

# knowing without thinking

mind, action, cognition, and the  
phenomenon of the background



introductory essay by hubert l. dreyfus

edited by **zdravko radman**

New Directions in Philosophy and Cognitive Science



*New Directions in Philosophy and Cognitive Science*

Series Editors: **John Protevi**, Louisiana State University and **Michael Wheeler**, University of Stirling.

This series brings together work that takes cognitive science in new directions. Hitherto, philosophical reflection on cognitive science – or perhaps better, philosophical contribution to the interdisciplinary field that is cognitive science – has for the most part come from philosophers with a commitment to a representationalist model of the mind.

However, as cognitive science continues to make advances, especially in its neuroscience and robotics aspects, there is growing discontent with the representationalism of traditional philosophical interpretations of cognition. Cognitive scientists and philosophers have turned to a variety of sources – phenomenology and dynamic systems theory foremost among them to date – to rethink cognition as the direction of the action of an embodied and affectively attuned organism embedded in its social world, a stance that sees representation as only one tool of cognition, and a derived one at that.

To foster this growing interest in rethinking traditional philosophical notions of cognition – using phenomenology, dynamic systems theory, and perhaps other approaches yet to be identified – we dedicate this series to “New Directions in Philosophy and Cognitive Science.”

*Titles include*

Michelle Maiese  
EMBODIMENT, EMOTION, AND COGNITION

Richard Menary  
COGNITIVE INTEGRATION  
Mind and Cognition Unbounded

Zdravko Radman  
KNOWING WITHOUT THINKING  
Mind, Action, Cognition, and the Phenomenon of the Background

Matthew Ratcliffe  
RETHINKING COMMONSENSE PSYCHOLOGY  
A Critique of Folk Psychology, Theory of Mind and Stimulation

Jay Schulkin  
ACTION, PERCEPTION AND THE BRAIN

*Forthcoming titles*

Robyn Bluhm, Anne Jaap Jacobson and Heidi Maibom  
NEUROFEMINISM  
Issues at the Intersection of Feminist Theory and Cognitive

Anne Jaap Jacobson  
KEEPING THE WORLD IN MIND  
Biologically Embodied Representations and the New Sciences of the Mind

Hanne De Jaegher  
PARTICIPATION SENSE-MAKING  
An Enactive Approach to Intersubjectivity

Robert Welshon  
NIETZSCHE, PSYCHOLOGY, AND COGNITIVE SCIENCE

---

**New Directions in Philosophy and Cognitive Science**  
**Series Standing Order ISBN 978-0-230-54935-7 Hardback**  
**978-0-230-54936-4 Paperback**  
*(outside North America only)*

You can receive future titles in this series as they are published by placing a standing order. Please contact your bookseller or, in case of difficulty, write to us at the address below with your name and address, the title of the series and one of the ISBNs quoted above.

Customer Services Department, Macmillan Distribution Ltd., Houndmills, Basingstoke,  
Hampshire RG21 6Xs, England

---

# Knowing without Thinking

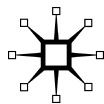
**Mind, Action, Cognition, and  
the Phenomenon of the Background**

Edited by

Zdravko Radman

*Professor of Philosophy, Institute of Philosophy, Zagreb;  
University of Split, Croatia*

palgrave  
macmillan



Selection and editorial matter © Zdravko Radman 2012  
Chapters © their individual authors 2012

All rights reserved. No reproduction, copy or transmission of this publication may be made without written permission.

No portion of this publication may be reproduced, copied or transmitted save with written permission or in accordance with the provisions of the Copyright, Designs and Patents Act 1988, or under the terms of any licence permitting limited copying issued by the Copyright Licensing Agency, Saffron House, 6–10 Kirby Street, London EC1N 8TS.

Any person who does any unauthorized act in relation to this publication may be liable to criminal prosecution and civil claims for damages.

The authors have asserted their rights to be identified as the authors of this work in accordance with the Copyright, Designs and Patents Act 1988.

First published 2012 by  
PALGRAVE MACMILLAN

Palgrave Macmillan in the UK is an imprint of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

Palgrave® and Macmillan® are registered trademarks in the United States, the United Kingdom, Europe and other countries.

ISBN: 978–0–230–28513–2

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

10 9 8 7 6 5 4 3 2 1

21 20 19 18 17 16 15 14 13 12

Printed and bound in Great Britain by  
CPI Antony Rowe, Chippenham and Eastbourne

*In loving memory of my parents  
– Vesna and Nikola Radman*

*The Editor*



# Contents

<i>Acknowledgements</i>	ix
<i>Preface</i>	x
<i>Notes on Contributors</i>	xii
<i>Introduction</i> Zdravko Radman	xvi
Introductory Essay: The Mystery of the Background <i>qua</i> Background <i>Hubert L. Dreyfus</i>	1
<b>Part I Themes from Dreyfus and Searle</b>	
1 Ground-Level Intelligence: Action-Oriented Representation and the Dynamics of the Background <i>Massimiliano Cappuccio and Michael Wheeler</i>	13
2 Exposing the Background: Deep and Local <i>Daniel D. Hutto</i>	37
3 The Background as Intentional, Conscious, and Nonconceptual <i>Michael Schmitz</i>	57
4 Social Cognition, the Chinese Room, and the Robot Replies <i>Shaun Gallagher</i>	83
5 Contesting John Searle's Social Ontology: Institutions and Background <i>Joseph Margolis</i>	98
6 Music and the Background <i>Daniel A. Schmicking</i>	116
<b>Part II The Further Unfolding of the Phenomenon</b>	
7 Implicit Precision <i>Eugene T. Gendlin</i>	141



8	Enkinaesthesia: The Essential Sensuous Background for Co-Agency <i>Susan A. J. Stuart</i>	167
9	Steps Entailed in Foregrounding the Background: Taking the Challenge of Linguaging Experience Seriously <i>Maxine Sheets-Johnstone</i>	187
10	The Body as Background: Pragmatism and Somaesthetics <i>Richard Shusterman</i>	206
11	The Background: A Tool of Potentiality <i>Zdravko Radman</i>	224
12	Embodied Technology as Implicit Background of Modern Civilization <i>Klaus Mainzer</i>	243
	<i>Index</i>	253

# Acknowledgements

I want to thank the participants of the 2007 Dubrovnik workshop on the background who trusted my initiative and contributed to its realization in a memorable way. In particular, it was a privilege to host John Searle – the actual father of the philosophical usage of the term whose presence made the difference.

The Interuniversity Centre Dubrovnik was a wonderful host to the group of enthusiasts who decided to bring the theme to the forefront of philosophical attention and tackled the topic that has been neglected for so long, and is still treated rather marginally in spite of the growing evidence of its import.

Once the decision to convert the conference material into a book project was made (now with contributions also by authors who had not presented at the meeting), an additional motivational drive for this enterprise was provided by Hubert Dreyfus who willingly shared his insights on this topic in the form of an introductory essay. It is unfortunate that he was unable to join us for the conference, but it is wonderful that he can now compensate in such an appreciated and more lasting way.

I want to acknowledge the help of Shaun Gallagher and Daniel D. Hutto for their useful suggestions and advices; Michael Wheeler for his steady support of this project; Susan Stuart for kindly and friendly assistance whenever I had doubts. I should not forget to mention the cooperative staff of Palgrave Macmillan, Priyanka Gibbons, Melanie Blair and the team at Newgen Knowledge Works. Lastly, I want to thank my wife Ivanka. I cannot imagine a better life-companion. Just being with her is stimulating also for what I do.

Z. R.

# Preface

Modern philosophy of mind addresses many mysteries, but it seems that maybe the most mysterious is how human agents become involved in worldly affairs without having to think and deliberate; how beliefs and desires are brought about before they 'come to word'; how actions get their course before the 'self' can report on their emergence; and how mental contents and motives for action are generated with no concepts in sight and no representations in mind. The actual trends are, however, predominantly conscious- and thought-centred, and largely insensitive to all that cannot be captured in intellectualist terms. They are marked by the hegemony of thought, conceptual chauvinism, repressions of representationalism, the dictate of volition, and the dogma of deliberation. Consequently, they take for granted that thoughts are consciously controlled, that actions originate in deliberation, and that behaviour is basically a result of some sort of propositional plan. As such, they are hardly in a position to provide an adequate account of the non-conscious, implicit, non-conceptual, skilled, and automatic.

Yet with all the power of propositionality, the reign of reason, and conceptual conduct, modern theorists are concerned with just a fraction of what makes human mentality; the thinking mind – linguistically structured, explicit in form, rational, and volitional – is but a tiny bit of what constitutes us as mindful beings. All those processes, usually affiliated with 'higher' cognitive mental activities, are late products in the course of the emergence of the mental.

If most of our mental activity is not manifested in explicit reasoning and is generally nonconscious, the question arises: what enables our easygoing and effortless participation in the natural, social, and cultural surroundings without recourse to the thinking mind? Our response is: the background. It is the non-reflective, implicit guide in our coping with the world that charts the terrain of possible actions before the 'self' knows what to do and how to precede, that is, before it is aware of its own doing.

To oppose intellectualism and question the dominance of thought in this context should by no means suggest that the background is merely the elusive unconscious or the cognitive 'junk' devoid of knowing. On the contrary, the background provides a competence that is crucial for our behaviour, both motor and mental. However, philosophy has been largely insensitive to its import, being mostly concerned with the 'foreground' of reason and deliberation. The fact that the background remains 'invisible' to the human agent is no excuse for the short-sightedness of philosophers who

have systematically turned their attention away from this aspect. We nowadays know (also thanks to the empirical research) that what is happening in the ‘backstage’ of the mind has a cognitive import even if it is not assisted by thought or language processes.

Background is thus not to be identified with irrationality, blind emotions, and raw ‘gut feelings’. It is not unaided and uneducated; it has a reason of its own that resides in the ‘knowing body’ and is manifested in the automatism of routine and in complex mental acts no less than in most simple movements. The body has taken up much of what we *know* (not only of the ‘how’ but also of the ‘that’), and has converted it into a set of skills, habits, and practices. Such a body is never entirely naïve or neutral, even when it is not serviced by explicit thought. Its background capacities are a human’s most effective tool in navigating the natural, social, and cultural world. Rather than computing, embodied coping and corporeal cognition is what we should be primarily looking for if our aim is to gain a more profound theoretical understanding of the human mind.

This collection is an attempt to convince the reader that what happens in the backstage of the mind is essential for how we figure out what is going on in our surroundings, and how we respond to it. We then also come to realize that it is routine which rules behaviour more than reasoning, that habit is a reliable guide to habituation, that unconscious desires are as effective as deliberative ones, and that automatism, more than the authority of volition, enables our participation in the natural and cultural setting in an easy and effortless way which we refer to as ‘just doing’.

The lesson from the background thus may read as: *We are capacitated to do more than we explicitly know; and what we know is a lot more than is processed in consciousness, language, and rational deliberation.* It is an automatic and skilled competence – the *know-how* acquired by the body – that enables our effortless motor and mental participation in what we experience as our world.

Realizing that background is an implicit but massive and potent cognitive organ, and that unless we study it thoroughly we won’t be able to really understand the nature of the mental, the authors in this volume aim to raise awareness of its significance for the philosophy of mind.

Much of the inspiration for the contributors in this volume comes from the philosophical work of John Searle and Hubert Dreyfus, and yet themes are tackled and aspects brought to focus that represent efforts to go beyond the original discussions. This collection of essays outlines a relatively broad horizon of themes that display both the possible areas of application of the background and the range of theoretical issues connected with it, which prove to be relevant for a more profound understanding of the human mind, cognitive processes and the nature of agency.

# Contributors

**Massimiliano Cappuccio** is a post-doctoral researcher affiliated with the Neurophilosophy Lab of the State University of Milan, with a previous experience of studying and teaching in France, Holland, Scotland, and the United States. His research tries to link the philosophy of mind with cognitive neuroscience and phenomenology and is mainly focused on empathy, motor intentionality, gestures, and the origins of symbolic culture, employing a perspective that combines enactive and extended approaches to motor and social cognition.

**Hubert L. Dreyfus** is Professor of Philosophy at the University of California at Berkeley. His publications include *What Computers (Still) Can't Do* (1993) (translated into twelve languages); *Being-in-the-World: A Commentary on Division I of Heidegger's Being and Time* (1991); with Stuart Dreyfus, *Mind over Machine*; *The Power of Human Intuition and Expertise in the Era of the Computer* (1986); *On the Internet* (2001); and, most recently, with Sean D. Kelly, *All Things Shining: Reading the Western Classics to Find Meaning in a Secular Age*. Dreyfus has been a Guggenheim Fellow, and has received research grants from both the National Science Foundation and the National Endowment for the Humanities. He holds a Doctorate Honoris Causa from Erasmus University, Rotterdam, and is a Fellow of the American Academy of Arts and Sciences.

**Shaun Gallagher** holds the Moss Chair of Excellence in Philosophy at the University of Memphis. He also has secondary appointments as research professor of Philosophy and Cognitive Sciences at the University of Hertfordshire, honorary professor of Philosophy at the University of Copenhagen, and affiliated research faculty at the Institute for Simulation and Training, University of Central Florida. He has held visiting positions at the Cognition and Brain Sciences Unit, Cambridge, the Ecole Normale Supérieure, Lyon, and most recently at the Centre de Recherche en Epistémologie Appliquée (CREA), Paris. His recent books include *How the Body Shapes the Mind* (2005), *Brainstorming* (2008), and with Dan Zahavi, *The Phenomenological Mind* (2008). He is editor of *The Oxford Handbook of the Self* (2011) and editor-in-chief of the journal *Phenomenology and the Cognitive Sciences*.

**Eugene T. Gendlin**, an American philosopher and psychologist, taught Philosophy at the University of Chicago for many years. He has developed a 'philosophy of the implicit', which changes basic assumptions, and he is well known for 'Focusing' and 'Thinking at the Edge' – two procedures

for thinking with the implicit as well as with logic. Gendlin has published many articles, most of which are available (also in translation) at the Gendlin Online Library (<http://www.focusing.org/gendlin/>), as is his recent book *A Process Model*. Other books authored by him are *Experiencing and the Creation of Meaning* (1962) and *Language Beyond Post-Modernism: Saying and Thinking in Gendlin's Philosophy* (1997).

**Daniel D. Hutto** is Professor of Philosophical Psychology at the University of Hertfordshire. His research is a sustained attempt to understand human nature in a way which respects natural science but which nevertheless rejects the impersonal metaphysics of contemporary naturalism. He is author of *The Presence of Mind* (1999), *Beyond Physicalism* (2000), *Wittgenstein and the End of Philosophy* (2006), and *Folk Psychological Narratives* (2008). He is co-editor of *Folk-Psychology Re-Assessed* (2007) and editor of the Royal Institute of Philosophy volume, *Narrative and Understanding Persons* (2007) and *Narrative and Folk Psychology* (2009). A special yearbook issue of *Consciousness and Emotion*, entitled *Radical Enactivism*, which focuses on his philosophy of intentionality, phenomenology and narrative, was published in 2006.

**Klaus Mainzer** is Professor of the Philosophy of Science, Director of the Carl von Linde-Akademie at the Technische Universität Munich (TUM), and member of the TUM Institute for Advanced Study, TUM Research Cluster of Excellence for Cognition in Technical Systems, and the Academia Europaea in London. He works on the philosophical foundations and mathematical modelling of complex systems, artificial intelligence, and robotics. His books include *Thinking in Complexity: The Computational Dynamics of Matter, Mind, and Mankind* (2007), *Symmetry and Complexity: The Spirit and Beauty of Nonlinear Science* (2005), *The Little Book of Time* (2002; English translation of the 5th German edition), *Leben als Maschine? Von der Systembiologie zur Robotik und Künstlichen Intelligenz* (2010).

**Joseph Margolis** is Laura H. Carnell Professor of Philosophy at Temple University. His main interests are in the philosophy of the human sciences, the theory of knowledge and interpretation, aesthetics, philosophy of mind, American philosophy, and pragmatism. He is completing the fourth volume of a series of closely linked but independent books on pragmatism and American philosophy in the second half of the twentieth century within the terms of Eurocentric philosophy. His latest publications include *Pragmatism's Advantage: American and European Philosophy at the End of the Twentieth Century* (2010) and *The Cultural Space of the Arts and the Infelicities of Reductionism* (2010).

**Zdravko Radman** is Senior Researcher at the Institute of Philosophy, Zagreb, and teaches philosophy at the University of Split. As an Alexander

von Humboldt and a William J. Fulbright Fellow, he was affiliated with the University of Konstanz and the University of California at Berkeley; as a visiting scholar, he conducted research at the Australian National University and University College London. He publishes in the areas of philosophy of mind, aesthetics, and the philosophy of language. He has authored *Metaphors: Figures of the Mind* (1997), and edited *From a Metaphorical Point of View* (1995); *Horizons of Humanity* (1997); and *The Hand: An Organ of the Mind* (forthcoming).

**Daniel A. Schmicking** is Research Associate at Johannes Gutenberg University Mainz. He is the author of *Hören und Klang: Empirisch phänomenologische Untersuchungen* (2003), and of articles and contributions on phenomenology, Schopenhauer, Spinoza, and Hume. He has co-edited (with Shaun Gallagher) the *Handbook of Phenomenology and Cognitive Science* (2010). His research focuses on phenomenology and cognitive science (with an emphasis on auditory perception and making music), Schopenhauer, and Spinoza.

**Michael Schmitz** is Research Fellow at the University of Konstanz and has been a visitor at the Institute of Philosophy, University College London, and the University of California at Berkeley. The focus of his interests and his publications is the philosophy of mind, in particular, the mind–body problem, consciousness, and individual and collective intentionality.

**Maxine Sheets-Johnstone** is Courtesy Professor in the Department of Philosophy at the University of Oregon where she earlier taught as visiting professor periodically for several years. Her interdisciplinary interests are reflected in her interdisciplinary publications, which span articles in philosophy, psychology, psychiatric, and anthropological journals and chapters in edited books as well. Her most recent publications include *The Corporeal Turn: An Interdisciplinary Reader* (2009) and the third book of her 'roots' trilogy, *The Roots of Morality* (2008); the first and second books being *The Roots of Thinking* (1990); *The Roots of Power: Animate Form and Gendered Bodies* (2003). Her newest book is expanded second edition of *The Primacy of Movement* (2011).

**Richard Shusterman** is the Dorothy F. Schmidt Eminent Scholar in the Humanities at Florida Atlantic University and Director of its Center for Body, Mind, and Culture. A graduate of Hebrew University of Jerusalem and Oxford University, he has held academic appointments in France, Germany, Israel, and Japan, and has been awarded research grants from the NEH, Fulbright, ACLS, Humboldt Foundation, and UNESCO. He is also a certified somatic educator in the Feldenkrais Method. His authored books in English include *Body Consciousness* (2008), *Surface and Depth* (2002), *Performing Live* (2000), *Practicing Philosophy* (1997), and *Pragmatist Aesthetics* (1992, 2000, and translated into 13 languages).

**Susan A. J. Stuart** is Senior Lecturer at the University of Glasgow, UK. Her research interests centre on enkinaesthesia, languaging and ethics, kinaesthetic imagination as the underpinning for cognitive and creative imagination, and Kantian metaphysics and epistemology. Currently she chairs the Consciousness and Experiential Psychology subsection of the British Psychological Society.

**Michael Wheeler** is Professor of Philosophy at the University of Stirling, Scotland. His primary research interests are in philosophy of science (especially cognitive science, psychology, biology, artificial intelligence, and artificial life) and philosophy of mind. He also works on Heidegger, and is particularly interested in developing philosophical ideas at the interface between the analytic and the continental traditions. He is the author of *Reconstructing the Cognitive World: The Next Step* (2005).



# Introduction

*Zdravko Radman*

In bringing the phenomenon of the background into the philosophical foreground, the contributors to this volume have created a forum within which this much neglected topic can begin to take shape and develop. The authors' views vary in interpretation of specific issues related to consciousness, thought, intentionality, embodiment, representation, simulation, and so on, but they share the conviction that the background is philosophically rich, multidimensional, and cognitively potent, governing our behaviour and action at all levels.

The book is divided into two parts: the first is composed of contributions that, in the main, refer to, reaffirm, or critically examine John Searle's work, but which also touches on the influential ideas on the nature and import of the background presented by Hubert Dreyfus; the second part displays attempts to reconceptualize the classical notions, to bring neglected aspects to focus, to generate and establish new areas of application, and to try out new perspectives on the phenomenon.

The opening introductory essay by Hubert L. Dreyfus works from Homer to Heidegger, placing emphasis on the background as not only holistic but also hidden (or 'withdrawn'). Rather than being an aggregate of independent intentional states (Husserl), the background is to be understood as 'atmosphere' (Heidegger) or 'field of forces' (Bourdieu). Dreyfus takes the position of existential phenomenologists to whom 'the background *qua* background is a holistic atmosphere, an ambient light, or a world that we are always already in, and that it must withdraw in order to deal with beings'. Not only is the background a condition of skilful bodily activity, it is also a condition of thought. In sum, human beings when performing at their best are open to and absorbed in a non-propositional, non-intentional, background field of forces that Heidegger calls 'the phenomenon of world'.

Massimiliano Cappuccio and Michael Wheeler ([Chapter 1](#)) focus on background capacity, understood as a sort of adaptive know-how, as it is expressed in everyday skilled activity, and as 'a vast web of significance that implicitly underpins the mattering of things during coping'. Such a background-level intelligence is characterized by minimally representational processes. It is in this respect that the authors' views differ from those of Dreyfus or Rietveld. In the end – as they say – 'it is a minimally representationalist approach to intelligence that brings the background and its dynamics into proper view. The problem of relevance indicates that background coping cannot be understood on the cognitivist model, as a rational process of deliberation

using full-blooded representations. But (...) neither can background coping be understood (...) as the unreflective and nonrepresentational selection of past contexts’.

Daniel D. Hutto ([Chapter 2](#)) takes Searle’s discussion of the background as the point of departure and develops an argument for a non-representational account of the deep, biological background in radically enactive terms. In doing this, he further explains the meaning and merit of the local or cultural background. He defends ‘an anti-intellectualist, non-representationalist account of what lies in the background of, and makes possible, our explicitly contentful speech, thought and action’, claiming that ‘the critical frame for our everyday understanding of the explicit actions of ourselves and others is derived from stable, socio-culturally based narrative practices’. This leads him to conclude, somewhat controversially, that ‘the crucial and core aspects of what informs what we say, think and do goes without ever being represented, at any level at all’.

Michael Schmitz ([Chapter 3](#)) advocates the view that the background is representational and conscious, and more explicitly, that it is non-conceptual intentional contents of actional, perceptual, and certain simple emotional experiences which are the underpinning of conceptual level phenomena such as beliefs and intentions. Schmitz understands background know-how as essentially manifested in conscious and intentional episodes and performances, where ‘we are absorbed in the context of our immediate environment’ and just take things in and respond to them. There can still be surprise when events deviate from the pattern with which we are familiar, but at this level of engagement there is ‘no room for doubt and rumination’. So, he claims ‘Background capacities can only differ from other intentional capacities through the kind of intentional episodes in which they are manifest and which ground them’ and this is consistent with Searle’s connection principle that maintains that all occurrent mental reality is conscious reality, background or not.

Putting emphasis on the embodied and enactive approach to social cognition and affirming the importance of human interpersonal relations, Shaun Gallagher ([Chapter 4](#)) values ‘interaction theory’ as being primary compared to theoretical inference or simulation. In his own words, ‘What comes with this embodied and engaged interaction with others is just the practical knowledge, the background for understanding others, which we put into play in our continuing interactions and communicative practices. When we already share a broad culture and a set of specific social norms and practices with others, and when that background knowledge is there at our disposal, then the minds of others are not closed books that we have to read by inference or simulation’. To substantiate his claims, he speaks of the ‘massive hermeneutical background’ of cultural knowledge and practical know-how that comes along with our intersubjective interaction, arguing that it is from this basis or grounding that we form our pragmatic understanding of others.

Joseph Margolis (Chapter 5) critically addresses aspects of John Searle's social ontology, with focus on the 'collective' features of the human world, 'collective intentionality', 'institutional facts', and the 'background'. He objects that Searle's notion of social reality lacks the fundamental element of human culture and history, and argues that his notion of language is, contra what Searle himself would intend, ultimately destined to become solipsistic. According to Margolis, 'language is a cultural artifact, the gradual achievement of a hybrid, transformative evolution of both the biological abilities of *Homo sapiens* and the culturally invented, prelinguistic communicative powers of the hominid primates; and that the functional powers we associate with the (enlanguaged) self or human subject or agent (particularly our self-referential powers in thought and deed) are themselves emergent in the process of mastering language'.

Daniel A. Schmicking (Chapter 6) explores the human background capacities that enable the experience and performance of music by applying Searle's theory of the background to the field of music; he concludes that Searle's theory provides a highly valuable analytic tool which makes it possible to explicate in detail the aspects of acquisition and performance of musical skills. 'From my explorations, which try to fathom, at least, to some extent, the scope and viability of his theory, both stronger and weaker aspects of his conception will become manifest. Thus the presently available behavioural, neurophysiological and episodic evidence from experiencing and making music is not sufficient to choose between Searle's Background theory and a model of unconscious informational processing. Among the positive outcomes is a short exploration of making music based on Searle's theoretical framework, which reveals co-performing music as an instructive and, probably, unique type of collective intentionality.'

In his contribution, Eugene T. Gendlin (Chapter 7) is concerned with how the background functions implicitly. 'An organism is an environmental interaction that continuously regenerates itself. We can show that the regenerating is a kind of... "implicit precision". What the organism brings to the present interaction has been called the "background," though the background has previously been considered as if it were a static thing rather than part of a regenerating process.' Gendlin redefines 'environment' and 'perception', the latter no longer being understood simply as the momentary intake from the sense organs which enforces a here-there split, but rather as modifications of the 'space of possible behaviours with objects'. Accordingly, the objects exist not just in locations but in the space of behaviour possibilities, and it is in this space where action and cognition occur. 'We perceive objects with the ways we could behave with them, for example hold them, or push them, eat them, sit on them.' So, perception of objects is basically ruled by recognition of what we can do with them, and in that cognitive engagement objects emerge as clusters of behaviour possibilities. In this way, he attempts to show that 'the body implies a field of interrelated behaviour possibilities in the coming of one next behaviour. This is

one instance of how the “background” functions, ever present and precise. The past functioned in the present process without needing to be reviewed. The present process implies and enacts the next behaviour without needing a preview of it in advance’.

What Susan A. J. Stuart (Chapter 8) proposes in her contribution is a radical and critical revision of the – ‘retrogressive and constraining’ – notion of ‘heterophenomenology’ (in Dennett’s words, the ‘phenomenology of another not oneself’) in terms of what she calls ‘enkinaesthesia’. Enkinaesthesia, characterized by ‘immanence’, the ‘direct, non-duality of the inescapable experience of “other”’, emphasizes ‘(i) the neuromuscular dynamics of the agent, including the givenness and ownership of its experience, and (ii) the entwined, blended and situated co-affective feeling of the presence of the other(s), agential... and non-agential... and, where appropriate, the anticipated arc of the other’s action or movement, including, again where appropriate, the other’s intentionality’. So, the background experiential entanglement, in which our feelings, actions and intentions are blended with those of others, is stressed as the essence and pre-condition for the kind of sensuous co-agency which makes the third-person heterophenomenological capacity possible in the first place. ‘When the “other” is also a sensing and experiencing agent it is their – in this case, the pair’s – affective intentional reciprocity, their folding, enfolding, and unfolding, which co-constitutes the conscious relation and the experientially recursive temporal dynamics that lead to the formation and maintenance of the deep integral enkinaesthetic structures and melodies which bind us together, even when they pull us apart. Such deeply felt enkinaesthetic melodies emphasise the dialogical nature of the backgrounded feeling of being’.

For Maxine Sheets-Johnstone (Chapter 9), ‘animation’ is the foundation of life, ‘the bedrock of the multi-faceted dynamics that constitute our everyday aliveness’, which is also essential for understanding of the background, and ‘kinaesthesia’ is the key term that ‘captures both the neuro-physiological and experiential dynamics of self-movement and postural bodily tensions’ and is seen as the mediator between first- and third-person accounts. She thus concludes: ‘If we are to gain insight into the background, and if we are to reconcile first and third-person accounts, we must indeed return to “the things themselves”, and let the things themselves guide us in our pursuit of knowledge and in our attempt to language experience. When we do so, we are led inexorably to the foundational phenomenon of animation, to the phenomenon of being alive, and to a painstaking and assiduous phenomenological examination of the phenomenon. When we do so, we find that the so-called background is alive with meanings that are kinetically and affectively forged.’

Because the term ‘body’ is too often opposed to mind and used to designate insentient, lifeless things, and while the term ‘flesh’ has negative associations, Richard Shusterman (Chapter 10) makes use of the term ‘soma’ to designate the living, sensing, dynamic, perceptive body, the one that also lies at the

heart of his theory of somaesthetics. Such a body is characterized by background feelings that are experienced somatically even if they escape explicit attention, and in such a way it helps orient our thought and behaviour. His chapter examines the role of such background feelings in structuring of conscious mental life and purposive action. As he says, 'The somatic habits and qualitative feelings of the background are both conditioned by the environments in which the soma is situated and derives its energies and horizons of action. These environments are both physical and social. By bringing the somatic background into the foreground we can also get that further somatic-shaping environmental background into clearer focus.'

Contrary to the literal denotation that links it to the past and the recall of memory for Zdravko Radman ([Chapter 11](#)), the function of the background is to enable our acting in the world in an anticipatory way, that is, by providing a cognitive organism with a horizon of possible modes of acting without reference to or reliance on conscious thought and deliberation. Accordingly, the background is understood as a true organ of potentiality. He further assumes that 'concepts, thoughts and reflection are late products in the chain of mental processing. When they get shaped within experience, and when they become objects of awareness, much has already been cognitively carried out (and pre-*pared*) in the backstage of the mind. Rather than being preconceived plans for action, thoughts appear to be conscious protocols of the processes accomplished within the background. The once implicitly guessed is then legitimized in awareness as real'.

'Our perceptions are selective, our knowledge of the real world is incomplete, our mental models are simplified, our powers of deduction and inference are weak and fallible. Emotional and subconscious factors effect our behaviour. Deliberation takes time and we must often make decisions before we are ready' says Klaus Mainzer ([Chapter 12](#)) who, unlike the majority of other contributors to the volume who affiliate the background with individual capacity [Gendlin and Stuart being the other exceptions], represents the view that new technologies may create 'computational ecologies' whose impact is tacit and which function as the background. As in the case of motor behaviour, it is handled automatically, without internal symbolic representations, cerebral control, or consciousness, this, it is argued, is characteristic not only of the so-called 'low level' motor intelligence but also of more complex forms of cognition.

On a more general level, all of the approaches taken by these authors converge in the conviction that we can hardly have a competent insight into the mind, cognition, and nature of human agency without gaining a thorough understanding of the background capacities which, in a crucial way, influence and shape the modes of our corporeal and cognitive coping with the world.

# Introductory Essay: The Mystery of the Background *qua* Background

Hubert L. Dreyfus

*We can never look upon the  
phenomenon of world directly.*

Martin Heidegger

## 1. Introduction

Philosophers agree that the background is hidden and holistic. The way that background is hidden and holistic, however, is understood in two radically different ways:

- A phenomenological/cognitivist account holds that the background is an *aggregate* of independent elements. For Edmund Husserl, for example, the background consists in an aggregate of implicit sedimented intentional states (*Geltungen*) which can in principle always be made explicit.<sup>1</sup> As Husserl puts it: '[E]ven the background [...] functions according to its implicit validities' (Husserl, 1970, p. 149).
- An opposing account has been worked out by Martin Heidegger and Maurice Merleau-Ponty. According to these existential phenomenologists, the background, *qua background*, must *withdraw* to do its job. For them, the background is a *whole* on the basis of which things can show up, but anything that shows up does so only on the condition that the background not show up. That is, the background *qua* background must remain hidden and cannot be made explicit.

## 2. Homer

Homer already sees the phenomenon of the background and describes it as an illumination that makes possible clear, coordinated action. *The Odyssey* describes a situation where Odysseus and Telémakos are fully in sync with each other responding masterfully to the solicitations in the situation as

they lock up the weapons that the suitors might use to defend themselves. Homer tells us:

And now the two men sprang to work...  
while in their path Pallas Athena  
held up a golden lamp of purest light.  
Telémakos at last burst out:

‘Oh, Father,  
here is a marvel! All around I see  
the walls and roof beams, pedestals and pillars,  
lighted as though by white fire blazing near.  
One of the gods of heaven is in this place!’

(Homer, 1990a, p. 354)

That Telémakos sees things lit up does not mean that he sees the illumination but rather that everything is showing up with ultimate clarity and sharpness, the way the ball slows down and looks bigger to the intensely involved master batter at the plate. Since context and entities are only clearly defined when well lit, Telémakos thinks Athena must be holding up a lamp.

But Odysseus understands that only if one lets the light provided as guide to action without focusing on the illumination as a visible light source can the lighting do its job of drawing those involved to act at their best. So we hear Odysseus warning Telémakos not to try to turn the background lighting into a foreground figure. That is, Telémakos must let the ambient light withdraw. Only if it stays in the background can it do its work of guiding the two men.

[So] then said Odysseus, the great tactician,  
‘Be silent; curb your thoughts; do not ask questions.  
This is the work of the Olympians. ...’

(Homer, 1990b, p. 380)

Odysseus’ warning is an existential phenomenological account of the background and how it works. In general, if you try to reflect on the source of the intelligibility of the situation, that is, if you try to think about why things are going so well rather than just letting yourself be drawn to respond directly to the solicitations lit up in the current situation – you will at best perform competently. At worse, you will lose your skill altogether.

To capture the phenomenon, consider Chuck Knoblauch, the infamous second baseman for the New York Yankees. Once considered one of the game’s best fielders, Knoblauch developed severe and inexplicable throwing problems in 1999. He became incapable of accurately making the short throw from second to first. Knoblauch worked desperately on his throwing, but the more attention he paid to it the worse the problem got.

This phenomenon is more common than one might think – it occurs in sports like baseball, golf, and tennis – and it is commonly called ‘the yips’. The standard explanation is that the athlete’s thought begins to get in the way of his body’s finely honed ability to respond of its own accord. Instead of letting the activity be drawn out of him by the background attractions and repulsions, Knoblauch was attempting to generate the activity deliberately.

The idea is that when you are in the zone, when your actions are drawn out of you rather than being generated by you, when you are acting at your best, the worst thing you can do is to get in the way of whatever is going on by trying to turn the indeterminate background into a determinate figure. As a field of forces, the background *qua* background must remain hidden. It cannot be described as having determinate features; it can only be directly responded to, and hinted at, as above, in metaphors of illumination.

### 3. Husserl

The Husserlian view agrees that the background is normally not noticed but claims that it is *implicit* in our experience so phenomenologists can reflect on it and make it explicit. Indeed, Husserl holds that to do philosophy, one must step back from everyday involvement and reflect. It then seems that everyday experience is made up exclusively of subjects (*egos*) with mental states directed towards what Husserl calls objectivities. According to him:

[W]e move in a current of ever new mental states experiences, judgments, valuations, decisions. In each of these acts the ego is directed toward *objects* in its surrounding world, dealing with it in one way or another. (Husserl, 1970, p. 149)

Since they have conditions of satisfaction, Husserl calls these mental states ‘validities’, (*Geltungen*), and, according to him, they make up the ‘unnoticed’, ‘concealed’, ‘implicit’, background. He tells us:

Thus the manifold acquisitions of earlier active life are not dead sediments; even the *background* [...] of which we are always concurrently conscious but which is momentarily irrelevant and remains completely unnoticed, still functions according to its implicit validities. (1970, p. 150)

Husserl adds:

[E]very straightforwardly performed validity in natural world-life always presupposes validities extending back, immediately or mediately, into a necessary subsoil of obscure but occasionally available reactivable validities [...] (1970, p. 149)



But this 'subsoil of reactivable validities' turns out not to be the background that makes intentional states possible; rather it is merely additional implicit intentional states. That is, Husserl's conception of an *aggregate* of implicit intentional states or *noemata* cannot account for 'an *atmosphere* of mute, *concealed*, but cofunctioning validities.' (1970, p. 149) Although Husserl uses these terms, his Cartesian subject/object ontology does not allow for a background of *withdrawn indeterminate subsoil* and a *holistic atmosphere*. To be implicit and to be withdrawn are incompatible phenomena.

Husserl claims that transcendental phenomenologists study the senses [*Sinne*] implicit in transcendental consciousness that direct the mind towards objects. On Husserl's view, the world itself counts as such an object and the mind can in principle relate to it by way of implicit mental meanings. He says:

The world – which is presented to us with all that it intuitively or logically is for us – is none other than the noematic correlate of a universal conscious subjectivity. (1968, p. 339)

To reject Husserl's Cartesianism in the name of the background requires showing that the world is not an object and so cannot be related to by a noema.

#### 4. Heidegger

To *existential* phenomenologists, *transcendental* phenomenologists like Husserl studying how intentional content relates subjects to objects are overlooking what is most primordial. The existential phenomenologists like Heidegger claim that they have brought to light a primordial background *on the basis of which* thinking, perceiving, and acting are possible. Heidegger's existential phenomenology discloses the holistic, preconceptual, preintentional background into which we are always already absorbed.

Heidegger calls this ultimate background *the phenomenon of world*. He points out that the world *must withdraw* like the light in a room to make it possible for things to show themselves. *Objects* can be imagined, remembered, and perceived *on the background of a withdrawn world* – a whole that functions only when one is *not* paying attention to it. On this view, it follows that the background *qua* background cannot be implicit because it cannot be made explicit and still be identified with what it was when it was doing its job as background. In short, the background is present by way of withdrawing, and it is only when it is present in this way that it can serve as the ground for anything.

Heidegger saw that equipment, our skills for using it to find our way around in the world and, indeed, the world itself must withdraw in order to do the job of being that on the basis of which things are encountered. Heidegger

points out that for the involved coper the world or the background is a non-intentional, withdrawn *whole* that makes the functioning of all specific intentional *elements* possible. Like Homer, Heidegger understands that 'we can never look upon the phenomenon of world directly' (1955, p. 298).

Heidegger no doubt had Husserl's noema in mind when he warned that, when it comes to interpreting our relation to the world,

[we] [...] recognize two fundamental forms of misinterpretation which the conceptions of ordinary understanding tend to adopt, namely (1) to take what is meant as something present at hand; (2) to take what is meant as something isolated. [...]

