The Developing Mind: A philosophical introduction to issues in cognitive development – Book Proposal –

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1. Brief Description

How do humans come to know about objects, causes, words, numbers, colours, actions and minds? The question goes back to Plato or earlier and remains unanswered. Two recent scientific breakthroughs appear to bring us closer to an answer, and to show that the question is even less straightforward than philosophers have assumed. The first breakthrough is the discovery that preverbal infants enjoy surprisingly rich social skills, skills which may well be foundational for later linguistic abilities and enable the emergence of knowledge (e.g. Csibra & Gergely 2009; Meltzoff 2007; Tomasello et al. 2005). A second breakthrough concerns the use of increasingly sensitive—and sometimes controversial—methods to detect sophisticated expectations concerning causal interactions, numerosity, mental states and more besides in preverbal infants (e.g. Spelke 1990; Baillargeon et al. 2010). These expectations or the representations and processes underpinning them arguably also enable the emergence of knowledge. Although each breakthrough has been discussed at length by leading psychologists, philosophers have yet to consider either systematically in print. Further, the two breakthroughs are associated with different camps, one nativist and the other Vygotskian, and have rarely been considered together as twin factors enabling the emergence of knowledge. The proposed book will familiarise readers with findings related to both breakthroughs and explain their relevance to philosophical accounts of knowledge, action and experience. Most importantly, the book

aims to introduce readers to philosophical issues raised by these findings in cognitive development.

Advances in neuroscience may be transforming parts of developmental psychology much as they have already transformed the study of perception and action (Johnson 2005). The proposed book focusses on discoveries rather than methods but will introduce readers to some relevant findings in developmental cognitive neuroscience along the way.

The book is organised by domains of knowledge, so that one chapter concerns knowledge of objects, another focusses on knowledge of number, and so on. The domains are chosen so that each set of developmental findings is linked to one or more philosophical issues. For instance, research on knowledge of objects gives bite to questions about modularity and the nature of tacit knowledge (Davies 1989; Fodor 1983); research on knowledge of number invites discussions of nativism (Fodor 1981; Spelke 1998); and developmental findings on knowledge of colour may challenge some assumptions philosophers have made about relations between language, thought and perception (Gilbert et al. 2006; Regier & Kay 2009).

2. Audience

The book is aimed at advanced undergraduate and graduate students in philosophy. It is suited to teaching a course on philosophical issues in cognitive development. The book could also be used in courses on the philosophy of mind and action, or the philosophy of psychology. To this end the book will not presuppose familiarity with the philosophy of mind and will include chapter summaries and suggestions for further reading.

Professional philosophers whose research connects with issues in cognitive development may also find the book useful. Judging by papers and manuscripts under review for journals and university presses, even those writing about cognitive development can have difficulty identifying the full range of findings relevant to their positions.

Students in psychology are often drawn to philosophy and should find in this book an accessible introduction to key distinctions and arguments. It might even be used for courses in developmental psychology. (I once co-taught such a course in psychology with Jim Russell in Cambridge).

3. Length

70,000–100,000 words

4. Timetable

I aim to submit a first draft of the manuscript by 30 September 2014.

I plan to try out material for the book while teaching courses at the University of Warwick (UK) and Central European University (Hungary).

5. Competition

At the time of writing there is no book or collection devoted to philosophical issues in cognitive development.

Philosophers have written monographs and edited collections on particular issues in cognitive development (e.g. Bermúdez 2003; Carruthers & Smith 1996). The proposed book complements these by providing a unified discussion of a wider range of topics. The advantage is not just convenience: understanding and properly evaluating theories about the developmental origins of knowledge requires bringing together research on different domains of knowledge.

There are also several collections bringing together research by philosophers and developmental psychologists or presenting developmental research in ways accessible to philosophers (e.g. Hirschfeld & Gelman 1994; Carruthers et al. 2005, 2006; McCormack et al. 2011). From the point of view of the proposed book, these provide useful sources of further reading for those who want more information on particular issues.

Finally, the proposed book will complement the many excellent books which expound particular theories about the origins of knowledge; these include Carey (2009), Tomasello (1999), Gopnik & Meltzoff (1997), and Elman et al. (1996). The proposed book will include critical discussion of theories presented in these volumes. It's aims are clearly distinct from any of these volume's aims: the proposed book will review a range of existing theories and explore philosophical questions they raise.

6. Contents

(Details are likely to change.)

6.1. Introduction

How do humans come to know about—and to knowingly manipulate—objects, causes, words, numbers, colours, actions and minds? In pursuing this question we have to consider minds where the knowledge is neither

clearly present nor obviously absent. This is challenging because both commonsense and theoretical tools for describing minds are generally designed for characterising fully developed adults. Davidson writes:

> 'We have many vocabularies for describing nature when we regard it as mindless, and we have a mentalistic vocabulary for describing thought and intentional action; what we lack is a way of describing what is in between' (Davidson 1999, p. 11).

To understand the emergence of knowledge we need to find ways of describing what is in between: individuals whose movements are neither mindless nor guided by intention and knowledge.

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6.2. Social Interaction before Knowledge

Consider the hypothesis that social interaction is an enabler of cognitive development. This hypothesis immediately raises a question. ***

6.3. Objects and How They Interact

6.4. Number: From Perceptual Experience to Knowledge

6.5. Seeing and Talking about Colours

6.6. Words Are Tools for Communication

6.7. Actions: Teleology and Mirroring Motor Awareness

6.8. Mindreading

6.9. Conclusion

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