

# CONDITIONALS AND PSYCHOLOGY OF REASONING

MUNICH CENTER FOR MATHEMATICAL PHILOSOPHY  
Ludwig-Maximilians-Universität München

Summer Semester 2015

## 1 PRACTICALITIES

Where: Ludwigstr. 31, Room 028  
When: Tuesday 12:00 – 14:00  
Instructor: Dr. Karolina Krzyżanowska  
E-Mail: [k.krzyzanowska@lmu.de](mailto:k.krzyzanowska@lmu.de)  
Website: <http://karolinakrzyzanowska.com>  
Office: Ludwigstr. 31, Room 131  
Office hours: Tuesday 14:30-15:30 & by appointment.

## 2 ABOUT

Conditional sentences belong to the most troublesome linguistic phenomena. Despite the fact that a huge amount of work devoted solely to conditionals has been published in the course of the last couple of decades, there are still many open questions regarding their semantics and pragmatics. Recently, many researches began to realise that combining formal and empirical methods allows us to tackle old issues in an utterly different way, prompting new developments. In this class, we will have a closer look at how various philosophical accounts of conditionals influenced psychological research on reasoning, and how, in return, empirically obtained data can inform philosophical theories.

## 3 GRADING AND DEADLINES

Homeworks: 20%  
Final Paper Outline: 30% Deadline: Monday, June 15  
Final Paper: 50% Deadline: Friday, July 31

**HOMEWORKS:** One day before each class students are expected to submit two questions related to the assigned reading.

**FINAL PAPER:** Students will write a paper (5000 words at most) on the topic of their choice, but related to the content of the class. The paper should be interdisciplinary, that is, it should be based on at least one paper in psychology and at least one paper in philosophy. The choice of the topic and the bibliography should be discussed with the instructor before submission of the outline.

## 4 OUTLINE

The reading list will be adapted in the course of the class (an up-to-date syllabus will be posted on the instructor's website).

1. Introduction. What is special about conditionals. [14.04.2015]

2. Material conditional and the Wason selection task (Wason 1968; Evans and Over 2004, ch. 5). [21.04.2015]
3. Logics in the Wason selection task (Stenning and van Lambalgen 2004) or (Stenning and Van Lambalgen 2008, ch. 3). [28.04.2015]
4. Dual processes (Evans 2003). [05.05.2015]
5. Gricean defence of the material analysis (Grice 1989, ch. 4, "Indicative Conditionals"). [12.05.2015]
6. Stalnaker's semantics for indicative conditionals (Stalnaker 1968). [19.05.2015; 2.06.2015]
7. Mental models and mental logic (Evans and Over 2004, ch. 4); Suppression of inferences (Byrne et al. 1999). [9.06.2015]
8. Counterfactual reasoning (Byrne 2002; Rafetseder et al. 2013) [16.06.2015]
9. Against truth conditions (Edgington 1995; Gibbard 1981). [23.06.2015]
10. Probabilistic accounts (Evans and Over 2004, ch. 8). [30.06.2015]
11. Adams Theses (Douven and Verbrugge 2010). [07.07.2015]
12. Inferential connections (Douven et al. 2014). [14.07.2015]

RECOMMENDED TEXTBOOKS: Bennett (2003), Evans and Over (2004), Stenning and Van Lambalgen (2008).

#### REFERENCES

- Bennett, J. (2003), *A Philosophical Guide to Conditionals*, Oxford University Press, Oxford.
- Byrne, R. M. (2002), 'Mental models and counterfactual thoughts about what might have been', *Trends in Cognitive Sciences* 6(10), 426–431.
- Byrne, R. M. J., Espino, O. and Santamaria, C. (1999), 'Counterexamples and the suppression of inferences', *Journal of Memory and Language* 40, 347–374.
- Douven, I., Elqayam, S., Singmann, H., Over, D. and van Wijnbergen-Huitink, J. (2014), Conditionals and inferential connections. Manuscript.
- Douven, I. and Verbrugge, S. (2010), 'The Adams family', *Cognition* 117, 302–318.
- Edgington, D. (1995), 'On conditionals', *Mind* 104(414), 235–329.
- Evans, J. S. B. T. (2003), 'In two minds: dual-process accounts of reasoning', *Trends in Cognitive Sciences* 7(10), 454–459.
- Evans, J. S. B. T. and Over, D. E. (2004), *If*, Oxford University Press, Oxford.
- Gibbard, A. (1981), Two recent theories of conditionals, in W. L. Harper, R. Stalnaker and G. Pearce, eds, 'Ifs: Conditionals, Belief, Decision, Chance, and Time', Reidel, Dordrecht, pp. 211–247.
- Grice, P. (1989), *Studies in the Way of Words*, Harvard University Press, Cambridge, MA.
- Rafetseder, E., Schwitalla, M. and Perner, J. (2013), 'Counterfactual reasoning: From childhood to adulthood', *Journal of Experimental Child Psychology* 114, 389–404.
- Stalnaker, R. C. (1968), A theory of conditionals, in N. Rescher, ed., 'Studies in Logical Theory', American Philosophical Quarterly Monograph Series, 2, Blackwell, Oxford, pp. 98–112.
- Stenning, K. and van Lambalgen, M. (2004), 'A little logic goes a long way: basing experiment on semantic theory in the cognitive science of conditional reasoning', *Cognitive Science* 28, 481–529.

Stenning, K. and Van Lambalgen, M. (2008), *Human reasoning and cognitive science*, MIT Press.

Wason, P. C. (1968), 'Reasoning about a rule', *Quarterly Journal of Experimental Psychology* **20**(3), 273–281.