Moreover, he adds that

it is particularly important to be clear about such misinterpretations, because [the concept world] in particular tends to encourage us to [...] grasp the world as an aggregate. (1955, p. 300)

To avoid this atomistic mistake, Heidegger takes seriously the description of the background as an *atmosphere*. As an atmosphere, the background is precisely *not* the aggregate of mental states that Husserl from his detached phenomenological point of view mistakenly assumes. Perhaps, following Pierre Bourdieu, it helps to think of the holistic atmosphere as a field of forces.<sup>2</sup>

According to Heidegger, the functioning of a whole as opposed to an aggregate holds not just for perception and action but for thinking as well. He says, for example:

[In] every individual assertion, no matter how trivial or complicated, we always already speak *out of beings that are manifest as a whole*, and this 'as a whole'... itself [is] not in turn the result of a pointing out by way of assertion. Rather assertions can only ever be inserted into what is already there and manifest as a whole. (1955, p. 345)

To sum up: Heidegger holds that the background *qua* background is a holistic atmosphere, an ambient light, or a world that we are *always already in*, and that must withdraw in order to enable us to deal with beings. To put it ontologically, 'beings – where ever and however we approach them – already stand in the light of being'. (1955, p. 357)

## 5. Wittgenstein

Wittgenstein was worried about the status of the background around the same time as Heidegger was.<sup>3</sup> He realized that the background is not an aggregate of mental states, but some more holistic phenomenon, and like

Heidegger he suggested that there is no way to describe the background at work because to function it had to stay in the background. He says:

Perhaps what is inexpressible (what I find mysterious and am not able to express) is the background against which whatever I could express has its meaning.<sup>4</sup>

But he develops his point in a way that sounds too representational to be Heideggerian:

We judge an action according to its background within human life, and this background is not monochrome, but we might picture it as a very complicated filigree pattern which we surely can't copy.<sup>5</sup>

And he continues:

How could human behavior be described? Surely only by showing the actions of a variety of humans, as they are all mixed up together. Not what *one* man is doing *now*, but *the whole hurly-burly* (*Gewimmel*), is the background against which we see an action, and it determines our judgment, our concepts, and our reactions.<sup>6</sup>

Wittgenstein saw that the background was such a mess that we could not describe it. But it seems that he did not see what Heidegger saw, viz., *in principle* we *cannot* describe the world when it is functioning as background since, like the illumination in a room, to do its job it *has to withdraw*.

Wittgenstein does say, like Heidegger, that the background is a 'mystery', but, like a traditional philosopher, he seems to think that the background is not really a *mystery* but simply a very hard *problem*. The background is just too complicated – too much of a 'bussel' – to be described. So Wittgenstein says very little about it. Only Heidegger and Merleau-Ponty see that it is a phenomenological feature of how skills work that the background *qua* background *must* withdraw.

## 6. Merleau-Ponty

The philosopher who best describes the background's functioning, viz. that it guides our skillful activity but only on the condition that we don't pay attention to it, is Merleau-Ponty. And the best account of Merleau-Ponty on the background is offered by Sean D. Kelly.

As Kelly notes in his detailed analyses of Husserl's account of perceptual experience:

[E]ven though Husserl recognizes the *need* for a distinction between figure and ground, his account of the distinction obliterates it completely.

Our task in developing Merleau-Ponty's account is to describe the way the environing objects are experienced *as background* to the focal thing. (2005, p. 89)

For Heidegger and Wittgenstein, the background is our holistic non-conceptual coping skills, customs, and practices that light up the world and enable us to find our way around in it. Merleau-Ponty, in his account of embodied perception and action, describes in addition how our receptive bodies are absorbed into a background field of forces drawing us to get a maximal grip on the world. He says:

[M]y body is geared onto the world when my perception presents me with a spectacle as varied and as clearly articulated as possible, and when my motor intentions, as they unfold, receive the responses they expect from the world. This sharpness of perception and action points clearly to a perceptual *ground*, a basis of my life, a general setting in which my body can co-exist with the world. (1962, p. 250; italics in original)

This is a general claim about all our modes of coping. As Merleau-Ponty points out, the background is not only the condition of the possibility of skillful *bodily* activity but also of *thought*:

[I]n order to be able to assert a truth, the actual subject must in the first place have a world or be in the world, that is, sustain round about it a system of meanings whose reciprocities, relationships and involvements do not require to be made explicit in order to be exploited. (1962, p. 129)

Indeed, as Homer already knew, these background involvements and reciprocities *cannot* be made explicit and continue to function. They are a field of forces, not an aggregate of isolable intentional states like Husserl's sedimented validities. Such a field of forces can only exist when there is no distance between the absorbed copier and the field. Indeed, as in the Knoblauch's case, their skill loses its force when *attended to* from a distance rather than being directly *responded to*.

Even if students of proxemics could work out the rules governing a culture's distance-standing practices, such rules would fail to capture and could only get in the way of the absorbed skill. In standing vis-à-vis people, we *know how* to stand the appropriate distance from someone older, younger, the same, or the opposite sex, etc. That is, in any given culture, there is one distance in any particular situation at which members of that culture feel comfortable. However, there are no implicit rules (validities) that dictate the correct location but rather our social skills adapt us to changing situations such as the noise in the background, the other person's having the flu, etc. Indeed, if we became aware of a culture's distance-standing practices and then tried to figure out the supposed cultural rules in order to conform to

them, we would lose our skill for standing the appropriate distance from others and would not know where to put ourselves.

To further explain the way the background functions Kelly describes in detail how the lighting context is experienced as the background against which the colour of an object appears. He concludes:

Merleau-Ponty's view of perception depends upon the idea that the background of our perception of objects and their properties, like the background understanding of a thinker, must recede from view and yet functions everywhere without distance to guide what is focally articulate. (2005, p. 76)

Or, as Merleau-Ponty puts it:

Lighting and reflection [...] play their part only if they remain in the background as discreet intermediaries, and *lead* our gaze instead of arresting it. (1962, p. 310)

Kelly explains:

To say that the lighting *leads* our gaze, or that it *becomes our environment*, is to insist that it plays some positive role in our experience. This positive role appears to be very different, however, from the kind of determinate visual presence the lighting would have if I were to focus on it as the figure or foreground of my experience. The experience of background lighting conditions, in other words, is in some sense indeterminate. (2005, p. 84)

Kelly calls our attention to a passage in Merleau-Ponty that captures the sort of indeterminate, withdrawn, pervasive forces that guide our skilled behaviour and yet are so hard to describe.

Like the color, the real thing should be that which stands as the background to every particular presentation of it. It is the *norm* from which I experience the object as presented in my current perspective to be deviating. We must say about the real thing, in other words, what Merleau-Ponty says about the real color; namely that it persists beneath appearances as the background persists beneath the figure, that is, not as a seen or thought-of quality, but through a non-sensory [i.e., indeterminate] presence. (Kelly, 2005, p. 95)

In general, Merleau-Ponty's account of absorbed coping depends upon the insight that the background of the perception of objects and their properties,

like the background understanding of a thinker, must recede from view in order to function everywhere to guide what is focally articulate.

Indeed, human beings when coping at their best are open to and coupled with a non-propositional, non-intentional, on-going background field of forces that discloses a familiar world without the mediation of mental content. Mental 'content', as its name suggests, whether involved or detached, is still always distanced from its object in the sense that it is a directedness from within the mind to the world or from the world to the mind.

Or, to see the same phenomenon from the other side, equipment withdraws when working at its best. So does the world. That's why we can never look upon the phenomenon of world directly, and why Odysseus tells Telémakos to stop trying to pay attention to the illumination. Merleau-Ponty would explain that '[The] lighting is merely one element of a complex structure, the others being the organization of the field as our body contrives it, and the thing illuminated in its constancy.' (1962, p. 311)

The Gestalt psychologists clearly recognized that our most basic kind of experience is that of a figure against a ground. This understanding of the pervasive role of the background was at the very foundation of Merleau-Ponty's phenomenology (1962, p. 4). Only a phenomenological description of the figure/ground functioning of the background such as we learn from Merleau-Ponty and Kelly gives us an account of what the background *qua* background is and why it is crucially important.

## 7. Conclusion

To sum up, human beings when performing at their best are open to and absorbed in a non-propositional, non-intentional, background field of forces that Heidegger and Merleau-Ponty call the phenomenon of world. If one attempts to attend to these world forces they vanish. Thus, Heidegger defines phenomenology as the study of something not merely implicit, but 'something that [...] lies hidden [...] but at the same time [...] belongs [...] to what shows itself so essentially as to constitute its meaning and its ground' (1962, p. 59). Thus the greatest phenomenologists from Homer to Heidegger agree that, 'we can never look upon the phenomenon of world directly'.

And Heidegger adds: '[D]arkness is perhaps always in play, in all thinking. Human beings cannot avoid it. Rather, they must learn to recognize the dark as the ineluctable and to keep at a distance those prejudices which destroy the lofty sway of the dark. The dark has nothing to do with pitch blackness as the complete, sheer absence of light. The dark is rather the secret mystery of what is light. The dark keeps what is light in its presence; what is light belongs to it' (1976, 56).

## Notes

1. In this collection, for example, the identification of the background with 'cognitive elements' is taken for granted by Shaun Gallagher ([Chapter 4](#)).
2. See, P. Bourdieu (1977).
3. See, L. Wittgenstein (1980a). Notes from 1931, 16.
4. Ibid.
5. Wittgenstein (1980b), 107 – dictated in 1947, p. 624.
6. Wittgenstein (1980b), Op. Cit., 108, p. 629; (my italics.)

## References

- Bourdieu, P. (1977) *Outline of a Theory of Practice*, Cambridge Studies in Social Anthropology, R. Nice (trans.) (Cambridge: Cambridge University Press).
- Homer (1990a) *The Odyssey*, R. Fitzgerald (trans.), (London: Vintage Classics).
- Homer (1990b) *The Odyssey of Homer*, A. Mandelbaum (trans.) (New York: A Bantam Book).
- Heidegger, M (1955) *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*, W. McNeill and N. Walker (trans.), (Bloomington and Indianapolis: Indiana University Press).
- Heidegger, M (1962) *Being and Time*, J. Macquarrie and E. Robinson (trans.) (New York: Harper & Row).
- Heidegger, M. (1976) *Principles of Thinking, The Piety of Thinking* (Indiana University Press).
- Husserl, E. (1970) *Crisis of European Sciences and Transcendental Phenomenology*, (Evanston: Northwestern University Press).
- Husserl, E. (1968) *Amsterdamer Vorträge, Husserliana*, Band IX (The Hague: Martinus Nijhoff)
- Kelly, S. D. (2005) 'Seeing Things in Merleau-Ponty' in T. Carman and M. B. N. Hansen (Eds.) *The Cambridge Companion to Merleau-Ponty*, (Cambridge: Cambridge University Press).
- Merleau-Ponty, M. (1962) *Phenomenology of Perception*, C. Smith (trans.) (New York: Routledge & Kegan Paul)
- Wittgenstein, L. (1980a) *Culture and Value*, P. Winch (trans.), (Chicago: The University of Chicago Press).
- Wittgenstein, L. (1980b) *Remarks on the Philosophy of Psychology*, Volume II. (Chicago: The University of Chicago Press).

# **Part I**

## **Themes from Dreyfus and Searle**





# 1

## Ground-Level Intelligence: Action-Oriented Representation and the Dynamics of the Background

*Massimiliano Cappuccio and Michael Wheeler*

Studies of embodied intelligence have often tended to focus on the essentially responsive aspects of bodily expertise (for example, catching a ball once it has been hit into the air). But skilled sportsmen and sportswomen, actors and actresses, dancers, orators, and other performers often execute ritual-like gestures or other fixed action routines as performance-optimizing elements in their *pre*-performance preparations, especially when daunting or unfamiliar conditions are anticipated. For example, a recent movie (*The King's Speech*) and a book of memories (Logue and Conradi, 2010) have revealed that, just before broadcasting his historic announcement that the United Kingdom was entering the Second World War, King George VI furiously repeated certain tongue twisters in a resolute effort to overcome his relentless stutter. Such ritualized actions don't merely change the causal relations between performers and their physical environments (although this may well be part of their function), but they provide performers with the practical scaffolds that summon more favourable contexts for their accomplishments, by uncovering viable landscapes for effective action rather than unassailable barricades of frightening obstacles. In other words, while the kinds of embodied skills that have occupied many recent theorists serve to attune behaviour to an actual context of activity, whether that context is favourable or not, preparatory embodied routines actively refer to certain potential (and thus non-actual) contexts of a favourable nature that those routines themselves help to bring about, indicating the possibilities of actions disclosed by the desired context. As we shall see, this sort of transformative event, which is exemplified by, but not confined to, the ritualized gestures and routines of skilled performers, is a regular occurrence in everyday skilled activity, not the crowning achievement of a few talented individuals; so the capacity in question belongs centrally to our ordinary suite of bodily skills. The theoretical ramifications of that embodied capacity are the topic of this chapter.

Our ability to skilfully indicate and reconfigure contexts is intimately intertwined with the widely cited, but (we think) incompletely understood, phenomenon of the *background*. Following others, we take the background to be the implicit and plausibly endless chains of preconditions (bodily, attitudinal, social, cultural) that provide the context-dependent meaning and normative relevance conditions for any specific intelligent action. Consider, for example, the innumerable preconditions of this kind which are in play when an intelligent being walks into a BBC studio and recognizes it as the uncanny setting of an historically momentous, personally challenging, public speech. Our remarkable capacity to navigate the open-ended and shifting structure of a human life by way of the background is what Dreyfus (2008) calls ‘background coping’ or ‘ground-level intelligence’. In what follows, we shall argue that the defiantly nonrepresentational conception of ground-level intelligence developed and defended by Dreyfus himself, and by others who share his general approach, is ultimately unable to do justice to the distinctive dynamics of background, precisely because that conception, at least partly as a consequence of its representation-shunning character, fails to encompass the particular, transformative, background-involving embodied capacity so strikingly illustrated by the King’s routine.

### **1. Absorbed coping, the background, and the problem of relevance**

According to one generic, orthodox view, traditionally dominant in areas such as cognitive science and artificial intelligence (AI), intelligent behaviour is internally mediated, in multiple and varied ways, by models of the world, specifications of pre-given goal-states, and/or problem-solving procedures based on stored rules and heuristics. This theoretical package – call it *cognitivism* – is no longer mandatory, even in cognitive-scientific circles. One source of disquiet comes from a philosophical approach to intelligence that, in the hands of some thinkers, has recently and controversially been converted from a hostile brake on the ambitions of cognitive science into an emerging alternative conceptual framework within which cognitive science might be developed. (For some of the details of this transformation, see for instance Kiverstein, forthcoming; Wheeler and di Paolo, forthcoming.) First advanced by Dreyfus (for example, 1992, 2002a, 2002b), and then in various forms by, for example, Kelly (2000, 2002), Rietveld (2008, forthcoming) and Wheeler (2005, 2008, 2010; Cappuccio and Wheeler, 2010), the approach in question draws its inspiration from phenomenological thinkers such as Heidegger and Merleau-Ponty. In its most prominent form (to be placed under scrutiny here), the view takes everyday intelligent activity to be most revealingly, characterized by a mode of engagement with environmental entities that Dreyfus (2002a) has dubbed ‘absorbed coping’, understood as the skilful and fluid adjustment of behaviour to context-dependent

contingencies by way of a richly adaptive, direct (that is, unmediated by representations or any subject–object interface), situated sensitiveness to what is relevant.

The notion of absorbed coping will be important in what follows, so it is worth pausing here to unpack it a little. The behaviour of an absorbed, coping agent, motivated to achieve his practical goals, is not regulated by any set of truth conditions attached to a pre-specified goal-state (that is, a description of the state of affairs in which a belief that some goal-state obtains would be true; cf. means-end analysis AI algorithms that produce plans for reducing the difference between the current state of the world and some explicitly represented goal-state). Rather, the behaviour of an absorbed, coping agent is regulated by that agent's capacity to sense intensities of deviations from a contextually determined optimal balance with her environment, coupled with her instinctive practical knowledge of how to adjust her behaviour to improve her performance and thus reduce her sense of being out of balance. With absorbed coping identified as a kind of zone of expert performance, skill acquisition and direct sensitiveness to contextual relevance may be seen as developing together and as implicating each other, since coming to have a mature performative competence for a certain action means becoming able to recognize what situations afford it appropriately, and distinguishing the fine-grained articulation of a situation means knowing how to navigate it competently (Dreyfus, 2002a).

One might articulate this picture further by identifying the absorbed copier's direct sensitivity to relevance – his unmediated sense of being in or out of balance with her environment – as indicating the property of *thrownness* (Heidegger, 1996). As thrown, the absorbed copier always finds himself in a world that *matters* to him in some way or another. This always-already-meaningful world into which he is thrown is encountered fundamentally in terms of practical dispositions towards context-dependent affordances (possibilities for action presented by the environment). But, crucially, the contentful structure (or significance) of this world is neither fully articulated within the practical knowledge that enables the copier to negotiate situations, nor is it fully articulable in some ideal theoretical register. This is because that structure encompasses a vast and indeterminate web of implicit preconditions for sense making, “an unexplicated horizon” or *background*, providing “the vantage point from out of which” every experience matters to one in certain way (Taylor 1993, p. 325). As we shall understand this horizontal background, it contains every interwoven element of our adaptive know-how (whether bodily, attitudinal, social, or cultural) that is presupposed by our concrete practical engagements. The background is thus itself a body of adaptive know-how, although one which is implicitly presupposed by, rather than on open display in, everyday patterns of skilled activity. This suggests that our epistemic relationship with the background (our familiarity with, and capacity to smoothly navigate, its unarticulated patterns of

significance) is itself a kind of coping, hence Dreyfus's (2008) term 'background coping'. Moreover, since the background is, in effect, a transcendental condition for absorbed coping, it constitutes a deep-structural feature of skilled expert performance; so background coping constitutes our *ground-level intelligence* (see again Dreyfus, 2008).

If we view intelligent behaviour in the light of its thrownness, we can offer a compelling diagnosis of why cognitivist AI, as identified above, has struggled to provide any general solution to the so-called *frame problem* (for this claim, see Dreyfus 1992, 2008; for discussion, see Wheeler 2005). Here, the frame problem is to be interpreted in the widest possible sense, as the problem of building a naturalistically discharged system (for example, a computational machine) that can process information and produce behaviour in a manner that is fluidly and flexibly sensitive to context-dependent relevance. In this general form, the frame problem might simply be re-named the *problem of relevance*. Here is how the problem manifests itself. Faced with the challenge of determining which of its behaviour-generating rules and representations are relevant in the present context, the cognitivist agent might naturally deploy second-order rules and representations that determine first-order contextual relevance. But this strategy can succeed only in pushing the issue of relevance one stage back, for the system then needs to decide which of its stored heuristics or potentially context-specifying representations are currently relevant, a challenge which requires a further, higher-order set of heuristics or representations, and so on. Put another way, to the extent that cognitivist AI persists in attempting to capture the background (the preconditions of our context-situated intelligence) in terms of explicit representations and rules, it runs headlong into an infinite regress of context-specifying structures. Once we adopt the perspective of thrownness, however, the conditions that generate this sort of infinite regress are never established, because appropriate behaviour selection and modification are rooted in a non-representational direct coupling between agent and environment which already embodies sufficient sensitivity to relevance. In particular, because the normative preconditions of an action are implicitly embedded in the context that the agent inhabits as a practical scenario – as features of that agent's background – they don't need to be scrutinized as aspects of a problem to be decoded and solved.

At this point, things get more complicated, for it seems to us that there are two different dimensions to the problem of relevance. First there is an *intra-context* problem, which challenges us to say how a naturalistically discharged system is able to achieve appropriate, flexible, and fluid action within a context. Then there is an *inter-context* problem, which challenges us to say how a naturalistically discharged system is able to flexibly and fluidly switch between an open-ended sequence of contexts in a relevance-sensitive manner (Wheeler 2008, 2010). If this distinction between an

intra-context and an inter-context problem of relevance is indeed genuine (criticisms of the distinction will be considered later), an intriguing question suggests itself: are the nonrepresentational processes that we have met so far under the banner of Dreyfusian ground-level intelligence sufficient to account not only for our within-context sensitivity to relevance, but also for our capacity for relevance-sensitive, open-ended context-switching? It is to this question that we shall now turn.

## 2. Solicitation and summoning

If we add a little more detail to the picture of ground-level intelligence sketched so far, an affirmative answer to our question comes into view. The key here is an application of Merleau-Ponty's (1962) notion of the *intentional arc*, according to which skills are not internally represented, but are realized as contextually situated *solicitations* by one's environment that tend to become more fine-grained with experience (see Dreyfus 2008, 340). Thus, as Gallagher (2008) explains, when poised to engage in the action of climbing a mountain, the skilled climber does not build an inner representation of the mountain and infer from that plus additionally represented knowledge of her own abilities that it is climbable by her. Rather, from a certain distance, in particular visual conditions, the mountain 'simply' looks climbable to her. Her climbing know-how is 'sedimented' in how the mountain looks to her and thus may *solicit* the action of climbing from her. Clarifying this idea further, Rietveld (forthcoming) usefully draws a distinction between different kinds of affordance. Given a specific situation, some affordances are mere possibilities for action, where 'mere' signals the fact that although the agent *could* respond to them in some way, such a response would be contextually inappropriate. In the same situation, however, some affordances, precisely because they are either directly contextually relevant to the task at hand, or have proved to be relevant in similar situations in the past, prime us for action and thus, as Rietveld (forthcoming) puts it, render us ready to act in appropriate ways by being bodily potentiating. It is affordances of the latter kind that are identified by Rietveld as Merleau-Pontian solicitations, divided into figure solicitations and ground solicitations. Figure solicitations are those with which we are actively concerned. Ground solicitations, by contrast, are those with which we are not currently concerned, but for which we are currently potentiating, and which are thus poised to *summon* us to act (see Rietveld forthcoming). According to this phenomenological analysis, the background structures of ground solicitations, together with the process of summoning that those structures support, are the non-representational conditions that explain our capacity for adaptive context-switching.

It is important to note that the distinction between figure and ground solicitations should be conceived not in terms of two fundamentally

separate kinds of element governed by distinct proprietary mechanisms, but in terms of different perspectival depths within the same overall structure of significance. These perspectival depths correspond respectively to the proximal concerns of an occurrent practical context and the potential retrieval of relevant sense-making elements from an entire life and history (an immanent and finite condition of being-in-the-world; Heidegger 1996). In harmony with the idea that intelligent behaviour involves a complex but ultimately continuous landscape of varying perspectival depths, Dreyfus (2008) argues that it is at root the same practical, competent disposition to maintain a dynamical balance with contextual circumstances that underlies within-context absorbed coping and cross-contextual summoning, and that this competence is materially implemented at the subpersonal level by the same set of complex, dynamical, non-representational structures and processes. To provide an example of such subpersonal structures and processes, Dreyfus calls on the neurodynamical framework developed by Freeman (2000), in which the brain is conceptualized as a non-representational dynamical system primed by past experience to actively pick up and enrich significance. The constantly shifting attractor landscape of such a system physically grounds Merleau-Ponty's intentional arc, by causally explaining how newly encountered significances may interact with existing patterns of inner organization to create new global structures for interpreting and responding to stimuli.

Taken to the limit, the line of thought that we have been laying out generates scepticism about the very distinction between intra-context and inter-context versions of the problem of relevance. Thus Rietveld (forthcoming) argues that sensitivity to within-context relevance essentially coincides with the broader sensitivity to global relevance that guides non-representational background coping. If context-specific activity were genuinely encapsulated (that is, if it relied only on segregated portions of the background), then our responses to local contingencies, even if successful, would be at constant risk of neglecting the background on which their broader appropriateness depends. Rietveld illustrates this risk by drawing an analogy between contextually encapsulated relevance-sensitivity and a neuropsychological pathology called 'utilization behaviour'. Patients with this disorder are excessively sensitive to the local affordances provided by the immediate environment, and suffer from an inability to discriminate between appropriate and inappropriate behavioural responses (Lhermitte, 1986, p. 342). As a result, contextually inappropriate actions are not inhibited, even though broader background knowledge should discourage them. For example, a patient exhibiting utilization behaviour may start compulsively making the bed that she sees before her, even if this bed is in someone else's house. Rietveld imputes such behaviour to a disruption of the normal tendency to situate the local context of action within its holistic background, a tendency that he calls sensitivity to 'real relevance'. In his view, this impairment in

sensitivity to real relevance reflects what would happen in normal subjects if context-specific activity were encapsulated.

For Rietveld, then, ground-level intelligence underwrites a behavioural profile in which solicitation makes sense *only* where there is an *intrinsic* possibility of summoning. This, he concludes, destabilizes the distinction between intra-context and inter-context sensitivity to relevance. The point might be put like this: if the preconditions of all skills, including the most specialized ones, are part of an holistic, unrepresentable “background sense of reality [...], something we possess in – that is inseparable from – our actual dealings with things” (Taylor, 1993, p. 327), then arguably there is no precise boundary separating the context-specific forms of coping from background coping, but only local ways for the latter to be revealed within the former. To return to our opening example, the context-specific task of speaking on national radio wouldn’t have been such a tremendous ordeal for George VI, if that task wasn’t interpenetrated by a range of background conditions, including some excruciating personal circumstances, institutional and familial expectations, the fact that he had recently become king in a very dramatic political contingency, and so on.

Rietveld proceeds to deny the target distinction on additional, neurofunctional grounds. Here he targets previous work by Wheeler (2008, 2010), in which it is argued that the intra-context problem of relevance may be neutralized by a sub-class of encapsulated mechanisms that he (Wheeler) calls special-purpose adaptive couplings (SPACs). The precise details of Wheeler’s analysis and argument need not concern us here (although a little more detail is given below, during the discussion of Mataric’s robot, Toto), but the general thought in play is that because SPACs become activated correctly only in the presence of the right, contextually relevant input, the intra-context problem of relevance never arises for them. Rietveld suggests that the best candidates for neural SPACs are certain context-specific installed routines present in the lateral premotor areas of the brain (routines that involve mirror neurons, canonical neurons, and other action-specific families of motor neurons). But, he observes, ‘preference shows that the triggering of SPACs [...] presupposes the proper functioning of the medial frontal system that determines the sensitivity of the sensory system’ and ‘tunes it to respond to what is currently significant to the individual’ (Rietveld, forthcoming, p. 23; cf. Dreyfus, 2008, p. 350). Importantly, this modulation of the system’s sensitivity is something that normally happens before the stimulus is picked up. So the proper functioning of the premotor system that instantiates SPACs is dependent on the prior activity of the medial premotor system, the system that, according to Rietveld, orients the sensory expectations of the agent, tuning her general sensitivity to the overall context in which she is situated. Once again, then, the distinction between intra-context and inter-context sensitivity to relevance is placed under threat.



We introduced this section by wondering whether the kind of non-representational account of ground-level intelligence advocated by Dreyfus has the resources to account for all forms of sensitivity to relevance. By now, it may seem that a compelling affirmative answer has been given to that question, and that the boot has been transferred to the other foot. In other words, rather than worrying about the scope of the non-representational account of background coping, it seems we should be asking whether it is possible for background coping ever to engage representations. So let's ask that question.

### 3. Ground-level representations

At this point, we need to back up slightly. We wish to propose two principles pertaining to the nature of the background, principles that, we think, any adequate account of the background would need to respect. The first, strongly suggested by our foregoing discussion of Dreyfus and Rietveld, is what we shall call the 'principle of unity'. This states that the background cannot be decomposed into self-sufficient, encapsulated parts without sacrificing the holism that characterizes its transcendence. The second is what we shall call the 'principle of mutuality'. The justification for this principle comes from Merleau-Ponty's (1962, p. 159) pregnant observation that 'movement and background are, in fact, only artificially separated stages of a unique totality'. We take this observation to imply that background coping and context-specific coping enjoy a background-foreground relationship (recall the discussion of different perspectival depths in a single landscape of significance; see also Cappuccio and Wheeler, 2010), but also, and crucially, that the relationship in question is the one in which the two modes of coping, conceptualized (somewhat artificially, as Merleau-Ponty points out) as separate stages in the process of sense-making, are able to *dynamically shape each other*. The principles of unity and mutuality enable us to re-ask the question of whether or not there exist ground-level representations. The principle of unity suggests that background coping may discriminate between contexts by somehow representing the criteria for such discrimination, if and only if some contingent configurations of the background could act as representations of the background itself, without this implying a decomposition of the background into self-sufficient, encapsulated parts. The principle of mutuality suggests that the non-representationalist account of ground-level intelligence advocated by Dreyfus and Rietveld is unable to do justice to the complex and subtle dynamics of the background. It might seem as if this claim must be wrong, since it might seem that the Dreyfus-Rietveld view *embraces* the principle of mutuality. In what follows, however, we shall argue that such a view encompasses an overly restrictive, essentially static account of the relationship between context-specific coping and background coping, an account that supports a relation of one-way

dependence, but not one of dynamic co-dependence. But if that is right, then the possibility that there exist ground-level representations is back on the agenda. The challenge would then be to show that there are situations which are consistent with – or perhaps, to raise the bar further, suggested by – the principle of mutuality, in which the presence of ground-level representations is not merely possible, but to be expected. We think that this challenge too can be met, and in its more demanding form.

To put us on the right road, here is an opening thought. From a Heideggerian phenomenological perspective, there is every reason to think that there exists a mode of context-specific coping that is representational in form. The key here is a way of encountering entities that Heidegger (1996) calls *un-readiness-to-hand*. This is in contrast with *readiness-to-hand* (the transparency of equipmental entities in hitch-free use, which is correlated with non-representational absorbed coping) and *presence-at-hand* (the explicit consciousness of entities as full-blown objects, which is correlated with the kind of fully representational, decontextualized reasoning prioritized by the cognitivist picture). Un-readiness-to-hand emerges paradigmatically when skilled practical activity is disturbed by broken or malfunctioning equipment, discovered-to-be-missing equipment, or in-the-way equipment, although, as Cappuccio and Wheeler (2010) have stressed, un-readiness-to-hand does not need to be the result of some actual disturbance to a *pre-existing* flow of absorbed coping, but may be established by an attitude on the part of the agent. When encountered as un-ready-to-hand, entities typically solicit the agent to temporarily monitor and plan his actions, in order to solve context-specific practical problems posed by the environment. For instance, if I am on the way to work, a broken watch is encountered by me not as a lump of metal of measurable mass (that is, as a present-at-hand object removed from the range of my practical concerns), but as a faulty timekeeper, a damaged tool that constitutes a hindrance to my train-catching activity. It thus solicits certain remedial, context-dependent, problem-solving actions (for example, the use of alternative time-keeping resources, planning a visit to a watchmaker).

Heidegger's analysis suggests further that the kind of practical problem-solving distinctive of un-readiness-to-hand involves representational states (Wheeler, 2005, 2008, 2010). Crucially, however, these are not the full-blooded cognitivist representations that plausibly mediate epistemic access to the present-at-hand. When revealed as present-at-hand, an entity will be experienced in terms of properties that are action-neutral, specifiable without essential reference to the representing agent, and context-independent. By contrast, when revealed as un-ready-to-hand, an entity will be represented in terms of properties that are action-specific, egocentric, and dependent on a particular context of activity. So, for example, the online, task-engaged navigator may represent the external environment by way of an egocentrically defined space in which obstacles appear only as regions to

be avoided, positioned in terms of roughly specified bearings relative to her own body. The character of the kinds of representations distinctive of un-readiness-to-hand is an issue to which we shall return. For the moment, the key point is that, although practical problem-solving in the domain of the un-ready-to-hand is not absorbed coping (by hypothesis, absorbed coping has been disturbed), it nevertheless remains a form of context-specific coping (since it is paradigmatically a skilled adaptive process oriented towards re-establishing a dynamical balance with a specific extant situation). From now on, then, we shall use the term *skilled coping* as an overarching term covering *both* forms of context-specific coping. Using this terminology, the point on the table right now is that skilled coping may come in non-representational and representational forms.

Perhaps surprisingly, Dreyfus agrees that, in cases of un-readiness-to-hand, skilled coping within specific contexts occurs in a representational modality. He argues, however, that 'all coping, including unready-to-hand coping, takes place on the background of [a] basic nonrepresentational, holistic, absorbed, kind of intentionality, which Heidegger calls being-in-the-world' (Dreyfus 2008, 345–6). In other words, skilled coping, whether representational or not, is derivative on background coping, which, by Dreyfusian lights, is necessarily non-representational. Thus although representations may figure in certain forms of intelligent behaviour within the more fundamental condition of thrownness (that is, provided that background coping is already in place), they cannot figure in the ground-level process of background coping itself. On this model, then, the dependency relation between background coping and skilled coping is *unidirectional* and *bottom-up*. And that's why the Dreyfusian model, as built on by Rietveld, ultimately falls short of being a satisfying account of the background. Its commitment to a one-way dependency relation between skilled coping and background coping collides head-on with the Merleau-Pontian prerequisite of a strict dynamic co-constitution between an action and its background; in other words, it flouts the principle of mutuality.

So now what happens if we wholeheartedly pursue a model in which background coping and skilled coping are genuinely and dynamically co-dependent? To set the scene, let's return once more to our opening example. It is true both that George VI was coping with his background when he forced himself to give his speech on the national radio, and that his oration constituted an instance of skilled coping directed at producing a certain performance. Now, on the non-representational account of ground-level intelligence, some aspects of this story remain decidedly unexplained. What really did push King George VI to give his speech, in spite of his debilitating stutter, taking on an institutional duty that intimidated him and that his brother had declined not long before? It seems difficult to claim that his decision to confront the local context of that public announcement was fluidly coupled with, and unproblematically derived from his personal

and political history (and thus from his background coping), as the emotional tone of the situation seemed strongly to discourage that decision; so much so, in fact, that even his personal identity and institutional function, and not just the contingent circumstances of the speech, could be seen as an anguishing state of affairs to be avoided (more on *Angst* below). After all, George had always thought of himself as a marine officer, and was totally unprepared to be crowned until a few weeks earlier. We can infer from this that neither the king's existential background nor the local context of his action established preconditions or affordances that positively summoned or solicited him to accomplish his duty. In truth, both the global background and the local context hindered his action so strongly that he had to suspend his direct coupling with them, and actively create a more favourable context into which to transfer his performance. This shift could be achieved only through a resolute effort on the part of the king to become aware of, and to change, the conditions of his contextual situation, and not through a process in which he unreflectively accommodated himself to those conditions. Hence the disclosive and transformative function of the king's embodied preparatory routines, his furiously repeated tongue twisters. Some skilled embodied practices (like preparatory gestures), then, don't merely achieve an appropriate response to the actual contextual opportunities of action, but rather address the context itself as a problem, in order to reconfigure it and to disclose new opportunities for action.

This capacity to reconfigure the background, in order to achieve local context-creation, is an idea that bubbles away tantalizingly, alongside Dreyfusian summoning, in Sutton's (2007) compelling recent analysis of expert batting in cricket. Sutton observes that certain 'individualized "pre-ball routines" as the batsman prepares and takes guard act [...] as a transportable sequence of consistent and comfortable signs which prepare the mindful body for action' (p. 774; more later on this crucial idea of embodied routines as signs). These preparatory embodied routines are then linked, in a way that is suggestive of context-creation, to the ability of expert batsmen to reset their response profiles at key moments in the game.

When the match situation is changing rapidly and continually – over the crucial dying overs of a decisive one-day game, for example – good players will be constantly resetting their response repertoire in ways which may have been discussed or partly planned out in advance, either deliberately or simply as the result of the sedimented history of relevant experience. This doesn't mean deciding in advance that only one stroke is allowable 'no matter what,' but rather altering the probabilities of attempting certain shots to certain ranges of possible deliveries [...] One successful case was when, during the one-day internationals before the 2005 Ashes series, Andrew Strauss set himself more than once to get way across to the offside, outside the line of good-length balls from Jason Gillespie and use

the pace to lift them over fine leg, a shot unthinkable in less audacious circumstances. (Sutton, 2007, p. 775)

At this point, a clarification (or perhaps a complication) is in order. Although further analysis is required, it is arguable that our examples of preparatory embodied routines do not reward the kind of ‘voluntaristic’ interpretation that one might naturally find most tempting. Indeed, in our view, there is reason to be suspicious of any claim that the reconfiguration of King George VI’s background was the outcome of an absolutely free choice on his part, a choice in which he employed some sort of latent ‘inner power’ against the external circumstances. Heidegger (1996, p. 176) warns us that to interpret the phenomena of resoluteness and deliberation in these sorts of voluntaristic terms would be to miss the fundamental fact that there cannot be any decision that is not always already decided by its background preconditions. This Heideggerian principle, it seems, should apply to those decisions that concern the background itself. After all, one might see King George VI’s transformation of his predicament as itself situated within an acceptance of certain broader circumstances, meaning that the decision to deploy specific preparatory embodied routines was the only possibility disclosed to the king at that time, the only thing he could do to respond to the dramatic call of the situation. So decisions cannot be abstracted from their background altogether. Nevertheless, that doesn’t alter the fact that some decisions must be taken, those that serve to abstract the agent’s behaviour away from *certain extant configurations* of the background while producing *new specific configurations*. As we have seen, the king’s speech simply couldn’t have been delivered, if he hadn’t used his preparatory embodied routines to gather his resolute decision, in part as a way of ignoring those context-specific solicitations that would have positively hindered his skilled performance.

Preparatory embodied routines enable a special kind of context-switching in which an appropriate set of action-soliciting conditions is called forth actively by those very routines. Context-switching is here not a response to shifting environmental circumstances, but an agent-driven intelligent strategy for adaptively structuring behaviour. Our proposal is that the functioning of such routines needs to be understood as one which is representational in form. An immediate reason for thinking that representational language is appropriate here draws on our earlier Heideggerian claim that un-readiness-to-hand (the disruption of absorbed coping) ushers in a representational mode of agent–environment engagement, because it opens up a problem-solving cognitive distance between agent and environment. It seems that preparatory embodied routines assume the same kind of problem-solving cognitive distance between agent and environment as is operative in the domain of un-readiness-to-hand, suggesting an extension of the representation-involving explanatory template from the latter to the

former. Turning this suggestive analogy into a compelling explanatory perspective requires some additional conceptual machinery.

#### 4. Signs as action-oriented representations

There are situations in which intelligent behaviour requires us to deal with the whole context of our current coping activity. This happens when we need to recall the whole network of practical preconditions that define our present possibilities of action, possibly to contrast them with other, non-actual possibilities that are connected to them. In Heidegger's phenomenological analysis, this experience is initiated by *Signs*.

In the theoretical sense that matters here, the class of Signs is not limited to graphic signs or conventional means of communication, but potentially includes any situational element (event, state, process, or thing). When revealed as Signs, situational elements make us aware of our context and delineate its normative boundaries. A 'sign is something ontically ready-to-hand which is not just this particular equipment, but functions as something that indicates the ontological structure of readiness-to-hand, referral-totality and worldhood' (Heidegger, 1996, p. 82). Any situational element can become a Sign, just as soon as it emerges out of the background of our skilled coping activity and starts to orient our attention towards those background conditions themselves. For example, malfunctioning or unfamiliar pieces of equipment are likely to become Signs of the problematic situation in which they show up, introducing un-ready-to-hand interactions. Thus a road sign informing the skilled driver of a detour announces that her absorbed coping with the road is interrupted, and indicates that she must withdraw from her current activity of automatic driving, possibly switching to an alternative, reflective modality of driving, in order to follow or find an alternative route home. For a stuttering orator who is on the threshold of giving an important speech, the smallest hesitation in pronouncing a single syllable may become a Sign of his challenging situation. As a Sign, his hesitation reminds him that his oratorical task is risky, that he must focus carefully on the training received, that he cannot fail for the sake of his personal, familial, and institutional duties. This attention combines with a sudden awareness of many preconditions (about his present situation, past training, future historical consequences) that were buried in the background of his oratorical activity until the instant that he hesitated on that syllable. Even when coping proceeds smoothly, ready-to-hand pieces of equipment may morph into Signs, disclosing to our attention that the whole context of action, rather than just this or that piece of equipment, matters to us and constrains our conduct. Thus a delicious smell coming from the oven is a Sign reminding us of our current activity of cooking and making us aware that it is time either to check the progress of our almost baked cake or to switch to the context of preparing the table for dinner. Signs

thus operate in ready-to-hand and in un-ready-to-hand scenarios. The main difference is that while, in the former kind of scenario, Signs create the possibility of reflecting on one's absorbed coping (including the possibility of disrupting that coping) as a successful outcome of the coping process itself, in the latter kind of scenario, in which an interruption to absorbed coping has already happened, Signs more directly establish the shape of the appropriate reflective response.

