, but to develop standards and methods of argument that can be *applied* in public policy without setting the technical and cognitive requirements too high.

This seminar tries to cope with this challenge in a collaborative research and training effort. After a short introduction to methods for analyzing and constructing arguments that are currently used in public policy, we will study, in the class’s first section, the foundations of a new method that is still in development: Logical Argument Mapping (LAM). LAM is a method that is designed to fulfill especially the following purposes:

1. to visualize the structure of complex argumentations where “complexity” does not only refer to the amount of information that needs to be structured, but also to the fact, on the one hand, that we are facing systems of mutually supporting knowledge claims, beliefs, and values whose internal structure is not clear and, on the other hand, that there are often multiple—and conflicting—ways to structure those systems;
2. to stimulate both *reflection* on our own cognitive limitations and *creativity* to overcome those limitations;
3. to provide a tool that can be used by practitioners in public policy.

In order to test whether Logical Argument Mapping fulfills these purposes (and to improve the method if necessary), we will work, in the second part of the class, in research teams on specific problems that cover the School of Public Policy’s “areas of concentration”: environmental policy; science and technology policy; urban and regional economic development policy; information and communications policy; policy evaluation; and public management. (The class allows you to fulfil the requirement of a 3-credit course for each of these areas).

Tools (links are in T-Square, folder “Resources”)

- LAM manual: <http://www.prism.gatech.edu/~mh327/LAM/>
- Overview of the LAM argument schemes (pdf)
- Cmap (<http://cmap.ihmc.us/>), the software we will use for Logical Argument Mapping. Please download from: <http://cmap.ihmc.us/download/>.
- Boolean Operators: <http://www.rbjones.com/rbjpub/logic/log048.htm>
- “Tools for Philosophy.” A document that lists encyclopaedias (books and online) that can help if you have problems with philosophical terminology.

Instructions for cmap

After installing the program, you will be asked to register. Please use your family name as user name, and as password the letters and numbers of your GT-e-mail account (i.e. everything you find before the “@”). Since I can see these data in T-Square, I defined the cmap permissions based on this.

When you open the program, you will see a window called "Views - Cmap tools." Click in the left column the button "Shared maps in places." Within the list of places there is one folder "IHMC Public Maps (3)." In this folder you will find our project folder "Georgia Tech PubP 8803." Within this folder again, there is one folder “class maps” and another one “LAM schemes.” In the latter you will find all the schemes that are also in the LAM manual, but here they are in the original cmap format. For constructing your own maps, you can simply copy the schemes you need from the files you find here and use them as templates. But please don’t change these files. You can also copy the entire files to your own computer. Use the other folder “class maps” to save those maps on which you collaborate in groups. You can create your own folders in this folder. Nevertheless, you should save any file you create with Cmap also on your own computer.

Mark the class folder "Georgia Tech PubP 8803" and use right-click on your mouse to "Add to your favorites." This way, you will find this folder next time through the link "Favorites" in the left column.

You can use the "Discussion Threads - Project preparation" for communication. Cmap allows also synchronous collaboration on maps as well as presentations. See the help function for details.

Enjoy the program! I think it is fun.

Readings for all (download from T-Square, folder “Resources”)

Bernstein, J., McNichol, E. C., & Nicholas, A. (2008). Pulling apart. A state-by-state analysis of income trends [Electronic Version]. Retrieved May 17, 2008, from <http://www.epi.org/studies/pulling08/4-9-08sfp.pdf>

Boolean Operators: <http://www.rbjones.com/rbjpub/logic/log048.htm>

Economist. (2004). Down to the pharm. Biotechnology: Will genetically engineered goats, rabbits and flies be the low-cost drug factories of the future? *The Economist Technology Quarterly*, September 18th, 37-38.

Economist. (2006). Organ transplants. Your part or mine? Iran's example, and the broader case for making it worthwhile to give kidneys. *The Economist*, Nov 16th.

Hansen, B. (2004). Big-Box Stores. Are they good for America? *The CQ Researcher*, 14(31), 733-756.

Israel's fence

Layman, C. S. (2005). *The Power of Logic* (3. ed.). New York: McGraw-Hill, pp. 247–279.

Rawls, J. (1971). *A Theory of Justice*. Cambridge, Mass.: Belknap Press of Harvard UP.

Rawls. A glossary.

