

UC Berkeley Logic Group
Philosophy Preliminary Syllabus 2013
Decision Theory: Philosophical Foundations (Prof Lara Buchak)

At its core, decision theory is a mathematical theory that relates preference, belief, and desire. This theory is used in a variety of ways: to guide action, to explain and predict behavior, to normatively assess choices, and to gain access to mental states. However, before it can be adequate for any of these purposes, its theoretical core needs to be expanded upon. In particular, the notions of preference, belief, and desire all need to be interpreted.

This syllabus explores foundational issues in decision theory. In particular, it focuses on debates surrounding the analysis of preference, belief, and desire. Topics include the relationship between preference and behavior; incommensurable values; substantive theories of utility; whether degrees of belief can be vague; and other issues.

I. Decision Theory and Its Uses

Resnik, Michael (1987), *Choices: An Introduction to Decision Theory*. University of Minnesota Press., 81-119.

Dreier, James. "Decision Theory and Morality." In *Oxford Handbook of Rationality*, A. Mele and P. Rawling, eds., 2004. pp 156-160.

Maher, Patrick. *Betting on Theories*. Cambridge University Press, 1993. pp. 1-12, 21-23, 34-62.

Lewis, David. "Radical Interpretation." *Synthese* (1974), 27: 331-344.

Zynda, Lyle. "Representation Theorems and Realism about Degrees of Belief." *Philosophy of Science* (March 2000), 67(1): 45-69.

II. Preference and Utility

Sen, Amartya. "Behavior and the Concept of Preference." *Economica*, New Series (1973), 40(159): 241-259

Broome, John. "Incommensurable Values." Chapter 9 of *Ethics out of Economics*. Cambridge University Press, 1999.

Broome, John. "Can a Humean be Moderate?" Chapter 5 of *Ethics out of Economics*. Cambridge University Press, 1999. (Originally published 1993)

Dreier, James. "Rational Preference: Decision Theory as a Theory of Practical Rationality." In *Theory and Decision* (1996), 40: 249-276.

Broome, John. "Utility." Chapter 2 of *Ethics out of Economics*. Cambridge University Press, 1999.

III. Degrees of Belief

Eriksson, Lina and Alan Hajek, "What are Degrees of Belief?" *Studia Logica* (2007), 86: 183-213.

David Christensen (1996), "Dutch Book Arguments Depragmatized: Epistemic consistency for partial believers." *Journal of Philosophy* 93: 450-79.

Roger White (2009), "Evidential Symmetry and Mushy Credence." In *Oxford Studies in Epistemology*, eds. Tamar Szabo Gendler and John Hawthorne. Oxford: Oxford University Press. Pp. 161-88.

Adam Elga (2010), "Subjective Probabilities Should be Sharp." *Philosophers' Imprint* 10(5).