So, by standing out from their inconspicuous surroundings, Signs call the skilled agent to pay attention to the circumstances, the preconditions, and the goals of her activity. So conceived, Signs often allow us to adjust our behaviour to the present context of action. Equally, however, because of those same *signs'* standing out, background-disclosing function, Signs may provide the instigating means by which adaptive context-switching – whether reactive *or proactive* in nature – may occur. It is at this point that it becomes illuminating to conceptualize preparatory embodied routines – routines whose function is precisely to reconfigure the background, in order to transform the context for action – as a special sub-class of Signs. This Heideggerian gloss, we think, allows us to appreciate the full scope and importance of Sutton's (2007, p. 774) cricket-related remark that 'individualized "pre-ball routines" as the batsman prepares and takes guard act [...] as a transportable sequence of consistent and comfortable *signs* which prepare the mindful body for action' (emphasis added).

The next piece in the theoretical jigsaw we are building is to conceptualize Signs, and thus preparatory embodied routines, as representations. What this would establish is that, contra Dreyfus, context-switching may be enabled and driven by representational structures. Of course, Dreyfus holds that representations cannot solve the problem of relevance. Indeed, he goes further, by suggesting that, from a Heideggerian phenomenological perspective, the problem of relevance is revealed, at least partly, to be an artefact of representationalism. As he puts it, 'for Heidegger, all representational accounts are part of the problem' (Dreyfus 2008, p. 358). If Dreyfus is right, our attempt here to interpret the relevance-sensitive structures that are Signs, and thus to interpret preparatory embodied routines, in representational terms is doomed to failure. But is it right? To resist Dreyfus's anti-representational scepticism, we need to remind ourselves that representations come in more than one conceptual flavour. As we have seen, in the fully decontextualized mode of presence-at-hand, representations in experience will encode properties that are essentially action-neutral, specifiable without any necessary reference to the representing agent, and context-independent. A map in a Cartesian co-ordinate system would be an example of a present-at-hand representation. In the mode of un-readiness-to-hand, however, entities will be represented in experience in terms of properties that are action-specific, egocentric, and intrinsically embedded in a particular context of activity. Representations with this profile have been dubbed

*action-oriented representations* (henceforth AORs; for further discussion, see for instance Wheeler, 2005).

It will be useful to deepen our appreciation of the nature of AORs, by investigating the sub-personal, mechanistic counterparts of the phenomenologically identified cases on which we have concentrated so far. A seminal example of sub-personal AORs is provided by Mataric's sonar-driven mobile robot Toto (Mataric, 1991). Toto wanders around its office environment following walls and avoiding obstacles. As it proceeds, it constructs an internal map encoded in terms of patterns of sensorimotor activity. For example, if Toto keeps detecting proximally located objects on its right-hand side, while its compass bearing remains unchanged, then a 'right-wall' is encoded in the sub-agential map, not as some objective entity, but in terms of the robot's sensorimotor 'experience' at the time. These structured sensorimotor 'experiences' (Toto's landmarks) are stored as connected nodes in a distributed graph, and this record of the robot's own sensorimotor history constitutes its sub-personal map of the spatial environment. Toto is then able to navigate its way around using paths encoded as sequences of past, current, and expected sensorimotor 'experiences'.

Toto's maps thus exhibit the range of inter-related properties that were previously disclosed by a phenomenological analysis of un-readiness-to-hand, and which are distinctive of AORs. They are action-specific, in that they are tailored to the job of producing the specific behaviour required. They are egocentric, in that they encode the environment in terms of the robot's own history of sensorimotor 'experiences'. And they are intrinsically context-dependent, in that because those maps are embedded in the kind of domain-dependent, task-specific mechanisms that we earlier identified as SPACs (meaning that they wouldn't be any good for working out things like the objective distance to the snack bar), Toto never confronts the problem of selecting, out of a vast sea of potentially available spatial information that could have been retrieved and internally stored, the subset of such data relevant to the navigational context in which it operates. Another way of explicating this final property is as the reason why Toto never confronts the frame problem, a reason which turns directly on the conceptual profile of AORs.

As a result of the operative profile just described, AORs are what might be called *minimally representational* in character. Rather than determinately specifying some detailed objective content (knowledge-that), AORs indicate an open-ended set of possible actions (a kind of under-specified knowledge-how), just like the detour sign that vaguely suggests the many directions that, given one's practical knowledge, one might take to drive home. Mention of the detour sign suggests a crucial observation. If we permit ourselves to interpret egocentricity more generally as a kind of perspectival deictic indication, Signs may be counted as AORs. As AORs, Signs indicate the different possibilities of coping that essentially define the current context or, via



the background, a range of potentially associated contexts. Signs are not present-at-hand representations, because their referential function is not action-neutral or context-independent. Rather, their function is essentially action-orienting and context-specific, warning us that something must be done in a certain situation (for example, ‘take the detour’). Given their minimally representational status, however, the precise form of this ‘something that must be done’ will be determined in detail by the trajectory of our competent engagement in the world.

A Sign, understood as an AOR, will determine a standpoint that is disclosed from within the background, but from which we relate to that background, allowing us to redirect our attention to access different depths or levels of coping, and thereby alter the relevance of various action-shaping preconditions. At any moment, some background conditions will matter more than others, and Signs move us from one perspectival angle to another, actively transforming the potential availability of different contexts of actions, and not merely the potential availability of alternative actions within the same context. Tongue twisters and other preparatory rituals are thus best interpreted as Signs that a performer, under the pressure of unfamiliar or problematic contingencies, deploys as a useful scaffold to change his dispositions towards the immediate contingencies, not only to better recognize the available affordances (he is already trained and ready to deal with the physical environment), but to establish a more appropriate perspective of self-interpretation in the light of a different configuration of his background. To see the environment as a familiar scenario for our actions requires recognizing it as compatible with certain background motivations, expectations and intentions that Signs prioritize in place of others that are debilitating or disruptive. We have seen that preparatory embodied routines, like Signs in general, enable us to manipulate the background preconditions and criteria that determine relevance, from within the current context. And since Signs are AORs, we can conclude that our capacity to navigate the background – our ground-level intelligence – is sometimes contingent upon the availability of minimal representations and is actively shaped by those structures.

The role that we have found for ground-level minimal representations might seem to contravene the principle of unity. The principle of unity would indeed be violated if the position we have sketched required the background to be divisible into encapsulated components, but the fact that the background can be articulated in different ways (that is, the fact that we can distinguish different modes or configurations of the global preconditions of one’s situated sense of reality) doesn’t imply encapsulation in any strict sense. If some forms of representation can in truth produce articulation without encapsulation, they will remain consistent with the holistic unity of the background. Our account keeps intact the unity of the background, by combining it with the idea that the background is accessed and manipulated perspectivally, from distinct angles. Each of these angles

indicates a certain global reconfiguration of the totality of the background, which is however never exhaustively represented by any of these indications. Indeed, if a part or portion of the background, configured in representational form, attempted to encode the totality of the background, this would lead to an infinite regress (like an encyclopaedia containing itself and its full description); but this regress is never established, if we assume that a local representational configuration of the background provides only an indication of some possible way of accessing the totality of the background (like an encyclopaedia containing the index of its own chapters and contents). AORs (including Signs and thus preparatory embodied routines) indicate how to inhabit the background strategically; they do not attempt to build a complete model of the background. If this is right, and if such representation-driven strategic inhabitings provide the basis for events such as fluid context-switching, then minimally representational processes are indeed at the heart of the ground-level intelligence.

## 5. *Angst* and the problem of relevance

As we have seen, Signs ordinarily prompt an agent to stand before this or that context of action. However, a particular experience that Heidegger calls *Angst* allows an agent to stand apart from the totality of all the possible contexts in which she can act, intuiting the extreme edge that globally delimits her possibilities as a thrown individual. “*Angst* provides the phenomenal basis for explicitly grasping the primordial totality of being of Da-sein” (Heidegger, 1996, p. 176). Despite this explicit grasping of the totality of what is intelligible, *Angst* remains a phenomenon that occurs to situated agents within the world, not as a de-worlded ‘view-from-nowhere’, but as an immanent mode of attunement within the world that discloses the world as world. Intriguingly, a link may be forged between *Angst* and the problem of relevance.

To bring this link into view, we can begin by noting that although *Angst* can be announced by Signs, Signs cannot actually indicate the object or objects of *Angst*. That is because *Angst* has no object, or at least no definite one. Imagine that, while the preoccupied George VI is preparing himself to give a speech, he glimpses the austere gaze of an ancestor in an old painting, or sees a blinking light on the microphone watching him like a malevolent red eye, or hears his own voice hesitating on a certain syllable. These Signs, harmless in themselves, may disrupt his attention and fill his heart with vague senses of discomfort, apprehension, and finally anxiety. The possibility of a complete failure looms, a possibility that shakes his confidence in his social skills, his political determination, and his historical mission. What this example indicates is that, in certain situations, even the most innocuous Signs can unearth such profound layers of the background, that the agent is shaken by deeper and deeper degrees of uncertainty. This uncertainty

impairs, rather than facilitates, his capability to recommence a fluid process of coping. In this spiral of growing anxiety, not only the agent's acquaintance with this or that situation, but his whole sense of reality, his sense of being-in-the-world, is eventually challenged by questions such as: 'why am I here?', 'what is the real meaning of my actions?', 'what am I supposed to do now?', and so on. Manifested by a feeling of uncanniness, *Angst* doesn't have a precise object but expresses a wrenching of the agent from her meaning-giving background. Heidegger (1996, p.175) describes this phenomenon as a 'not-being-at-home', the disorienting experience of being confronted by a meaningless world that appears alien and unintelligible.

Through *Angst*, we encounter the fact that all the possible ways things usually matter to us depend on our situated perspectives in thrownness. But since it is thrownness itself that is exposed by *Angst*, all our absorbed coping activities are revealed as devoid of intrinsic meaning. Those coping activities are now being observed from the perspective of our fundamentally precarious, ultimately ungrounded existential situation. As a consequence, even if all our competences are still in place, our ability to use them stops mattering to us. Our skilled coping becomes the 'merely occurrent' (Heidegger, 1996, p. 103) object of an anxious contemplation that disconnects affordances from the responses that they habitually summon in us. Thus 'the totality of relevance discovered within the world of things at hand and objectively present is completely without importance. It collapses. The world has the character of complete insignificance' (Heidegger, 1996, p. 174).

Crucially, the 'knowledge' gained through *Angst* never amounts in itself to a complete, fully representational depiction of the background. Rather, the alienation that *Angst* introduces engages a restless interrogation on the part of the agent regarding the meaning of things. The questions that he poses to himself about this meaning cannot find a theoretical answer, because any such answer would presuppose the world that *Angst* had made meaningless. So, even if that question originates fundamentally from the background of that meaning, the very fact that the question is formulated in *Angst* makes the meaning of the background indiscernible. Although it is clear that the knowledge of the background revealed by *Angst* is not fully representational, it seems plausible that it must be at least minimally representational, as it clearly produces a modulation of the background by adopting an explicit perspective within the background, assuming the dynamic co-moulding of cognitive distance and skilled action that is typical of AORs and the kind of troubled coping regime that may be introduced by Signs, although this attunement with the background is of a very strange, uncanny nature. Crucially, for Heidegger, the minimally representational phenomenon of *Angst* precedes – ontologically, if not chronologically – even the possibilities of our skilled coping. As he puts it: 'Tranquillized, familiar being-in-the-world is a mode of the uncanniness of Da-sein, not the other way around. Not-being-at-home

must be conceived existentially and ontologically as the more primordial phenomenon. And only because *Angst* always already latently determines being-in-the-world, can being-in-the-world as being together with the “world” take care of things and attuned, be afraid, (p. 177).

Conceived as a fundamental structure of human life, *Angst* provides a new perspective on the frame problem. Structurally destined to care, and constitutively exposed to the possibility of the total loss of meaning through *Angst*, human beings seem realistically open to something tantalizingly close in form to the inter-context frame problem that affects cognitivist AI. Seduced by the dreadful Signs that lead her to withdraw from her context, the agent experiences a more and more dramatic loss of the sense of mattering, a loss that paralyzes her responsiveness to the circumstances and makes her aware of the necessity to deliberate, even if no stable foundation for deliberation is available. The endless series of questions that the agent is driven to ask about her own being, as she endeavours to delineate contextual meaning (what matters) is analogous to the infinite regress of meaning-targeting structures that are indicative of the frame problem. The difference is that, in the case of humans, the *Angst*-driven ‘frame problem’ derives from a contingent suspension of the holistic coupling with the background that usually gives meaning to our actions, while for cognitivist AI systems this holistic direct coupling is structurally missing due to the system’s lack of thrownness (see above). And that is why, when the human agent forgets about the network of endless open questions in which it is trapped in *Angst*, it buries the fundamental sense of uncanniness under its habitual commerce with worldly things, and becomes ‘tranquillized’: it can then go back to its skilled coping with the world, re-activating its background coping, a possibility that is fundamentally unavailable to machines that lack thrownness.

## 6. Utilization behaviour revisited

As a bonus to the main business of this chapter, our analysis of ground-level intelligence has left us in a position to counter Rietveld’s arguments against the distinction between intra-context and inter-context sensitivity to relevance. In particular, as far as we can tell, the phenomenon of utilization behaviour doesn’t undermine this distinction, but rather demonstrates that the human capacity to produce appropriate actions is severely disrupted when the boundary in question collapses, allowing any local solicitation to acquire the role of a global precondition. The patient exhibiting utilization behaviour has not lost his sensitivity to the holistic meaning of his actions (he has a background, and he is still a thrown agent, in Heidegger’s sense); the problem is that this meaning is now totally absorbed by the contingent situation. He can still perfectly cope with beds to be made, and this means that he knows the normative preconditions of this action, but he can’t separate the contingent contextual solicitations from the holistic consideration

of the whole situation, as if the bed was the totality of the world with which he must deal.

Normally, the background of our actions is not given to us as an all-encompassing and all-determining universal structure, but is articulated perspectively within the local contexts in which it may be involved. Just as the veins in a not-yet-sculpted piece of marble suggested to Michelangelo the forms to be carved out from it, Signs delineate the different contextual articulations that a situated agent will produce by addressing pragmatically (that is, with a specific purpose in her mind) the unitary structure of her background. Indeed, Signs testify that the distinction between different contexts of action, as well as the very distinction between local contexts and the holistic background, is ontologically grounded, even though it is virtual (embedded in possibility). The appearance of Signs delineates the phenomenological boundaries separating different contexts of action, revealing whether or not it is possible to switch between them by adopting different perspectives for accessing the background. In cases where Signs announce a relevant transition between contexts, it means that genuine ontological boundaries exist within the background.

Things are very different for patients exhibiting utilization behaviour. For them, the background is entirely explicated by the actual focus of interest, such that no other contexts are possible. The dissolution of the separation between different contexts of action is demonstrated by the fact that the patient fails to experience the Signs that usually warn us to monitor our actions as soon as we cross the borders of appropriateness. The patient fails to interpret the surprised face of his host as a sign that his actions are not appropriate in her house, because the relevant contextual borders no longer exist for him. Such borders clearly exist in normal experience, which is why we immediately respond to the presence of Duchamp's famous fountain in a museum as out-of-context. From the twentieth century, the fine arts systematically employed the alienating experience of out-of-context objects and events in order to produce, in observers, an active reflection on the background preconditions of their own notion of a work of art. This reflection couldn't be achieved if the observers in question were not comparing the global background of the broader situation with the local factive circumstances in which it is perspectively disclosed. Signs help us to understand when we need to switch from one context to another to continue producing appropriate behaviour. But they also tell us when our actions are crossing contextual borders into a territory of the non-appropriateness.

What now of Rietveld's neurofunctional argument? Rietveld's overall position requires (on the philosophical level) that (1) sensitivity to background conditions is never informed by context-specific competences, and (on the neurofunctional level) that (2) sensitivity to background conditions is underpinned by brain mechanisms that globally tune the sensory systems, a process which is necessary for goal-specific motor structures (dedicated to

both action execution and the understanding of affordances) to underpin context-specific competences. This picture, according to Rietveld, is confirmed by the evidence that (3) the tuning of the sensory system in accordance with the agent's contextual expectations determines the conditions under which the contributions of context-specific motor competences are relevant. While we agree with (2), we have already argued that (1) represents both an inappropriately static model of the relation between background coping and skilled coping, and a transgression of the principle of mutuality. If background coping is a unitary process, then access to it is always perspectively oriented in accordance with the way the agent engages her local context, such that different context-specific competences can determine some of the background preconditions. For example, according to the premotor theory of attention (Rizzolatti and Craighero, 2010), the same frontal-parietal circuits that control ocular movements towards specific spatial locations actively reconfigure the attention towards the same locations in order to prime the detection of salient elements (Rizzolatti *et al.*, 1987). In an analogous way, the experimental data on canonical neurons show that the same pre-motor circuits that control the execution of certain goal-specific transitive actions are recruited by the process of detection and recognition of the objects that afford those actions (Rizzolatti and Luppino, 2001). These findings suggest that spatial attention and detection of the environmental features related to the relevant context of action do not result from a dedicated control mechanism, but from the same mechanisms (corresponding to SPACs, in our hypothesis) that control the execution of the appropriate actions in those contexts: 'as in the case of spatial attention eye movement preparation selects a given spatial location, the preparation of a grasping movement selects an object with specific intrinsic characteristics' (Rizzolatti and Craighero, 2010). But that means that (3) tells only one half of the neurofunctional story, because, in accordance with the principle of mutuality, the medial system that tunes our capability to pick up and interpret relevant sensory stimuli can be tuned by our motor engagement with the local context with which we are interacting.

## 7. Conclusions: the king's intelligence

The conclusions of our analysis may be expressed as a tri-dimensional pattern of agreement and disagreement with the account of ground-level intelligence that may be extracted from the work of Dreyfus and Rietveld.

First, we agree that the background is inhabited as a unitary set of holistic conditions, but this doesn't mean that the whole network of background preconditions is always equally involved in every kind of coping, because, for each form of skilled coping, some elements or modality of background coping may exclude others. The background is a vast web of significance that implicitly underpins the mattering of things during coping, but it is

a structure that we always inhabit from a situated perspective, and different profiles of the background matter in different degrees at different times. Were background knowledge always equally present in all its aspects, there would be no need for the disclosive function of Signs, structures that highlight the background preconditions that are most relevant in the current situation or that may potentially provide a bridge to other contexts of action.

Secondly, we agree that skilled coping, whether absorbed or minimally representational, is always underpinned by background coping, but, on the basis of the principle of mutuality, we recognize that the background can in turn be modified by ongoing, concrete acts of skilled coping. The background provides an ontological platform for our situated experience, but not as an immobile ground providing an ultimate, self-sufficient, autonomous foundation, like the set of basic axioms for a formal system of first-order logic. Rather, the background is a relatively stable scaffold that orients our everyday engagements within the world. Skilled coping continuously re-founds the background by dynamically modifying the normative preconditions it embodies, but that in turn provides the normative preconditions for further skilled coping. If it is correct to conceptualize the background as foundational at all, then, as Heidegger argues, it should be characterized as a bottomless abyss of preconditions, each of which requires others, according to the general schema of the hermeneutic circle.

Finally, we agree that background coping is not guided by full-blooded representations of a traditional kind, because the background can't be reduced to a body (however vast) of explicitly represented information, beliefs, or stored heuristics. That said, we have argued that our access to the background is often mediated and articulated by action-oriented representations, sometimes appearing in our experience as Signs. This means that, in the 'right' circumstances, the production of the wrong syllable by a stuttering speaker or an unexpected road sign appearing in front of the driver can prompt a global reconfiguration of the background. So, in the end, it is a minimally representationalist approach to intelligence that brings the background and its dynamics into proper view. The problem of relevance indicates that background coping cannot be understood on the cognitivist model, as a rational process of deliberation using full-blooded representations. But, as we have argued, neither can background coping be understood, or at least not exhaustively so, on a Dreyfusian model, as the unreflective and nonrepresentational selection of past contexts. In other words, at ground-level, the king's intelligence, like yours and like ours, is in part a matter of negotiating the dynamics of the background by way of action-oriented representations.

## **Acknowledgements**

Some sections include short passages of text adapted from Wheeler (2010), and Wheeler and Di Paolo (forthcoming).

## References

- Cappuccio, M. and M. Wheeler (2010) 'When the twain meet: Could the study of mind be a meeting of minds?' in J. Reynolds, J. Chase, J. Williams, and E. Mares (eds.), *Postanalytic and Metacontinental: Crossing Philosophical Divides* (London: Continuum).
- Dreyfus, H. L. (1992) *What Computers Still Can't Do: A Critique of Artificial Reason* (Cambridge, MA: MIT Press).
- Dreyfus, H. L. (2000) 'How Heidegger defends the possibility of a correspondence theory of truth with respect to the entities of natural science' in T. R. Schatzki, K. K. Cetina, and E. von Savigny (eds.) *The Practice Turn in Contemporary Theory* (New York: Routledge), 151–62.
- Dreyfus, H. L. (2002a) 'Intelligence without representation: Merleau-Ponty's critique of mental representation', *Phenomenology and the Cognitive Sciences*, 1, 367–83.
- Dreyfus, H. L. (2002b) 'Refocusing the question: Can there be skillful coping without propositional representations or brain representations?', *Phenomenology and the Cognitive Sciences*, 1(4): 413–25.
- Dreyfus, H. L. (2008) 'Why Heideggerian AI failed and how fixing it would require making it more Heideggerian', in P. Husbands, O. Holland, and M. Wheeler (eds) *The Mechanical Mind in History* (Cambridge, MA: MIT Press), 331–71.
- Freeman, W. (2000) *How Brains Make Up Their Minds* (New York: Columbia University Press).
- Gallagher, S. (2008) 'Are minimal representations still representations?', *International Journal of Philosophical Studies*, 16(3), 351–69.
- Heidegger, M. (1996) *Being and Time*, John Stambaugh (trans.) (Albany, NY: State University of New York Press). Originally published as (1927) *Sein und Zeit* (Tübingen: Max Niemeyer Verlag).
- Kelly, S. D. (2000) 'Grasping at straws: Motor intentionality and the cognitive science of skillful action' in M. Wrathall and J. Malpas (eds.), *Essays in Honor of Hubert Dreyfus, Vol. II.* (Cambridge, MA: MIT Press), 161–77.
- Kelly, S. D. (2002) 'Merleau-Ponty on the body: The logic of motor intentional activity', *Ratio-New Series* 15(4), 376–91.
- Kiverstein J. (forthcoming) 'Introduction', in J. Kiverstein and M. Wheeler (eds.) *Heidegger and Cognitive Science* (Basingstoke: Palgrave Macmillan).
- Lhermitte, F. (1986) 'Human autonomy and the frontal lobes. Part II: Patient behavior in complex and social situations: The «environmental dependency syndrome», *Annals of Neurology*, 19, 335–43.
- Logue, M. and P. Conradi (2010) *The King's Speech* (London: Quercus).
- Mataric, M. (1991) 'Navigating with a rat brain: A neurobiologically inspired model for robot spatial representation' in J.-A. Meyer and S. Wilson (eds.) *From Animals to Animats: Proceedings of the First International Conference on Simulation of Adaptive Behavior*, (Cambridge, MA: MIT Press), 169–75.
- Merleau-Ponty M. (1962) *Phenomenology of Perception*, C. Smith (trans.) (London: Routledge).
- Rietveld, E. (2008) 'Situated normativity: The normative aspect of embodied cognition in unreflective action', *Mind*, 117/ 468, October.
- Rietveld E. (forthcoming) 'Context-switching and responsiveness to real relevance' in J. Kiverstein and M. Wheeler (eds.) *Heidegger and Cognitive Science* (Basingstoke: Palgrave Macmillan).
- Rizzolatti, G. and L. Craighero (2010) 'Premotor theory of attention', *Scholarpedia*, 5(1), 6311.



- Rizzolatti, G. and G. Luppino (2001) 'The cortical motor system', *Neuron*, 31, 889–901.
- Rizzolatti, G., L. L. Riggio, I. Dascola, and C. Umiltá (1987) 'Reorienting attention across the horizontal and vertical meridians: evidence in favor of a premotor theory of attention', *Neuropsychologia*, 25, 31–40.
- Sutton, J. (2007) 'Batting, habit, and memory: The embodied mind and the nature of skill', *Sport in Society*, 10(5), 763–86.
- Taylor, C. (1993) 'Engaged agency and background in Heidegger' in C. B. Guignon (ed.), *The Cambridge Companion to Heidegger* (New York: Cambridge University Press), 317–36.
- Wheeler, M. (2005) *Reconstructing the Cognitive World: The Next Step* (Cambridge, MA: MIT Press).
- Wheeler, M. (2008) 'Cognition in context: Phenomenology, situated robotics and the frame problem', *International Journal of Philosophical Studies*, 16(3), 323–49.
- Wheeler, M. (2010) 'The Problem of Representation' in S. Gallagher and D. Schmicking (eds.) *Handbook of Phenomenology and Cognitive Science* (Berlin: Springer), 319–36.
- Wheeler, M. and di Paolo E. (forthcoming) 'Existentialism and cognitive science' in J. Reynolds, A. Woodward, and F. Joseph (eds.) *Continuum Companion to Existentialism* (London: Continuum).

# 2

## Exposing the Background: Deep and Local

*Daniel D. Hutto*

*If you can't say it clearly you don't understand it yourself.*

John Searle

### 1. Introduction

Humans engage with the world and one another in sophisticated ways that (arguably) creatures lacking language cannot. Language (again, arguably) enables us to communicate meaningfully, to form contentful attitudes and intentions, and to design and execute plans so as to satisfy our needs and desires. Yet, for this to be so, a great deal that is not captured in terms of explicit content, necessarily, informs everything we expressly say, explicitly think and deliberately do.

Although many regard my first two claims about the importance of language in making possible unique forms of human speech, thought and action as contentious, the truth of the third claim is almost universally accepted in some form. Disagreements crop up, however, as soon as attempts are made to explicate the nature of just what it is that informs what we say, think and do and what, precisely, this involves on the part of speakers, thinkers and doers. In what follows, I defend an anti-intellectualist, non-representationalist account of what lies in the background of, and makes possible, our explicitly contentful speech, thought and action.

Taking Searle's classic discussion of the Background as the point of departure, Section 1, stakes out the questions to be explored and motivates the investigation. Section 2, develops an argument for a non-representational account of the deep, biological Background in radically enactive terms. It promotes the idea that the sorts of embodied capacities that constitute this aspect of the Background must be understood in intentional but nonetheless non-contentful terms. Not only is this possible, I argue that it is well motivated by recent and unfolding developments in the new wave of cognitive science. Section 3, shifts gear and considers a central sort of understanding that is fixed by local, cultural Background. It is argued that the critical

frame for our everyday understanding of the explicit actions of ourselves and others is derived from stable, socio-culturally based narrative practices but without there being any rules for engaging such practices and without these ever being explicitly represented, learned or acquired.

## 2. Brief background on The Background

Searle (1983) famously introduced his notion of the Background, against the backdrop of insisting on an holistic account of what determines the conditions of satisfaction of individual speech acts, intentions and attitudes.<sup>1</sup> He insisted that although the semantic content of mental states plays a grounding role in fixing such conditions of satisfaction, they do not do so on their own. Thus the conditions of satisfaction of, say, McX's intention to be 'The first man on the Moon' is determined not by the literal meaning of its sub-propositional components (for example, what is picked out by the referent of the proper name 'the Moon' such that it names a planetary satellite of the Earth and not, say, a fairground attraction). This being so, Searle holds that characterizing McX's intention requires reference to a wider range of McX's attitudes. This includes many other things that McX hopes about the current possibilities of his engaging in space travel, beliefs about the past achievements of others, desires for fame and recognition, and the like. Complex nests of attitudes of this sort make McX's intention what it is and thus fix its conditions of satisfaction.

Searle calls this wider psychological set of attitudes the Network. He is quite clear that there is no exact or precise set of attitudes that is logically entailed in order for one to have an intention with the stated content, nevertheless, the exact nature of the intention and its conditions of satisfaction are partly fixed by the Network. As such, what determines the conditions of satisfaction for any particular contentful state of mind, or speech act, outstrips what is supplied by its semantic meaning alone. The idea is that this is fixed, in part, by other representational states of mind which form the Network.

While this proposal itself invites further philosophical attention and challenge, Searle goes further. Following this line of reasoning to its natural conclusion he takes it that one would 'eventually reach a bedrock of mental capacities that do not themselves consist in Intentional states (representations), but nonetheless form the preconditions for the functioning of Intentional states' (Searle, 1983, p. 143). When introducing this idea, he distinguishes what he calls the 'deep' from the 'local' Background. The former includes those capacities – for example, walking, eating, grasping – that are 'common to all normal human beings in virtue of their biological makeup' (pp. 143–4). This is contrasted with cultural practices that are not universal in our species, such as drinking beer from bottles and ways of dealing

with socially created artifacts such as ‘cars, refrigerators, money, and cocktail parties’ (p. 144).

All of the bedrock mental capacities and competences at play in our everyday dealings form part of the Background. Hence, ‘The Background is the set of nonrepresentational mental capacities that enable all representing to take place’ (p. 143). Or again:

In order that I can now have the Intentional states that I do I must have certain kinds of know-how; I must know how things are and I must know how to do things, but the kinds of “know-how” in question are not, in these cases, a form of “knowing that”. (p. 143)<sup>2</sup>

Searle’s big idea is that the literal meaning or semantic, referential content of an expression can remain the same but, because the Background is constituted by biologically-based and culturally-shaped attitudes and expectations, what varies from case to case is ‘the way that semantic content is understood’ (p. 146). In offering reasons to believe in the ‘hypothesis of the Background’ his aim is to establish that there is ‘more to understanding than grasping meanings [...] what one understands goes beyond meaning’ (p. 146). His central thought is that we must go beyond semantic contents and what is explicitly represented if we are to understand what is said, thought and done.

Assuming that Searle is right to believe in the Background, the question is: How should we understand its nature? We are told that:

The Background [...] is not a set of things nor a set of mysterious relations between ourselves and things, rather it is simply a set of skills, *stances*, preintentional *assumptions* and *presuppositions*, practices and habits. And all of these are, as far as we know, realised in human brains and bodies. (p. 154; emphases added)

Focusing on this kind of remark Schmitz (this volume) highlights the basic tension in Searle’s discussions of the Background. He identifies the latter’s tendency to invoke the intellectualist language of presupposition, assumption and stance taking, on the one hand, and contrasts it with Searle’s explicit claim that the Background is essentially non-representational, on the other. Searle is well aware of the awkwardness of his attempts to characterise the Background. He recognises that:

there is a real difficulty in finding ordinary language terms to describe the Background: one speaks vaguely of “practices”, “capacities”, and “stances” or one speaks suggestively but misleadingly of “assumptions” and “presuppositions”. These latter terms must be literally wrong, because they

imply the apparatus of representation with its propositional contents, logical relations, truth values, directions of fit, etc. (1983, p. 142)

To illustrate the problem he says, ‘it seems wrong to say that I now [...] believe that the table I am working on will offer resistance to touch. I would certainly be surprised if it didn’t, and that at least suggests that we have something like conditions of satisfaction [...] a man certainly *could have a belief* that tables offer resistance to touch but *that isn’t the correct way to describe the stance* that I, for example, now take towards this table and other solid objects’ (p. 142; emphases added). Schmitz suggests that we can explicate the Background in terms of states of mind that have nonconceptual content. This idea naturally combines with the conjecture that the stances we take to aspects of the world are not instances of explicit judging or believing *per se*, but it still allows that how we understand the attitudes in question are contentful – indeed, representational – states of mind of some kind or other. This proposed solution might seem attractive at first glance. Yet I believe there are very serious problems facing anyone who hopes to make the idea of non-conceptual representational contents intelligible (see Hutto, forthcoming). Still, even if a representationalist revision of Searle’s proposal along the lines suggested by Schmitz could resolve the basic tension, it would rescue Searle at the cost of significantly altering the spirit of his proposal. In what follows, I explore how we can make sense of the Background, of both the deep and local varieties, in positive though thoroughly non-representationalist ways.

### 3. The deep, biological Background

Schmitz (this volume) rightly criticises Searle’s tendency to talk of Background capacities as ‘capacities of the brain’ – that is, as ‘in the head’ capacities that enable such everyday feats as walking, running, speaking, and so on. He notes that a taxonomy of Background capacities that appeals to what goes on in the brain as they are performed would not be our normal way of categorizing such capacities. But the situation is worse still. A neurophysiological taxonomy of such capacities would be hopeless unless it is assumed that reliable correlations between specific types of brain activity and specific types of capacity exist. The same holds – *mutatis mutandis* – even if we think such capacities have a more extended, bodily basis. The root problem is that we must understand the capacities in question as world-responsive capacities *for* doing certain sorts of things.<sup>3</sup> So Schmitz is right to conclude, against Searle, that we must think of Background capacities as intentional in at least this sense.

Does this acknowledgment entail or require a commitment to representationalism of some kind? This is the crucial question. My answer is: No. Searle tries to distinguish the non-representational, mental capacities that

lie in the background of explicit saying, thinking and doing from states of mind that possess intentional, representational content. He is driven to carve things up this way because he holds that intentionality (presumably always and everywhere) is best explained, by the existence of mental representations.

The opening line of Searle's *Intentionality*, defines the quarry of the book's investigation as 'that property of many mental states and events by which they are directed at or about or of objects and states of affairs in the world' (Searle 1983, p. 1). Searle pledges allegiance to a venerable tradition by referring to the properties of mental 'directedness' or 'aboutness' (which he regards as equivalent) as 'intentionality'; and this despite the fact that he recognises that 'the term is misleading and the tradition something of a mess' (p. 1). Immediately, following these observations, he indicates the kind of phenomena he is concerned with by noting that 'If I tell you I have a belief or desire, it always makes sense for you to ask "What is it exactly that you believe?" [...] My beliefs and desires *must* always be about something' (p. 1; emphases added). This suggests Searle supposes that it is always the content – that is, what one thinks about – that determines or makes possible directedness or aboutness.

This is confirmed a few pages later when we encounter the rhetorical question: 'What kind of a relation is named by "Intentionality" anyhow and how can we explain Intentionality without using metaphors like "directed"?' (p. 4). Searle's answer, which for many today is *the* default answer, is: 'Intentional states represent objects and states of affairs in the same sense of "represent" that speech acts represent objects and states of affairs (even though [...] speech acts have a derived form of Intentionality and [...] Intentional states [...] have an intrinsic form of Intentionality)' (p. 5). In elaborating this idea, Searle makes it clear that his explanatory hypothesis models the properties that allegedly account for the intentionality of mental states on the contentful, semantic properties of linguistic utterances. We are told that we have clear intuitions about 'how statements represent their truth conditions, about how promises represent their fulfilment conditions, about how orders represent the conditions of their obedience, and about how in the utterance of a referring expression the speaker refers to an object' (p. 5). Despite the fact that, according to this thesis, representational content explains the intentionality of both mind and language, and the clearest understanding we have of such content derives from the examination of linguistic utterances, the proposal is not suggesting that representational content *is* linguistic. Indeed, Searle insists 'the relation of logical dependence is precisely the reverse. Language is derived from Intentionality and not conversely' (p. 5; see also Searle, 2011).

This is a well known account, but it is worth reminding readers of its details as it supports and embeds a widely held, deeply entrenched assumption that I question. To give it a name we can call it the *semantic thesis*

of intentionality. To adopt this thesis is to subscribe to an explanation of intentionality that is modeled *directly* on the kind of semantic, truth conditional or referential content associated with sophisticated speech acts and mature folk psychological states of mind. This fuels standard assumptions about what is, in general, definitive of *directedness*; even forms of directedness associated with the most basic forms of activity. Accordingly, anything that qualifies as any kind of directed activity must be ultimately explained by appeal to states of mind with non-derived, fully representational, psychosemantic content.

We can see it is because of his attachment to the semantic thesis of intentionality that in promoting the idea of non-representational, but nevertheless mental, background capacities, Searle must regard the former as non-intentional. He is explicit about this. He notes: 'I am not using "mental" and "intentional" as equivalent' (Searle 1991a, p. 290).

Oddly enough, however, we are also told that 'The reason I am so insistent that the Background capacities must be mental is [...] that I take it to be a condition of adequacy on any account of the functioning of intentionality that the account be given independently of any presupposition as to whether or not the agent is, in fact, *getting things right* with his or her intentional states [...] it is *only* in this sense that I am claiming the Background is mental' (pp. 290–1; emphases added).<sup>4</sup>

This is Searle's sop to methodological solipsism. He is encouraged to adopt this sort of view of background capacities since it seems possible to exercise them even when the conditions for their exercise are not 'right', that is, when the world is not obliging. I say his proposal is odd because it evokes the language of content (that is, 'getting things right'), and is motivated by consideration of the features of intentional states of mind that Searle clearly wishes to distinguish from those that are merely mental.

Focusing on that favourite philosopher's example of the frog and his feeding habits provides a way of understanding the thought that grounds Searle's proposal without introducing representational content into the story. Frogs are inclined to lash out their tongues when presented with small, dark stimuli that move in ways that are sufficiently like the movements of their prey – that is, flies. Thus frogs reliably respond to a range of different things that exhibit this signature behaviour; the list includes many things that are not flies, such as bee bees, or shadows. The point is that it will respond to such things in the same way that it would respond to flies. Some assume that in so responding frogs are, or must be, representing that things are a certain way. Accordingly, they assume that at least part of how frogs are representing things includes their harbouring the mental content 'There's a fly' (or some reasonable equivalent). As such, in cases in which there is no fly present, the frog has 'got things wrong'.

But that's a representationalist story – and surely not one Searle can tell about Background capacities. Luckily, there is another option. We might suppose

that frogs respond to such worldly offerings – that is, to solicitations – without representing – *in any way* – what it is that they are responding to. We needn't think this because the frog is simply behaving on the basis of some kind of reflex. We can imagine expert frogs that modulate their responses, perhaps in quite sophisticated ways. We might even imagine that in so responding the frog enjoys distinctive experiences with characteristic phenomenological feels – that is, that there is something it is like for frogs to respond, as they do, to flies and the range of other items that call forth their characteristic tongue lashings. The point is that it is possible to imagine a solicited response to a worldly offering, even one with a specific sort of phenomenal character, without thereby assuming that in so responding an organism represents the world as being a certain truth-evaluable way. If such is the case then there simply is no question of the frog's getting it right or wrong. Its ways of responding would, *ex hypothesi*, lack the sort of representational content that would make getting it right or wrong so much as possible.

Note that this possibility is wholly consistent with the frog's perceptual mechanisms and related action routines having been forged by selective pressures in order to get flies into its belly. Thus it is also consistent with our judging, against that standard, that in responding as it does to shadows and bee bees it is responding in inappropriate, unhelpful and misaligned ways. But – and this is crucial – that we deem an organism's response to be inappropriate in this way is not determined by, nor does it imply, the existence of intrinsic, mental content. Rather it is decided by other facts, either about the history of the organism or ones related to its future welfare. We, as outsiders to an organism's business, assess the value of its responding in these ways do so because we know something about their history or have views about the likelihood of their future prospects.

