1) Summary

This symposium on the structure and development of means-end reasoning involved three speakers and two commentators . The first paper given by David Papineau (Kings College, London) addressed the question how agents form longterm intentions that require a projection of means-end reasoning into the future. The paper was followed by a comment by Julian Kiverstein (University of Amsterdam). Since Josef Perner had to cancel his presentation, we were glad that two of his close collaborators, Beate Priewasser (University of Salzburg) and Johannes Rössler (University of Warwick), jointly presented the second paper in this symposium, taking a closer look at testing children's understanding of means end reasoning in an experimental setting involving incompatible ends. The final contribution to the symposium by Hannes Rakoczy tried to integrate the theoretical and developmental perspective of both presentations. In this way, the symposium achieved its end to bring together philosophers and developmental psychologists to shed new light on the different concepts of means-end reasoning that are currently in use. One concern was the adequacy of the classical belief-desire model of human agency in representing the basic structure of means-end reasoning. Another concern was the recent trend to employ a teleological model of action explanation. How might such a model that is usually targeted at understanding the actions of other agents shed light on the processes that cognitive systems engage in when they pursue their own goals?

2) Final programme of the event

2013 European Society for Philosophy and Psychology, ESPP 21st meeting, Submitted Symposium:

ESF-NormCon-Symposium: The structure and development of means-end reasoning (organized by J. Brandl & F. Esken)

University of Granada, Spain, 11. July 2013, 2.30- 4.30 p.m.

2.30- 2.40 J. Brandl & F. Esken: Introduction

2.40- 3.10 D. Papineau: How are intentions formed?

3.10- 3.25 J. Kiverstein: Comment on Papineau

3.25- 3.55 J. Roessler & B. Priewasser: Incompatible ends: sabotage and telic perspective
        taking

3.55- 4.10 H. Rakoczy: Comment on Roesssler and Priewasser

4.10- 4.30 General discussion

3) Description of the scientific content of the event

The aim of this symposium was to connect theoretical considerations on means-end reasoning as a pervasive feature of human rationality with developmental data about the emergence of higher cognitive faculties in human agency. Two recent papers on this issue served as a background to this event. In his paper "The Evaluation of Means-End Reasoning" (2001)

David Papineau focusses on the beliefs and desires of an agent that jointly
determine his intentions. This analysis leads to a quite demanding concept of means-end
reasoning that connects it with issues like long-term planning and the ability to reflect in an
explicit (linguistic) way about the means to achieve certain goals. In contrast to this approach,
Josef Perner and Johannes Roessler have recently argued that children work with a
teleological conception of agency before they come to regard beliefs and desires as the
subjective reasons of an agent. ('Teleology: Belief in Perspective', forthcoming). Their
approach invites us to take means-end reasoning in a broader sense that includes both
unreflective and reflective ways of action-control. Agents may unreflectively choose efficient
means and avoid unnecessary costs, and they may also unreflectively respond to the actions of
other agents in ways that indicate their understanding of such actions as means to reach a
certain goal.

The interaction between philosophers and developmental psychologists in this
symposium helped to shed new light on these different conceptions of means-end reasoning.
Following his approach in the (2001) paper, David Papineau argued that a full-blown
understanding of beliefs and desires is a necessary cognitive requirements for long-term
planning and goal evaluation. In his comments, Julian Kiverstein tried to reconcile this
approach with the possibility that means-end reasoning may occur also at a pre-reflective
level, both in executing an action oneself as well as in understanding the actions of others.
The development of executive functions admits of different interpretations however, as
Beate Priewasser and Johannes Roessler made clear in their contribution. The
data they presented still leaves it open which form of perspective taking plays the key role
in the development of means-end reasoning. Their interpretation of the new data relies on a
fundamental distinction between two forms of perspective taking: a child may either
recognize the presence of conflicting goals (which they call telic perspective taking) or it may
become aware of conflicting beliefs about how to achieve a certain goal (which they call
instrumental perspective taking). That leaves open an important question that Hannes
Rakoczy highlighted in his comments, namely the question how these quite different
cognitive achievements may be related to each other and how they jointly make our mature
means-end reasoning possible.

Although no final concensus could be reached, some progress could be made to make
clear that the two approaches taken by Papineau and Priewasser & Roessler are
not necessarily incompatible. The idea that explicit representation of general information in
Papineau's sense is crucial for means-end reasoning may be connected with the idea that both
instrumental and telic perspective taking is involved in such reasoning.

4) Assessment of the results and impact of the event on the EUROCORES programme

The interdisciplinary format of this symposium was a prime example of the kind of research
that EUROCORES programmes try to stimulate. The reaction of the audience at the ESPP
conference in Granada was extremely positive, and thus further interest for the research
agenda of the EUROCORES programme "Understanding and Misunderstanding: Cognition,
Communication, and Culture" was stimultated. Means-end understanding is a topic that is
directly relevant to the core agenda of this programme. In line with the specific research
interests of the CRP "The Normative Dimensions of Human Conduct (NormCon)", the focus
of this symposium was on the question how reflective forms of understanding are grounded in
pre-reflective forms of understanding, and how this claim about "grounding" gets support
from developmental data. While the present symposium was mainly targeted at the research
interestes of the CRP NormCon, one of its results appears to have clear implications for the
EUROCORES programme as whole. This implication is that understanding the means-end

structure of actions takes on a different format depending on whehter the actions involved have short-term or long-term goals, and whether one goal (e.g. a short term goal) can be sacrificed in favor of another (long-term) goal.

5) List of speakers and participants

Main speakers:

1. David Papineau (King's College, London)
2. Johannes Roessler (University of Warwick) & Beate Priewasser (University of Salzburg)

Commentators:

1. Hannes Rakoczy (University of Göttingen)
2. Julian Kiverstein (University of Amsterdam)

Organisators:

Johannes R. Brandl & Frank Esken (University of Salzburg)