Shlaes, A., & Krugman, P. (2007). Are Tax Cuts Good for America? In G. McKenna & S. Feingold (Eds.), *Taking Sides: Clashing Views on Political Issues* (15th ed., pp. 206-229). Dubuque, Iowa: McGraw-Hill Companies.

Vaughn, L. (2008). *The Power of Critical Thinking: Effective Reasoning About Ordinary and Extraordinary Claims* (2nd ed.). New York, Oxford: Oxford University Press, pp. 67–94.

Readings for possible research teams (purchase on your own, plus additional material)

1. Should the US commit themselves to reduce greenhouse gases to internationally agreed upon values?

Although the time of the Bush administration will soon be over, its arguments against commitments formulated in international agreements will surely survive. But do these arguments refer to realities or to myths? In order to decide this question, we have to analyze the arguments. We can do this by comparing a list of White House papers with chapters of the following book:

Sovacool, B. K., & Brown, M. A. (Eds.). (2007). *Energy and American Society - Thirteen Myths*. The Netherlands: Springer.

Whitehouse. (2008). President Bush Discusses Climate Change [Electronic Version]. *The Whitehouse. President George W. Bush*. Retrieved May 10, 2008 from <http://www.whitehouse.gov/news/releases/2008/04/20080416-6.html>.

Whitehouse. (2007). Press Briefing on the Third Intergovernmental Panel on Climate Change Report on Climate Change [Electronic Version]. *The Whitehouse. President George W. Bush*. Retrieved May 10, 2008 from <http://www.whitehouse.gov/news/releases/2007/05/20070504-2.html>.

Whitehouse. (2001). Climate Change Report [Electronic Version]. *The Whitehouse. President George W. Bush*. Retrieved May 10, 2008 from <http://www.whitehouse.gov/news/releases/2001/06/climatechange.pdf>.

Whitehouse. (2001). Global Climate Change Research (collection) [Electronic Version]. *The Whitehouse. President George W. Bush*. Retrieved May 10, 2008 from http://www.whitehouse.gov/ceq/foia/kyoto/global_climate_change_research.pdf.

Additional material:

IPCC. (2007). Climate Change 2007: Synthesis Report. Summary for Policymakers [Electronic Version]. *Fourth Assessment Report (AR4)*. Retrieved May 10, 2008 from http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf.

James, R. (2008). The full portfolio (The Electric Power Research Institute - EPRI) [Electronic Version]. *Electric Perspectives, January / February*, 36-51. Retrieved May 10, 2008 from http://mydocs.epri.com/docs/CorporateDocuments/AssessmentBriefs/The_Full_Portfolio.pdf.

Oreskes, N. (2004). Beyond the ivory tower - The scientific consensus on climate change. *Science*, 306(5702), 1686-1686.

Roger A. Pielke, J., & Oreskes, N. (2005). Consensus About Climate Change? (Letter and response). *Science* 308 (5724).

2. *Developing environmentally sustainable economies*

Hawken, P., Lovins, A., & Lovins, L. H. (2000). *Natural Capitalism: Creating the Next Industrial Revolution*. Boston, New York, London: Back Bay Books.

The authors—researchers of the Rocky Mountains Institute in Colorado—argue that the next industrial revolution will be driven not by the desire to increase labour productivity, but by the need to multiply the efficiency of natural resources. They describe concrete technological and economic strategies that can guide such an “Eco-Efficiency Revolution.” However, the book itself is a bit confusing. There are many loose ends, and maybe even contradictions. They promise a “theory of natural capitalism,” but also a “portrayal of opportunities” and a mapping “of a journey that requires overturning long-held assumptions.” The task is here to restructure the book’s main ideas.

3. *Do we need regulatory frameworks for the implementation of, and research on, nanotechnology?*

Faunce, T. A. (2007). Nanotechnology in Global Medicine and Human Biosecurity: Private Interests, Policy Dilemmas, and the Calibration of Public Health Law. *Journal of Law, Medicine & Ethics*, Winter 2007, 629-642.

Wilson, R. F. (2006). Nanotechnology: The Challenge of Regulating Known Unknowns. *Journal of Law, Medicine & Ethics*, Winter 2006, 704-713.