Searle says, 'it is important to emphasise that Background abilities are not dependent on how things in fact work in the world. All of my Background capacities are 'in my head', and in that sense I use the word 'mental' to describe them' (Searle 1991a, p. 291). In light of the sort of illustrative example just given, this way of putting things is problematic since the capacities, and the way they are exercised, are always world-involving; thus they include but go beyond purely 'in the head' processing. We can say that our imagined frog has a biologically basic, extensive mind (which is not the same as an extended mind).

Further along Searle makes a quite different (and much weaker) claim. He tells us that in insisting that such biological capacities are mental he is 'simply saying that the Background is not itself a feature of the world independent of the mind' (p. 291). If we swap 'mind' for 'organism' in the preceding quotation then there is a softer, and much more palatable reading of Searle's claim that Background capacities are mental; one that can be explicated in terms of world-relating but non-representational organismic tendencies and dispositions.



When it comes to understanding biologically basic, solicited responses of organisms, endorsing the semantic thesis of intentionality is *the* cardinal sin. As the opening passages of *Intentionality* make abundantly clear, Searle is not only guilty of subscribing to that thesis – he ranks amongst its most persuasive advocates. Ironically, even the staunchest and most stalwart defenders of anti-representationalism, such as Dreyfus, fail to get entirely free of its grip when it comes to understanding the kind of intentional attitudes that organisms exhibit towards aspects of their environment. Dreyfus defends an embodied, embedded account of the Background – an account inspired by his reading of phenomenological tradition. Hence it differs from Searle's in important respects. Dreyfus (2002b) writes:

Both Heidegger and Merleau-Ponty argue, at length, that on-going absorbed coping produces intelligibility and familiarity on the basis of which all action is possible. That, therefore, willed intentional action is only possible on the background of what Wittgenstein calls finding one's way about in the world. (p. 418)

In explicating what such finding our way about involves, stress is laid on what we find salient and satisfying in our natural responses to things; these ways of responding constitute our biologically basic 'form of life'. This way of conceiving of basic mentality has special advantages over disembodied accounts – that is, those that seek to understand even basic cognition in purely representational terms, for example, as nothing more than the manipulation of symbols. Any cognitive system built on the latter principles, such as the offerings of classical AI, would be 'at a serious disadvantage when it comes to learning to cope in the human world. Nothing is more alien to our life-form than a network with no up/down, front/back orientation, no interior/exterior distinction, no preferred way of moving, such as moving forward more easily than backwards, and no emotional response to its failures and successes' (Dreyfus 2002a, pp. 376–7). Our most basic, shared tendencies and ways of responding are the fundamental ground for what we find 'relevant', 'obvious', 'natural' and so forth. This is a vital ingredient in what 'goes without saying' in all that we explicitly, say, think and do.

In emphasizing the key role of the particularities of our brain and our bodies in grounding our basic interactions with the world Dreyfus' approach is in perfect harmony with the proposals of contemporary enactivists who advocate situated and dynamical systems accounts of cognition. Dreyfus insists that basic capacities for such engagement, as exemplified by absorbed, skilful coping, are best understood in embodied, enactive and non-representational ways. Although this general idea has been around for some time, in light of new developments it is beginning to have greater influence in contemporary cognitive science. For example, Ramsey (2007) reports that the revolution is now well under way: 'something very interesting is taking

place in cognitive science [...] cognitive science has taken a dramatic anti-representational turn' (pp. xiv-xv). I have argued elsewhere, from a number of different angles, that this turn is not only attractive it is unavoidable (Hutto, 2006; Hutto and Myin, forthcoming).

The importance of this sea change in thinking about the nature of basic mentality is not lost on those at the heart of these debates. Thus Shapiro (2011) acknowledges that anti-representationalism is 'the most serious challenge to [standard] cognitive science' (p. 142). He also observes that, 'Those not familiar with standard cognitive science are unlikely to appreciate the significance of this [...] but significant it is. At stake is nothing less than profound and entrenched ideas about what we are – about what it means to be a thinking thing' (p. 1). Embodied, embedded, enactive, engaged approaches to cognition – E-approaches, for short – offer us a different way of understanding the biologically basic ways in which we engage with the world and others. In doing so, they constitute a new wave of thinking in cognitive science.

Some argue, however, that this suggestion of a paradigm shift is really nothing more than hyperbole on the part of promoters of E-approaches. Clearly, *if* embodied and enactive accounts of unreflective, engaged coping imply non-representationalism then they would be in direct competition with representationalist theories of cognitive science seeking to explain such phenomenon. But, it is objected, we can question the antecedent of this conditional. In doing so we need not deny that E-approaches have brought important new developments in their wake. For example, in a bid to defend the core representationalist insight of traditional cognitive science, while simultaneously welcoming these new developments, Clark (2002) distinguishes two, quite different notions of representation. Following his lead, we might explicate these as follows:

Symbol Representations: Inner items that 'stand for' portions of the world, where the representational properties of such items in no way depend on the system's engagements with the world.<sup>5</sup>

Active Representations: Inner states or processes, local or distributed, whose functional role is to indicate the presence of, and sometimes to 'stand in' for, external states of affairs.

Noting this difference, Clark suggests that the notion of representation is broad and flexible enough to move with the times. Thus proponents of E-approaches, that stress situated, real-time active worldly engagements, ought to be quite happy to allow for the existence of 'action-oriented' representations.<sup>6</sup> And for this to be possible all that has to be retained is 'the general idea of inner states that bear contents' (Clark 2002, p. 386).

Others take a more aggressive stand. They insist that we really have no option but to subscribe to the representationalist credo in thinking about

intelligent, directed engagements with the world. Thus Rey (2002) confesses that ‘representation seems to me the very essence of mind’ (p. 403). For him it is unimaginable that there could be any kind of sophisticated responding that doesn’t involve representation. With respect to the capacity to respond sensitively to worldly solicitations, he remarks: ‘surely [the solicitation] has to be thought of – i.e., represented – as something solicited or wanted or needed or whatever’ (p. 405, emphasis added). Indeed, he finds it ‘hard to see’ how there could be any intelligent activity that failed to involve ‘representing various possibilities and determining which one is best’ (p. 405). Finally, given that such solicited responses are acknowledged as (at least sometimes) directed, he remarks, ‘I should have thought being “at” (“about”?) is quite enough for the representations wanted by the representationalist’ (p. 405). On this strong reading, the underlying assumption is that aboutness or intentionality logically requires representational capacities.<sup>7</sup>

A strong reading assumes that psychosemantic content is *logically required* for intentionality. Accordingly, representationalism is not just an inference to the best explanation (as per Searle’s 1983 proposal); it is analytically true. This strong rendering, if true, would justify *a priori* verdicts concerning the limits of what is conceivable and imaginable when it comes to thinking about this topic. An analytic truth of this sort would justify Rey’s essentialist intuition about the nature of the mental. This appears to be a tacit, grounding assumption held by many contemporary philosopher’s of mind. It explains why ‘according to many, *any functional architecture* that is *causally responsible for the system’s performance* can be characterised as encoding the system’s knowledge-base, as implicitly representing the system’s know-how. If we accept current attitudes about the nature of cognitive representation, a non-representational account is not simply implausible – it is virtually inconceivable’ (Ramsey 2007, pp. 3–4; emphasis added).

Yet, given the naturalistic framework in which philosopher’s of mind and cognitive scientists purport to operate, this is something of a methodological embarrassment. The grounding assumption of standard cognitive science should not turn out to be beyond question in this way. I concur with Ramsey’s observation that if the representational theory of mind has come to enjoy the status of an analytic truth ‘I take this to be a clear indicator that something has gone terribly wrong’ (pp. 3–4).

Does this exposé suffice to show that non-representationalism is a live option? Well, it makes conceptual space for its possibility. But to close the deal we require a fully worked out account of how there could be intelligent activity that *in no way* entails or depends on the existence of mental content. Sadly, even Dreyfus fails to provide this. The trouble is that, despite being a true hero of the revolution, some of his claims are in tension with his self-avowed anti-representationalism. In particular, when under pressure, he concedes the most important point – that is, he admits that some

kind of mental content is required if there is to be any kind of intentionality, even of the most basic sort.

Dreyfus (2002b) seeks to ensure that his account of smooth, transparent coping is cleanly distinguished from an account of bodily activity that reduces to mere habitual reflexivity. He wants to avoid endorsing some version of radical behaviourism – one that understands bodily responding as based in the behaviour of mindless mechanisms. The engaged responses of interest do not reduce to reflexes; they are distinguished by their possession of intentional content. Indeed, we are told ‘it remains a mystery to me [...] how *intentional content* can be entokened in non-intentional reflex arcs’ (p. 419; emphasis added). In the same vein, he writes:

[the] holistic response is no reflex but there is no need in this account for the sort of *explicit* mental representations involved in planning. (p. 415; emphasis added)

Of course, this is something that representationalists could, and would, happily concede. Much intelligent activity is not consciously or explicitly planned. But this is entirely consistent with accepting that wherever there is intelligent responding there is mental content of some sort. And this is precisely what Dreyfus allows. He writes:

even the most ‘automatic’ response to the solicitation of the situation *must* have content. That’s why Merleau-Ponty calls my being set to respond motor *intentionality*. (p. 421; second emphasis original)

the claim [...] I am supporting is that there are inner states of the active body that have *intentional content* but are not representational. (p. 414; emphasis original)

The trouble is that, in helping himself to the notion of intentional but non-representational content in order to avoid the charge of behaviourism, Dreyfus risks conceding everything of importance to his opponents. Consider his recent exchange with McDowell. Initially, the debate seems to turn on the question of whether all human perceiving, even that of the most basic sort, is conceptual. It turns out that on any standard reading of conceptual, this is not what is really at stake. Careful review of the Dreyfus-McDowell exchange shows that the root issue between them is whether all human perceiving implies the existence of world-disclosing content. McDowell (2007b) thinks it does. This is the true heart of his claim that ‘perceptual and active lives are conceptually shaped’ (p. 366). He talks of practical concepts being realised in acting in situation sensitive ways that leave ‘no room for thought about how to do the thing in question’ (p. 367). He allows that even though our perceptual activity is everywhere conceptually shaped, this does not require that we actually bring

our concepts to bear on any given experience, only that this is always a possibility for us. Accordingly, the requirement is only that our experience is always contentful in a way that is potentially amenable to conceptualization.<sup>8</sup> This also fits with McDowell's recent claim that perceptual experience is not intrinsically representational: 'experiencing is not taking things to be so. In bringing our surroundings into view, experiences entitle us to take things to be so; whether we do is a further question' (McDowell 2009, p. 269).

The important thing is that, for McDowell, human perception always contains experiential content in a form that allows for conceptual, representational thought. Thus he says, 'That *the content* of an experience has *that form* is part of what it is for the experience to be world-disclosing, categorically unified, apperceptive' (2007b, p. 348; emphases added). And elsewhere: 'when experience is world-disclosing, *its content* has a distinctive form' (p. 348; emphasis added).

As the previous analysis reveals, Dreyfus also accepts that responding to world solicitations always involves non-representational content. But he reaches this conclusion by a different path. He accepts the rule that even the most basic kind of intentional directedness depends on, is best explained by, or logically implies, the existence of some kind of non-representational content. Thus, even the most basic forms of engaged responding – those that are directed at or solicited by aspects of the world – must be contentful.

This explains why, when replying to his critics, Dreyfus adamantly talks of skills as being non-representational while insisting that '[he does not] mean non-intentional; [he means] non-propositional' (Dreyfus, 2002b, p. 419). But just how are we to make sense of the idea of non-representational, intentional content? One difficulty with Dreyfus' way of drawing the distinction is that some non-propositional content is fully representational. For example, referential content – such as the semantic content of a proper name – is not propositional, but it is still a kind of semantic content.

Perhaps, in explicating the nature of non-representational, intentional content one might follow those who have tried to make sense of the notion of non-conceptual representational content. Traditionally, this is to be understood as a kind of representational content that 'presents the world as being a certain way' even though the creature or system doing the representing lacks the concepts that could, or would, canonically express the content in question. If that idea is coherent then it is possible to make sense of mental, representational content without relying on the standard semantic apparatus of truth conditions or reference, or related notions. That is one way of trying to get beyond the semantic thesis of intentionality. But it requires the existence of mental content *sans* concepts, *sans* truth conditions, *sans* reference, *sans* intensionality (with an 's'), *sans* semantics.<sup>9</sup> For my own part, I doubt that anything coherent remains that can be called *representational* content after all of these adjustments have been made (see Hutto, forthcoming).

Still, one might hold that although representationalism cannot survive this sort of conceptual subtraction, something else might. Perhaps, the remainder of this sort of exercise in conceptual subtraction is a kind of *non-representational, non-semantic, non-conceptual* content. But we face exactly the same problem in making sense of this idea. Without any of the standard semantic notions in play it is no longer clear what ‘possessing mental content’ really amounts to. The onus is on anyone wishing to demonstrate the intelligibility of this idea to find some way of unpacking what content is without, implicitly and illicitly, relying on intuitions that evoke the usual semantic associations.

Not only do I doubt that this strategy can succeed, I believe any attempt to pursue it is ill motivated. This is because we already have powerful means for understanding basic forms of intentionality in content-free terms. This becomes evident if we adjust the ambitions of the best naturalised theories of content so that they no longer seek to explain intentionality with reference to mental states bearing semantic, representational content. The aim of the Radical Enactivist alternative I promote is to provide a new way of understanding a ‘non-representational form of activity [...] [that] is a more basic kind of intentionality’ (Dreyfus, 2002a, p. 377).<sup>10</sup>

Specifically, what is on offer is a teleosemiotic account of basic intentionality that builds on core insights of teleosemantic theories of content while adjusting their aspirations in a crucial respect. The aim is to understand how natural signs call forth certain sophisticated, and situation appropriate, responses from organisms; responses that exhibit a basic kind of directedness, or intentionality. Unlike teleosemantics, teleosemiotics holds that this most basic form of situational responding is neither semantic nor contentful. Organisms can respond to worldly solicitations, in complex ways, and act successfully by making appropriate and well-focused responses to objects, or states of affairs, in ways that depend wholly on their sensitivity to natural signs. But this does not involve representing those objects or states of affairs as such, or indeed, at all. If so, this kind of engaged responding – as is typical of absorbed coping – is neither intrinsically contentful nor best explained by the existence of mental contents (for details see Hutto, 2008, Ch. 3; Hutto forthcoming; Hutto and Myin, forthcoming).<sup>11</sup>

There is no doubt that Radical Enactivism will be a hard sell in some quarters. Rey (2002), for example, confronts Dreyfus with the fact that he finds it ‘[h]ard to understand how a brain can respond to ‘solicitation’ without representing it as a solicitation’ (p. 405). Dreyfus replies by denying that the brain is responding to anything, rather it is ‘just relaxing into a basin of attraction’ (2002b, p. 420). But – metaphors aside – relaxing is, of course, a kind of response. Hence, a better reply is to challenge directly the intellectualist picture that lies at the heart of Rey’s imaginative deficit. For it really isn’t very difficult to imagine an organism responding to some particular kind of solicitation, even in quite sophisticated ways, without representing

it *as* a solicitation, or even *as* a solicitation of this or that kind. Of course, a theorist attempting to explain such responses will be flummoxed and stultified if they lack the conceptual vocabulary to describe the objects to which the brain responds, but it is surely easy to imagine that the brain (and indeed the body too) gets by perfectly well without conceptually representing those things with which it successfully deals.

#### 4. The local, cultural Background

Some may think it true, after all, that biologically basic capacities for responding to worldly solicitations – even those of human beings – are best understood in non-representational terms. After all, no one seriously thinks – not even hardcore cognitivists – that representational capacities depend on representations *all* the way down. As Rey (2002) observes:

It's enough that some mechanisms of mind are representational [...] [Thus] if representationalism is to be challenged it must be with regard to its parade cases, e.g. learning some complex task in a way that is based upon rational assimilation of information. (p. 404)

The kinds of learning task Rey has in mind are such things as learning to drive and to play chess; those activities that involve, as he puts it, implicit instruction. Indeed, he underscores an important fact – that is, that when it comes to mastering these kinds of socio-cultural practices: 'it is of some interest that these skills are not acquired by creatures incapable of such instruction, i.e. of language: we don't, after all, put dogs, cats or even chimpanzees behind steering wheels or enter them into chess tournaments. And it's very hard not to suspect that there is something about the representational properties of language that is crucial' (p. 404).

With this in mind, it might be thought that representationalists can make a stronger case when it comes to explicating the sort of understanding that constitutes the local, cultural Background. To show that this isn't so, I conclude with some remarks about the kind of non-representational understanding that informs our folk psychology, understood as our everyday practice of making sense of intentional actions (that is, our own and those of others) in terms of reasons. It involves being able to ask and answer particular sorts of 'why'-questions by competently deploying the idiom of mental predicates (beliefs, desires, hopes, fears, and so on). This is a very sophisticated and richly structured practice; at least as complex as those that Rey mentions; hence it is an ideal test case.

Moreover, in discussing what lies in the Background of our understanding of intentional states of mind – such as, intentions and reasons, Searle tells us that 'the exciting idea [is] that where human behaviour is concerned much of the holistic structure of intelligibility is provided by narrative

structures. We characteristically understand other people's behavior, and even our own, by situating particular acts within a structured narrative' (Searle, 1991b, p. 341). In adopting this view, he agrees with MacIntyre (1981) that understanding intentions is a matter of situating them in wider narrative histories. This is necessary because 'we cannot characterise intentions independently of the settings which make those intentions intelligible to both agents themselves and others' (p. 206).

This emphasis on the narrative character of reason understanding fits with a developmental proposal I have defended elsewhere; the Narrative Practice Hypothesis or NPH (Hutto, 2007, 2008a, 2008b, 2009). The NPH conjectures that engaging in socially supported story-telling activities is the normal route for developing our folk psychological competence. A special kind of narrative is used, in the process. I call these folk psychological narratives since they show how mental states figure in the lives, history and larger projects of their owners. It is by engaging with and producing folk psychological narratives, with the guidance and support of others, that we become familiar with the forms and norms of folk psychology.

In acquiring folk psychological competence children gain an understanding – *inter alia* – how core mentalistic concepts such as belief, desire, hope and emotion, can combine. Moreover, in line with Rey's observations above, engaging with the sorts of narratives that enable this requires mastery of language. In order to represent and put mental states of the appropriate sort on display, folk psychological narratives are necessarily complex linguistic representations. And being so they can be objects of joint attention, to be examined and discussed by initiate learners and veterans of the practice.

Yet despite all of this, even though the narratives at the heart of this practice are richly structured, they do not contain representations of rules or principles said to constitute the structure of folk psychology. Folk psychological narratives put the psychological profiles of story protagonists on parade and situate them against a larger canvas. It is by this means that children learn what is constant and variable in folk psychological explanations; they learn how and when to apply folk psychology – but in doing so they neither encounter nor internalise a set of 'principles' or 'hypotheses'. Children are never explicitly instructed in the rules of folk psychology. As Stich and Ravenscroft observe, 'We don't explicitly teach our children a theory that enables them to apply mental terms to other people. Indeed [...] we are not even able to state the theory, let alone teach it' (1996, pp. 120–1).

If the NPH is even *possibly* true then it puts paid to the idea that becoming competent in complex language-based practices, such as folk psychology, *necessarily* requires explicit instruction. For in this high profile case, it is possible that we acquire the competence and skills, without ever representing the core rules or principles that are thought to govern the practice. If so, then a great deal of what enables us to understand others in daily life – as fostered



by our local, cultural practices – is never explicitly represented; neither in the course of learning nor applying our folk psychological competence.

Notice that this response is stronger than merely denying that, upon acquiring a complex skill the explicit rules that enabled its acquisition cease to operate, becoming automatic and fully embodied. Dreyfus (2002b) defends this idea against the standard view in many areas of cognitive science that the rules must still operate, albeit unnoticed at the sub-personal level. He writes:

Attractive as this line of reasoning has been for 2500 years, it is a very poor argument. By parody of reasoning, one could argue that, since beginning bicycle riders can only stay upright by using training wheels, when they finally manage to ride without training wheels, we should conclude they must be using invisible ones. (p. 416)

But if the NPH proves true then there is nothing equivalent to the use of training wheels involved in the process of acquiring our folk psychological competence. We rely on others to help us to become skilled in the practice of giving and asking for reasons. And they provide that well-placed support, but they do not instruct children by explicitly introducing them to rules or principles of folk psychology. Assuming this generalises to the acquisition of other complex practices it shows that many of the core features that constitute our understanding of what it is to act for a reason are, for the vast majority, never represented.

At this point, we might be tempted to go Platonic and pull the oldest trick in the philosophical book. It might be insisted that even if we accept that many of the core rules governing everyday practices are never explicitly taught when learning complex skills, we have no choice but to assume that this is because such rules must already be built into the minds of learners. To give this response a name, let's call it the Meno Manoeuvre (see Dreyfus, 2002b, p. 415). Of course, to be convincing to modern eyes, it needs the backing of a credible theory and as such Plato's version has to be significantly updated. This is recognised by its prominent defenders. Thus as Chomsky (2007) observes:

Leibniz argued that Plato's conception of innate knowledge is basically correct though it must be 'purged of the error of pre-existence' (Leibniz 1686, Section XXVI). How he could not really say. Modern biology offers a way to do so; the genetic endowment constitutes what Plato thought we 'remember from an earlier existence' [...] this too is a kind of story [...] Nevertheless the story does provide a plausible indication of where to look for an answer. (p. 47)

There are plenty of contemporary thinkers who seek to give that answer. They conjecture that human beings come 'as standard' with a range of innate modules. Modules are special-purpose cognitive mechanisms that

explain how we are able to cope with a range of everyday tasks in various domains. These devices are thought to do their specialised work by making use of domain-specific bodies of knowledge or belief. As such, they are imagined to contain low-level theories such as folk psychology, folk physics, folk biology and the like.

Moreover, mental modules are imagined to have been forged by natural selection; they would have been Mother Nature's response to our ancestors' need to solve particular adaptive problems. Moreover, their forging, during the Environment of Evolutionary Adaptiveness – that is, the late Stone Age or Pleistocene – is assumed by many to be *the* major moment in *human* evolution.

If the knowledge-base of modules is fully *propositional* and *conceptually* grounded then the representationalist would have an answer to the line of argument presented above.<sup>12</sup> For if, for example, a theory of mind or FP module carries the real burden of enabling us to make sense of intentional actions, and if it does so by representing the core principles of FP, then that would explain why children do not need to receive explicit instruction with respect to such principles; the rules are simply built-into their minds in the form of sub-personal theories. This would also explain why it is so hard for us to articulate the full set of principles with accuracy.

In other writings, I have argued at length against the assumptions upon which fleshing out this sort of story depends (Hutto, 2008a, 2009). Here I simply underline a crucial fact. To make such a story credible – at least in the form set out above – it must be assumed that our hominid ancestors had full-fledged, albeit sub-personal, capacities for propositional representation. Their built-in modular theories would have had to have been forged prior to the emergence of linguistic practices, and hence the representational capacities in question could not be accounted for in terms of language-based judgements and beliefs. This being so, proponents of such theories require the semantic thesis of intentionality to be true; our basic minds must contain fully semantic yet non-linguistic mental contents. Yet, if the discussion of section 3 achieves anything it shows just how problematic that assumption is in the light of current developments in cognitive science. The fate of the updated Meno Manoeuvre is tied to the outcome of the debates about whether basic biological mentality is representational or not. My money, against the bets of Platonists, is on anti-representationalism carrying the day.

## 5. Conclusion

There is good reason to believe that there is much that goes unsaid in everything we say, think and do. I have argued, along two fronts concerning what is common to us all and what is more locally informed, that the crucial and core aspects of what informs what we say, think and do goes without ever being represented, at any level at all. Although the claim is radical, I have tried to provide strong reasons for thinking it true. If it is

there is much that needs re-thinking in contemporary cognitive science and philosophy.

## Notes

1. Searle assumes that holism of this sort is true of human intentional states, but there are prominent and vocal critics of this idea (see Fodor and Lepore, 1992).
2. Searle assumes that the Background, as he understands it, always operates in the context of representational activity of some kind. He stipulates that ‘the Background *only* functions when it is activated by genuine intentional contents’ (Searle 1991a, p. 294; emphasis added).
3. We should not be persuaded that because brains are normally causally involved in making possible the exercise of our capacities that brains are the sufficient causal, or metaphysical, bases of such capacities. In responding to the Searlean idea that mental phenomena are always caused by and realised in brains Noë points out that, ‘In general just as the fact that one can manipulate the car’s behavior by manipulating its engine is not enough to show that the engine is alone sufficient for the car’s behavior, so the fact that one can manipulate the brain is not enough to show that the brain is sufficient for experience’ (Noë, 2004, p. 211).
4. It is not clear how non-intentional mental states, those that lack all content, could get things right or wrong. In contrast, Searle claims that is a condition of intentional states ‘that they can succeed or fail’ (Searle, 1991a, p. 294). I think this not quite right either, since in the case of basic engaged responding it is the activities of organisms that succeed or fail, not their intentional states *per se*.
5. For a detailed account of the nature and origin of standard cognitive science’s understanding of representations, see Shapiro (2011, [Chapter 1](#)).
6. Millikan’s Pushmi-Pullyou representations, should they exist, would be a prime examples of action-orientated representations. They have dual-facing interrelated proper functions: That of mapping onto specific states of affairs and that of prompting a certain response in relation to said state of affairs. They have indicative and imperative aspects (see, for example, Millikan, 2004, p. 158).
7. A related intuition is that to have an expectation entails being in a contentful state of mind. Some are attracted to this idea because they hold that the only way to explain how expectations are violated is to appeal to their content, for it alone specifies the conditions of satisfaction. This *seems* to follow, but it does not. Certainly, in some cases we harbor contentful expectations, and fairly precise ones. But it isn’t a logical requirement on being an expectation that it be contentful. For example, one can be disappointed by circumstances even if one has no determinate idea ‘in mind’ about what was expected or wanted. For example, I may crave and expect a wonderful holiday without having any precise idea about what having one would entail. Imagine that I have no notion of what a suitable holiday would look like: I leave such details in the hands of others. Perhaps I also don’t know what would serve as a good holiday for me. Still, my expectations can be met or dashed. This does not imply that I must have had a vague or loose idea about what to expect; I can be disappointed or fully satisfied without having *any* idea about what to expect, whatsoever.
8. For a useful discussion of this point see Crane (2011).
9. See, for example, Crane (2009) for a defense of the idea that representational content might be understood in terms of accuracy conditions.

10. This proposal is close in spirit to many of Dreyfus' claims about absorbed, embodied responding. He tells us that in such cases 'One's body is simply solicited by a situation to get into equilibrium with it' (Dreyfus, 2002a, p. 378). That in such cases 'the final gestalt is not represented in one's mind. Indeed, it is not something one *could* represent. One only senses when one is getting closer or further away from the optimum' (p. 379; emphasis added). Indeed, he tells us activities 'can be purposive without the agent entertaining a purpose' (p. 379). This content-free way of making sense of the flow of engaged activity in absorbed coping appears to fit with much that Dreyfus has to say about Heidegger's take on this topic (see Dreyfus, 1993).
11. Contra McDowell, I think that the human engagements with the world and others are always content-free at base. This is so even though after the right exposure to linguistic practices we have the, possibly unique, capacity to respond reflectively to worldly offerings by focusing on them in conceptual ways too.
12. Of course, many including Searle, assume that our hominid ancestors did have minds capable of harbouring fully fledged propositional attitudes despite their lacking language. He writes: 'Our prelinguistic hominids already have perception, intentional action, and prelinguistic thought processes. All of these are intentional states with full propositional contents' (Searle, 2010, pp. 71–2). For a detailed argument against this possibility see Hutto, 2008a, [Chapter 4](#).

## References

- Clark, A. (2002a) 'Skills, spills and the nature of mindful action', *Phenomenology and the Cognitive Sciences*, 1, 385–7.
- Crane, T. (2009) 'Is perception a propositional attitude?', *Philosophical Quarterly*, 59, 452–69.
- Crane, T. (2011) 'The Given', in J. Schear (ed.) *The Myth of the Mental?*, (London: Routledge).
- Dreyfus, H. L. (1993) 'Heidegger's critique of Husserl's (and Searle's) account of intentionality', *Social Research*, 93(60), 1–17.
- Dreyfus, H. L. (2002a) 'Intelligence without representation – Merleau-Ponty's critique of mental representation', *Phenomenology and the Cognitive Sciences*, 1, 367–83.
- Dreyfus, H. L. (2002b) 'Refocusing the question: Can there be skilful coping without propositional representations or brain representations?', *Phenomenology and the Cognitive Sciences*, 1, 413–25.
- Dreyfus, H. L. (2007a) 'The return of the myth of the mental', *Inquiry*, 50, 352–65.
- Dreyfus, H. L. (2007b) 'Response to McDowell', *Inquiry*, 50, 371–7.
- Fodor, J. A, and E. LePore (1992) *Holism: A Shopper's Guide* (Oxford: Blackwell).
- Hutto, D. D. (2006) 'Unprincipled engagements: Emotional experience, expression and response', in R. Menary (ed.), *Radical Enactivism: Focus on the Philosophy of Daniel D. Hutto*, (Amsterdam/Philadelphia: John Benjamins), 13–38.
- Hutto, D. D. (2007) 'The narrative practice hypothesis: Origins and applications of folk psychology', in *Narrative and Understanding Persons*: Royal Institute of Philosophy Supplement, 82, 43–68.
- Hutto, D. D. (2008a) *Folk Psychological Narratives: The Socio-Cultural Basis of Understanding Reasons* (Cambridge, MA: MIT Press).
- Hutto D. D. (2008b) 'The narrative practice hypothesis: Clarifications and consequences', *Philosophical Explorations*, 11, 175–92.

- Hutto, D. D. (2009) 'Folk psychology as narrative practice', *Journal of Consciousness Studies*, 16, 9–39.
- Hutto, D. D. (forthcoming) 'Philosophy of mind's new lease on life: Autopoietic enactivism meets teleosemiotics', *Journal of Consciousness Studies*.
- Hutto D. D. and E. Myin ( forthcoming) *Radicalizing Enactivism* (Cambridge, MA: MIT Press).
- MacIntyre, A. (1981) *After Virtue* (London: Duckworth).
- McDowell, J. (2007a) 'What myth?', *Inquiry*, 50, 338–51.
- McDowell, J. (2007b) 'Response to Dreyfus', *Inquiry*, 50, 366–70.
- McDowell, J. (2009). *Having the World in View: Essays on Kant, Hegel, and Sellars* (Cambridge, MA: Harvard University Press).
- Millikan, R. G. (2004) *Varieties of Meaning: The 2002 Jean Nicod Lectures* (Cambridge, MA.: MIT Press).
- Noë, A. (2004) *Action in Perception* (Cambridge, MA: MIT Press).
- Ramsey, W. M. (2007) *Representation Reconsidered* (Cambridge: Cambridge University Press).
- Rey, G. (2002) 'Problems with Dreyfus' dialectic', *Phenomenology and the Cognitive Sciences*, 1, 403–8.
- Searle, J. R. (1983) *Intentionality: An Essay in the Philosophy of Mind* (Cambridge: Cambridge University Press).
- Searle, J. R. (1991a) 'Response: The background of intentionality and action', in E. LePore and R. Van Gulick (eds.) *John Searle and His Critics*, (Oxford: Blackwell), 289–99.
- Searle, J. R. (1991b) 'Response: Explanation in the social sciences', in E. LePore and R. Van Gulick (eds.) *John Searle and His Critics*, , (Oxford: Blackwell), 335–42 .
- Searle, J. R. (2010) *Making the Social World: The Structure of Human Civilization* (Oxford: Oxford University Press).
- Searle, J. R. (2011) 'Wittgenstein and the background', *American Philosophical Quarterly*, 48(2), 117–26
- Shapiro, L. (2011) *Embodied Cognition* (London: Routledge).
- Stich, S. and I. Ravenscroft (1996) 'What is Folk Psychology?' in *Deconstructing the Mind* (Oxford: Oxford University Press).

# 3

## The Background as Intentional, Conscious, and Nonconceptual

*Michael Schmitz*

### 1. Introduction

The common understanding of intentionality and consciousness is still so dominated by thought and linguistic representation that even those who see that thought and language require a background of more basic know-how often conceive it as being pre-intentional, non-representational, and non-conscious. In this chapter, I want to argue that the background is non-conceptual rather than non-representational and non-conscious, and that it is conscious and intentional in the sense that background know-how essentially manifests itself in conscious and intentional episodes and performances, in perceptual and actional experiences with non-conceptual intentional content, in experiences of familiarity or surprise, or in the sense of being ready and knowing how to do things.

I will develop this argument by discussing John Searle's account of the background. This seems appropriate not only because his is the richest account of the background I know of in contemporary philosophy and the one most clearly situated within a general theory of mind and language, but also because, perhaps more so than any other contemporary philosopher (but see Strawson, 1994), Searle has given consciousness a central place in his account of the mind. This attitude is spelled out in his 'connection principle' (CP), according to which all occurrent mental reality is conscious reality. I believe that the CP is essentially correct and will argue that my proposed reconceptualization of the background is actually truer to the letter and spirit of the CP than Searle's own account.

### 2. Searle on the background

Often, versions of the thesis of a non-representational background are supported by appeal to a single theoretical argument, usually some kind of regress argument. For example, it is suggested that to avoid a regress of interpretations, understanding must bottom out in a background of

non-representational capacities. Though Searle's notion of the background has also sometimes been interpreted in this way (see Stroud, 1991), Searle emphasizes that he did not become convinced of what he refers to as the 'hypothesis' of the background through a single theoretical argument, but rather through a number of considerations from a variety of domains (1983, 1991). He first introduced the background in his discussion of literal meaning (1979, 1980), but has since also invoked it to account for, among other things, the interpretation of metaphors (1983), the acquisition and functioning of bodily skills like the ability to ski (1992), or the sense we have of others as potential cooperation partners (1995).

To get a feel for the background thesis, consider some of Searle's examples. Most try to make plausible the idea that one can take something for granted without believing it. For example, we usually take for granted that the objects around us will offer resistance to touch. I would be very surprised if the chair I am about to sit on just vanished into thin air the moment I make contact with it, but I do not ordinarily have a belief to the effect that everyday objects are solid and offer resistance to touch, though of course I could form such a belief (1983, p. 142). In the same way, it seems inappropriate to say that ordinarily we have beliefs to the effect that the people we pass by on the streets are conscious, or that the person is screaming because a car has run over his foot is in pain. As Wittgenstein, whose later work is a main inspiration for Searle's notion of the background, says, we are not of the opinion that the other has a soul. It is rather that our attitude or stance towards the other is an attitude or stance towards a soul (PI, part II, iv). So Searle describes the contents of the background as stances, 'preintentional assumptions', or background presuppositions, and in terms of taking things for granted and of being committed to the truth of propositions without believing them.

Even though the background is introduced by means of examples rather than through an abstract theoretical argument, it still has a broad theoretical function in Searle's philosophy that corresponds to the intent of familiar regress arguments. The most important theoretical claim of Searle's in this context is that intentional contents are not 'self-interpreting' or 'self-applying': they need a background for their application. This claim is first made with regard to literal meaning: literal meanings stand in need of background assumptions to determine their interpretation and thus their conditions of satisfaction. Relative to different background assumptions, the literal meaning of a sentence determines different conditions of satisfaction or none at all. For example, the sentence 'The cat is on the mat' does not have a clear application in a situation where both cat and mat are floating freely in outer space, because there is no gravitational field then relative to which one is above the other (1979, p. 122). So if we remove the background assumption of a gravitational field, which we usually take for granted, the literal meaning of the sentence is insufficient to determine

truth conditions – unless we supply a different background, against which the sentence has an application even in this context. Given Searle's expressibility assumption that it must be possible to express all intentional content, without residue, through the literal meanings of sentences, this point about literal meaning generalizes to all kinds of intentional content. In particular, it applies to the contents not only of speech acts and intentional states like beliefs and intentions, but also of perceptual and actional experience. They all require a background for their application. And since, for reasons that we shall discuss shortly, Searle thinks that the background itself cannot be made explicit in the form of intentional contents, it must be pre-intentional and non-representational. By the same line of reasoning, the background cannot be a matter of rules. Rules could be spelled out as sentences with given literal meanings, but these sentences would again stand in need of a background to fix their application. At this point, Searle does employ a regress argument: the background cannot be a matter of rules, or, more generally, of intentional contents, on pain of a regress of further backgrounds (1991).

Most of the terms Searle uses to talk about the background can be divided into two broad groups. So far, I have mainly used expressions from the first group, like 'preintentional assumption', 'background presupposition', and 'taking things for granted'. This terminology could be called the 'intentional state terminology'. It is the terminology most frequently used in Searle's early writings on the background. But, as he is well aware, given his insistence that the background is non-representational, it has a paradoxical, even 'oxymoronic' (1983, p. 156) ring to it. How could an assumption or presupposition lack representational content? Searle is speaking in a metaphorical or as-if mode here, and it is probably for this reason that in his later writings the dispositional terminology of capacities, of skills, habits, and of know-how both in the sense of knowing how things are and knowing how to do them becomes more prominent. Using this terminology, Searle will say things like that intentional contents determine conditions of satisfactions only relative to a background of capacities.

What is the relation between these two sets of expressions and the attendant ways of conceptualizing the background? Searle is not explicit about this, but I believe we can use the notion of being committed to the truth of a proposition, which, like 'stance', appears to be somewhere in the middle between the two groups, to connect them. The idea, which I think is consonant with the spirit and letter of Searle's account, is that at least in many cases, pre-intentional assumptions or background presuppositions can be ascribed to subjects when their know-how, respectively their exercise of this know-how – their ways of doing things – commits them to the truth of propositions, even though they do not believe these propositions, at least not *ipso facto*. For example, their way of interacting with their everyday environment commits them to the existence of solid



objects, even though they may never have formed a belief in the corresponding proposition.

In spite of the existence of a possible bridge between the two main vocabularies Searle uses to characterize the background, we should take note of the fact that Searle oscillates between these two quite different ways of conceptualizing it. I believe that this is indicative of a basic tension in Searle's conception. It seems irresistible to describe the background as if it has representational content, but it cannot have such content by Searle's assumptions. To understand better how he arrives at these assumptions, let us now more closely analyse his argument for the background from literal meaning.

### 3. The background as intentional

Consider the following sentences with the verb 'cut' (adapted from 1992, p. 178f):

- (a) Sam cut the grass.
- (b) Michael, cut the cake!
- (c) Bill cut the cloth.
- (d) I just cut my skin.

Now Searle's argument is based on the assumption that 'cut' has the same literal meaning in sentences like (a)–(d), and I will go along with this assumption, though only for the sake of argument. However, 'cut' is still interpreted differently in these contexts, and this is evidenced by the fact that if I cut the cake by running over it with a lawnmower, I have misinterpreted (b). I did not do what I was told to do – unless the speaker had a non-standard interpretation in mind and made it manifest, but we will disregard this possibility for the time being. If all these assumptions are correct, it follows that literal sentence meaning underdetermines conditions of satisfaction. By itself it is insufficient, for example, to fix what actions count as executions of orders and intentions, and what states of affairs count as making statements and beliefs true.

