

How to Choose What to Decide

PETER KESTING AND HAGEN LINDSTÄDT¹

Abstract submitted to FUR XI – Paris 2004

Decision making in the rational choice domain requires the decision problem at hand to appear in *closed form*. Closed form here means that it is based on a well defined set of alternative courses of action (acts) to choose from that for their part are connected to well defined, probably uncertain payoffs. However, bounded rationality abandons this assumption by acknowledging that processing information is costly. As long as the agent is in the pre-decision-state, he has neither ascertained any payoffs to well defined actions nor has he specified different states of the nature. In other words, bounded rationality does (mostly) not assume real world decision problems to appear in closed form, but treats them as *open*. Consequently, in the bounded rationality domain the question of how to *close* a decision problem, i.e. transforming it from open to closed form, is an important one. By focussing real world's complex richness to a single decision problem of interest we select a closed form decision problem, in other words: we choose what to decide.

It is important to realize that this choice is not, like one could think at first glance, another (meta) decision problem that can be treated using rational choice. First, choosing between decision problems formally differs from choosing a course of action – e.g., the decisions' payoffs tend to be unknown until they are in closed form. Second, it has been discussed that attempting to choose what to decide, i.e., the closing of decision problems, by again using rational choice leads to an infinite regress and other serious problems (c.f., e.g. Conlisk (1996), Lipman (1991; 1995), Mongin/Walliser (1988)). In consequence, we have to look for different approaches to bridge from acting boundedly rational to rational choice: in order to close a decision problem, an actor cannot avoid dealing with the openness and complexity of the bounded rationality domain any more. It is this particular fact that rules out any chance to explain the process of *closing* exclusively on basis of a decision mechanism.

We offer and discuss an approach to closing the gap between an open real world that is subject to boundedly rational reasoning and decision making in the rational domain, thereby showing a road for the connection between the two domains. The exploration is guided by the demands such mechanisms have to meet. In particular, we offer the two

¹ PD Dr. Peter Kesting, Clare Hall, Herschel Road, Cambridge, CB3 9AL, United Kingdom, e-mail: kesting@microec.hhl.de, Prof. Dr. Hagen Lindstädt, HHL - Leipzig Graduate School of Management, Jahnallee 59, 04109 Leipzig, e-mail: lindstaedt@management.hhl.de.

central concepts of *Intention* and *Allocation of Attention* and their interplay as approaches that can and have to be relied upon (as a substitute for the concept of payoff in closed form decision making):

- *Intention* will be purposed and discussed as a mechanism to define the boundaries of the set of feasible actions, thus guiding the separation of a decision problem. Intention is defined as an actor's purpose to bring about some particular state of the world. The related decision is, then, to ascertain the best way to bring about the intended state of the world. This decision problem is closed by focussing on only one particular purpose at a given point in time – every aspect that is not relevant to bring about the particular intended state of the world is excluded from focus.
- The *allocation of attention* will be purposed and discussed as a mechanism to choose an intention and, thus, to trigger a decision. In consequence, by allocating attention to a certain aspect of the world, the actor separates this aspect by attaching intention to it, thereby assigning capacity to reason and process information.

This will lead us to the statement that decision making (i.e., choosing an action from a well defined feasible set) is only one particular although important type of choice, namely deliberate choice as a result of a comprehensive analysis that is immediately guided by preference. Still, the concept of choice is much more general, including the selection of (closed) decision problems from an open world based on intention and allocation of attention. Although influenced by psychological research, the purpose of this paper is not to provide a psychological, but an economic analysis of what is necessary for closing open decision problems, i.e. of choosing what to decide. Similar to using the concept of risk in decision making under uncertainty, we can fruitfully use the concept without having a precise description of its exact psychological sources.

Although rooted a little distant from traditional decision theory, an important purpose of our paper is to demonstrate why it makes sense to analyse closed decision problems in an open world, and how we can get from here to there.

REFERENCES:

- Conlisk, J. (1996), Why Bounded Rationality?, *Journal of Economic Literature*, 34: 669-700.
- Lipman, B.L. (1991), How to Decide How to Decide How to...: Modelling Bounded Rationality, *Econometrica*, 59: 1105-1125.
- Lipman, B.L. (1995), Information Processing and Bounded Rationality, *Canadian Journal of Economics*, 28: 42-67.
- Mongin, P. and B. Walliser (1988), Infinite Regressions in the Optimizing Theory of Decisions, in: B. Munier (ed.), *Risk, Decisions, and Rationality*, D. Reidel: Dordrecht, pp. 435-457.