

Burkhard C. Schipper: Online appendix to the book review "Game Theory: 5 Questions", edited by Hendricks and Hansen, 2007									
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Age, Affiliation	77, The Hebrew University of Jerusalem	58, University of Amsterdam, Stanford University	University of Pennsylvania	67, University College London	New York University	47, The California Institute of Technology	Oxford University	Humboldt Universität zu Berlin	58, The Hebrew University of Jerusalem
Why were you initially drawn to game theory?	"a problem about defending a city from air attack."	Luce & Raiffa (1957), Lorenzen's "Logische Propädeutik"	An interest in Bayesian decision theory when the outcome depends also on what other people choose	A lack of alternatives to reading von Neumann and Morgenstern (1944) while being trapped in a harbor in the English Channel due to bad weather, Nash's work on bargaining	A lecture by Frank Hahn at Cambridge University	Colleagues at my first academic job at Northwestern University, Luce and Raiffa (1957), suitability for doing experiments	Admission interview at Oxford University, Richard Dawkins	John Maynard Smith and Reinhard Selten	"Aumann"
What example(s) from your work (or the work of others) illustrate the use of game theory for foundational studies and/or applications?	Folk Theorem, Interactive epistemology, Equivalence theorem on competitive equilibrium, Correlated equilibrium	The connections between logic and game theory	The epistemic approach to game theory as important intersection between game theory and philosophy, backwards induction paradox, belief revision in games, logic of games, common reasoning about admissibility, the epistemic approach provides a unified treatment of several solution concepts	British telecom auction, understanding of fairness norms,	Lexicographic probability and choice under uncertainty, epistemic conditions for Nash equilibrium, iterated admissibility	Limits of iterative strategic thinking, detectability of equilibrium by fMRI, development of common norms for naming pictures in a Schelling-type matching game	The handicap principle, the biological foundation of fitness maximization	With limitations weak owners can deter stronger intruders when both play ESS in a game with discrete levels of escalation; ESS in asymmetric conflicts, ESS explains behavior of some spiders; the "streetcar" to reconcile genetic and phenotypic approaches to evolution	Cooperative game theory, repeated games, adaptive heuristics, the sure-thing principle and agreement theorems, connection between strategic approaches and coalitional approaches
What is the proper role of game theory in relation to other disciplines?	An umbrella, a unified field theory	Logic and game theory have similar academic roles	Game theory is an autonomous discipline despite being used extensively in other fields. It gives us formal models of phenomena we study.	Game theory is a tool without substantive content	Game theory is used to explore, clarify, sharpen and communicate intuitive observations	Game theory is a useful general common language for describing social interaction in many disciplines	Game theory acts as a repository of ideas for other subjects, assists in transmitting ideas between different subjects, biology contributes to game theory and vice versa	Game theory is a set of tools that need to be adjusted and perhaps added to in applications	"Game theory is universal.", "we game theorists learn from biologists", "Game theory provides the tool for analyzing interactive situations" in computer science, philosophy, social sciences in general etc.
What do you consider the most neglected topics and/or contributions in late 20th century game theory	"I don't think that behavioral economics is going to last."; "Yes, empirical economics is very important."; "the cooperative theory deserves a little more attention."	Explicit theories of strategies, step-by-step dynamics of extensive games, how games can change	Cooperative games have languished for some time, distributed artificial intelligence, programmable agents, reasoning capabilities, complexity of deriving solutions, role of emotions in decision making, cultural evolution	An integrated experimental and theoretical approach to how humans learn both as individuals and groups, what shape should rational decision theory take in a large world (as opposed to Savage's small world)?	"cooperative theory in general is a neglected area"	How agents actually play games, network formation (neglected in sociology but studied recently in game theory)	More realistic but tractable signaling games, develop a more useful model of cooperation	The negligence of facts caused by the attachment to the super-rational, social learning processes (as different from replicator dynamics), we take repeated games a little too serious,	Dynamics, interaction between game theory and computer science
What are the most important open problems in game theory and what are the prospects for progress?	Interaction between game theory and computer science, problem of computational costs	"emergent logic-game theoretic paradigm"			Making connections between epistemic game theory and empirical work	Mental representation of strategic interactions, how learning spills over across games which are not identical, social categories and stereotypes, boundedly rational mechanism design		"Biology has many open problems waiting for strategic analysis", enrich game theory with empirical content, steps towards a unified theory of animal and human behavior	

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64, Northwestern University	Stanford University	57, Rice University	City University of New York	56, Tel Aviv University, New York University	Yale University	86, University of Maryland	University of California at Irvine	University of East Anglia	John Hopkins University, Oxford University