Now why is this supposed to be a problem, and why should this support the postulation of a non-representational, pre-intentional background? Why can't we just supplement sentence meaning by additional intentional content, for example, by speaker meaning in a given context of use? To see why, first recall that Searle assumes that it must be possible to express all intentional content, without residue, in the form of the literal meanings of sentences. This assumption is an extension of what in *Speech Acts* Searle had called the 'principle of expressibility' – that whatever can be meant, can be said. The extended principle further says that (the intentional content of) whatever can be thought, perceived, or done can be completely expressed in words. Searle then argues that it is not possible to make explicit

the intended interpretations of literal sentence meanings by means of further sentences with additional literal meanings. Consider another of his examples, the order made by uttering the sentence 'Bring me a steak!' in a restaurant (1992, p. 180). Can we block non-standard interpretations of this order like that the steak is brought to the orderer's house, stuffed into his nose, served encased in concrete, and so on – by adding further clauses in the form of sentences with literal meanings explicitly excluding these interpretations?

Searle argues convincingly that we cannot do this because (a) we would have to go on indefinitely in adding such clauses, as there is an indefinite number of such interpretations, and (b) any clause that we might add would itself be subject to non-standard interpretations. So he concludes that only the background can do the job of excluding these non-standard interpretations and thus of determining appropriate conditions of satisfaction. All our meaning and intentionality is relative to a background of ways of doing things, for example, certain practices of serving meals in restaurants, and only determines appropriate conditions of satisfaction against this background. However, it cannot be made explicit by means of further sentences, and so, on the basis of his expressibility assumption, Searle concludes that it must be pre-intentional and non-representational. We can also put the point in the language of 'pre-intentional assumptions': the pre-intentional assumptions we have about such things as how food is served in restaurants, and how things are cut, help to determine conditions of satisfaction.

Even on a sympathetic reading, it seems hard to deny that there is a certain tension in Searle's view here. Searle holds both that all intentional content must be completely expressible by the literal meaning of sentences, and that the conditions of satisfaction of what we mean (believe, intend etc.) cannot be fully expressed by means of sentences alone. It would seem appropriate to label these theses as the expressibility, respectively the non-expressibility thesis, even though they are not contradictory. Searle avoids a contradiction by relativizing intentional contents to background capacities for their application. Sentence meanings are only insufficient to determine conditions of satisfaction if considered in isolation from the background. But in so doing, Searle drives a wedge between content and conditions of satisfaction, and this, I now want to argue, is at best an unfortunate terminological decision.

The problem is quite straightforward. Different interpretations of literal meanings through different backgrounds correspond to different entities meant, which in turn are parts of different states of affairs forming different conditions of satisfaction (as thing required; 1983, [chapter 1](#)). But when different entities are represented, there should ipso facto be a corresponding difference between the relevant representational/intentional contents (see also Recanati, 2003). This is also the natural interpretation of Searle's claim that 'the Intentional content determines the conditions of satisfaction'

(1983, p. 12): intentional content is what embodies conditions of satisfaction (as requirement), and it thus cannot be applied to different conditions of satisfaction (as thing required). Or, to put the point in commonsensical and even more straightforward terms, when the orderer becomes aware of the mutilated cake, she or he is certainly justified in saying something like 'That's not what I had in mind!', or 'That's not what I meant!' And the notion of intentional content is precisely designed to capture the contents of minds with regard to their representational significance.

Yet another way of making the point is to say that it must be possible to *distinguish*, for example, between different kinds of cutting. It must be possible, for example, to *see something as* a knife cutting rather than as a lawnmower cutting, or to have an actional experience of oneself as cutting something with a knife rather than with a lawnmower. And again, the intentional content of a lawnmower cutting experience must be relevantly different from the intentional content of a knife-cutting experience. But a counterintuitive consequence of Searle's view is that it would seem to allow for the possibility of applying the intentional contents of perceptual and actional knife-cutting experiences to lawnmower cuttings and conversely, given appropriate changes in the background of these contents. It seems to me that there is no clear sense to the idea that the intentional contents of such knife-cutting experiences can be applied to lawnmower cuttings, and conversely. Of course, one could come up with a scenario where one has reason to *believe* that the lawnmower-cutting perceptual experience was actually *caused* by knife cuttings, and conversely. But this still wouldn't be a case where the intentional content of a lawnmower-cutting experience had been applied to a knife cutting. It would still have *seemed* to the subject of the experience that a lawnmower cutting was unfolding. The idea of applying perceptual and actional experiences to different objects in this way seems to me to embody an impossibly detached conception of their intentional relation to reality.<sup>1</sup>

Moreover, the very idea of applying intentional contents seems rather questionable. Sentences and other symbols can be applied or used in certain ways, but not intentional states and their contents.<sup>2</sup> If we want to use the notion of application in this context, a better way would be to say that people apply sentences by responding to them in certain ways. For example, I apply the sentence 'Cut the cake!' by cutting the cake with a knife (rather than a lawnmower) in response, and I thus manifest my understanding of it. But in so doing, I don't apply an intentional content, but rather my responding in this way is partially constitutive of the intentional content of my understanding. The crucial Wittgensteinian point here is that understanding or meaning is manifest not only in pure thought, but also in our practise, in action. We will soon come back to this Wittgensteinian point.

Under Searle's assumptions, literal meaning in general is underdetermined because it admits of different interpretations with regard to conditions of

satisfaction. But then, given Searle's further assumption that literal meaning can fully express intentional content, there is a missing bit of intentional content for each different interpretation of literal meaning. Searle suggests that the background can fix this, but the background as conceived by Searle can't do this because it is non-representational and thus can't supply the missing bits of intentional content. The problem with Searle's argumentative strategy is that he, so to speak, tears holes into intentional content to argue for the presence of the background, even though the background can't plug these holes. So we need additional intentional content, and we need to think about the background in such a way that it can help provide this content. For the purposes of this essay, it is not important how we think of this content in terms of linguistic meaning – whether we think of it as literal meaning, speaker's meaning, or in terms of a semantic theory that dissolves any strict dichotomy between literal and non-literal meaning (for example, Langacker, 1987) – and so I won't discuss this issue further here. Either way, the speaker does mean something different when using 'cut' in the different examples.

In criticizing Searle in this way, let us not lose sight of the fact that there is also something right and insightful about his account of these examples. I think it is this: when we mean or think anything, we do it against the background of our familiarity with certain normal ways of doing things. It is not possible to specify what we mean by drawing up a list of clauses explicitly excluding all possible deviations from these normal ways that we can imagine. This task is ill-defined and could never be completed. But it is not necessary that we should be able to provide such a list in order to be able to say that the intentional content of thought and meaning determines conditions of satisfaction. We only can and need to explicitly clarify what we have in mind by providing additional clauses *when there are deviations from the familiar ways of doing things*. In either case, whether there are deviations from our normal ways of doing things or not, our background know-how helps determine the intentional content of thought and meaning. It will be easier to understand how this can be the case if we clarify the sense in which the background is itself intentional, and it is to this task that I now turn.

The crucial question we must ask is this: what are background capacities for? That is, what are the manifestations of these capacities? What kinds of performances or occurrences actualize them? In particular, what kind of episode is 'applying an intentional content' supposed to be? Searle speaks generally of his 'intentional behavior' as being 'a manifestation of [...] background capacities' (1992, p. 185), and he also says that the background is 'only manifest when there is intentional content [...] when there are some intentional phenomena, such as an intentional action, a perception, a thought, etc.' (ibid., p. 196). So intentional behaviour is a manifestation of background capacities, and the last quote further strongly suggests – though it does not state it completely unambiguously – that in fact all intentional

phenomena are manifestations of background capacities. But if that is so, if background abilities are manifest in intentional phenomena, why does Searle describe them as pre-intentional rather than as intentional? I think at least part of the answer is that he categorizes background abilities in terms of their base, that is, in terms of the structures that explain the manifestation of the abilities. (Perhaps he even tacitly identifies them with their base.) As these structures are neurophysiological structures, this interpretation also makes sense of the fact that he often describes the background as neurophysiological.

There is of course nothing wrong as such with categorizing abilities in terms of their base. However, it is worth pointing out that this is not our usual way of categorizing abilities. We ordinarily categorize capacities and abilities in terms of what they are capacities or abilities for, that is, in terms of the performances and events in which they are actualized. For example, athletic abilities are actualized in athletic performances, musical abilities in musical performances, and so on. Using this standard way of conceptualizing abilities, background abilities come out as intentional because they are actualized in intentional performances and events, and when I speak of them as being intentional, I mean it precisely in this sense. Moreover, to the extent that we have a clear understanding of what kind of episode applying an intentional content might be, it seems to me it ought also be an intentional episode. For example, when cutting the cake with the knife, I should be applying (according to Searle) the literal meaning of the corresponding imperative sentence and thus the intentional content that it expresses, but this performance is surely intentional. And it is intentional not only in the sense that is an intentional action in its own right, but in that it is intended to be an execution of this order and thus also – in some sense – an interpretation of it.

#### **4. The background as conscious**

By the same line of thought, the claim that background abilities are non-conscious also becomes questionable. Searle says of the capacities for walking, running, writing, and speaking that they ‘do not generate consciousness’ (*ibid.*, p. 188). But this is surprising since walking, running, writing, speaking, and other actions at least typically involve consciousness, especially as Searle (1983, [chapter 3](#)) has had a leading role in bringing the long-neglected phenomenon of the experience of acting back into philosophical focus. To block a common misunderstanding from the outset: to say that action at least typically involves consciousness is not to say that we typically ‘walk, run, read, or run ‘consciously’ in the sense in which we usually employ these kinds of phrases, because what we usually mean by them is that we perform these actions in a particular thoughtful, reflective, and deliberate way. But it is a mistake to conclude from this that consciousness

plays no role in ordinary non-reflective, routine, or even 'automatic' or absent-minded action (Schmitz, 2011). Even when walking absent-mindedly, absorbed in thought – but not thinking about walking at all – we have actional experiences, for example motor experiences of moving our legs. So to the extent that the manifestations of background abilities involve experience or consciousness, it seems that we can also think of them as being conscious abilities. But to what extent is that the case? How important is the role of consciousness? Is it perhaps even essential to action and mind? These questions lead us to Searle's CP.

According to the CP, 'the only occurrent reality of the mental as mental is consciousness' (1992, p. 187). The notion of a level of occurrent nonconscious mentality is rejected as an anthropomorphization of physiological brain processes. This is not the place for a full-scale analysis and defence of the CP. However, since there is a large and still growing literature on the unconscious mind and what it supposedly can do, and the CP is consequently still far from being generally accepted, some remarks to support the CP and to clarify its meaning seem appropriate. One argument for the CP can be derived from how we think about other people's minds and represent their contents. We do this, to use a familiar phrase, by 'putting ourselves into their shoes'. We use our consciousness to imagine the contents of theirs. But we can only put ourselves into the shoes of a being to the extent that this being is conscious. We cannot take up the point of view of a table. This is also true of purely physiological brain states. We cannot put ourselves into the shoes of, or imagine what it's like to be, purely physiological brain states – as opposed to the states of consciousness they underlie.

Supposedly non-conscious attitudes are also represented in the same general way. For example, theorists talking about unconscious beliefs think their contents consciously. Now what does it even mean to say that the belief so represented is itself unconscious? The difficulty of subtracting consciousness while leaving mentality intact is usually underestimated because an inadequate account of consciousness itself is implicitly or explicitly adopted. I have in mind an account of the sort that in contemporary philosophy of mind is called a higher-order theory of consciousness. On this kind of view, consciousness is treated as an innermental relation. That a state is conscious is taken to mean that its subject is aware of it through some higher-order monitoring state rather than that it is inherently or intrinsically an instance of consciousness. The unconscious mind is treated like a repository of mental states, stored away like in a dark attic (1992, p. 152), waiting for the light of a monitoring state to shine on them.

The point of departure for this kind of view is that the expression 'conscious state' is interpreted as meaning something like 'state one is conscious of being in'. This is one possible interpretation that I don't mean to legislate away. But naturally construed in this usage a state is characterized as 'conscious' by virtue of being an *object of consciousness*, rather like in somewhat

old-fashioned English an object can be designated as 'said x' to indicate that it has been an object of saying, that it has been mentioned in a given context of discourse. And that it is an object of consciousness in turn means that it is an object of a state that is conscious in a different sense, namely inherently. Just like something can only be 'said x', an object of a saying, because there are events that are inherently sayings, so something can only be an object of consciousness because there are inherently conscious states.

The defender of the relational account will try to deny that this sense has application. Seeing that interpreting 'conscious state' as 'state one is of conscious of being in' just relocates inherent consciousness to the monitoring rather than the monitored state, he or she will try to replace 'state one is conscious of being in' through 'state one is aware of being in', where 'aware' (or similar notions such as 'believe', 'represent', and so on) supposedly has a rather different (non-phenomenal) sense than 'conscious'. But it is not intelligible how a relation between as such non-conscious states should confer consciousness on either. And why should an elimination of inherent consciousness in favour of a relation between intentional states, which is what this proposal really amounts to, be accepted? It seems to me it doesn't make sense to deny that the inherent sense has application. Consider your current experience of reading this text. You are now aware of it, but the fact that it is an event in consciousness is quite independent of this awareness, which in turn is itself a form of consciousness.

I therefore see no way to make sense of the higher-order relational account of consciousness. And when this account is rejected, support for the idea of unconscious mentality is also powerfully undercut. It is easy to make sense of the unconscious given the relational account, because then the unconscious simply consists of those mental states the subject is currently unaware of. It is therefore certainly no accident that virtually all discussions of the unconscious, including Freud's (1963), explicitly or implicitly assume a relational account. But when we think of consciousness as an inherent or intrinsic property of states of consciousness, the task of subtracting consciousness from a state while leaving mentality intact will rather seem like the task of subtracting colour from a painting or sound from a symphony while still leaving the painting or symphony intact.

However, since according to the (still!) influential functionalist viewpoint in the philosophy of mind, the essence of mental states is their causal role, it might seem that, even given the rejection of relational accounts, there is an easy answer to what would make an inherently non-conscious state mental: it has the same causal role as a state of consciousness. Recent philosophy of mind has been obsessed with the questions of whether it's conceivable that the causal role of mentality could be duplicated in the absence of consciousness, that is, whether (philosophical) zombies are conceivable, and whether, assuming they are, this also means they are possible. But whatever we want to say about what is possible, we cannot suppose that consciousness and

causal role come apart in the actual world on pain of epiphenomenalism. If the presence or absence of consciousness is not reflected in causal role, it is epiphenomenal and also, since cognition is a causal process, becomes unknowable. But since we do know that consciousness exists, we also know that it has a unique causal role.<sup>3</sup> Nothing else does exactly what consciousness does. Of course, it might still be the case that some non-conscious states are sufficiently similar to conscious ones in terms of their causal role, so that it would be adequate to classify them as belonging to the same class of states, namely mental ones. But is it really plausible that this is the case? It seems to me that if we take an impartial look at the evidence, it rather points to the conclusion that the distinction between the conscious and the non-conscious is such a significant boundary in nature that it is unlikely that the mental should straddle it. We ought to be impressed by the fact that we neither run, swim, nor drive, talk, sing, and so on, in the absence of consciousness.<sup>4</sup>

It is sometimes attempted to pre-empt this kind of reasoning by claiming that there is special sense of 'conscious', in which this term only refers to a non-specific state of general alertness, or even of being awake, supposedly independent from consciousness in a more demanding and contentious sense. But apart from the fact that 'conscious' is never synonymous with 'awake', as we are conscious during dreams, too – and incidentally we ought also to be impressed that any significant activity during sleep seems to be associated with dream consciousness – this misdescribes the relation between specific states of consciousness and the general condition of being conscious. These are not independent: one cannot be conscious except by being in a more specific state of consciousness. Moreover, there is no clear evidence that we can engage in activities like running, swimming, driving, talking, and so on, in the absence of specific, actional experiences of doing these things. As was argued already, when people say that we do such things unconsciously, it usually turns out that what they actually mean is that we do them in the absence of reflective, conceptual level forms of consciousness. There is a tendency to disregard elementary, non-conceptual, actional, and perceptual forms of consciousness in favour of more intellectual higher-level ones. And this tendency is fostered by the tendency towards relational interpretations of consciousness. So the question whether something is done consciously is often interpreted as the question whether there is some higher-level awareness of the relevant action, and it is plausible that this kind of awareness would be conceptual level awareness. But instead we should ask ourselves: would we be conscious just in virtue of experiencing the bodily movement of walking, or of shifting gear even while driving absent-mindedly?

Finally, I think there is a case for withholding the title 'action' from any behaviour that is not appropriately controlled by consciousness. When we characterize something as an action, we ascribe it to the person (or animal)



in a certain way, and since we can only understand the person (or animal) as such by putting ourselves into his or her shoes, and since the idea of putting ourselves into the shoes of another being only has application with regard to that being's consciousness, it seems reasonable that in order to qualify as an action a behaviour needs to flow from that consciousness (Schmitz, 2011).

Having thus made at least a *prima facie* case for the CP, let us try to formulate it more precisely. What can we say beyond the negative point that there are no occurrent unconscious mental states? For one thing, dispositions to be in states of consciousness also unproblematically count as mental, since, as we saw earlier, dispositions in general are categorized in terms of what they are dispositions for. So abilities to run, write, speak, and so on count as both conscious and mental, because they are actualized in performances that have a mental and conscious component. But how do we account satisfactorily for states like belief, intention, or theoretical and practical knowledge? These cannot be reduced to mere occurrences or episodes. I do not cease to know that Paris is the capital of France, or how to get there on the highway, just by virtue of the fact that at some point I do not think the corresponding theoretical or practical thoughts, say because I am in a dreamless sleep. At this point, a purely dispositional account of belief is tempting, but I don't think it is plausible either. Some think that one believes what one is committed to, for example, the logical consequences of one's beliefs, even if one has never had the corresponding thoughts. But this interpretation of the notion of commitment seems rather counterintuitive. That one is committed to washing the dishes certainly does not mean that one is washing them already. I see no reason why being committed or being otherwise disposed to hold something true should be treated differently in this regard. The natural view is that being disposed to believe something or to hold something true is not the same as believing or holding it true already.

So neither a purely episodic nor a purely dispositional account seems viable. But we can solve our problem in a straightforward way by simply combining the two elements. I suggest we think of beliefs and other mental states in terms of episodes grounding dispositions. When somebody believes something, there must be or must have been an episode of thinking that something is true with a sufficient degree of conviction, such that its subject from then on is disposed to undergo further episodes of this kind – until it changes its mind or forgets what it believed. Analogous remarks apply to (prior) intention: intention involves an episode of practical thought, a choosing of a course of action, such that its subject from then on is disposed to undergo further episodes of this kind. This could also be called the 'habit account' of mental states like belief, intention, and knowledge: they are habits of practical and theoretical thought. The term 'habit' is not entirely felicitous because, among other things, one may count as believing or intending on the basis of a single episode, but it transports the crucial implication of at

least one episode as well as of a continuing disposition to undergo further episodes of the same kind.

Another motivation for resistance to the CP could be expressed as follows:

Thinking a thought with a certain intentional content is a conscious episode. If all occurrent mental reality is conscious reality, the intentional content of that thought must be manifest in consciousness. But how could that possibly be the case? It's hard to imagine how the experiences somebody has in thinking or saying something could be sufficient to determine what counts as satisfying the relevant intentional state or speech act. How could the experiences when uttering a sentence like 'Cut the cake!' determine that his order can only be correctly executed by cutting the cake with a knife rather than a lawnmower? This seems impossible, so we need something beyond consciousness to account for meaning, thought and intentionality in general.

I will spare myself the trouble of going through some of the usual moves and countermoves ('Why doesn't it help if I imagine a knife while uttering the sentence?') one could make in this context, as every student of the recent history of philosophy will be familiar with them. In the wake of Wittgenstein's discussions of rule following and Saul Kripke's (1982) interpretation of them, many, if not most, philosophers in the analytic tradition came to believe that consciousness indeed was unable to determine conditions of satisfaction, that something external to the conscious mind was needed. This was usually taken to be some form of unconscious mentality, conceived in functionalist fashion, and/or a community and 'the world', but the background as conceived by Searle also fits this description. However, Wittgenstein himself never drew that conclusion, and I now want to show a way of avoiding it which I believe is Wittgensteinian at least in spirit and also Searlean.

It can be seen as an extension of an account that Searle gave in *Intentionality* (Chapter 8) of how type-identical experiences can determine different conditions of satisfaction, such that, for example, the visual experiences of a man and his twin on twin earth will represent different token entities, even though their experiences and surroundings are type-identical. I will try to show that type-identical thought or meaning experiences can even have type-different conditions of satisfaction, such that, for example, one order could be satisfied by cutting a cake with a knife and another by cutting it with a lawnmower even though the speakers and hearers have type-identical experiences in uttering and hearing the sentence 'Cut the cake!'

So let us construct then, in the usual fashion, two minimally differing scenarios on earth and twin earth. On earth, we find a group with a practise of cutting cakes with knives; on twin earth, they cut them with

lawnmowers. (The implausibility of this is of course besides the point.) An Earthian speaker says to an Earthian hearer: 'Cut the cake!' Same among their twins. And as I said, we assume that the experiences speakers and hearers have in uttering the words and meaning them, and in hearing them and understanding them are type-identical. Not that this assumption is particularly plausible: it is more likely that the experiences of meaning and understanding different kinds of cutting are also different, if only in subtle ways. I will accept this assumption for the sake of argument though, to make the opposing position as strong as possible. So how can type-identical experiences manifest meaning type-different conditions of satisfaction and thus have different intentional contents? The answer is simple: by activating different dispositions issuing in actions / perceptions with type-different experiences as their mental component and with different intentional contents and conditions of satisfaction. In manifesting their ability to understand the utterances by executing the respective orders, the hearers on earth and twin earth will have actional experiences unproblematically determining type-different intentional objects – different kinds of cuttings. The speakers in turn will have correspondingly different perceptual experiences when observing the execution of their orders, which will also unproblematically determine different kinds of cuttings as their intentional objects. In response to these perceptual experiences, they will then, let us suppose, think 'Fine, he has done it' and once again have type-identical thought experiences. So, for the speakers, their utterances activate perceptual abilities then manifest in perceptual experiences, which in turn dispose them to their respective thoughts. They manifest their understanding of their respective orders and thoughts in perceiving the actions of the hearers as (correct) executions of their orders, and this explains how their orders and thoughts can determine type-different events as their intentional objects.

Note how this account is consistent with the CP. All work is done by states of consciousness and dispositions to be in such states. Note further how both the disposition to respond to the orders appropriately and the orderer's meaning these kinds of responses rather than others is *grounded* in the prior practise involving cake-cutting perceptual and actional experiences and the association of that practise with the relevant expressions. So we are not dealing with ungrounded dispositions here, but, just like in the case of mental states like belief and intention, with dispositions grounded by past episodes. This is important because if these dispositions were not grounded through conscious episodes in a prior practise in this way, if they had arisen more or less accidentally (think random mutation or evil neuroscientist), I think we would not accept that they determine meaning. For example, suppose the consciousness histories of our twins had been identical over their entire lifetimes up to a point in time *t*, and yet one had been disposed at *t* to accept knife cutting as an execution of his order, but the other hadn't. In this case, it seems to me it does not make sense to say that they

meant something different at *t*; they were disposed to respond differently after *t*, but this disposition was not grounded in their mental history – its base was purely physiological – and thus not indicative of a difference in mental content at *t*. Meaning is no more purely dispositional than believing or intending. But meaning (and understanding) are not pure experiential episodes accompanying uttering or hearing words either.

So this is the Wittgensteinian diagnosis and (dis)solution of our puzzle about consciousness and meaning. The mistake is to think that all facts determining conditions of satisfaction would need to be contained in the single conscious episode of thinking or meaning or understanding something. These episodes indeed determine conditions of satisfaction only against a background of abilities, in particular perceptual and actional abilities, and earlier manifestations of these abilities, and in concert with many other intentional states. But now, the present account differs from Searle's in three related respects. First, these abilities are neither non-intentional nor non-conscious, as they are manifest in conscious intentional, perceptual, and actional episodes. Second, the relevant episodes in the two scenarios are not different applications of the same intentional contents, but rather are partly constitutive of the fact that different intentional contents are present. Third, the proposed account is more in tune with both the letter and the spirit of the CP than Searle's. It is inconsistent with the letter of the CP that background abilities should be mental in spite of not being actualized in conscious episodes. That might be tolerable though, since it may not be so important whether to call them mental or not, and Searle clarifies that by calling them mental he just means that they are internal (1983, p. 153f; 1991, p. 291f). But the idea that such abilities should help to determine conditions of satisfaction runs counter to the spirit of the CP. For it entails that there could be people who are consciousness twins over their entire lifetimes who still had mental states with type-different conditions of satisfaction – say lawnmower cuttings in one case and knife cuttings in the other. But then their consciousness would appear to be fundamentally out of touch with the external world. Different conditions in the world would satisfy, or fail to satisfy, their intentional states, without this being reflected in their conscious lives at all.

Suppose then the argument that background capacities are capacities for intentional and conscious performances and episodes and in that sense are themselves intentional and conscious is accepted. But then the question how background capacities differ from intentional capacities generally becomes very urgent, given the CP. As Searle says himself (1992, p. 186ff), when he first started developing his notion of the background, he had not yet embraced the CP and was still influenced by what he later came to call the 'inventory conception' of the mental. Given the inventory conception, the occurrent unconscious mental states in the dark attic of the unconscious mind can be thought of as the bases for corresponding conscious

performances and episodes. Searle first rejected this picture for background abilities. They are not based on a mental inventory of rules that guide their actualizations. Categorizing abilities in terms of their bases, this is what he means when he says that the background is physiological. At bottom, this is the same impetus against the cognitivist myth of an arsenal of rules and other forms of unconscious occurrent mentality, which then finds a more general expression in the CP. With the CP, Searle goes on to reject the inventory conception across the board. But then the background cannot be distinguished from the network of intentional states through the non-dispositional nature of the latter anymore.

One might leave it at that. What would remain is the insight that there is no occurrent non-conscious mentality at the base of our know-how. This is surely a very important (and still rather controversial) insight, but it is just a particular application of the CP and purely negative. And it would leave the wealth of examples for things that we take for granted without believing them unaccounted for. It seems to me Searle is getting at an important set of phenomena here and at an important distinction. How can we account for this distinction? Given the argument so far, it seems clear that background skills can only differ from other intentional capacities through the kind of conscious, intentional episodes in which they are manifest and which ground them. Purely physiological processes by themselves could not account for the difference between taking for granted that the mug I'm about to lift is heavy and the corresponding belief. Further, in Searle's discussion, there is already a preference for examples from the actional and perceptual domain, and he gives pride of place to the coordinated flow of action and perception in his discussions of the background, especially in his writings after introducing the CP (1992, p. 195). It seems that it is primarily his commitment to the expressibility assumption that keeps him from thinking of background know-how as sensorimotor know-how. Another reason may be that he wants to emphasize the role the background has in determining the conditions of satisfaction of thought and meaning, but as we have seen already, we can achieve this by emphasizing the role of sensorimotor know-how and its actualizations in determining the conditions of satisfaction of thought and meaning.

But if background capacities are manifest in action and perception, which special properties of actional and perceptual experiences distinguish them from thought episodes and how can these properties account for the phenomena that the hypothesis of the background is supposed to explain? One relevant difference can be captured by appealing to Searle's distinction between perceptual and actional *presentations* and *representations* like intentions and beliefs (1983, pp. 46, 87f). The latter can be repeated, while the former can't be. What's present to me now can never be present to me again, but I can represent it repeatedly. That explains a characteristic difference between the background and the network of desires, intentions, and beliefs.

While I can explicate what I think and mean by citing other of my theoretical and practical attitudes, I cannot in the same sense cite my actional and perceptual abilities, even though I think and mean against the background of these abilities, and their actualizations are partly constitutive of the contents of my meaning and thinking what I do. That is, while I can of course state that I have these abilities, I cannot cite the content of corresponding presentations as such, I can only represent it. This partly explains the intuitive difference between the background and the network, and incidentally it also explains why the inventory conception is harder to shake off with regard to the latter than with regard to the former: because beliefs and intentions can be repeated, it is more tempting to take the notion that they are stored too literally. However, I don't think this distinction accounts for all relevant differences between action and perception on the one hand, and intention and belief on the other, and thus, according to our hypothesis, for the differences between the background and the network. In the next section, I will argue that we can explain these differences in terms of the notion of non-conceptual content. Background capacities can be reconceptualized as those capacities that are actualized in intentional conscious performances and episodes with non-conceptual intentional content.

## 5. The background as non-conceptual

To begin making the case for this account, consider another of Searle's examples:

A visiting philosopher came to Berkeley and attended some seminars on the background. He was unconvinced by the arguments. One day a small earthquake occurred. This convinced him because, as he later told me, he had not, prior to that moment, had a belief or a conviction or a hypothesis that the earth does not move; he had simply taken it for granted. The point is 'taking something for granted' need not name an intentional state on all fours with believing and hypothesizing. (1992, p. 185)

Let me first note that it is more than likely that the visitor did not only not have a belief that the earth does not move, but rather did believe, even knew, that the earth *does* move! I think we can take for granted that visiting scholars in Berkeley know that there are earthquakes in California, and that the earth literally moves during earthquakes. So why did the visitor feel compelled to say that he had taken for granted that it does not move, even though he believed the opposite? Presumably because he was so surprised, perhaps even shattered that the earth moved, and it is tempting then to suppose that he must have had some sort of mental attitude after all to the effect that it does not. But this attitude could not have been a belief. So the talk about taking things for granted without believing them,

about pre-intentional assumption or presuppositions and the like, appears to provide such an attitude. But as we saw, on Searle's interpretation of the background, these are just ways of speaking, because there could not literally be assumptions lacking intentional content. Therefore I think the temptation to appeal to some kind of intentional content to the effect that the earth does not move should be resisted. We don't need it to account for the surprise.

That it is not necessary to invoke such a content to explain, the surprise can be seen by considering another example. Ask yourself under which conditions you would be most surprised by a surprise party:

- (a) You wonder whether your friends might throw a surprise party for your birthday, but eventually decide that they will not.
- (b) The idea did not even occur to you.
- (c) You have never even heard of surprise parties because you come from a culture where they are unknown.

I suspect that most people would agree that – other things being equal – (c) is the most plausible answer. Thinking about whether an event will occur like in (a) will prepare us for it even when eventually we decide that it will not. By contrast, if we had not even thought about the possibility of the event like in (b), or could not even have thought about it because we lacked a necessary resource like the concept of a surprise party as in (c), we are progressively less well prepared and likely to be more surprised. In any case, even if there should be exceptions to this pattern, that is, even if one would not under all circumstances be more surprised by a situation one had not even thought about (b) and (c) – which I actually experienced as a foreign exchange student in the United States – show that it is possible to be surprised about *p* in the absence of any mental attitude to the effect that not *p*.<sup>5</sup>

But what can we say positively about the situation, what was the matter with the visitor? There are many ways in which we might pre-theoretically describe the likely cause of his surprise. For example, we might say that he hadn't experienced an earthquake, that he was not familiar with earthquakes, that he did not know what an earthquake was like, or that he did not know how to cope with earthquakes. Slightly more theoretically, we can also say that he lacked both theoretical and practical know-how with regard to earthquakes. He neither knew how earthquakes are nor how to deal with them. More precisely, what he did not have was a certain *kind* of practical and theoretical know-how. For, we may safely assume, in addition to knowing of the existence of earthquakes, he also knew some further truths (for instance, 'Earthquakes sometimes destroy buildings and kill people') about them and some instructions on how to behave in the event of one ('Get out in the open!'). So he had both theoretical and practical knowledge at the

linguistic, conceptual level. But he lacked theoretical and practical know-how at the sensorimotor level because he had not experienced earthquakes, had neither had perceptual experiences of earthquakes, nor actional experiences of dealing with them. As a consequence, he was not familiar with earthquakes and lacked the skill for coping them which such experiences may confer; he did not develop sensorimotor skills or habits adapted to, specialized for, earthquakes.

On the basis of our earlier discussion we can say the following about background sensorimotor skills and know-how. They are capacities for certain kinds of sensorimotor, perceptual as well as actional performances and episodes. These capacities are grounded through earlier such episodes in which the know-how or skill is developed. (One cannot be skilled at dealing with earthquakes without having experienced one.) Many of these capacities would, like the ability to walk, ordinarily be classified as bodily. Still, their manifestations have an essential mental, intentional, and conscious component, for example, the actional experience of walking. To this, we can add that skilful action is also experienced as familiar, just like the familiarity of objects and surroundings is experienced perceptually. There is a characteristic phenomenology of skilful action, of being ready for events as they unfold and responding to them assuredly and adequately. The readiness for certain kinds of events and actions is also reflected in consciousness. It is hard to pin down how exactly, but William James' concept of fringe consciousness (Mangan, 2001) may be a good starting point for thinking about it. Finally, to be familiar with and ready for certain ways things are and are done also grounds a disposition to be surprised by others, even, or perhaps even more so in the absence of any belief or other attitude to the effect that things will not stray from what we are familiar with and ready for. And intuitively it seems plausible already that the mere familiarity with how things are is different from the corresponding belief, and the feeling of familiarity from the corresponding concept. I will now argue for the view that the intentional content of the experiences essentially involved in the exercise of skills and know-how is non-conceptual by discussing some, though by no means all, of the features characteristic for the presence of this type of content.

### **5.1. Belief / intention independence**

Since Evans (1982), it has often been argued that the belief-independence of certain perceptual illusions is an indicator of the presence of non-conceptual content. For example, even though we know that the lines in the Müller-Lyer illusion are equally long, perceptually it still seems they are not. The presence of such conflicting contents can plausibly be interpreted as indicating a difference in representational format between the conceptual level of knowledge, belief, and thought and the perceptual level. An analogous argument can be made with regard to (prior) intention. How often do we decide upon a certain course of action only to find ourselves



acting contrary to our intention out of habit. How difficult is it to override and break such established routines! This indicates a parallel independence and difference in representational format between conceptual level practical knowledge and (prior) intention, and the level of the actional motor experiences controlling bodily movement in the context of sensorimotor schemata, in what Searle calls the ‘coordinated flow of action and perception’ (1992, p. 195). The earthquake example points into the same direction. The visitor has conceptual level theoretical and practical knowledge concerning earthquakes, so why is he not sufficiently familiar with them? His sensorimotor abilities are not attuned to earthquakes. He therefore does not perceive them as familiar, and does not experience responding to them as smooth, routine action. And this is because the (re)presentational states involved in perceiving and acting have a different, nonconceptual, representational format. Or consider the following made-up example. Imagine you get used to the earth quaking slightly in fixed intervals, say every 15 seconds, and very adept at coping with these quakes when walking, biking, and performing other activities. But you come to believe, on the basis of observation and theory, that the next quake will occur in 30 rather than 15 seconds: the earth will skip a beat. This prediction turns out to be wrong, however: the earth keeps quaking at its regular interval. You are surprised: you thought you had good reason to expect a change. But your body isn’t: you perceive the quake as familiar and experience yourself responding to it smoothly. Of course, the converse might also have been the case: things might have turned out as expected, but your body might still have been surprised, its readiness for the quake frustrated, grasping into the void as it were. This shows the independence of conceptual level beliefs from the representational states informing the exercise of sensorimotor skills (see also Radman, [Chapter 11](#), this volume). Parallel examples showing the independence of conceptual level intentions could easily be constructed.

## **5.2. Richness / fineness of grain / context-dependence of sensorimotor experience**

Another defining feature of non-conceptual representations is their greater richness and fineness of grain in comparison to concepts. The standard example for this is the fact that we can distinguish many more colours perceptually, in the context of these colours being present to us, than we have concepts for, than we can represent out of this context. But the point also applies to action.<sup>6</sup> Think of the fineness of grain of, say, the movements involved in typing on a keyboard or playing a piano, in comparison to the corresponding conceptual level intentions. Similarly, nothing that we might know on the conceptual level about earthquakes and how to respond to them could equal the richness of the perceptual and actional experiences of actually living through one. From this perspective, we can

also shed light on the acquisition of skill, another issue discussed by Searle. Searle says that when we become proficient in a skill that we acquire on the basis of instructions, we do not start following these rules unconsciously. Rather, the rules become irrelevant, they 'recede' into the background, the 'body takes over', and the intentionality of the skilled performer, for example, the skilled skier, 'rises to the level of his ability' (1983, p. 150ff; 1992, p. 195f). That is, whereas the intentionality of the beginner is directed at following the rules, the expert skier is directed at winning the race. But what does it mean that the rules recede into the background and that the body takes over? Are we talking about purely physiological processes here? No, I think we are talking about the experienced body, and about physiological processes only insofar they underlie the sensorimotor experience of skilful bodily movement. And the representational content of this experience is richer and more fine-grained than that of the conceptual level instructions. Their content underdetermines the intricacies of the movements to be executed. They provide no more than a scaffolding for the development of richer, task-appropriate non-conceptual representations through trial and error and with the assistance of other, demonstrative teaching methods. So on the present view that the rules recede into the background and the body takes over means that the rules play a role in the development of non-conceptual sensorimotor representations immediately guiding the bodily movements. When there is sufficient skill, conceptual level intentionality is no longer needed to supervise and correct the movements and is thus indeed free to turn to other matters. However, there is still intentionality at the non-conceptual level of the experience of skilful bodily movement.

### **5.3. Lack of logical connectives, reflection, and doubt**

There are no logical connectives at the level of non-conceptual content. For example, negation or disjunction does not occur in the content of visual experience or the motor experience of moving one's limbs. Logical operations only enter at the conceptual level of thought. In thought, we operate in a logical space where the negations of our practical or theoretical attitudes coexist with these attitudes. We are at least dimly aware of the possibility that our thought might go wrong. In contrast, at the non-conceptual level we are absorbed in the context of our immediate environment. We just take things in and respond to them. We can be positively or negatively surprised when things deviate from the patterns we are used to – for example, when the earth starts moving all of a sudden – but we don't *wonder* whether they will or not. We do not doubt that the earth will continue to be inert. In the flow of coordinated action and perception, there is no room for doubt and rumination.

This difference also helps to explain why a creature, in spite of possessing sensorimotor capabilities for differentially responding to solid objects, may

yet lack the concept of solidity. The creature may still be unable to think about solidity. This means, among other things, that while it will be able to deal with certain solid things in its immediate environment, it may not, for example, be able to wonder whether the moon is a solid object or just an apparition in the sky, or to doubt that the tree branch it is about to jump on will really offer resistance to touch rather than just vanishing into thin air. (Such doubt is to be distinguished from a sensorimotor readiness for breaking branches, as well as from corresponding exploratory behaviour.) It may also be unable to sort objects according to their solidity or other features.

#### **5.4. Density / gestalt character**

Another important feature of the representational format of pre-conceptual intentionality is its density. At this level, experience is gestalt-like. 'Bundles' or packages of features are experienced in a holistic fashion. Only through analysis at the conceptual level can these features be singled out for attention. For example, while at the conceptual level the shape and colour of an object are represented separately, at the perceptual level they are apprehended as a single gestalt. Or think about the way in which one perceives that there is something unfamiliar about a person, an object, or a situation, without being able to put one's finger on what is different this time. Likewise, one may experience something as familiar without being able to specify what is familiar about it or even what it is. The experience of familiarity is a holistic affair. There are similar phenomena in action. You may master an action package as a whole without having all its components at your disposal in your action repertoire. For example, you may be able to recite the alphabet from the beginning, but be unable to start with a random letter (see Karmiloff-Smith, 1992, for discussion of many phenomena of this kind).