Academic Honor Code

Based on GT’s Honor Advisory Council recommendation I would like to clarify the following points: You are allowed (and encouraged) to work together with other students on homework, as long as you write up and turn in your own solutions. Submitting any work other than your own is a violation of the Academic Honor Code. Quoting other authors, of course, is common scientific practice. However, you have to make absolutely clear what are your own formulations, and what those of others. You can quote the texts of our seminar in short form (e.g. “Boylan, p. 52”). Other sources have to be listed under “References.” Plagiarism will be dealt with according to the GT Academic Honor Code. Note that plagiarizing is defined by Webster’s as “to steal and pass off (the ideas or words of another) as one’s own : use (another’s production) without crediting the source.”

For any questions involving these or any other Academic Honor Code issues, please consult me or www.honor.gatech.edu.

Contact

Feel free to contact me if there are any problems you would like to discuss. My **office hours** are Tuesday at 3:00 pm or by appointment. The office is located in the basement of the DM Smith Building, room 004. My **phone number** is 404-385-6083. The easiest way to contact me is by **e-mail**: m.hoffmann@gatech.edu.

Schedule

<i>Week</i>	<i>Date</i>	<i>Theme</i>	<i>Readings</i>	<i>Homework</i>
1	Aug 22	Introduction		
Logical Foundations				
2	Aug 29	Logical Argument Mapping	LAM Manual	T-Square
3	Sept 5	Deduction (validity and soundness); induction (strength and cogency)	Vaughn 67–86	T-Square
4	Sept 12	Propositional logic and truth table proofs	Layman 247–279; Boolean operators	T-Square
5	Sept 19	Argument schemes	Vaughn 87–94	T-Square
6	Sept 26	Test Workgroups on organ transplants	Economist 2006	T-Square
Mapping and presenting arguments				
7	Oct 3	Biotechnology Workgroups	Economist 2004 Israel's fence	T-Square
8	Oct 10	Big-Box Stores. Are they good for America?	Hansen	T-Square
9	Oct 17	Are Tax Cuts Good for America?	Shlaes & Krugman	T-Square
10	Oct 24	Continuation with new arguments	Bernstein et al.; Rawls	T-Square
11	Oct 31		Project	Project
12	Nov 7		Project	Project
13	Nov 14		Project	Project
14	Nov 21		Project	Project
	Nov 28	GT holiday		
15	Dec 5		Project	Project

Grading

The grading is based on what is listed below. There will neither be an essay, nor a final exam.

Attendance

is mandatory. You will get nothing better than a “C” if you attend less than 12 class meetings.

Participation and presentations

50% of your final grade will depend on the amount and quality of your contributions to our class discussions over the whole semester. Included are the presentation and discussion of homework assignments and of your research projects. Maximum: **32 points**.

Homework, first version

You will find tasks for 8 weeks in the folder “Assignments” in T-Square. Submit your answers through the text field that you will find there **before class starts**. Only T-Square submissions are accepted, but you should save copies on your own computer. You can “save” your work in T-Square (do that when you leave your computer for a while, because after some time you have to log-in again and everything will be lost otherwise), but you have to click “submit” before the deadline.

I will not evaluate the quality of these first version answers. We will discuss them in class, so be prepared to present what you did at home. You will get 4 points for each first version, but only if it is complete. At the end, I will count only 7 out of 8 possible submissions. That gives you some flexibility.

Maximum for first version homework: **28 points**.

Homework, second version

What I will evaluate, however, is the quality of your revisions of your first version, especially the *progress* between first and second version (max. 5 points each). I expect these revisions before our next class meeting. However, you can submit these second versions within three weeks after the respective class (there is a second deadline set in T-Square which is invisible for you. Those submissions will be marked as “late” but that does not matter for the evaluation).

Evaluation criteria for the maps which are part of the homework assignments are the rules and conventions of Logical Argument Mapping as described in the LAM manual. A 5-points submission must not only be good, but excellent with regard to clarity and adequacy for the topic. At the end, I will count only the 6 best out of 8 possible submissions.

Maximum for second version homework: **30 points**.

Test

There will be a test on September 26 that covers weeks 2 to 5. Maximum: **10 points**

Check your points regularly to see whether the system works, and check my comments on your work to learn for later assignments.

During the whole semester, you can see all your points in the “Gradebook” of T-Square. But give me a few days to put them into the system.

Transformation in letter grades

A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

Enjoy the class, and let me know if there any problems!