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0521851394 - Generating Predictability: Institutional Analysis and Institutional Design

Christoph Engel

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Generating Predictability

Human behaviour is infinitely complex, the result of thousands of interactions between predispositions, external factors, and physical and cognitive processes. It is also highly unpredictable which makes meaningful social engagement difficult without the aid of some external framework such as that offered by an institution. Both formal and informal institutions can provide the element of predictability necessary for successful, complex interactions, a factor which is often overlooked by institutional analysts and designers. Drawing on a wide range of disciplines including psychology, economics, and sociological and political studies, this book develops a coherent and accessible theory for explaining the unpredictability of individual behaviour. The author then highlights the danger of institutional reforms undermining the very capacity to generate predictability which is so central to their success. This book will appeal to academics, researchers and professionals in the fields of judgement and decision-making, forecasting, management studies, behavioural economics and the new, interdisciplinary field of institutional design.

CHRISTOPH ENGEL is Director of the Max-Planck-Institute for Research on Collective Goods in Bonn and Professor of Law at the University of Bonn. He has published in both German and English.

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Preface

Surprise is a necessary member of a research team. My group conducts research on collective goods, like clean air, fisheries or the radio spectrum. We are interested in institutional design. The standard models for understanding our issue are economic. These models are admirably clear and advanced. But they are not interested in some phenomena that are crucial for our class of goods from a policy perspective. For example, people possess highly sensitive mechanisms for detecting cheats, and reactions to cheats are likely to be driven by individually quite irrational, but socially powerful punitive sentiments. Such findings have led us to a shift in the agenda. We now focus on fleshing out the implications of behavioural research for institutional design in the area of collective goods.

Not all of us were specialists in behavioural research at the outset of our work. The group therefore went through an extended exercise in collective learning, guided by those specialists who had been willing to join us for the purpose. Starting with the biases literature, we made ever more daring forays into behavioural territory. On doing this, one cannot but be overwhelmed by the richness of findings. This experience turned out to be the surprise cause for this book: if the human mind, at least at the symbolic level, is such a mixed bag of forces and effects, how on earth can we ever interact in a meaningful way? My intuition was: it is due to institutions. This book explores the hypothesis.

Not surprisingly, I am not the first to have this intuition. But none of those who previously looked at the issues examined here combined the three bodies of literature that I rely on: psychology for problem definition; game theory for generating a benchmark; institutional phenomenology for finding solutions. None of these authors had written for the institutional designer either; they all focused on the institutional analyst. As a result, they neglected one latent policy issue: institutional reform, undertaken with the best intentions, can hamper the hidden function of existing institutional arrangements for the generation of predictability.

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Throughout the course of writing this book, many have given valuable advice. Elke Weber and Eric Johnson invited me to Columbia University to present an earlier version of the book and discuss it with the audience. The late Margaret Gruter enabled me to do the same at the last Squaw Valley Conference she was able to chair. Bruno Frey and Gérard Hertig asked me to Zurich for the purpose. Arno Scherzberg and Gerhard Wegner invited me to Erfurt, and Karl Christoph Klauer to the Bonn Psychology Department. Roland Czada (Osnabrück) pointed me towards more of my predecessors. Burkhard Schipper (Bonn) was willing to read entire parts of the book critically. My most radical, and most elucidating, critics, however, have been the members of my own group: psychologists Martin Beckenkamp and Stephanie Kurzenhäuser; economists Heike Hennig-Schmidt, Frank Maier-Rigaud, Chrysostomos Mantzavinos and Dorothee Schmidt; political scientist Margaret McCown; and lawyers Thomas Baehr, Guido Kordel, Jörn Lüdemann, Stefan Magen, Indra Spiecker and Stefan Tontrup. Rosel Porcas has typed the whole volume with admirable speed and accuracy. Darrell Arnold has carefully checked and improved my English. Brigitte Martin has done the final layout. I am most grateful to all of them.

CHRISTOPH ENGEL
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Notation

Basic notation

c	cost
ε	add on (to a term, typically small)
g	fair gain
gg	unfair gain
l	loss
p	Ego's subjective probability of Alter being beneficial
q	Ego's subjective probability of finding a signal that rationally makes him more optimistic
r	Alter's expectation about Ego co-operating
s	side-payment
v	expected value of the game for Ego

Suffixes for persons

c_A or g_A	Alter
c_E or g_E	Ego
c_{E+A}	Ego and Alter jointly
c_{TP}	third party
c_{SV}	sovereign intervention

Suffixes for types of cost

c^{G2}	out of pocket or opportunity cost of second game in a repeated or nested game
c^{In}	cost of insurance
c^s	cost for getting a signal about Alter's type

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xii	Notation
c^{SQ}	cost of improving or reducing the quality of a signal sent out by Nature
c^{Tx}	cost of a tax/subsidy scheme

Suffixes for alterations

p' or r' or v'	updating of prior beliefs
\bar{p} or \bar{r}	second-guessing
\underline{p}	social assessment

Bayes' Rule: generic notation

o	object
P	probability
σ	signal