The gestalt character of actional and perceptual experience also helps explain some of the phenomena cited by Searle. For example, the cutting and restaurant scenarios involve a familiarity with how things are normally done, but this familiarity is of a holistic, gestalt-like kind. That is, we don't separately attend to the features that make up the normal restaurant experience, and we don't usually conceptualize them. That takes a special effort often triggered by a feeling of unfamiliarity that makes us think about what is different this time. (Of course, if the deviations from ordinary practise are as drastic as in Searle's examples, we will be able to tell right away, but often they are not.) And unless we make some special effort and are ready for, or even intend a deviation from this practise, we mean our words to apply to the familiar ways of doing things.

The density of non-conceptual content also promises to be helpful in understanding metaphor. In a sense, metaphor is the converse of the phenomena just discussed, because in the production and comprehension of metaphor, the deviation from the familiar, the leap into the dark, occurs

on the side of the words rather than the world the words are used to represent. (Of course, these phenomena often co-occur, namely when metaphor is used to capture or create the unfamiliar.) The unfamiliar use invites us to attend to one or several features so far only present in the non-conceptual background of the concept. To use one of Searle's examples: to call a welcome 'warm' draws our attention to an aspect of our emotional, even somatic, response to such events.

Let me now discuss an objection against the present account that appeals to perceptual reports through sentences of the form 'She saw that it was raining'. Doesn't this form of report mean that the content of perception must, after all, be propositional and conceptual? Is the defender of non-conceptual content therefore forced to deny that statements made with such sentences are true? This would certainly be a rather implausible result, but it is easily avoided. We can think of such statements as specifying the *source* of a conceptually structured propositional attitude. They say such things as that somebody came to accept that it was raining on the basis of a visual experience, but it does not follow that the visual or other perceptual experience itself had a conceptual representational format. Rather, the non-conceptual presentational content of the experience was re-presented in a conceptual, propositional representational format.

Finally, various authors are sceptical that we can make sense of the notion of representation in the absence of concepts, propositions, and semantics. In many cases, this disagreement seems to be largely, or perhaps even entirely, terminological. For example, Hubert Dreyfus (2002a, 2002b) rejects the label 'representational' for the background because for him it connotes propositionality and the idea of 'brain representations'. But he does think of it as being intentional. Others also reject talk of representations because they associate it with an artificial intelligence (AI) outlook, according to which all representation is symbolic and requires a formal syntactic structure (for example, Stuart, this volume). I have here followed Searle in using 'representational' and 'intentional' as basically synonymous, in rejecting the requirement of a formal syntactic structure and approaching representation in terms of conditions of satisfaction of intentional states, and in treating presentations as a special case of representations. However, some authors, for example, Daniel Hutto (Chapter 2, this volume), seem determined to reject the notion of the background as consisting of non-conceptual representational states and dispositions even if all these terminological adjustments are made. But it seems hard to deny that actional and perceptual experience have conditions of satisfaction and are in that sense representational. For example, the experience of walking (re)presents active bodily movement and the ground one is walking on as offering resistance to that movement. Likewise, it is also natural to think of the experiences of familiarity or surprise as representational. All these experiences can fail, can be illusory, or inappropriate in some way. And why should this require, against

all appearances, that these experiences have a conceptual and propositional representational format? It seems to me the burden of proof is squarely on the defenders of this view, and that no cogent argument for it has yet been given. In the absence of such an argument, the suspicion remains that it reflects a bias for linguistic or quasi-linguistic modes of representation which has long pervaded thought about consciousness and intentionality.

## 6. Conclusion

Two central manifestations of this bias have been a strong tendency to think of the contents of consciousness as being conceptual, and a willingness, indeed eagerness, to extend the boundaries of the mind beyond consciousness in the form of supposed linguistic or at least quasi-linguistic unconscious representations, for example, those of the so-called language of thought. Searle has admirably resisted the second of these tendencies with the CP and his justly celebrated Chinese Room Argument. With his notion of the background, he has drawn attention to an important set of phenomena and formulated the crucial insight that linguistic representation is not self-sufficient and autonomous. However, that Searle retained the principle of expressibility and conceptualized the background as non-conscious and non-representational shows the influence of his philosophical upbringing in the intellectual atmosphere of the linguistic turn. This leads to the deep tension in his account: it seems irresistible to describe the background as if it has intentional content, but it cannot have such content by his assumptions. I have tried to make plausible that we can resolve this tension by thinking of background capacities as intentional and conscious in the sense of being manifest in intentional and conscious episodes, and that this account is actually more in tune with the letter and spirit of the CP than Searle's own. Finally, I have argued that background capacities differ from capacities for theoretical and practical thought in being manifest in episodes with non-conceptual intentional content, in actional and perceptual experiences, as well as experiences of familiarity and surprise.

## Acknowledgements

Thanks for support for this research by a grant of the *Deutsche Forschungsgemeinschaft* to the research group 'Grenzen der Absichtlichkeit' at the University of Konstanz. I would also like to thank John Searle for responding so graciously to my original talk at the conference on the background in Dubrovnik, of which this paper is a descendant, for helpful discussions then and on several subsequent occasions, and for having been such a constant source of inspiration over so many years. Further thanks go to Zdravko Radman for putting together this wonderful conference and for

having been such a good and patient editor, and to Melynda Moseley for her help with this chapter and her support throughout.

## Notes

1. Searle (1980) defends the idea that the intentional content of perceptual experience can be applied to different conditions of satisfaction, given different background assumptions, with reference to an example where the assumption that one is on a Hollywood movie set changes one's visual experience of the surrounding houses both phenomenologically and in terms of its conditions of satisfaction: they now all look like *papier mâché* façades. However, I don't see that Searle gives us a cogent reason to think that the intentional content of the experience remains the same. The case seems plausibly described as an instance of top-down influence on the intentional content of perception.
2. It seems that one, perhaps even dominant, strand of thought in Searle agrees with this. For example, he argues against the idea that beliefs can be used (1983, p. 21f).
3. Of course, much more could be said about this, but this is not the place to engage in this debate. For a suggestion on how to treat the problem of mental causation, see Schmitz (2007).
4. Of course, there are puzzling phenomena like 'blindsight', but even in 'blindsight' consciousness is at least involved in the form of episodes of guessing. A more detailed analysis of 'blindsight' and similar phenomena must be left for another occasion.
5. This has important implications for the methodology of developmental psychology. In the context of habituation paradigms and the violation-of-expectation method it is often inferred from the fact that an infant is surprised about some event that he had a belief that this event would not occur, or was in the possession of principles or concepts to this effect (for example, Baillargeon, 2004). But an infant may be familiar with, or attuned to, certain patterns of events without having corresponding beliefs or concepts.
6. For the notion of non-conceptual content as applied to action, see Pacherie (2011) and Proust (2003). Proust argues specifically that we should think of Searlean intentions in action as having non-conceptual intentional content.

## References

- Baillargeon, R. (2004) 'Infants' reasoning about hidden objects: evidence for event-general and event-specific expectations', *Developmental Science*, 7, 4, 391–424.
- Dreyfus, H. (2002a) 'Intelligence without representation – Merleau-Ponty's critique of mental representation', *Phenomenology and the Cognitive Sciences*, 1, 367–83.
- Dreyfus, H. (2002b) 'Refocusing the question: Can there be skilful coping without propositional representations or brain representations?', *Phenomenology and the Cognitive Sciences*, 1, 413–25.
- Evans, G. (1982) *The Varieties of Reference* (Oxford: Oxford University Press).
- Freud, S. (1963) *Das Unbewußte. Schriften zur Psychoanalyse* (Frankfurt: S. Fischer).
- Kripke, S. (1982) *Wittgenstein on Rules and Private Language* (Cambridge, MA: Harvard University Press).

- Karmiloff-Smith, A. (1992) *Beyond Modularity* (Cambridge, MA: MIT Press).
- Langacker, R. (1987) *Foundations of Cognitive Grammar, Volume I, Theoretical Prerequisites* (Stanford: Stanford University Press).
- LePore, E. and R. van Gulick (eds.) (1991) *John Searle and his Critics* (Cambridge: Blackwell).
- Mangan, B. (2001) 'Sensation's ghost: The nonsensory fringe of consciousness', *Psyche*, 7 (18), <http://www.theassc.org/files/assc/2509.pdf>.
- Pacherie, E. (2011) 'Nonconceptual representations for action', *Social Psychology*, 42, 67–73.
- Proust, J. (2003) 'Action' in B. Smith (ed.), 102–27.
- Recanati, F. (2003) 'The limits of expressibility' in B. Smith (ed.), 189–213.
- Schmitz, M. (2007) 'The microstructure view of the brain/consciousness relation' in H. Bohse and S. Walter (eds.) *Selected Contributions to GAP.6* (Paderborn: Mentis).
- Schmitz, M. (2011) 'Limits of the conscious control of action', *Social Psychology*, 42, 93–8.
- Searle, J. (1969) *Speech Acts* (Cambridge: Cambridge University Press).
- Searle, J. (1979) *Expression and Meaning* (Cambridge: Cambridge University Press).
- Searle, J. (1980) "The background of meaning" in J. Searle, F. Kiefer, and M. Bierwisch (eds.), *Speech Act Theory and Pragmatics* (Dordrecht: Reidel).
- Searle, J. (1983) *Intentionality* (Cambridge: Cambridge University Press).
- Searle, J. (1991) 'Response: The background of intentionality and action' in E. LePore and R. van Gulick (eds.).
- Searle, J. (1992) *The Rediscovery of the Mind* (Cambridge, MA: MIT Press).
- Searle, J. (1995) *The Construction of Social Reality* (New York: Free Press).
- Smith, B. (2003) (ed.) *John Searle* (Cambridge: Cambridge University Press).
- Strawson, G. (1994) *Mental Reality* (Cambridge, MA: MIT Press).
- Stroud, B. (1991) 'The Background of Thought' in E. LePore and R. van Gulick (eds.).
- Wittgenstein, L. (1958) *The Blue and Brown Books* (Oxford: Blackwell).
- Wittgenstein, L. (1984) *Philosophische Untersuchungen* (Frankfurt: Suhrkamp).

# 4

## Social Cognition, the Chinese Room, and the Robot Replies

*Shaun Gallagher*

In philosophy of mind and related disciplines, the standard conceptions of mind have been formulated in terms of a problem space that excludes certain solutions to problems defined in that space. I'll argue that this is the case in much of the recent discussion of social cognition, but also in earlier discussions of artificial intelligence (AI). I'll try to show this by looking at versions of the frame problem – a problem that seems to fall into this solution-resistant space. To be precise, it is not that the frame problem itself has not been properly formulated, but rather that the ways various theorists think of the mind prevent certain solutions from coming into place. Even when a solution is on the horizon, it is often blocked from counted as a solution because our general conception of the mind has not been properly formulated.

I'll consider three problems that, I'll argue, have the same solution, namely an appeal to the concept of background. There are clear indications in the discussion of these problems that point to this solution; but things remain unresolved because the way these problems are laid out, namely, along internalist lines, prevents a proper appeal to the notion of background.

### 1. The starting problem

I'll begin with what I refer to as the 'starting problem', which is a version of the frame problem found in discussions of social cognition. I begin with this problem because its solution points in a clear way to solutions to two other problems: the frame problem in AI and an unresolved problem with Searle's Chinese Room thought experiment.

The two standard approaches to the problem of social cognition are 'theory theory' (TT) and 'simulation theory' (ST). Both theories define the problem of social cognition as a problem of other minds. That is, they define it in terms of the lack of access that we have to another person's mind. The mind of the other, like my own mind, is internal to that person – a private collection of beliefs and desires in her head, which ultimately explain her



behaviour. With respect to the other person, I am an external observer who is unable to have any direct access to what is going on in his or her mind – to her beliefs and desires. For this reason, to explain or predict behaviour, I require something more than perception or intuition; I require a way to infer what her mental states may be, or a way to project a model of thought into mind. Thus, TT argues that we rely on a theory, folk psychology, to infer the other's beliefs and desires. In contrast, ST suggests that no theory is necessary since we have mechanisms that allow us to generate a model, a simulation, of the other person's beliefs and desires, which we then project to her mind. Accordingly, for both TT and ST, we mindread or mentalize the other person; we take behaviour as evidence and we make sense out of it by applying folk psychology, or by running a simulation routine in which we put ourselves in her shoes and draw up pretend beliefs and desires that we then project to her mind.

The starting problem refers to the question of precisely how we get either of these processes off the ground. Consider, for example, the description of a simulation routine provided by Nichols and Stich (2003):

The basic idea of what we call the 'off-line simulation theory' is that in predicting and explaining people's behavior we take our own decision making system 'off-line', supply it with 'pretend' inputs that have the same content as the beliefs and desires of the person whose behavior we're concerned with, and let it make a decision on what to do'. (pp. 39–40)

Now ST claims that the way we understand the other person's beliefs and desires is by employing this kind of simulation routine. We put ourselves in their shoes by drawing up pretend beliefs and desires 'that have the same content' as their beliefs and desires. The problem should be quite apparent: we seemingly have to know the content of their beliefs and desires in order to run the simulation that will tell us what their beliefs and desires are. That this kind of solution runs in circles is also apparent in Alvin Goldman's description of simulation. He outlines three steps, to the simulation routine, but it's the first one that's a little tricky, 'First, the attributor creates in herself pretend states intended to match those of the target. In other words, the attributor attempts to put herself in the target's "mental shoes"' (Goldman 2005, p. 80). It's not at all clear how we can know which beliefs will match those in the other person unless we already understood the other person. In that case, we would have no need of simulation. The starting problem here is just the problem of how we take that first step, precisely, a step into the other person's shoes.

This problem is at least part of what motivates the recent shift to hybrid theories that combine TT and ST. That is, one can respond to the starting problem in ST by appealing to folk psychology and by suggesting that we

gain traction on the other person's mental states by theoretical inference. Once we do that, then we are off and running the simulation routine and making our understanding more precise. But this hybrid solution ignores that fact that TT also has a starting problem. If we ask, what aspect, or piece, or rule of folk psychology we should appeal to in order to form our inference about the other person's beliefs and desires, we seemingly have to know with some degree of precision what their situation is and what they would believe or desire in that situation. More generally, to use folk psychology in this way, we have to know what situations are the appropriate ones in which to apply this piece of folk psychology rather than that piece, and part of what tells us that, because it is part of the situation, is what the other person is thinking. Of course, we can continue on the circle if, as a theory theorist we want to go hybrid. That is, we can try our hand at simulation to figure out what the other person is thinking, and then be able to bring the relevant piece of folk psychology to bear on the situation. Obviously, however, going around in a tight circle like this does not solve the starting problem for either TT or ST.

If we want to stay with this conception of the problem of social cognition – that is, with the idea that we need to infer or simulate because we have no direct access – then we are surely tempted to point to an answer to the starting problem that we may take as obvious. The answer is to appeal to the idea that we get the process of inference or simulation off the ground by employing background knowledge. We know what beliefs or desires to infer or simulate because we have a broad knowledge of the sorts of situations we and others encounter and what to expect in the way of beliefs and desires in such situations. The theory theorists might in fact claim that this just is what they mean by folk psychology. But that doesn't seem right if we are to think of folk psychology as a theory. As a theory, folk psychology can only be generalized knowledge – that is, a set of generalizations or rules or abstract platitudes. The trick is to know when to apply the rules and/or platitudes, and that takes practical knowledge which is much more particular and situated.

Having the requisite background knowledge is much more like the situation that Aristotle describes when he explains how the *phronemos*, the person with practical wisdom, knows when, and how, and in what situation, and with what people, he should engage in action. This is knowledge about the *particularities* of situations; and it is knowledge that may vary case by case; it's the kind of knowledge that cannot be summarized in a set of rules or platitudes. Aristotle also tells us how we get such knowledge. Moreover, his solution is exactly the same solution that we need in order to explain how we get the background knowledge that would solve the starting problem for social cognition. Unfortunately, it goes directly against the conception of the mind that TT and ST start with and, significantly, it suggests that we already have a more basic way of understanding others

that in most circumstances is just as adequate, or perhaps more adequate (since it does not involve a starting problem) than theoretical inference or simulation.

Aristotle's answer is that we get the kind of background knowledge essential for practical wisdom by being brought up in the right way, and by hanging around with the right people, by seeing and understanding and imitating their actions. Setting aside the moral context in which he answers this question (although normativity is clearly part of what we would need to consider for a full answer), recent developmental studies help to explain precisely how we come to understand the intentions and actions in a way that is more primary than theoretical inference or simulation.

Here, without going into great detail, I will refer to 'interaction theory' (IT) – that is, to an embodied and enactive approach to social cognition that emphasizes the role of our interaction with others from the very beginning of life (Gallagher, 2001, 2004, 2005; Gallagher and Zahavi, 2008; Hobson, 2002; Reddy, 2008; Rochat, 2010; Trevarthen, 1979; Trevarthen and Hubley, 1978). According to IT, we do not have to mindread or try to infer or simulate the mental states of others to understand them. Rather, because from the very beginning we have been interacting with others, imitating them, engaging them in joint attention and joint actions, hanging around with them in a vast variety of situations, communicating with them, often in an emotional key, and sharing both personal and cultural narratives (Gallagher and Hutto, 2007; Hutto, 2008), and because within such rich contexts we are able to enactively perceive (that is, to perceive in terms of our possibilities of responding to social affordances offered by others) their intentions and emotional expressions, and the meaning of their actions, we have little if any need for mindreading or concerning ourselves with what Rochat (2010, p. 1) calls the 'cold calculations and logical inferences' of theory of mind.

IT appeals to the developmental concepts of 'primary' and 'secondary intersubjectivity' (Trevarthen, 1979; Trevarthen and Hubley, 1978). Primary intersubjectivity consists of embodied sensory motor capacities that infants develop in close interactions with others, starting with their care-givers. These are face-to-face interactions that include early imitation (Meltzoff and Moore, 1977), the ability to follow gaze, to recognize when someone is directing attention to me, to be able to parse intentional actions into their meaningful units (Baldwin, 1993; Baldwin *et al.*, 2001), and so on. Secondary intersubjectivity begins at 9–12 months with joint attention which lays the basis for joint action (see Fiebich and Gallagher, submitted). In further interactive processes we learn what others mean, and what the world means, by seeing and engaging with others in very concrete contextualized actions. We also start to notice that in certain contexts others can take on socially defined roles.

What comes with this embodied and engaged interaction with others is just the practical knowledge, the background for understanding others,

which we put into play in our continuing interactions and communicative practices. When we already share a broad culture and a set of specific social norms and practices with others, and when that background knowledge is there at our disposal, then the minds of others are not closed books that we have to read by inference or simulation. The actions and the interactions that we want to understand are not reducible to beliefs and desires hidden away in the other's head. The other person, in most of our everyday interactions (and excluding certain psychopathologies and puzzling cases), is in-the-world, engaged with us, in the same situation, or an understandable variation of the situation that we are in, or, as we acquire language and episodic memory, in a situation that we are familiar with through communicative and narrative practices (Gallagher and Hutto, 2008).

For IT, there is no starting problem because it is a question of bootstrapping development. Before we have a chance to wonder how we will ever know what the other person is thinking, we're caught up in shared emotions, exchanging smiles and vocalizations, sharing attention, being told stories, playing with others, being told what they want and what they don't want, being told how to behave, and so on. In this developmental story, one's social interactions are not initiated on one's own; others are already there providing us with a background that we begin to share in earliest development. If we were in the situation described by theory theorists or simulation theorists, and were confronted with a hidden realm of unknown mental states that we had to puzzle out, the only way we could get our mindreading processes off the ground would be by enacting just such background knowledge, or what, following Bruner and Kalmar (1998; see Gallagher, in press), I've called the 'massive hermeneutical background' that comes along with the intersubjective interaction I've just described. But to the extent that we are already situated and engaged in this kind of interaction, and already have this background knowledge, which includes a pragmatic understanding of others, then the minds of others are not so hidden away, and we do not have to theorize or simulate.

## **2. The Chinese Room**

John Searle's (1980) famous thought experiment involves a non-Chinese-speaking person sitting in a room. The room has a table, a large book containing a set of rules, and paper on which to write. There are two slots in the walls – an input and an output slot. Through the input slot, pieces of paper containing Chinese characters come into the room. Each time this happens, the person has the task of writing Chinese characters on blank sheets of paper, using the book of elaborate rules which tell him which characters to write when he sees a specific combination of characters on the paper that comes in through the slot. He then pushes what he has written through the output slot. This person doesn't know that the Chinese characters he receives

from outside of the room are questions composed by Chinese speakers. If he follows the set of rules perfectly, the Chinese characters that he writes and outputs are answers to precisely those questions. From the outside, observers infer that the person in the room understands Chinese. The person in the room, however, does not understand Chinese, and doesn't even know that he is processing questions or composing answers. He is performing a set of syntactical operations, following the instructions (the syntax) contained in the book. Thus, Searle concludes, there is no understanding of Chinese, no Chinese semantics or intentionality involved.

The target of Searle's Chinese Room (CR) argument is what he calls 'strong AI'. In contrast to the latter, which would explain the mind purely in functionalist terms of computational syntax, the CR argument demonstrates that semantics cannot be reduced to computational syntax – or that syntax by itself can never give you semantics (intentionality, meaning). Searle lays the problem out in a vocabulary shared with strong AI, one which makes the questions of intentionality and the mind a matter of physics, syntax, and/or semantics. The use of this vocabulary, however, seems more than rhetorical since in the end Searle will frame his own view in these terms.

If we accept Searle's point that syntax does not add up to semantics, then the question becomes what does give us semantics? The CR may not have been designed to give a positive answer to this question; its design was specifically framed in terms of defeating strong AI using the categories that AI was using at the time. I have argued (Gallagher, 2009) that the design of the CR argument, although perfectly adequate for purposes of critiquing AI, nonetheless frames the problem of semantics in a way that oversimplifies the cognitive system, and leads Searle to one particular answer (where the physics or physical system is equated with the brain) that excludes a more adequate answer that he himself points to in his work on the background. The various 'replies' that were made to the CR argument are also locked in the same oversimplified framework.

The 'systems reply', for example, claims that it is not the syntax alone, but the whole system – the syntax and the physics (the person, but also the room, the Chinese characters, the syntactic rules, and so on) – that generates the semantics. The systems reply, however, doesn't go beyond the elements that Searle and strong AI agree are contenders for explaining the mind. The 'robot reply' argues that the system has to be embodied in some way, and exposed to the world outside of the CR. Some thinkers (Rey, 1986; Harnad, 1989, 2002; Dennett, 1991; Crane, 1996) follow this line of reasoning back towards an enhanced and strengthened computational model of the mind. The robot reply, however, suggests an alternative route, which, as we'll see, represents a continuing challenge to robotics and contemporary AI. Moreover, the resources needed to map out this alternative route are to be found in Searle's own work, although Searle misses this because of the way that he has defined the problem space.

Searle's solution is to grant life to the physics. For Searle, semantics/intentionality is an emergent property of the brain, not because of its high degree of complexity (although Searle does not deny this kind of complexity), but because of its biological nature. 'Whatever else intentionality is, it is a biological phenomenon and it is as likely to be as causally dependent on the specific biochemistry of its origins as lactation, photosynthesis, or any other biological phenomena' (1981, p. 305). Or, as he puts it in his later work: 'There are brute, blind neurophysiological processes and there is consciousness, but there is nothing else' (1992, p. 228). Of course, there is already plenty of neurobiology in the CR – the individual in the CR does have a brain. Indeed, all of the identified elements, expressed in the circumscribed vocabulary of physics and syntax, seem to be present in the CR, so why doesn't the individual develop the semantics – that is, why doesn't he gain an understanding of Chinese?

Searle's response to the systems reply is that if we internalize all the elements of the system, that is, *memorize* the rules and symbols and let the person compute these things in his head, the person will still not understand Chinese. Searle suggests, reflecting a suggestion made by the robot reply, that 'we can even get rid of the room and suppose he works outdoors'. That is, we could let the system walk around in the world. Even in that case, Searle contends, there is still no understanding of Chinese. I'm not so sure. Once we let the syntactical processor out of the room, and into a social world of Chinese speakers, and especially if the processor is neurobiologically embodied, a number of other elements – including social interaction and the massive hermeneutical background – start to play an essential role.

It is odd that Searle arrives at a narrowly and neurobiologically based internalist position with respect to the mind, since the concept of the 'background' of intentionality (1983, 1992) plays an important role in his thinking. The background, as he conceives it, contains 'certain fundamental ways of doing things and certain sorts of know-how about the way things work [...]' (1983, p. 20). Indeed, he makes the background a prerequisite for intentionality. 'Without the Background there could be no perception, action, memory, i.e. there could be no such Intentional states [...]' [T]he Background provides necessary but not sufficient conditions for understanding, believing, desiring, intending, etc., and in that sense it is enabling and not determining' (1983, pp. 151–2, 158).

Life in the Chinese Room, which is a small and non-Chinese space, excludes the relevant Chinese background. Moreover, the occupant's capacities for action and interaction, including linguistic activity, with Chinese speakers, are non-existent. Locked in the Chinese Room one is in an artificially impoverished environment that excludes the kind of social interactions through which one could make sense out of the Chinese language and gain the relevant background for understanding it. Fodor is right to remark that 'Searle gives no clue as to why he thinks the biochemistry is important

for intentionality and *prima facie*, the idea that what counts is how the organism is connected to the world seems far more plausible' (1991, p. 521). Once we liberate the syntactical processor from the narrow confines of the Chinese Room, and allow the system to engage in the external complexities of the physical and social environment, cultural traditions, and the intersubjective interaction that can only be realized in embodied practices, contextualized speech acts, and developing narratives that provide the necessary background, it would be difficult to prevent the person from gaining the kind of semantics that Searle seeks.

Searle will have none of this, however. For him, all of these extra-syntactical elements that make up the background enter into the system by way of neurophysiology. Thus, 'when we describe a man as having an unconscious belief, we are describing an occurrent neurophysiology. [...] The occurrent ontology of those parts of the Network that are unconscious is that of a neurophysiological capacity, but the Background consists entirely in such capacities' (1992, p. 188). Indeed, no sooner does he liberate us from the Chinese Room than he locks us up in a vat.

Even if I am a brain in a vat – that is, even if all of my perceptions and actions in the world are hallucinations, and the conditions of satisfaction of all my externally referring Intentional states are, in fact, unsatisfied – nonetheless, I do have the Intentional content that I have, and thus I necessarily have exactly the same Background that I would have if I were not a brain in a vat and had that particular Intentional content. *That* I have a certain set of Intentional states and *that* I have a Background do not logically require that I be in fact in certain relations to the world around me [...] (1983, p. 154).

Searle's internalist position keeps him locked into a problem space that rules out just the solution he needs. The brain takes the place of the Chinese Room.

The brain is all we have for the purpose of representing the world to ourselves and everything we can use must be inside the brain [...] Each of our beliefs must be possible for a being who is a brain in a vat because each of us is precisely a brain in a vat; the vat is a skull and the 'messages' coming in are coming in by way of impacts on the nervous system. (1983, p. 230)<sup>1</sup>

Even as he confines us to a CR-like brain, Searle points to a solution that requires some connection to the world around us: 'I could not, as a matter of empirical fact, have the Background that I do have without a specific biological history and a specific set of social relations to other people and physical relations to natural objects and artifacts' (*ibid.*). Yet he can't have

that solution because he defined the problem in terms that already exclude the social world; social relations are impossible if we think of the mind purely in the limited terms that define the problem space: physics, syntax, semantics.

### 3. The robot replies and the frame problem<sup>2</sup>

The *original* robot reply suggests that we allow a robot to wander around the world outside of the CR in order to causally interact with worldly objects to which the Chinese words refer.<sup>3</sup> Since knowing the meaning of a word requires that a speaker knows to what it refers, only a robot that explores the physical world could learn what the Chinese characters mean. There is a second robot reply, however, that comes closer to getting it right. I'll call this the *social robot reply*. Responding to Searle's proposal to memorize the syntactical rules and to allow the CR occupant to venture out into the world, Tim Crane comes closest to stating the social robot reply: '[...] if Searle had not just memorized the rules and the data, but also started acting in the world of Chinese people, then it is plausible that he would before too long come to realize what these symbols mean' (1996, p. 127). The emphasis here should fall on 'people', and we should add social interaction and culture. Obviously this is what works for humans, and the point is that neither syntax nor neurobiology is sufficient for semantics. One needs to be immersed in a social world. Neither a human nor a robot can simply wander about the world alone and expect to put words to things. We know that humans learn such things from other humans through processes of imitation and other forms of interaction. To learn Chinese – to get the semantics – one has to interact with Chinese speakers in physical and social contexts.

This argument is put in terms of the robot reply because Searle's CR argument is directed against strong AI or good old-fashioned artificial intelligence (GOFAI). The question is whether we can engineer an artificial system that would be able to navigate and negotiate itself in a human social world. The social robot reply doesn't answer the question of whether a robot could obtain an understanding of things, and the words (Chinese or otherwise) that signify things, in a way that is any different from the socially grounded way that humans learn to understand things and signifiers. The challenge is, whether by engineering or by being socially grounded, the robot, like the human, would be able to avoid running into the frame problem.

Robots and humans are on opposite sides of the frame problem. Humans, because of the way that they become immersed in meaning via social contexts, have a tremendous amount of background general knowledge which breaks down only in very specialized areas that require expertise. On the one hand, for example, I have no idea of what is relevant or not relevant for solving a problem in chemical engineering because I don't have the specialized background in that area. Nonetheless, I do relatively well in regard to



everyday life. On the other hand, robots and intelligent systems are usually engineered to have specialized knowledge in a circumscribed area. Within that frame, they are proficient. But even within the circumscribed frame, near the edges perhaps, what counts as relevant starts to exceed the frame and the robotic systems begin to fail in performance. Robots do relatively poorly in regard to everyday life and any area that is outside of their circumscribed operational space.

We may throw some light on these issues if we consider some of the problems involved in designing robots that can communicate with humans. With respect to sending the robot out into the social world, the issue is not simply speech recognition; we would also want the robot to reply appropriately, and this involves a number of problems (see, for example, Kollar *et al.*, 2010). To have a robot capable of replying across a wide variety of circumstances would require a design that would allow not just task-related domain knowledge, but the capacity for transference of knowledge across domains. Moving around the world we are frequently confronted by circumstances that are not predictable, consistent, or familiar. Moreover, the meaning of words and gestures can change from one context to another. Knowing what word or gesture to use in a specific circumstance requires that a robot recognize that circumstance for what it is. This requires background knowledge. In this respect, we are seemingly caught in a circle: the only way to gain sufficient background knowledge to avoid the frame problem is by interacting (communicating) with others; but successful interacting (communicating) with others requires background knowledge. The solution here is not to think in computational engineering terms, but in the developmental terms outlined in the first section. Robots require the embodied capacities involved in primary and secondary intersubjectivity – pre-requisites in the human for being able to learn language and to develop episodic memory, and for acquiring the massive hermeneutical background necessary to solve starting and frame problems. This is not GOFAI; and it's more than what Rodney Brooks (1991) suggested as a non-representational way (using the world as its own model) to get around the idea of limiting design to 'specialized subproblems'. The solution is not simply an enactive and dynamic linking of perception and action; it requires *interaction* with others who already have the background (Gallagher, 2007).

So far, robots, even when they are designed to interact with humans, remain autistic. They have a difficult time recognizing connections where there are no literal connections; that is, they have a difficult time with metaphorical association, something that non-autistic humans have a difficult time avoiding. The human memory system – especially with respect to episodic memory – is unlike computer memory. It's 'leaky memory' (Gallagher, 2009). It leaks because it is constantly and imperfectly interconnected with a full intentional and affective system. Imperfect because it cannot neatly isolate semantic elements along strict logical boundaries or quarantine them in neat

ontological categories. For example, if the English-language speaker locked in the Chinese Room sees the Chinese character 人 (which unbeknownst to him means 'human' or 'person') often enough, it could easily call forth a memory of a tent or of drawing a stick-man. For a less transparent reason, the character 閉 might serve to remind him or her of his or her own situation as the occupant of the Chinese Room. Without knowing the Chinese meaning of the characters, one might still discern similarities in shape between 人 and a component of 閉, which looks a bit like a stick-man pushed into a small room, and which, in Chinese, actually signifies 'confinement' (see Wieger, 1965). A character may have such aesthetic appeal that it starts to manifest itself in his or her sketches or doodles. It's also possible that a syntactic rule designed to function in the CR may invade his concentration when he attempts to solve a mathematical problem. The point is not whether he or she gets it right (seeing 人 as 'person' rather than 'tent'), but that humans are inclined to make these associations – because episodic memory leaks into semantic memory and vice versa, and our memory systems invade our everyday tasks. This involves what semioticians refer to as 'blending' (Brandt and Brandt, 2005; Fauconnier and Turner, 2002); it's the basis for metaphorical thought and creative solutions, as well as for silly fantasies. This sort of leaky and metaphorical blending happens not only in our heads. It is often institutionalized in cultural expressions (think of the sexual innuendos that we are bombarded with in commercial advertisements), and such expressions often shape our social interactions and communicative practices.

Whether we are locked in the Chinese Room, or allowed to interact with others in the everyday world, to internalize syntactic rules and Chinese characters is not simply to commit them to memory; it is rather to introduce a potentially infinite linguistic system into a general and leaky system of intentional experience that tends to see meaning wherever it can find it. The background takes shape and comes into our cognitive experience just in these kinds of processes. Without this extraordinarily productive imperfection, robots remain autistic.

What we learn when we learn Chinese or any language, when that language is our first language, is not simply word–thing correspondence. We learn, as Wittgenstein might say, a form of life, and meaning is tied to that form of life. That is, part of what we acquire in learning language, and more generally in communicative and narrative practices, is the massive hermeneutical background necessary to make sense of the world and others in the world. Indeed, we can see that this fails dramatically if we simply program word–thing correspondence into computers. Once the non-leaky, rigid rule-based parameters of use are broken, the computer fails to respond appropriately.

Add another very basic issue concerning communicative attunement, which forms part of the pragmatic skill-background required to enter into successful communication. This attunement involves the embodied

dynamics of interacting with others – something that we learn very early in development, and that is essential to the kind of interaction that characterizes intersubjective communication (see, for instance, De Jaegher *et al.*, 2010).<sup>4</sup> The timing involved in this kind of embodied interaction among humans involves turn taking, for example, but is not something that always happens according to an orderly and static statement-response-statement-response schema. In real dialogues, one speaker does not always wait for the other to respond or to finish their response, although this practice does not always interrupt the ongoing dynamics and possibly even defines that dynamics. Yet this kind of disorderly dynamics can lead to breakdowns when one of the interlocutors is a robot designed for orderly conversation, or is simply slow in responding (see Green and Eklundh, 2003).

#### 4. Conclusion

The problems encountered in designing social robots and in human–robotic interaction send us back to the issues of social cognition discussed in the first section. In each case, whether we are attempting to explain how we understand one another, or how semantics (intentionality) comes to be, or how we can design intelligent robots, we have seen that the way is blocked when we conceive of mindedness or the mental system too narrowly in terms of internal processes – whether they be strictly ‘in the head’ mental states, representational, computational or syntactic operations, or neurobiological activities. I’m suggesting that we can move forward on these problems only when we look more widely, not only to embodied action in the physical environment, but to intersubjective processes in the social world and to the massive hermeneutical background of cultural knowledge and practical know-how that is not only the continually constituted product of such processes but also the scaffolding that allows such processes to get off the ground.

#### Notes

1. ‘My own view (and in this I think I do depart from Wittgenstein) is that ultimately our explanations of these [Background] capacities will be biological. That is to say, the existence of Intentional states is explained by the fact that we are creatures with the certain sort of neurophysiological structure, and certain sorts of biological capacities’ (1991, p. 293; see 1992, p. 188).
2. Research on this section was sponsored by the Army Research Laboratory and was accomplished under Cooperative Agreement Number W911NF-10-2-0016. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressed or implied, of the Army Research Laboratory or the U.S. government. The U.S. government is authorized to reproduce and distribute reprints for government purposes notwithstanding any copyright notation herein.

3. One might wonder why we have shifted to a discussion about robots rather than, say, the human who originally occupied the CR. The CR argument targets strong AI; it's an argument against the computational conception of the mind. The proponents of the robot reply attempt to respond to Searle in terms that defend the possibility of AI – in doing so they remain tied to the conception of the mind that belongs to the original problem space defined by GOFAI (Good Old Fashioned Artificial Intelligence) (Haugeland 1985).
4. Emotional attunement and recognition of another person's emotional state is another important aspect that is neither knowledge nor skill, but involves an embodied perception that is capable of recognizing emotional expression in face, gesture, movement, vocal intonation, etc. (Hashimoto et al. 2009).

## References

- Baldwin, D. A. (1993) 'Infants' ability to consult the speaker for clues to word reference', *Journal of Child Language*, 20, 395–418.
- Baldwin, D. A., J. A. Baird, M. M. Saylor, and M. A. Clark (2001) 'Infants parse dynamic action', *Child Development*, 72 (3), 708–17.
- Brandt, L. and P. A. Brandt (2005) 'Making sense of a blend: a cognitive-semiotic approach to metaphor', *Annual Review of Cognitive Linguistics*, 3, 216–49.
- Brooks, R. (1991) 'Intelligence without representation', *Artificial Intelligence*, 47, 139–59.
- Bruner, J. and D. A. Kalmar (1998) 'Narrative and metanarrative in the construction of self' in M. Ferrari and R. J. Sternberg (eds.), *Self-Awareness: Its Nature and Development* (New York: Guilford Press), 308–31.
- Crane, T. (1996) *The Mechanical Mind: A Philosophical Introduction to Minds, Machines and Mental Representation* (London: Penguin).
- De Jaegher, H., E. Di Paulo, and S. Gallagher (2010) 'Can social interaction constitute social cognition?', *Trends in Cognitive Sciences*. Published online 30 July 2010. 10.1016/j.tics.2010.06.009
- Dennett, D. C. (1991) *Consciousness Explained* (Boston: Little, Brown and Company).
- Fiebich, A. and S. Gallagher (under review) 'Joint attention: from interaction to joint action.
- Fauconnier, G. and M. Turner (2002) *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities* (New York : Basic Books).
- Fodor, J. A. (1991) 'Searle on what only brains can do' in D. M. Rosenthal (ed.), *The Nature of Mind* (Oxford: Oxford University Press), 520–1.
- Gallagher, S. (in press) 'Narrative competency and the massive hermeneutical background' in P. Fairfield (ed.) *Education, Dialogue, and Hermeneutics* (New York: Continuum).
- Gallagher, S. (2009) 'The key to the Chinese Room' in K. Leidlmair (ed.), *After Cognitivism* (Dordrecht: Springer), 87–96.
- Gallagher, S. (2007) 'Social cognition and social robots', *Pragmatics and Cognition*, 15 (3), 435–54.
- Gallagher, S. (2005) *How the Body Shapes the Mind* (Oxford: Oxford University Press).
- Gallagher, S. (2004) 'Understanding problems in autism: interaction theory as an alternative to theory of mind', *Philosophy, Psychiatry, and Psychology*, 11, 199–217.
- Gallagher, S. (2001) 'The practice of mind: Theory, simulation or primary interaction?', *Journal of Consciousness Studies*, 8(5–7), 83–108.

