Editorial

Introduction to the Special Issue "Dynamic Decision-Making in Controlled Experiments"

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While research so far has mostly focused on static (one-shot) decisions, it is obvious that many (or even most) crucial real-life decisions are dynamic. Continuous planning and implementation processes in companies, resource exploitation and regeneration policies in mining, agriculture, and fisheries, and economic and environmental steering by policy makers are prime examples of important dynamic decisions. Decision tasks are dynamic whenever decisions made at time t alter the state of a system and, thus, the information that conditions decisions that have to be made at time $t + 1$. To make such repeated decisions, ideally, decision-makers monitor their decisions' outcomes and adapt further decisions to the current (or an expected future) state of the system. In fact, the decision-maker and the system are entwined in feedback loops whereby decisions alter the state of the system, giving rise to new information and leading to new decisions. Besides the effects of decisions on the state of the system, autonomous changes are sometimes also experienced by decision-makers, based on external influences on the system.

This Special Issue aims to provide an account of the current state of research in dynamic decision-making, with a focus on laboratory experimental studies and articles laying the foundations for such experimental studies [1–3]. The ultimate goal of the individual papers, as well as the complete Special Issue, is to contribute to the development of a theory of dynamic decision-making, *i.e.*, a theory that addresses the questions about the antecedents, mechanisms, and success factors of dynamic decision-making. In comparison to other journals, we aim for a quick procedure (the overall processing time from this announcement to the last papers published is one year; finalized papers will be published immediately online after their acceptance) and offer open access publication for all articles. We appreciate receiving contributions (as full articles—including revised conference papers, short communications or reviews) from many different fields of science: psychology, system dynamics, agent-based simulation, organization science, behavioral economics, neuro-sciences, and the wider systems sciences movement.

Topics might include but are not limited to

- Conceptualizations of dynamic decision-making and dynamic decision-making environments.
- Description of experimental settings for investigating dynamic decision-making in various contexts; for instance, profit *vs*. not-for-profit organizations, short-term *vs.* long-term decisions, "autocratic" *vs.* "democratic" decisions.
- Development of relevant measures/measurement scales to be used in dynamic decision-making research (must include results of pilot testing).
- Description of simulators to be used in dynamic decision-making research (must include results of pilot testing).
- Experimental studies on various aspects of dynamic decision-making situations; for instance, stock-flow thinking, understanding of accumulations, effects of delays and non-linearities.
- Experimental studies on various aspects of decision-makers in dynamic settings; for instance, the role of personality, intelligence, motivation, education, culture.
- Broadening the dynamic decision-making research to cover group decision processes.
- Descriptions of research agendas to investigate dynamic decision-making in the longer term, including opportunities and issues for their implementation.

References

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