PhD student in the mathematics department at Cornell University in the 1960s	Graduate student at Stanford University	Student of mathematics interested in applications to the social sciences, von Neumann's Minimax theorem, Schelling's "Strategic of Conflict", Owen's textbook on game theory	The connection between "rational" and "logical", Aumann's "Agreeing to disagree", thesis advice, logic of games	Hebrew University of Jerusalem, ingenious name of the field, wanted to improve my strategic skills, vague notion that mathematics has some connection to real life	"swept up by the strategic revolution in the 1980ties", bargaining	International negotiations in late 1940th and early 1950th, coordination of expectations, Luce and Raiffa (1957), reciprocal fear of surprise attack	"Because it makes rational deliberation more interesting when deliberators interact."	Hume's Treatise of Human Nature as well as work by Sen, Rawls, Harsanyi	Teaching a course on "Mathematics in the Social Sciences", legislative apportionment, strategic aspects of voting
Pricing strategy of blood-plasma separating machines in China for Baxter Healthcare, response to entrants in the distilled water market, profit sharing arrangement for Arthur Anderson (and why Anderson was not interested in it);	Reputation in repeated games with incomplete information, Sequential equilibrium, Application of folk theorem ideas to the theory of organizations, MBA text book on human resources integrating economic theory, Social psychology and organizational sociology	Identifying classes of allocation problems where core stable outcomes exist is useful to economics. The Shapley value offers a broadly applicable solution to many fair division problems. Strategy-proof mechanisms lead to immediately applicable procedures.	Existential and universal quantifier in first order logic interpreted as moves by two players respectively, pragmatics of language (What function do vague predicates fulfill in human communication?)	He questions "usefulness" as a valid criterion for evaluating game theory.	<b>Normative:</b> designing auctions, allocation of places in schools, access to railroad tracks, payload priority on space shuttles, allocation of airport take-off and landing slots, medical residents and kidneys; <b>positive:</b> evolutionary stability useful to analyze behavior of spiders, game theory helps to explain examples in the Talmud, evolutionary explanations of share-	"I am a user of game theory, not a creator."	All sorts of problems traditionally addressed in philosophy by social contract theory	An analysis of whether strong reciprocity can be explained as a product of biological and cultural evolution	Use of cooperative game theory in a Swedish water engineer project, limits of learning equilibrium in games
Analogous to probability theory and statistics (used in various fields), game theory offers a language and rules to deal with strategic interaction wherever it arises,	Game theory has proved to be a fairly flexible and yet precise modeling language.	Game theory is to all disciplines where it is used a modeling tool box or language. It does not provide a ready-made template for a context-free analysis of a game.		Game theory provides a limited set of formal and conceptual tools to formulate and clearly state problems involving strategic interaction	cropping contracts among farmers, behavior in auctions; <b>analytical implications:</b> game theory allows us to make precise and hence evaluate and revise our intuition about behavior; <b>conceptual:</b> identify a few key ideas that recur as fundamental in a variety of interaction	Game theory should inform economics, sociology, social psychology, law and anthropology, should be accepted as potentially descriptive, rationality requirements should be relaxed	A mathematical theory of evolution, rational and irrational interactive decisions	Game theory depends on other disciplines for corroboration	Invaded social sciences, now colonizing biology, computer science and philosophy; rationality plays a less prominent role for computer science and biology
Questions should be sufficiently simple so that answers can be obtained, yet they should be sufficiently advanced so that the answers are meaningful. Our models require the knowledge of too many parameters and assume unrealistic computational ability. How to play a game?	Need to get better at modeling human behavior; How are individual beliefs and tastes formed and reformed through time?; the problem of inference in the face of observations that are counter-theoretical	Normative arguments as approach to resolve indeterminacy in positive approaches	The role of knowledge, algorithmic issues, social software	The interpretation of game theory, behavioral game theory, models of bounded rationality, a redirection of experimental game theory, neuro game theory will perhaps some day provide interesting ideas for game theory	<b>Positive:</b> How to balance additional complexity against enhanced applicability? How to generate probabilistic predictions? How to choose an equilibrium concept so as to capture the features of interest?; <b>analytical:</b> dynamic games with imperfect monitoring, What are reputations and how do they work? What lies behind commitments? Why does agreement end a bargaining game? What is authority?; <b>conceptual:</b> Which model does a player use and how do players with differing models interact?	"If there are 'neglected topics' it may not be game theorists who are doing the neglecting."	Games played on network structures, the dynamics of network formation and evolution	Some theory of what payoffs are, empirical reality, analysis of prominence	Cooperative game theory is unjustly neglected, context specific fairness norms, dynamics of interaction, inject empirical sources into game theory
		The structure of all strategy-proof mechanisms; general structural guidelines for the design of good mechanisms (as opposed to impossibility results); How to measure the deviation of a given mechanism from strategy-proofness?	The connection with psychology, computer science and Wittgenstein's language games	The term "open problem" is not relevant for game theory		"... not problems in game theory but problems in the social sciences to which rudimentary game theory can provide intellectual guidance and stimulus."	Further integration with psychology, more sophisticated cognitive models of learning involving analogy and generalization		