- Gallagher, S. and D. D. Hutto (2008) 'Understanding others through primary interaction and narrative practice' in J. Zlatev, T. Racine, C. Sinha, and E. Itkonen (eds.) *The Shared Mind: Perspectives on Intersubjectivity* (Amsterdam: John Benjamins), 17–38.
- Gallagher, S. and D. Zahavi (2008) *The Phenomenological Mind* (London: Routledge).
- Goldman, A. I. (2005) 'Imitation, mind reading, and simulation' in S. Hurley and N. Chater (eds.) *Perspectives on Imitation II*. (Cambridge, MA: MIT Press), 80–91.
- Green, A. and K. S. Eklundh (2003) 'Designing for learnability in human–robot communication', *IEEE Transactions on industrial electronics*, 50 (4): DOI: 10.1109/TIE.2003.814763.
- Harnad, S. (1989) 'Minds, machines and Searle', *Journal of Experimental and Theoretical Artificial Intelligence*, 1, 5–25.
- Harnad, S. (2002) 'Minds, machines, and Searle 2: What's right and wrong about the Chinese Room argument' in J. Preston, and M. Bishop (eds.) *Views into the Chinese Room: New Essays on Searle and Artificial Intelligence* (New York: Oxford University Press).
- Hashimoto, M., Y. Misaki, and U. Tatsuy (2009) 'Effects of emotional synchronization in human–robot KANSEI communication', *The 18th IEEE International Symposium on Robot and Human Interactive Communication*, Toyama, Japan, 27 September–2 October 2009.
- Haugeland, J. (1985) *Artificial Intelligence: The Very Idea* (Cambridge, MA: MIT Press).
- Hobson, P. (2002) *The Cradle of Thought* (London: Macmillan).
- Hutto, D.D. (2008) *Folk Psychological Narratives: The Socio-Cultural Basis of Understanding Reasons* (Cambridge, MA: MIT Press).
- Kollar, T., S. Tellex, D. Roy, and N. Roy (2010) 'Toward understanding natural language directions. Human-Robot Interaction (HRI)', *5th ACM/IEEE International Conference*. DOI: 10.1109/HRI.2010.5453186, 259–66.
- Lepore, E. and R. Van Gulick (eds.) (1991) *John Searle and his Critics* (Oxford: Basil Blackwell).
- Meltzoff, A. N. and M. K. Moore (1977) 'Imitation of facial and manual gestures by human neonates', *Science*, 7 (4312), 75–78.
- Nichols, S., and S. P. Stich (2003) *Mindreading: An Integrated Account of Pretence, Self-Awareness, and Understanding Other Minds* (Oxford: Clarendon Press).
- Reddy, V. (2008) *How Infants Know Minds* (Cambridge, MA: Harvard University Press).
- Rey, G. (1986) 'What's really going on in Searle's 'Chinese Room'', *Philosophical Studies*, 50, 169–85.
- Rey, G. (2002) 'Searle's misunderstandings of functionalism and strong AI' in J. Preston, and M. Bishop (eds.) *Views into the Chinese Room: New Essays on Searle and Artificial Intelligence* (New York: Oxford University Press).
- Rochat, P. (2010) 'Is social cognition an oxymoron? Comments on Astington and Edward, Miller, Moore and Sommerville' in R. E. Tremblay, R. G. Barr, R. DeV. Peters, M. Boivin (eds.), *Encyclopedia on Early Childhood Development* [online]. Montreal, Quebec: Centre of Excellence for Early Childhood Development:1–5. Available at: <http://www.child-encyclopedia.com/documents/RochatANGxp.pdf>. Date accessed 2 November 2010.
- Searle, J. R. (1980) 'Minds, brains and programs', *Behavioral and Brain Sciences*, 3, 417–57.
- Searle, J. R. (1981) 'Minds, brains, and programs' in J. Haugeland (ed.) *Mind Designs* (Montgomery, VT: Bradford Books).

- Searle, J. R. (1983) *Minds, Brains and Science* (Cambridge, MA: Harvard University Press).
- Searle, J. R. (1991) 'Response: The background of intentionality and action' in E. Lepore and R. Van Gulick (eds.) *John Searle and His Critics* (Oxford: Basil Blackwell)
- Searle, J. R. (1992) *The Rediscovery of the Mind* (Cambridge, MA: MIT Press).
- Trevarthen, C. B. (1979) 'Communication and cooperation in early infancy: A description of primary intersubjectivity' in M. Bullowa (ed.) *Before Speech* (Cambridge: Cambridge University Press), 321–48.
- Trevarthen, C. and P. Hubley (1978) 'Secondary intersubjectivity: Confidence, confiding and acts of meaning in the first year' in A. Lock (ed.) *Action, Gesture and Symbol: The Emergence of Language* (London: Academic Press), 183–229.
- Wieger, L. (1965) *Chinese Characters: Their Origin, Etymology, History, Classification and Signification. A Thorough Study from Chinese Documents*, L. Davrout (trans.) (New York: Dover/Paragon).

# 5

## Contesting John Searle's Social Ontology: Institutions and Background

*Joseph Margolis*

### I

If I understand John Searle's published work over the last fifteen or so years, then I'm quite willing to acknowledge that he and I pretty well agree, at least verbally, about the central philosophical questions of our age: that is, the right analysis of the human world and ourselves – persons within that world. Nevertheless, I cannot imagine being more at variance with anyone than Searle. I confess I find his answers to his own questions peculiarly and systematically slack just where they seem to waver on the edge of capturing the best clues to pursue. I take heart, therefore, in confronting Searle because of his own attractive admission in opening his recent book, *Making the Social World* (2010) – which is essentially, I would say, an adjusted version of an earlier book, *The Construction of Social Reality* (1995). Searle begins this way:

For me, having my ideas examined, assessed, and attacked is an essential part of doing philosophy. Among my precepts are these: if you can't say it clearly you don't understand it yourself, and if you can't defend it successfully in public debates you shouldn't publish it. (2010, p. xiii)

I take Searle at his word, therefore. Many of his illustrations, much of his actual language – his insistent use, for instance, of the term 'social', as in 'social reality', no weight at all given to the category of the 'cultural', which is more often now used to collect and 'social world', with what is most distinctive (possibly *sui generis*) in language and in art, action, and thought 'penetrated' by language and seemingly transformed thereby, as in isolating the central 'ontological' contrast (Searle's term) between physical nature and what I would call human culture and between non-human animal cultures and specifically human (uniquely enlanguaged) cultures – remain very little

changed from their appearance in the earlier book.<sup>1</sup> I note in a preliminary way the almost complete absence of any explicit theory of the self or person, of the nature and role of human history, of any formal distinction between the use of the term 'collective' as contrasted with the use, say, of 'aggregative' in speaking of the 'social' and 'institutional', and in the absence of invoking the 'cultural': the effective avoidance of nearly the entire tradition of German philosophy tethered, at the very least, to Hegel's critique of Kant and the immense proliferating discussion that has issued from that source, coursing down to our own time; and the equal avoidance of any discussion of post-Darwinian paleoanthropology's bearing on the formation of what is unique to human nature and the human world and the conceptual and empirical conditions of their first formation.

I can see that it would be a very strenuous task to attempt to collect even the principal differences between our respective philosophical orientations. For example, in the *Construction* volume, Searle objects to Wittgenstein's explanation of a man's being *certain* that, when given an algebraic formula, he will 'be able to work out its values for the arguments 1, 2, 3, ... up to 10': here, his certainty 'will be justified by success', Wittgenstein recommends. Wittgenstein rather cleverly shows all sorts of ways of misunderstanding what 'knowing' or being 'certain' means and doesn't mean – as when our man exclaims, 'Now I know how to go on!' There is no 'specific indefinable experience' ('understanding') to be discerned, and our subject's understanding is not justified by (or only by) some specific inductive reasoning (which might well generate its own regress). For the most part, for all such cases, Wittgenstein answers: 'What people accept as a justification [for such certainty] – is shewn by how they think and live'; 'we don't need any grounds for [such] certainty [...] [W]hat could justify the certainty *better* than success?'; 'we expect *this*, and are surprised at *that*. But the chain of reasons has an end' (1953, pt. I, §§320–326).

Searle reads Wittgenstein (here) as saying 'there just is an *ungrounded* way of acting':

We reach the point where we just do it. We talk this way and not that way. We accept this and not that. But Wittgenstein's approach is very unsatisfying, because it does not tell us what the role of the rule structure [of the algebraic formula given] is. We want to say that institutions like money, property, syntax, and speech acts are systems of constitutive rules, and we want to know the role of that rule structure in the causal explanation of human behavior. (Searle, 1995, p. 140)

But Searle misreads Wittgenstein here – he's seriously mistaken in supposing he's met the best of Wittgenstein's (implicit) objections to his (Searle's own) kind of account of 'systems of constitutive rules'. No rules are given in the run of ordinary discourse: there may be special cases and we can



always ‘impose’ rules if we wish. But Wittgenstein is not saying that our ‘acting’ and our ‘certainty’ in acting as we do is ‘ungrounded’; he means only that they are not (and need not be) grounded in the inductive way (or in any ‘systematic’ way akin to Searle’s): they’re grounded in ‘a form of life’, Wittgenstein famously holds – that is, in a way that would baffle any closure of the sort Searle seems to believe is ultimately required. Ordinary life is incurably informal, though it ‘succeeds’ in its spontaneous continuity. And even where our expectations fail, our certainty will still have been justified (see §323)!

No, the issue at stake is this: Wittgenstein champions a certain deep informality in the practices of ordinary life and Searle is drawn to the idea that ‘institutional’ life is grounded in an actual system of formulably sufficient rules. In *Making the Social World*, he emphasizes the same theme, though Wittgenstein, who, together with Pierre Bourdieu, seems to have inspired much of his use of and reliance on the notion of ‘background’ (which I shall come back to briefly in due course), drops out of the picture altogether.<sup>2</sup> Thus, Searle straightforwardly declares:

The claim that I will be expounding and defending in this book [the new book] is that all of human institutional reality is created and maintained in existence by (representations that have the same logical form as) SF Declarations [that is, ‘Status Function Declarations’ – of which more in a moment], including the cases that are not speech acts in the explicit form of Declarations. (2010, p. 13; emphasis in original)

You have here a sense, already, of the extreme contest bruited by Searle’s and Wittgenstein’s views of practical life: they could not possibly have held the same account of background.

I don’t believe Searle *ever* justifies his commitment to the notion of ‘systems of constitutive rules’: I don’t think his position on this score is defensible at all, and I think its deep vulnerability must threaten the standing of his entire ‘social ontology’ and analysis of ‘collective intentionality’. He nowhere addresses the question *why* language and culturally informed speech acts, which appear to have evolved contingently, should regularly yield necessary and sufficient conditions of the sort he collects. These are promissory notes, of course, that will have to be redeemed. But we can see already how the argument might go seriously against Searle’s line of reasoning. All of Searle’s key notions – ‘social’, ‘constitutive rules’, ‘intentionality’, ‘background’, ‘declarations’ – would have to be replaced or significantly reinterpreted: others – notably, ‘person’ or ‘self’, the distinction between the ‘social’ and the ‘cultural’, the relationship between physical nature and human history and culture, and the ‘ontology’ of the human world itself – would, I venture to say, have to be introduced afresh or possibly for the first time. But even at this unguarded start, the charge, which seems unanswered (and unanswerable)

in the (1995) book, may not be any more effectively answered in the newer book: namely, the charge that Searle's entire argument is, ultimately, 'solipsistic'. Of course, nothing could be farther from Searle's intention. I mean, in invoking the epithet, a very particular complaint – also, then, admittedly, an eccentric but not unfamiliar use of the term itself.

Here is the first version of Searle's undertaking, in *Making the Social World*:

There are two conditions of adequacy on any account of the sort I am about to propose [...] First, we must not allow ourselves to postulate two worlds or three worlds or anything of the sort. Our task is to give an account of how we live in exactly one world [...] [Second,] the account must respect the basic facts of the structure of the universe. These basic facts are given by physics and chemistry, by evolutionary biology and the other natural sciences. We need to show how all the other parts of reality are dependent on, and in various ways derive from, the basic facts [...] Our mental life depends on the basic facts. Both conscious and unconscious mental phenomena are caused by neurobiological processes in the brain and are realized in the brain, and the neuronal processes themselves are manifestations of and dependent on even more fundamental processes at the molecular, atomic, and subatomic levels. Our capacity for consciousness and other mental phenomena is the result of long periods of biological evolution. Collective mental phenomena of the sort we get in organized societies are themselves dependent on and derived from the mental phenomena of individuals. (2010, p. 4)

This seems to me to be largely false, nowhere demonstrated, probably not demonstrable in any way favoured in the usual explanations of the 'basic facts of the structure of the universe', and not even relevant in any legible way to our understanding what usually passes for 'mental phenomena'. We simply don't know how consciousness is 'caused'; also, although it does indeed seem impossible that mental phenomena are not 'dependent on [...] neurobiological processes in the brain', it seems more than doubtful that they are or could be 'realized in the brain' alone; and it is even more problematic that 'collective mental phenomena [...] are [...] derived from the mental phenomena of individuals'. Given what Searle assumes about the 'basic facts', this last claim is plainly 'solipsistic'. By which I mean: (1) that, *per* Searle, individual consciousness 'derives' from the 'basic facts' of the physical sciences and (2) that the 'collective', 'social' (socially 'organized', public, 'institutional' or 'collectively intentional') facts of this or that society are 'dependent on and derived from the mental phenomena of individuals'. The conjunction of (1) and (2) counts as solipsism (in the culturally relevant sense): it may not signify solipsism in the classic epistemological sense. But there is absolutely no convincing basis on which to argue

that language or linguistic meaning can be understood only or entirely in terms of the causal processes of the brain (or of communications between physically isolated brains) or of the causal interplay of more fundamental physical processes of any kind; or, consequently, that the mental can be said to be realized entirely in brain processes (or can be discovered to be); or that the mental can be confined to the brain (either in individuals or societies); or indeed that the 'social' or 'societal' (in the linguistically or culturally pertinent sense) can be explained entirely in terms of the 'phenomena and behavior of individual human beings'. Both claims are off the mark: the first is largely irrelevant in the explanation of encultured phenomena – or hardly more than dependently pertinent; the second is already solipsistic; joined, they lead us to an insurmountable dead-end.

My own conjecture has it that language is a cultural artefact, the gradual achievement of a hybrid, transformative evolution of both the biological abilities of *Homo sapiens* and the culturally invented, pre-linguistic communicative powers of the hominid primates; and that the functional powers we associate with the (enlanguaged) self or human subject or agent (particularly our self-referential powers in thought and deed) are themselves emergent in the process of mastering language.<sup>3</sup> They cannot be separated. On this view, the linguistically competent individual is itself 'produced' or groomed by certain societal forms of *Bildung* that cannot themselves be accounted for in merely biological terms. (I call this 'internal' *Bildung* for a reason that will become apparent shortly.) This seems to me to be the only plausible way to account for the emergence of the uniquely human world; but then Searle's thesis must be seriously in error – a comic sort of reductionism, in spite of itself. This is the point, of course, of Rousseau's well-known joke (if it is a joke) at the expense of the contract theory of language: the agents who would have had to enter into the supposed agreement (to form a language) would already have been sufficiently competent, linguistically: hence *their* initiative would be otiose.

It's an old chestnut but I cannot see that Searle eludes its trap. Chomsky, of course, has, at long last, yielded in recent years, rather courageously, on the question of the innateness of universal grammar (UG);<sup>4</sup> and theorists like Hilary Putnam and Alva Noë have offered very promising reasons for not confining meaning or mind to the brain. Searle ignores all such conjectures, still in the grip of a questionable theory about the methodology of science and the charms of a hierarchized unity conception of the sciences. The latter bears, for instance, on his 'one world' thesis. But almost no one insists that the distinction between the physical, mental, social, cultural, and historical 'worlds' signifies that *we* literally live in a number of different worlds: conversely, the claim that we live in one world has nothing to say regarding the necessity of adhering to Searle's account of the dependence and derivation of any part of the human world 'on the mental phenomena of individuals'. (A human society *is* a society of individuals; but a society of persons is

a society of individuals characterized in part as sharing a collective practice, culture, tradition, institution, history or the like.) In a word, Searle nowhere demonstrates that his conception of the methodology of science sets any compelling fresh constraints on the theory of the human world.

## II

Even this much of a rejoinder jeopardizes Searle's conception of the 'collective' features of the human world, 'collective intentionality', 'institutional facts', and what Searle calls 'background' – a notion that appears quite central to his thesis but is now somewhat diminished in importance as a result of strengthening (perhaps, exaggerating) the causal potency of what he calls 'declarations' and speech acts.

Let me turn this shaggy complaint into a smarter charge. Consider the brute magic of the following remark that opens the (1995) book:

There are portions of the real world, objective facts in the world, that are only facts by human agreement. In a sense, there are things that exist only because we believe them to exist. I am thinking of things like money, property, governments, and marriages. (p. 1)

Would Searle be willing to extend his claim to selves and persons? Could he make any sense of that? Does successful speech 'exist' only because we believe we can speak? Do *we* exist because we believe we exist? His view is deeply mistaken here – or perhaps only monumentally careless – a sort of Cartesian trickery. Because it comes to rest on a derivative condition verbally enlarged in such a way that, for trivial reasons, cannot be directly challenged without risking too much. That's to say: there's a suppressed condition on which the cartoon condition Searle supplies 'justifies' his claim, which, if made explicit, would go a great distance towards obliging us to abandon his account of the unique features of human belief – of precisely how the operative presence of belief sustains the 'existence' of money and the like, and (most important) how such a 'world' comes into being in the first place.

The fatal weakness of the *Construction* book rests with the fact that *that* ulterior condition is never permitted to surface, but appears to have been met already by the force of Searle's 'dependent' condition: it seems *we* must exist if our speaking (and believing what we say) vouchsafes the existence of our performative utterances. He is a sort of super-Cartesian! I mean to flag here what may well be the essential paradox of Searle's entire theory – the engine of confusion, so to say – that defeats the *Construction* book hands down but is somehow buried in the argument of *Making the Social World*. I'll need your patience.

The importance of Searle's argument rests – I cannot deny my own worry – with the importance of the mistake Searle nearly succeeds in persuading

us to accept. In exposing it effectively (if that proves possible), we shall have gained a grand march on all those theories (like Searle's) that, in the name of insisting that we inhabit 'exactly one world', fail to acknowledge the fundamental difference between the physical 'world' and the enlanguaged, linguistically encultured 'world'. As I say: Searle's argument is a *non sequitur* – though there is indeed a continuum between the linguistic and the prelinguistic and between the enlanguaged cultural and the prelinguistic cultural, just as there is between the animate and the inanimate and between the minded and the mindless animate.

I don't wish to be mysterious here, but the mistake that's buried in Searle's theory demands a tricky sort of pliers to be effectively extracted. Let me say, out of the blue, that it's here that Searle invites an instructive comparison with the views of Wittgenstein and Bourdieu (regarding what he terms 'the background') – which we would need to recover even if Searle had not mentioned the connection he supplies – the one that exposes his wrong turn: the pivot of the essential contest regarding the would-be 'unity' of the physical and human sciences. The question takes the form of an irony in Searle's hands. Here is his version of it – not yet exposed or made self-evident:

In giving an account of language [Searle begins, quite matter-of-factly], I will try to overcome the curse of all social (and political) theorizing from Aristotle through Durkheim, Weber, and Simmel to Habermas, Bourdieu, and Foucault. [Searle drops all references to Wittgenstein, here, whom he had featured in *Construction*.] All of the philosophers of politics and society that I know of take language for granted. They all assume that we are language-speaking animals and then they are off and running. But the problem with all of them is that they do not tell us what language is. They take it for granted that we already know what language is and go on from there. The worst offenders in this regard are the Social Contract theorists. The point I will be making, over and over, is that once you have a shared language you already have a social contract; indeed, you already have society. (2010, p. 62)

Here you have the plain and simple point: Searle is on to the question and on to its best answer! (He's read his Rousseau.) My complaint is only that he himself finally neglects to answer the stated charge in his own name: as far as I know, he nowhere addresses the question of how language originates, or what it means to say that it has an origin.

You will want the evidence, of course; you'll find it hard to believe. But the answer Searle gives, as far as I can see, is no more than a clearer exposition of the original magic of speech acts and Declarations, which, on his own view (just supplied) poses but hardly answers the deeper question:

There is a fascinating class of speech acts that combine the word-to-world and the world-to-word direction of fit, which have both directions

of fit simultaneously in a single speech act. These are cases where we change reality to match the propositional content of the speech act and thus achieve world-to-word direction of fit. But, and this is the amazing part, we succeed in so doing because we represent the reality as being so changed. More than three decades ago, I baptized these as 'Declarations'. They change the world by declaring that a state of affairs exists and thus bringing that state of affairs into existence. (2010, p. 12)<sup>5</sup>

This is a remarkably complex and clever manoeuvre on Searle's part. It succeeds (where we permit it to succeed) only because we restrict its potential scope; but even where it succeeds, it fails: because where it succeeds as an unrestricted 'convention', we must also apply it to ourselves (to our original emergence as selves); and there it's more than unconvincing, it's intolerably paradoxical. First, because, in allowing it, we are caught in a variant of Rousseau's joke, from which we cannot possibly exit; and, second, because, as primate members of *Homo sapiens*, we are literally and profoundly changed by the mastery of language and the kind of culture only enlanguaged creatures can manage and manipulate. Such a change cannot be adequately explained in biological or biochemical terms: it depends on an appropriate form of cultural rearing or emergent learning ('internal *Bildung*', I suggest) by which we are artefactually transformed into selves or persons. We *become* 'ontologically' changed thereby – in a way that *cannot* be captured by the speech-act or declaration paradigm. *Because the mastery of speech is itself the enabling condition of the emerging formation of a functionally competent self.* There's the 'ontological' premise that's missing: the one Searle fails to consider, the only plausible addition that at one and the same time eludes the fatal paradox and fits the evidence of post-Darwinian palaeoanthropology. In short, the inseparable, artefactual presence of language and self.<sup>6</sup> We cannot 'create and maintain' our 'social world' by speech acts or declarations if we cannot speak; and we cannot speak if we are not appropriately *gebildet!* There's the trouble with Searle's solipsism.

There's a premise there that obviously cannot be included within the space of 'internal *Bildung*': it's the source and resolution of the post-Darwinian paradox unnoticed in the work spanning Aristotle and the German tradition that runs from Herder to Hegel to Gadamer: the acknowledgment of the *sui generis* forms of cultural evolution that we have no way of expressing in merely biological terms. I name the new process 'external *Bildung*' to mark the ontological novelty of transforming the primate members of *Homo sapiens* into societies of selves<sup>7</sup> and to bring the entire inquiry into the familiar space of Eurocentric philosophy.<sup>8</sup> To admit this much is to admit that the formation of *individual* selves and the formation of the *collectively* shared culture of a society of selves capable of transforming new infant primates into new selves are synchronically inseparable aspects of the same (enlanguaging) process, diachronically contrasted for limited

causal purposes: individual selves are and become what they are in virtue of sharing, aggregatively, what (as in language and the culture it makes possible) must be inherently collective – in effect, possessed by a communicative society but probably never by any aggregative cohort of the members of that society.

In *Construction*, where Searle had already introduced much the same model that he favours in *Making the Social World* (though with a less perspicuous vocabulary), he says straight out: ‘From a God’s-eye view, from outside the world, all the features of the world would be intrinsic, including intrinsic relational features such as the feature that people in our culture regard such and such objects as screwdrivers. God could not see screwdrivers, cars, bathtubs, etc., because intrinsically speaking there are no such things. Rather, God would see *us treating* objects as screwdrivers, cars, bathtubs, etc.’ ‘Intrinsic features of reality are’ – Searle says – ‘those that exist independently of all mental states, except for mental states themselves, which are also intrinsic features of reality’ (1995, p. 12).

Of course, this too may be reasonably contested: what is ‘intrinsic’ for God can hardly be known to be from our own ‘observer-relative’ beliefs, and why should we adopt God’s point of view? Screwdrivers are as real as trees; if they aren’t, neither are persons.

In this way, Searle ‘assemble[s] the apparatus necessary to account for social reality within our overall scientific ontology’ (1995, p. 13). He adds emphatically that ‘it is going to turn out that social reality in general can be understood *only* in the light of the distinction [between what is “intrinsic” and what is not but may yet be “objective” in virtue of being “observer relative” – which the comment about God and man serves to explain]’; he explains his ‘ontology’ in this way and collects all of his principal distinctions under the rubric given – ‘function’, ‘causal functioning’, ‘collective intentionality’, ‘constitutive rules’, ‘institutional structures’, and ‘the Background of [human] capacities.’ (1995, pp. 12–13; emphasis added).

The same account holds pretty well in *Making the Social World* – with adjustments and additions, a greater reliance on speech acts and declarations, and a reformulation of what we are to understand by ‘ontology’ and the sense in which what is real or realist may be characterized as ‘ontologically’ or ‘epistemologically’ objective. In particular, Searle says that ‘institutional facts exist *only* because of our subjective attitudes’: ‘Ontological objectivity and subjectivity have to do with the mode of existence of *entities*’; ‘Epistemic objectivity and subjectivity have to do with [the] epistemic status of *claims*.’ (2010, p. 18). Searle defines an institution as ‘a system of constitutive rules, and such a system automatically creates the possibility of institutional facts’. Consequently, ‘institutional facts [though “typically objective”] are only facts by human agreement or acceptance’. (2010, p. 10).

Given only this much, it seems impossible to avoid the conclusion that we ourselves are conceptual danglers of some sort: for, surely, selves are

themselves institutionally formed (through acquiring language); nevertheless, they must be presupposed (on Searle's view) if institutions are themselves to be explained!

But, now, we see the essential difficulty with Searle's account. He's too sanguine about the formation of institutions; he doesn't see the paradox of his explanation of social reality. His entire procedure confirms that his intuitions along these lines are very far removed from those he claims a particular affinity for: Wittgenstein's and Bourdieu's intuitions, which address in a very different spirit notions akin to his more interesting categories.

I take the following to be among the most important claims that are irreconcilable with Searle's account – in particular, with his insistence on systematicity, rule-governed precision, and the hierarchized unity of the scientific treatment of physical, mental, and social phenomena: (i) selves or persons cannot be convincingly (or, non-paradoxically) construed as institutionally established (as by 'subjective attitudes' or by 'human agreement or acceptance'); (ii) neither can language; and (iii) neither can a great deal of what human beings 'utter' (as by act or deed, creation or production), except (where it seems unproblematic) as with promises, oaths, orders, vows, other specifically performative speech acts – though even here, the speech-act and declaration models seem more metonymic than causally effective in Searle's strong sense. (Think here of common-law marriage as distinct from formal vows, or the common-law itself as opposed to formal promulgation.)

Along these lines, it would hardly be unreasonable to argue (iv) that whatever practices, behaviour, 'products', 'deeds', 'societies' essentially engage the agency of selves – manufactured goods, artworks, technological devices, conversations; also, wars, business transactions, games, love affairs, documents; also, families, corporations, clubs, nations, churches – are 'ontologically objective' and real (in Searle's sense though against his own judgment); and (v) the language, traditions, forms of life of entire societies must similarly be ontologically real, though 'collective' (*gemeinschaftlich* rather than merely *gesellschaftlich*) in a sense very different from what Searle seems willing to acknowledge, that is, what may (perhaps) be shared – in Rousseau's sense of *la volonté générale* (general will) more than in the sense of *la volonté de tous* (will for all), though aggregatively still. (I take this to be Rousseau's joke in *Contrat Social*, though Rousseau seems to have been dead serious.)

### III

The nerve of Searle's entire strategy lies with pressing J. L. Austin's notion of 'performative utterances' into the extreme role of 'the most famous cases of Declarations: these are the cases where you make something the case by explicitly saying that it is the case' (Searle, 2010, p. 12). But his thesis obliges us to enlist Austin in his questionable near-magic! Austin is primarily interested in the systematically varied uses of sentences; he's obviously aware of



the encompassing forms of life in which these functional distinctions play their particular roles, but he's not drawn into pursuing the actual analysis of a viable society.<sup>9</sup> He never advances conjectures as extreme as those regarding 'Directions'; he expressly avoids the claim of necessary and sufficient constitutive rules.

We are really at the core of Searle's vision here, though it may not seem so. Let me, therefore, recast what he actually claims – in the light of what he says, but now, also, in the light of difficulties already noticed. The key text is [chapter 6](#) of *Construction*: that's to say, [chapter 6](#) is also the key text of *Making the Social World*, though the references to background are distinctly briefer and less explicit in the second book. First of all, in *Construction*, Searle already explains 'the role of performative utterances in the creation of many, *though not all*, institutional facts:

In general, where the *X* term is a speech act, the constitutive rule will enable the speech act to be performed as a performative declaration creating the state of affairs described by the *Y* term [effectuating the formula 'X counts as Y in C': making certain physical objects ('x') count as money ('y') in a certain market context, say]. (1995, p. 54; emphasis added; the enabling rule is given in emphasis in the original text).<sup>10</sup>

Searle is quick to remark that 'the possibility of creating institutional facts by declaration does not hold for every institutional fact. You cannot, for example, [he says] make a touchdown just by saying you are making it'. Of course; but that suggests that effective 'performative declarations' may in general be quite marginal: I don't think you can get married *just* by saying 'I do', though I admit that, sometimes, it seems to be that easy. But then, as soccer aficionados realize, a goal may be a goal just because the referee declares a kick valid. Van Eyck's portrait of Arnolfini and his wife, for instance, reminds us that the traditional marriage sacrament was enacted by the parties to the marriage itself, in the sight of God; it was only the scandal of the abuse of the practice that came to require public evidence of confirmation – the painting as a document, the testimony of the witnessing clergy, (or, in the Van Eyck painting, the artist's testimony). So the performative utterance may not have consummated the marriage after all; it may have counted only as a good faith confirmation of its having been consummated. What constitutes a marriage may require an analysis of the full life of an actual society; and, there, nothing that Searle (or Austin) offers favourably compares with the kind of detail that, say, Bourdieu supplies in his analysis of North African tribal life.<sup>11</sup> What's missing is the 'ontology' of encultured societal life itself.

In any case, Searle stiffens his doctrine of declarations, in *Making the Social World*. In [chapter 5](#), for instance, he reminds us of the unconditional formulation of [chapter 1](#) (p. 13, cited above): 'all institutional facts are covered

by the same logical operation: the creation of a reality by representing it as existing'; he follows this up with a general formula cast in terms of a declaration by which we affirm (and make it the case) that a certain 'status function exists' (1995, p. 55; 2010, p. 93). Hence, in *Construction*, he favours a more rigorous (but also more problematic) run of background conditions to ensure the effectiveness of our pertinent speech acts and declarations. But you begin to see here the circularity of pairing an existent 'status function' and its already enabling 'representation' (another version of Rousseau's 'joke').

There's the point of contention. Searle had conceded (in *Construction*), first, that rules are more labile and approximate – they may even be heuristic – than he appears to hold in *Making the Social World*, which may explain his reading of the affinity he affirms (in the earlier book) for Wittgenstein and Bourdieu; and, second (perhaps compensatingly), that 'Background' and 'Network' are more difficult to separate than had appeared in *Construction*, possibly then not any longer as important to distinguish in the way he previously had, which may explain why he now seems to turn away from the authors who introduced him to the puzzles of an enabling background – in a direction favoured by the general theory of science and 'scientific' methodology he explicitly prefers. Actually, 'network' does not seem to make an appearance in *Construction*: which suggests that its introduction in *Making the Social World* is something of a place marker for sorting certain complications of intentionality that are not yet in final form.

In any case, in *Construction*, Searle is as straightforward as he could be in summarizing his 'thesis of the Background' (drawn, he says, from his earlier publications in the philosophy of mind): there, he explains rather pointedly that beliefs, desires, and rules only determine the conditions of satisfaction – truth conditions for beliefs, fulfilment conditions for desires, and so on – given a set of capacities that do not themselves consist in intentional phenomena. I have thus defined [he adds] the concept of the 'Background' as the set of *nonintentional* or preintentional capacities that enable intentional states of function. But in that definition there are four difficult concepts: 'capacities', 'enabling', 'intentional states', and 'function' (1995, p. 129; emphasis added).

Of course, there's a good deal more that Searle's remarks reveal that he himself cannot grasp: namely, for one thing, that his view of background has almost nothing in common with Bourdieu's *habitus* or with Wittgenstein's *Hintergrund* (and its analogies in the narrative of *Investigations*) (1953, Preface, p. x)<sup>12</sup>; and, for another, that *he* eschews, utterly, *any* intentionally complex *habitus* or the like, *which happens to be the only sort of elaboration that could possibly explain the effectiveness of human acts and activity in the human world*. He betrays the entire undertaking of 'social ontology'. Reference to the neurophysiological (or the merely physical) couldn't possibly help: first, because all that *it* could supply (which is indeed needed) is evidence that

the linguistic, the cultural, the socially significant *is suitably embodied in the material world*;<sup>13</sup> and, second, because the distinctions of the intentional (or, more narrowly, the distinctions of the linguistically qualified cultural forms of the intentional) lie with their ability to be realized, open-endedly, in diversely material ways (discernible, as such, only from the intentional vantage itself).<sup>14</sup>

Searle takes it to be ‘important’ (in *Construction*) that we note that ‘when we talk about the Background we are talking about a certain category of neurophysiological causation’. Nevertheless, ‘because we do not know how these structures function at a neurophysiological level, we are forced to describe them at a much higher level’ – for instance, ‘when I say [...] that I am able to speak English, I am talking about a causal capacity of my brain’ [*sic*]; but, if so, then the descriptive liberty is entirely innocent that’s to say, irrelevant as far as ‘social ontology’ is concerned! (1995, pp. 129–30).<sup>15</sup> Nevertheless, I cannot find anything quite as assured as this, in *Making the Social World*. Network and background are clearly distinguished there: network features ‘intentional states’; it may also include elements of background (that is, ‘a set of abilities, dispositions, and capacities’ – which, in *Construction*, would have been taken to be non-intentional, neurophysiological). When, for instance, in *Making the Social World*, Searle speaks of ‘a set of presuppositions for the application of intentionality [in effect, something beyond Network], a set of abilities’, he offers the illustration of driving ‘to my office on the university campus’ and pointedly adds, ‘I take that ability for granted, and the ability does not consist in a set of intentional states’. (2010, p. 31). Here, he has lost the entire point of the distinction of the ontology of the human world as well as that of the human sciences.

Still, Searle does admit (possibly for minor reasons) that ‘there is no sharp dividing line’ between network and background; he’s content to say that ‘whenever we deal with the world either in thought or action or perception we have to take a great deal for granted’ – ‘What I take for granted, when I form the intention, for example, to drive my car to the office, is both a set of beliefs and desires (the Network) and a set of abilities (the Background)’ (2010, p. 32). Here one wonders whether he’s signalling doubts about his own disjunction. Probably not, but he should have! Because, for one thing, what he includes in network is never more than additional parts of the fuller *explananda* social ontology and social science are meant to analyse and explain, even where, sometimes, such items (trading on the link between ‘reasons’ and ‘causes’) serve in a benignly superficial way as a sufficient explanation (‘I drove to my university office because I needed to be there for a meeting’); and, for another, the reference to ‘abilities’ in the sense Searle favours could not possibly explain *explananda* of the sort just acknowledged. *It would require a form of reductionism*. I take *that* to be a *reductio* of his entire account.

But once we have the verdict in hand, we see that there's a much simpler path to the same conclusion. Namely: that language and linguistically encultured practices, traditions, institutions, world are inherently *collective* in structure – *intentional* in a collective way – *not* as a result of any two or more individuals actually agreeing to *share an intention* (an intended commitment) between them, but because whatever they there share they share simply as members of an encultured society *that has groomed them for such a feat*. To be a person is to be an individual member of a social aggregate of persons who become what they are by sharing or internalizing (initially without agreement of *any sort*) the *collective* competence that makes that transformation possible. 'Collective' here signifies a kind of *property of the properties* of human or enlanguaged societies that cannot first be attributed, aggregatively, to the members of that (or any) society but constitutively enable them to function as the (socially aggregated) selves they are. The *sui generis* competence of individual selves is itself the emergent upshot of the *Bildung* of human infants (primates) that transforms them into selves. In effect, this means that, in infancy, humans internalize enough of the background powers of the socially institutionalized world they 'enter' to continue to master other constituent parts of their enabling 'Background': the theory of the self, social institutions, and background capacities is the theory of a single, seamless process. The self is the site of the institutionally formed powers (the background) in virtue of which it actually functions as the self it has become. But if that's conceded, then 'Background' (as distinct from 'Network') is itself intentional (collectively: hence, in a way that cannot be explained, aggregatively, in psychological or neurophysiological terms).

I take this to be the fatal weakness of Searle's account: as far as I can see, he never uses the term 'collective' in anything but an aggregative sense – which, of course, is the point of what I've called 'Rousseau's joke'.<sup>16</sup> But *that* (Rousseau's contract) entails language's being the achievement of an aggregative agreement ('collective', in Searle's sense); and *that* generates an intolerable paradox or self-contradiction. It's also what I had in mind in speaking of a solipsistic theory of self, language, and encultured society.<sup>17</sup> I see no reason to think it impossible for a single individual (Robinson Crusoe, for instance) to reflect (to think to himself, even to speak to himself) in a language that inherently possesses collective features of a public kind. In fact, I cannot see how we could otherwise avoid a solipsistic theory of language. A self is a member of a society of selves that share, but not primarily by aggregative agreement, just such a competence. To omit this possibility is to omit a condition essential to institutions, traditions, cooperative agreements, and the like that are linguistically qualified. It is in fact just such collective, intentional complexes that count as 'Background' in Bourdieu and Wittgenstein. (The theme may be fairly regarded as broadly Durkheimian.)

We need not assume that there are 'collective minds' in assuming that the habits and practices of a society of aggregated selves implicate the

effective existence of a collectively shared tradition (never more than partially mastered by any parental aggregate active in the *Bildung* of the new aggregate). The objective existence of a tradition or form of institutional life is intentional (or 'Intentional', as I prefer to say: that is, 'culturally significant' and enabling), a theoretically posited (historically changing) precipitate embedded in the life and behaviour of an aggregated society but now not introduced as requiring or as being directly derived from the prior psychologically intentional acts of any aggregate of selves. Yielding in this direction, however heuristically, as Searle does in [chapter 7](#) of *Making the Social World*, has the effect of construing 'Background' intentionally and non-psychologically (in the sense just given) – hence, also, of confirming the fatal circularity of attempting to explain the creation of the social world by means of the enabling prior speech acts and declarations of aggregated individual agents.

If you see the force of the argument, you also see the reason 'Background' (Searle's term, applied within the space of social ontology) cannot be characterized in Searle's own way. His failure to enlist the 'collective' reading of a culture impoverishes his model of a social science and a social ontology; hence, he has nothing to fall back on, for explanatory purposes, except a largely irrelevant 'nonintentional' account of (what *he* calls) background (physics, chemistry, biology). All in all, except for reductionism, linguistically qualified phenomena require intentional explanations (not, or not invariably, explanations in terms of aggregatively shared intentions) that are themselves linguistically 'penetrated' (that is, become 'Intentional').

