

Dissertation Abstract: Towards a Positive Economic Theory of Indecisiveness

ERIC DANAN*,[†]

Department of Economics, Hong Kong University of Science and Technology, Clearwater, Bay, Hong Kong
email: ecdanan@ust.hk

Received November 23, 2004; Accepted February 7, 2005

My PhD dissertation addresses the issue of the *behavioral* foundations of *incomplete preference* theory. Compared with standard, complete preferences, incomplete preferences allow for some choice alternatives to be incomparable, thereby modeling *indecisiveness*.

If an individual's preferences are assumed to be complete, then they can straightforwardly be *revealed* by her choice behavior: she (weakly) prefers x to y if, and only if, she selects x from $\{x, y\}$ (notwithstanding the usual problem of eliciting indifference). However, without the completeness assumption, the problem gets more complicated. Indeed, even if the individual is indecisive between x and y , she is forced to choose within $\{x, y\}$, and anything she selects from $\{x, y\}$ could also have been selected, would she have complete preferences.

How, then, can one elicit an individual's preferences based on her observed choice behavior without assuming completeness? The central idea of the dissertation consists in allowing the individual to *postpone* her choice. More precisely, a "reflecting-then-acting" assumption is introduced, stating that the individual is indecisive between x and y if, and only if, she strictly prefers to postpone her choice between x and y rather than committing now to either alternative. This assumption is naturally linked to the traditional interpretation of the concept of *preference for flexibility* as reflecting uncertainty about tastes, and formally connects this concept to incomplete preference theory.

An experimental test of the completeness axiom is then conducted. In order to use the learning-then-acting assumption, we presented subjects with the possibility of committing now to an alternative or postponing their choice. To avoid complexity issues, all choices were between two simple alternatives: a sure gain and a *lottery* made up of two equiprobable gains. The possibility of postponement was implemented by recruiting subjects for two experimental sessions. We made sure that the choice of postponement actually reflected a strict preference for late over immediate commitment (as opposed to an *indifference*) by checking its robustness to the addition of a small additional gain attached to immediate commitment.

Our data presents evidence of *significant* violation of the completeness axiom. More precisely, our simple lottery framework allows to define a natural measure of indecisiveness, as well as a simple index of a lottery's *riskiness*. The measure of incompleteness turns out to be significantly different from 0, and stable across the range of risk indexes that we considered. These findings suggest that, in addition to be *methodologically founded*, incomplete preference theory is *descriptively relevant*.

Jean-Marc Tallon

PhD advisor

*EUREQua, University of Paris 1.

[†]In collaboration with Anthony Ziegelmeyer, Max Planck Institute for Research into Economic Systems, Jena, Germany.