I'll venture one final clue. Searle is aware that to secure his theory, he must be able to show that language, as well as 'the human reality' (the self, I assume), 'is a natural outgrowth of more fundamental – physical, chemical, and biological phenomena'. The essential and apparently adequate key to the entire argument bridging the sequence from intentionality to language to social institutions is (he claims) given in the following way:

Our first question is, What are the features common to prelinguistic consciousness and to language? Well, [...] both speech acts and intentional states *have* propositional contents, conditions of satisfaction, and directions of fit. (2010, pp. 61, 66; emphasis added)

Now, the claim that prelinguistic intentional states 'have propositional contents' seems to me to risk circularity in the deepest way. *If* (human) selves exist pre-linguistically, then Searle is home free; but if the members of *Homo sapiens* are, as such, prelinguistic primates, then I cannot see that their mental states *have* propositional content in the same sense in which the corresponding states of (culturally artefactual) selves do. Though I see no reason to deny that treating infants anthropocentrically (as potential

selves) is entirely appropriate. (I also concede that it may be impossible not to treat non-hominid primates and other animals anthropocentrically.)

The point is, Searle does not address the discontinuity implied in the continuity of prelinguistic primate and linguistically formed human life. It requires an evolutionary process that makes internal *Bildung* possible. Call it 'external *Bildung* – the intertwined processes of biological evolution (leading to the appearance of *Homo sapiens sapiens*) and of cultural evolution (involving, in an originary sense, the gradual transformation of pre-linguistic communication into proto-language and the corresponding transformation of pre-linguistic hominid primates into proto-linguistic selves). The defect infects Searle's entire discussion. The decisive charge then comes to this: although he opposes the physicalist reduction of beliefs, desires, intentions, institutions, speech acts, and the like, he finally yields to a reductionism, at the explanatory level, of whatever of social life incorporates any of these in the distinctly human way. Effectively, *that* disallows everything that makes the human sciences what they are – it makes a complete mystery of social ontology.

## Notes

1. See Searle (1995). Even the blurbs on the dust jackets of the two books are relatively unchanged.
2. See Searle, 1995, [chapter 6](#); very possibly the most important section of the earlier book – in effect, the nerve of both books.
3. For a very brief sketch of this line of thinking, see Margolis (2010, pp. 58–60).
4. See Chomsky (2000).
5. In the printed text, Searle introduces several iconic symbols to mark the 'direction of fit'; but they are not needed here.
6. I offer a summary of the supporting argument in Margolis (2009).
7. Compare Dawkins (1989). Dawkins is an influential neo-Darwinian who grasps the impossibility of reducing cultural evolution to biological evolution. Nevertheless, he remains drawn to reductionism.
8. Compare McDowell (1994, 1996). McDowell has made a signal attempt to revive the use of the notion, (internal) *Bildung*, within contemporary analytic philosophy.
9. See Austin (1962).
10. See, also, the footnote, in Searle, 2010, at p. 96.
11. See Bourdieu (1990), particularly Bk. I, [chapters 3–6](#). A careful reading of Bourdieu, whose concept of *habitus* seems to have greatly impressed Searle's account of background, will confirm in the strongest way that Searle's view *couldn't* be akin to Bourdieu's (or to Wittgenstein's, or indeed to Austin's) and *couldn't* be of the right kind. I'll take this up shortly.
12. Wittgenstein means here to link his 'new thoughts' with the 'old way of thinking' of the *Tractatus*. But the remark also suggests the reasonableness of supposing that Wittgenstein meant the whole of the remarks of the *Investigations* to be viewed against the background of our actual practice of thinking. I take this to

be suggested by pt. I, §18: ‘Our language can be seen as an ancient city: a maze of little streets and squares, of old and new houses [...].’

13. For a general account, see Margolis (1995).
14. This is the (fatal) logical weakness of J. Kim’s well-know supervenientism, which Searle also (rightly) rejects. See Kim (2000). Without specifically addressing Searle’s Chinese Room puzzle or Shaun Gallagher’s sketch of a solution to the puzzle, I would say Gallagher’s ‘Social Cognition, the Chinese Room, and the Robot Replies’ (Chapter 4 in this volume) makes it quite clear that an acceptable solution to the Chinese Room puzzle cannot be reached without invoking background information and that the requisite background must be rich enough in intentional respects to approach any promising solution. Gallagher reviews the very strong sense in which Searle construes the background in his earliest pertinent publications (from the 1980s and 1990s) in physical terms (including biology) entirely devoid of intentional (that is, socially and culturally significant) features. Gallagher’s argument and mine converge therefore in confirming Searle’s continuous adherence to what is clearly an impoverished and untenable position. Similarly, I find myself in general agreement with Daniel Schmicking’s paper, ‘Music and the Background’ (Chapter 6 in this volume) regarding the extraordinarily subtle ways in which perceptual and neurophysiological cues (viewed as non-intentional) may contribute to mastering, comprehending, and performing music in the ways we normally do. But I suggest that, short of reductionism (which Schmicking avoids) all such fine-grained distinctions must be subordinate to the linguistic, cultural, and linguistically informed social behaviour of any aggregate of selves. Schmicking does not address this issue; and Searle may much too easily suppose that, in accepting Schmicking’s friendly attempt to support the viability of his thesis, showing how non-intentional cues (however cast in neurophysiological terms) may facilitate the different forms of musical competence, he may also be justified in ignoring the general problem of bridging the difference between linguistically formed and linguistically penetrated cultural life (music, metonymically construed) and the cultural life of pre-linguistic hominids. I would say all of this is already, famously, adumbrated (though never explored) in Wittgenstein’s question about the difference between the act of my raising my arm and the bodily movement, my arm’s rising (*Philosophical Investigations*, §621). The validity of Schmicking’s empirical findings stand, whether or not Searle’s thesis stands or falls.
15. See, further, Searle (2002).
16. See, also, Tönnies (2001). Tönnies’ account is quite unsatisfactory, though he is an early proponent of the distinction between *gemeinschaftlich* (what pertains to a community collectively) and *gesellschaftlich* (what pertains to aggregative, cooperative, shared intentions, and commitments).
17. I may perhaps add, here, that the most meticulous account of the aggregative reading of the ‘collective’ that I have seen is provided in Tuomela (2007). The nerve of Tuomela’s fine-tuned account is given in Chapter 2. He indicates a general sort of congruity between his own theory and Searle’s; though, quite understandably, he departs from Searle’s account. He especially emphasizes his own detailed account of ‘collective acceptance’, which provides a basis for his analysis of institutionality and institutions, which he finds scant in Searle (p. 289, chapter 8, note 7). But this virtue is also the principal defect (as I see the matter) in Tuomela’s account as well. I daresay it identifies the essential limitation of this very widespread analytic strategy. There is, I may say, no

discussion of language as a social phenomenon, in Tuomela. But there is an aggregative account in Gilbert (1989), which (therefore) swallows the paradox whole. The lacuna is not addressed in Gilbert's relatively new book (Gilbert, 2000). It would not be unfair to say that the general drift of the analytic literature on human societies, sociality, language, responsibility, plural and 'collective' subjects and the like rather uniformly omit discussions of the formation of the human subject and the distinctive structure of an enlanguaged culture.

## References

- Austin, J. L. (1962) *How To Do Things with Words* (Oxford: Clarendon).
- Bourdieu, P. (1990) *The Logic of Practice*, R. Nice (trans.) (Stanford: Stanford University Press).
- Chomsky, N. (2000) *New Horizons in the Study of Language and Mind* (Cambridge: Cambridge University Press).
- Dawkins, R. (1989) *The Selfish Gene*, rev. ed. (Oxford: Oxford University Press).
- Gilbert, M. (1989) *On Social Facts* (London: Routledge).
- Gilbert, M. (2000) *Sociality and Responsibility: New Essays in Plural Subject Theory* (Lanham: Rowman and Littlefield).
- Kim, J. (2000) *Mind in a Physical World: An Essay on the Mind-Body Problem and Mental Causation* (Cambridge, MA: MIT Press).
- Margolis, J. (1995) *Historied Thought, Constructed World: A Philosophical Primer for the Turn of the Millennium* (Berkeley: University of California Press).
- Margolis, J. (2009) 'Constructing a person: A clue to the new unity of the arts and sciences', *European Journal of Pragmatism and American Philosophy*, 1/1, 1–22.
- Margolis, J. (2010) *Pragmatism's Advantage: American and European Philosophy at the End of the Twentieth Century* (Stanford: Stanford University Press).
- McDowell, J. (1994, 1996) *Mind and World* (Cambridge, MA: Harvard University Press).
- Searle, J. R. (1995) *The Construction of Social Reality* (New York: Free Press).
- Searle, J. R. (2002) *Consciousness and Language* (Cambridge: Cambridge University Press).
- Searle, J. R. (2010) *Making the Social World: The Structure of Human Civilization* (Oxford: Oxford University Press).
- Tönnies, F. (2001) *Community and Civil Society*, J. Harris and M. Hollis (trans.) (Cambridge: Cambridge University Press).
- Tuomela, R. (2007) *The Philosophy of Sociality: The Shared Point of View* (Oxford: Oxford University Press).
- Wittgenstein, L. (1953) *Philosophical Investigations*, G. E. M. Anscombe (trans.) (Oxford: Basil Blackwell).



# 6

## Music and the Background

*Daniel A. Schmicking*

This chapter explores human Background<sup>1</sup> capacities that enable the experience and performance of music by applying Searle's theory of the Background and related concepts to the field of music. My strategy is to approach Searle's theory sympathetically. From my explorations, which try to fathom, at least, to some extent, the scope and viability of his theory, both stronger and weaker aspects of his conception will become manifest. Thus the presently available behavioural, neurophysiological, and episodic evidence from experiencing and making music is not sufficient to choose between Searle's Background theory and a model of unconscious informational processing. Among the positive outcomes is a short exploration of making music based on Searle's theoretical framework, which reveals co-performing music as an instructive and, probably, unique type of collective intentionality.

Experiencing and making music have not been among Searle's areas of interest, although the musicians of an orchestra or a duet have repeatedly served as an example where Searle is concerned with collective intentionality (cf., in particular, Searle, 1995, 1999, 2002, 2010). Searle aims at a big picture, or 'systematic large-scale philosophy' (Searle, 2007, p. 30), which can explain how mind, language, rationality and society 'form a coherent whole' (Searle, 1999, p. 8). Although aesthetics is not yet a part of this overall philosophical project, Searle has suggested that it is among the areas of subject matter that lend themselves to the kind of philosophical investigation that tries to fit them in what Searle calls the 'basic facts', that is, our knowledge of the basic structure of the universe (Searle, 1999, Introduction, in particular pp. 4–14, and 2010, pp. 3–5). This chapter is not on the aesthetics of music, at least not, if aesthetics is conceived as primarily concerned with aesthetic experience and values. It will mainly bear on questions that belong into the philosophy of perception and the philosophy of mind. Yet, relating the perception and performance of music to Searle's theory of the Background will nonetheless prove valuable for our understanding of both musical experience (and hence the foundations of musical aesthetics) and Searle's philosophical project, in particular his conception of the background.

## 1. The concept of the Background and the hypothesis of the Background

Before we start our explorations, we should remind ourselves of the meaning of three important terms, 'Network', 'Background' and what Searle calls his 'hypothesis of the Background'. According to Searle, every intentional state has a particular meaning only as part of a 'Network', that is, a set of further intentional states, and accordingly every intentional content determines its conditions of satisfaction only relative to those other contents. In addition to the Network, a 'Background' of capacities is necessary, which Searle characterizes as 'practices and preintentional assumptions that are neither themselves Intentional states nor are they parts of the conditions of satisfaction of Intentional states' (Searle, 1983, p. 19). One of the heretic theses of Searle's is his belief that '[...] representation presupposes a nonrepresentational Background of capacities' (Searle, 1992, p. 178).

In his 1984 Reith lectures, Searle had stated clearly that the Background capacities are not mental states. He put the thesis of the Background as follows: *'The whole network of intentionality only functions against a background of human capacities that are not themselves mental states'* (Searle 1984, p. 68; italics in original). Afterwards he has characterized the Background states as non-representational or pre-intentional, no longer as 'not mental'. The thesis of the Background later reads: 'The thesis of the Background is simply this: Intentional phenomena such as meanings, understandings, interpretations, beliefs, desires, and experiences only function within a set of Background capacities that are not themselves intentional. Another way to state this thesis is to say that all representation, whether in language, thought, or experience, only succeeds in representing given a set of nonrepresentational capacities' (Searle, 1992, p. 175).

After improving his argument in favour of the Background, which considers, among other things, his notion of (un-)consciousness, Searle restates the thesis in the following way: 'All conscious intentionality – all thought, perception, understanding, etc. – determines conditions of satisfaction only relative to a set of capacities that are not and could not be part of that very conscious state. The actual content by itself is insufficient to determine the conditions of satisfaction' (Searle, 1992, p. 189).

The Network is now conceived as 'that part of the Background that we describe in terms of its capacity to cause conscious intentionality' (Searle, 1992, p. 188). According to the theory as set out in 1992, we can sum up Searle's conception of the Background thus: A conscious mental state  $S^0$ , that you have now, is embedded in a set of (neurophysiological) capacities  $\Sigma$  that are not part of  $S^0$ . The actual content of  $S^0$  cannot determine its conditions of satisfaction independently. Instead  $S^0$  requires for its functioning the set of capacities  $\Sigma$  (the 'Background'). A subset of the latter is capable of generating some further conscious intentional states  $S^1 \dots S^n$ .

The conditions of satisfaction of  $S^0$  as well as of  $S^1...S^n$  are determined only relative to  $\Sigma$  because to every conscious state  $S^i$  applies the condition that  $S^i$  functions only relative to  $\Sigma$ .

Functionally speaking, we might say, intentionality *qua* representational works only if it is related to a Background of non-representational, pre-intentional capacities. Ontologically speaking, we can say, conscious intentionality functions only relative to a Background of neurophysiological capacities. We have to abandon the 'inventory conception of the mind' and thus the notion of an 'unconscious Network of intentionality' (Searle, 1992, p. 189, 190). We keep a few conscious states in a sea of neurophysiological states. This broader picture is in accordance with Searle's connection principle<sup>2</sup> and his later explanations of the Background/Network. Thus in *Mind: A Brief Introduction* he writes: 'the network of intentionality, when unconscious, is a subclass of background capacities; it is the special capacity to produce certain forms of conscious thoughts and behavior' (Searle, 2004, p. 173). And in his latest book, Searle still holds this latter view: '[...] the unconscious elements of the Network when they are unconscious consist in the Background ability to bring them to consciousness' (Searle, 2010, p. 32).

## 2. The Background of music: a first sketch

Given Searle's rather sparse explanation and examples of the Background it is not easy to categorize the capacities that are involved in experiencing and making music. Among the reasons for this difficulty are the following: first, there is no sharp boundary between how things are and how things are done (cf. Searle, 1983, p. 144), and, of course, that applies to music too. Further, music is not a purely auditory phenomenon that is isolated or independent from the rest of the auditory and perceptual world or from other activities like linguistic communication, proprioception, etc. Hence we need to consider examples that apply to both musical and non-musical, environmental sounds and our stance towards them. Moreover, there are haptic forms of perceiving and making music. Consequently we must take these forms into consideration too. Otherwise we would deny deaf performers such as Evelyn Glennie<sup>3</sup> experiencing and making music, which would be an outright absurdity. Therefore the following examples are only an approximation.

### 2.1. The deep Background – how things are

This group of capabilities includes our deeply rooted ways of reacting to the physical world. We have a pre-reflective understanding of gravity, weight, velocity, and so on, and of how things behave 'physically'. This embraces among other things our stance towards how sounds are produced (one object strikes another which starts to vibrate), how sounds travel through

media (air, water, metal tubes etc.), and also our anticipations of the permanent existence, hardness, weight, movability, and further properties of physical objects in general, and a fortiori musical instruments. We make implicit estimations of the movability, elasticity, durability of instruments when we handle them.

Certain dimensions of these auditory Background dispositions are surprisingly little studied so far. For instance, we recognize dynamic dimensions of physical events and surprisingly many (surface and interior!) properties of objects just from the sounds they emit.<sup>4</sup> Further we recognize the way persons move and handle objects from the sounds they produce. Usually you recognize a person (you are familiar with) and even a person's emotional states from her footsteps, the way she closes the door, cuts the greens in the kitchen, fumbles through the closet, etc. I propose we speak of 'biological sounds' in these cases, analogous to the concept of 'biological motion'. As various experiments have shown, we can recognize human motions even from scarce visual information such as a few lights that are fixated to a person's body and filmed in a pitch dark room. As soon as the person moves, the configurations of point-lights are perceptible as human movements. Subjects can even tell the sex of the moving person with high accuracy or estimate the amount of a weight the person is lifting.<sup>5</sup> Similar things go for sounds.

Moreover, there are general characteristics of sounds whose perception is probably deeply rooted in the mammalian auditory system. For instance, abrupt, loud sounds have an alerting function; gradual soft sounds have a soothing character. This holds in large part for man and beast. Music too complies with this regularity: for instance, if you want an adagio to express melancholia you don't compose it of sudden loud strikes. On the contrary, scary film scores exploit the alerting function to produce acoustic startle and to frighten viewers.

Further, our deep Background auditory know-how includes (at least, primitive) auditory scene analysis, that is, how we automatically group and segregate different, often overlapping, portions of sound into streams according to gestalt laws (Bregman, 1990).

## **2.2. The deep Background – how to do things**

Next we try to catalogue important know-how that is required by musical capabilities. The latter presuppose our pre-intentional skills such as how to grasp, hold, and move physical objects in general, and a fortiori musical instruments. Before you learn how to handle a string bow or drum sticks to produce musical sounds, you recognize types of physical objects with certain properties, you learn how best to grasp and hold them without breaking. Musical training builds on our general know-how of producing sounds with physical objects. Children 'drum' on the floor or the table with their toys and we all 'percuss' things to learn whether they are solid or hollow.

The latter example is an apt illustration of the continuous transition of how things are done and how they are, and vice versa, of course. The overlap with what has been said in 2.1 is inevitable for this reason.

Another essential group of pre-intentional auditory skills are categorical perception of speech sounds and musical pitches and continuous perception of dimensions such as timbres, loudness, temporal extension, and localization of sounds. Categorical perception of speech sounds and pitched tones as well as duration allows us to use acoustic patterns that are compounded from a comparably small set of building blocks such as phonemes in spoken languages or pitches and beats in music. Pitch and duration can be perceived continuously. Think of the glissando a police siren produces or a coin that drops on a hard surface and starts to spin with increasing speed until it comes to rest. Yet the pitch continuum is organized into discrete steps or pitch levels almost certainly in all cultures of the world. Nearly all music cultures divide the octave into minimal intervals, mostly of equal size. Our Western system has been using a division into twelve semitones (or pitch categories) for quite a few centuries now.<sup>6</sup> While the diverse systems of pitch levels are a part of the local Background the ability to perceive pitches categorically is universal (as about half of the world's languages show). Similarly the temporal organization of musical sounds allows for both continuous and categorical perception but all cultures seem to use a categorical framework of beat, that is, groupings of units of the same duration. Periodicity of sounds in general is part of the deep Background. We all are used to periodic events such as footsteps, breathing, or hammering, which emit periodic vibratory events.<sup>7</sup> Given groupings of sounds of the same duration, there are various ways to produce further compound rhythms. Rhythmic patterns can be created, for instance, by subdivision of larger durations such as a whole note into two half notes, four quarter notes, eight eighth notes, and so on, or by adding shorter (equal and unequal) groupings of pulses, thereby producing larger durational patterns. Again, whether our listening habits are adjusted to the former type, so-called additive rhythmic organization, or to the latter type, divisive organization, is a matter of the local background, yet all human beings seem to be able to perceive various types of organization to a certain degree, which indicates an ability of the deep Background. Again, how we do things, organize vibratory events along continua, or classify categorically is just the flip side of how things are. There just ain't a sharp boundary.

### **2.3. The local Background – how things are**

Turning to the local Background, we need to differentiate people's capabilities and know-how according to what they are typically surrounded by. We all have experiences with physical, vibrant objects from the beginning of our intentional life on (deep Background) but there are different types of musical instruments that we grow up with. As a consequence, familiarity with

whole groups of instruments belongs to the local Background, while the electro-acoustic production, transmission, and reproduction of sound have become more and more a global phenomenon. Further, our pre-intentional stance towards the structures and patterns of the various traditions and styles of the music we are familiar with is an important part of our local Background. A classic rock song does not typically consist of several separate movements. A classical piece for orchestra will not feature electric string instruments. Of course, what makes music interesting is, to a considerable extent, the use of more or less sublime means that do not answer the expectations generated by the local Background.

Obviously taking for granted the particular instruments and their typical sounds of a musical culture is part of the local Background. Further, as has been indicated, we have certain expectations on different levels about the structures of what we are accustomed to. The most basic local structural features are scales, beats, and rhythmic patterns ('Waltz', 'Polka', 'Shuffle'), the harmonic 'syntax' of music (cf. Section 3), and more 'long-distance' patterns of whole pieces (chorus-refrain, sonata-allegro form, open unpredictable forms, and so on).

#### 2.4. The local Background – how to do things

As shortly explicated in 2.2, there are different but complementing ways of perceiving musical sounds. The local playing practices correspond to those types. Hence it is primarily a matter of your local Background whether you feel more comfortable with divisive rhythmic organization (for example, Baroque) or additive (for example, West African drumming) or a combination of both (say, the major part of Black American music) or bouncing accelerating rhythms (various traditions of East Asia). It is probably even more obvious that there is an abundance of particular cultural practices of singing, playing instruments, performing styles, the way the musicians and the auditorium behave, the typical times and places to make music, which I cannot even try to list here.

### 3. Musical syntax: Searle's Background vs. the 'deep unconscious'

According to Searle, there are four types of unconscious mental states in the literature: *pre-conscious* states, that is, neurobiological structures that are 'capable of producing the state in conscious form' (Searle, 2004, p. 167); *repressed* or *dynamic unconscious* states (using Freud's vocabulary), that is, repressed unconscious mental states that nonetheless function causally; *deep unconscious* states, that is, what many cognitive scientists call the cognitive unconscious referring to computational operations that cannot be brought to consciousness in principle; and *non-conscious* states, that is, neurobiological processes that are not mental phenomena at all and a fortiori

cannot become conscious states (cf. Searle, 2004, [chapter 9](#)). Searle accepts the narrow notion of unconscious as ‘a structure that is capable of producing the [unconscious] state in a conscious form’ (Searle, 2004, p. 167). This is the model on which he also understands ‘repressed’ unconscious states. Everything else is nothing but neurobiological structures.

Given his rejection of theories that are based on unconscious computational mental processes on intermediate levels of information processing Searle must, as a consequence, also reject cognitive theories of music that are based on this assumption. A promising such theory is the generative theory of tonal music (GTTM) developed by Ray Jackendoff and Fred Lerdahl. GTTM is based on the framework of unconscious computational processing and it aims at providing an explication of our musical intuitions and structures (Lerdahl and Jackendoff, 1983).

Probably no one, Searle included, will deny that there are structural regularities in music. If we reject deep unconscious processes as the level at which rules have a causal role, we are still left with the option of treating rules (or regularities as in music) as a tool to characterize musical experience and thinking, without attributing a causal role to the rules. We still can make use of the rich syntactical apparatus that music theory provides when we describe musical perception, cognition, and performance as ‘rule-described’ behaviour. Searle is not satisfied with either of these alternatives though (cf. Searle, 1995, p. 139f.). He suggests a way to regard the Background as ‘causally sensitive to the specific forms of the constitutive rules [...] without actually containing any beliefs or desires or representations of those rules’ (Searle, 1995, p. 141). If Searle’s alternative theory is practicable, then a similar scope of structures of Western tonal music and our musical intuitions should be explicable in a similar manner in his framework (complemented, of course, by music theory just as GTTM is based on a lot of traditional concepts from music theory). Thus the most serious theoretical problem this chapter will deal with is the question whether Searle’s proposed solution works: do we (listeners, musicians) develop musical skills and abilities that are ‘functionally equivalent to the system of rules, without actually containing any representations or internalizations of those rules’ (Searle, 1995, p. 142)?

We can unpretentiously speak of musical meaning and syntax by referring exclusively to musical structures as they unfold in our experience – we, that is, perceivers, performers, composers, and readers of music. Among the most basic, simple means of generating such structures are *contrast* of sounds (*a* and *b*, where ‘and’ can refer to both successive and simultaneous sounds), *repetition* (*a* followed by *b*), and *variation* (*a* followed by *a'*). The more we are familiar with a style of music the more we anticipate tonal contrast, repetition, or variation, mostly implicitly or pre-intentionally. But there is also an intermittent experience of unexpected, surprising sounds, which can, in turn, give rise to different further anticipations. Otherwise,

we would get bored by the music. We all automatically grasp such relations between sounds. '[...] human beings pick up quite high-level implicit (or tacit) knowledge about some major structural features of the music of their culture' (Sloboda, 2005, p. 247). These structural features or regularities can be called the 'syntax' of music, no matter if we consider an Indian Raga or Indy Rock.<sup>8</sup> N.B.: The concepts of meaning and syntax in the sense just adumbrated are limited to sounds and their relations between each other. Also, 'syntax', as being used here, avoids any commitments to the 'deep unconscious'. The issue of whether music refers to non-musical contents does not arise. Emotions evoked by those structures are partly intended by the composers and performers, partly they depend on individual dispositions and listening habits of the listeners. However, they are, as it were, 'emergent' or 'secondary' properties of the structures. After all, music can be perceived without evoking emotions, for example when listening analytically or to music that does not arouse emotions in you.

Now, the crucial question is: have we got any evidence that helps us with tackling the issue of whether there are 'deep unconscious' processes involved (the cognitivist thesis) or only pre-representational skills of the Background (the Searlean thesis)? It would take an extensive study to sound out the pertinent evidence and to develop the full arguments that could do justice to this intricate interdisciplinary issue. Here, I am going to consider only a few samples from (a) cognitive neuroscience and psychology of music, (b) episodic evidence from my own experience, (c) from musical savants, and (d) a thought experiment and cases of self-taught musicians.

(a) Recently, there are a growing number of studies on the possible overlapping and interplaying of neural and cognitive mechanisms underlying music and language. For example, electroencephalography (EEG) and magnetoencephalography (MEG) studies have shown that violations of syntactic musical regularities (mainly false chord or melodic progressions) elicit brain responses similar to those caused by linguistic syntactic violations. Interestingly, people need not listen attentively for the structures to respond in that way. Electrophysiological and harmonic priming effects have been observed in passive-listening paradigms or when subjects were not explicitly concerned with the musical structures of auditory samples they were presented (cf. Koelsch and Siebel, 2005, p. 580). Among the undisputed findings is the extent of sophisticated structural knowledge of music.<sup>9</sup> Already infants seem to use 'musical' cues of speech (mainly melody, meter, and rhythm) to extract information about word and phrase boundaries from the continuous speech signal (cf. Koelsch and Siebel, 2005, p. 582). Recently, Friederici presented experimental evidence that young infants possess some sensitivity for syntactic violations in an unfamiliar language, that is, they use information from prosodic patterns to feel ungrammatical constructions.<sup>10</sup> Further, several studies have shown that there are links between musical training and pitch-related prosodic abilities, so we are justified in



assuming that there is some overlap between phonetic, phonemic, and prosodic skills and musical abilities. (For an overview and discussion of relevant data, see Patel, 2005, pp. 71–86, and Patel and Iversen, 2007.) Finally, there are notable results from experiments on violations of music syntax with aphasics, ‘who performed significantly worse than controls on detecting harmonic anomalies in chord sequences, indicating a deficit in the processing of musical tonality [...]. aphasics with syntactic comprehension problems in language seem to have problems activating the implicit knowledge of harmonic relations that Western non-musicians normally exhibit’ (Patel, 2005, pp. 292, 296). In sum, there is increasing neuroscientific evidence that corroborates the hypothesis of substantial overlap and sharing of neuronal areas and processes underpinning music and language. However, these results do not offer unambiguous evidence in favour of either the deep unconscious or the Background.

(b) Representative of the experience of innumerable musicians I relate some observations from my own performing practice.<sup>11</sup> The most relevant point is that there is a vast number of obviously tacit, implicit knowledge that you learn without ever being given verbal statements. General opinion may still have it that skills such as playing an instrument are effectively taught by giving the beginner explicit rules, instructions, and orders that the student has to transform into motor commands. This widespread view is considerably representationalist: you retrieve the knowledge of gestures that are denoted by the musical notation; to play a certain piece, you realize the musical gestures that the score requires. This view fits nicely in a methodologically solipsistic framework too. Rule-governed processes operate on representations; translation into motor commands, the external world and the own body are secondary, and of little interest. Musical skills are, however, embodied and embedded. You learn musical *embodied* gestures, that is, bodily, kinaesthetic motor gestalts. The bodily feeling of striking a certain pitch in singing or playing an instrument is ineffable. No amount of theoretical explanations (for example, what your vocal folds have to do to match the pitch) can enable you to strike the pitch correctly if you do not feel how it is to play or sing Middle C, or whatever. However, striking the right note is but a fraction of the vast amount of embodied know-how musicians have to develop.

Further, musical gestures are necessarily *embedded*. For example, the acoustic properties of the place where you rehearse or perform (small clubs, concert halls, a busy sidewalk, or a private basement) exert strong influence on how your instrument, or your voice, sounds, and thereby on your playing. Sometimes you hardly recognize your own instrument, which can be a shocking experience. There is no set of rules how to deal with such external variables. Of course, sound engineers, if they are involved, try to produce a balanced sound on stage so you have reliable auditory feedback. Musicians, in turn, have to ‘filter into’ the streams of sounds coming from the involved

instruments and voices, or rather from their monitors and the front speakers. It often takes some time until you adapt your musical gestures to the situation. This adjustment process is mainly a matter of the right 'touch', that is, nuances of the intensity and trajectories of your moves, the way of striking, blowing the instrument, and so on. I cannot explain what exactly it is that I do. I have acquired, and still improve, this skill entirely implicitly 'on the job'. This is but one example of what I just called 'embedded' know-how musicians need to acquire. Evidently, this kind of know-how depends essentially on implicit bodily skills.

In a performance, you rely on gestures that have become habits, motor routines, or are composed of the latter. Gestures compounded of 'basic actions' (Searle, 2010, p. 37f.) play a major role in improvisation. "Practice makes perfect" [...] repeated practice enables the body to take over and the rules to recede into the Background' (Searle, 1983, p. 150). This general statement applies no less to music. In general, musicians must rely on their pre-reflective skills and presuppositions, in improvisation as well as in the fine art of interpretation. Explicit thought during a performance tends to disrupt the flow. For instance, Daniel Barenboim's remarks on musical interpretation seem to point to a similar conception: '[...] the structure of a work must become so internalized in the mind of a musician that intellectual thought during the performance is no longer necessary [...]' (Barenboim, 2009, p. 57). The internalized structure of a work is not equivalent to the rules, although knowledge of the rules is probably necessary for any adequate interpretation of a score. But then again, the (knowledge of the) rules can be explained as 'part of a theoretical description' (Searle, 1995, p. 139), so we still could explain the performance without 'intellectual thought', that is, without reference to unconscious rules and processing.

Searle's general idea may be couched as follows: rules serve as a sort of scaffolding or crutch for the beginner and can be thrown away after the beginner learnt how to walk, so to speak. The rules have not become 'internalized', however, in the sense of unconscious rules that govern our behaviour, but the neurophysiological capacities of the Background have taken over. When we have practiced an instrument intensively and long enough we become able to play 'without thinking'. This shared experience, which musicians probably from all different cultures will confirm, may be considered as possible evidence to support the Searlean view of the Background.

(c) The amazing case of musical savants provide some further clear evidence that the acquisition even of proficient musical skills (playing, improvising, and composing) do not necessarily require formal instruction. A savant 'is a person of generally low IQ, usually male, and often autistic, who has developed a skill in one defined area to a level quite exceptional compared with the general population' (Sloboda, 2005, p. 249). While the savant skills 'are always of a concrete sort, [...] those that are impaired are abstract and often linguistic' (Sacks, 2007, p. 155). The most remarkable developed

skill in savants are the capabilities of reproducing even longer pieces of music, transposing them in other keys, improvising, choosing appropriate fingering and the like, all without instruction and often becoming manifest during childhood (cf. Sacks, 2007, pp. 151–59, Sloboda, 2005, pp. 249–51). From studies on musical savants, researchers have concluded that savants use structures and regularities of music just as well-trained musicians or listeners do, whose further cognitive powers are not similarly impaired, particularly not their linguistic competencies. The case of musical savants may be considered the strongest possible evidence for skills that are causally sensitive to rules that are not explicitly represented at all.

(d) Finally, let us consider a thought experiment that is analogous to Searle's one of the tribe playing baseball (1995, p. 144f.). Imagine a group of children that grow up teaching themselves to play an instrument, picking whole pieces from CDs, learning by ear, without any instruction. Similar to Searle's imagined children who grow up playing baseball, those children are told things like, 'No, don't use this sound when you do that', 'end your part together with the other performers', and so on. The rules of the music that they play can be used to explain their behaviour, for example, their dispositions to improvise over a particular 12-bar sequence of chords, even though they don't know the names of the chords, or that the structure is called a 'twelve bar blues'.

This is only a thought experiment, but it comes rather close to reality as there are, or rather were, many self-taught musicians in various musical cultures, for example in the older blues and jazz traditions. Unfortunately, I could not – pace John Sloboda – verify a single case of a musician who is generally recognized to have been *exclusively* self-taught. For example, the legendary Robert Johnson seems to have learned some fingering and chording techniques from further blues guitarists such as Willie Brown, Charley Patton, or Son House<sup>12</sup>; Louis Armstrong received, even if informal, cornet lessons from Joe Oliver<sup>13</sup>; and Art Tatum, arguably the most virtuosic jazz pianist until today, who was severely visually impaired, with perfect pitch, and learned to play by ear, studied music at the Columbus School for the Blind.<sup>14</sup> The 'lessons' that musicians such as Robert Johnson received were probably largely implicit, 'ostensive', without traditional theoretical terminology. Their informal tutoring equalled extensive ear training, supported by visual and haptic observation and feedback. Is it conceivable that a person become a proficient instrumentalist or singer even without the least kind of implicit, informal instruction? A few cases of musical savants seem to affirm this possibility.

In conclusion, there is strong evidence today that we all, untutored listeners, musicians or musical savants, acquire tacit knowledge of structural features of (tonal) music, to which we are acculturated. The processing of these syntactic structures of music 'appears to be quite automatic' (Koelsch and Siebel, 2005, p. 580), and, 'mere exposure to music in our everyday

life is enough for children to build grammatical structures' (Sloboda, 2005, p. 179). Sloboda, in his discussion of the acquisition of musical skills, in particular by untutored persons, notes that '[a] connectionist model of the brain shows one way in which it might be possible for knowledge of complex structures to be built up simply as a result of frequent exposure to relevant examples' (Sloboda, 2005, p. 248). Drawing upon connectionist models still does not conclusively tip the scale in favour of Searle's Background though, not to mention his reservations about connectionism (cf., for example, Searle, 2008, p. 15f.). The available neurophysiological and behavioural data, common experience of musicians, episodic and clinical evidence are neither conclusive evidence for genuinely 'deep unconscious' processes nor for Searle's thesis of the Background and how it works.

As a consequence, I cannot offer a solution to this issue, which leads into the philosophy of cognitive science, and which Searle has been wrestling with for decades now (cf., in particular, Searle, 1984, 1992). Most of the evidence I considered seems to be ambivalent, or to support both sides respectively. Listening to and playing music as skills that are acquired without anything like formal instruction and explicit 'rules' may be among the strongest examples to corroborate Searle's conception of a causally sensitive Background as well as the cognitivist view. There is growing evidence from cognitive neuroscience that suggests that music is syntactical very much like language and, moreover, that there are overlapping and shared neural resources of processing music and language. However, only if there are 'deep unconscious' rules of language that are causally effective then it is very likely that there are similar unconscious rules of music too.

#### **4. The collective intentionality of making music together**

Following Searle's hint at the key to understanding intentionality, namely conditions of satisfaction (Searle, 2010, p. 32), we now turn to making music collectively. As will become clear in a moment, collective intentionality in joint music performances is a particularly interesting type of intentionality. We start, however, with the less complex case, individual experiencing and playing music.

(a) The conditions of satisfaction of individual (solitary) listening or feeling, representable as 'Desire (Experience X)', are mainly the following: If I intend to listen to a piece of music (X), the conditions of satisfaction require that either there be a prior intention to listen to X (say, to listen to X on my stereo) and an intention in action that causes the event of my listening to X or there be only an intention in action that causes the listening to X (for example, if another person switches on the radio, and I immediately start to listen). So far the direction of fit is world-to-mind: I do or do not succeed in making the world be the way I intended to, that is, the event of my listening

to X. It is important to note, however, that a satisfying experience of X cannot be defined by means of (epistemically) objective criteria. Experiencing X can mean that I get only a superficial impression of X or that I understand the structure in terms of music theory, and so on. There is no single group of criteria that could serve to tell whether a person has really listened to a piece of music since there are principally infinite ways to experience music, even if there are specific customary ways given by the local Background, such as silently attending a classical concert in a concert hall or dancing to music in a club. In this case, the satisfying experience of X depends on my individual prior intention, even if I don't come up to my local Background's expectations.

Further, if, for whatever reasons, the perceptual conditions hinder my perceiving, my experience of X can fail too. And, trivially, if I put in the wrong CD or tune in to the wrong radio station my intention to experience X fails too.

(b) The next case we consider is my solitary playing X, which can be represented as 'Desire (Play X)'. Similarly, the conditions of satisfaction require that there be a prior intention to play X and an intention in action that causes the event of playing X. I am not sure about cases where there is only an intention in action that causes my playing X. Say, I happen to come across a printed score in a pile of scores and start playing it without having planned to do this. Isn't there something involved like my sudden prior desire to play this piece? Without this desire, it seems, I wouldn't have started to play at all. It is though possible that my prior intention is to play a collection of pieces without knowing every single piece that belongs in the collection, and I play, more like a basic action (cf. Searle, 2010, pp. 37f), every piece 'as it comes'. In all cases, the direction of fit is world-to-mind, I do or do not succeed in making the world be the way I intend to, that is, my playing X.

Notwithstanding my prior intention and intention in action, my aim to play X still fails if I don't succeed in executing the musical gestures that the score requires from the interpreter. 'Successful' in this context, in turn, depends on aesthetic values and standards that I have internalized during my musical learning and education. As a beginner, I can be satisfied with stringing together the correct tones of the piece, more or less in tempo, though I am still far away from creating the intended expression of X. So, the conditions of satisfaction of an acceptable realization of X too are dependent on local practices as well as my individual prior intention (for instance, when I play to entertain myself, not to reach aesthetic excellence). Even if all cultures might distinguish between skilful players and beginners this seems to be no matter of the deep Background.

(c) Further, my aim can be to develop sufficient proficiency so I can join a group. Similar standards of local practices may apply as in the former case but to be able to perform appropriately in an ensemble, further conditions

of satisfaction emerge: I must be able to tune in (verbatim) to the other instruments, and, maybe even more important, to tune in (broader sense) to the other musicians, for example, to play in the joint tempo or to adjust to the subtle changes of the tempo, to match the appropriate expressivity, and so on. Further, my desire of playing X becomes part of a collective intention of playing X. I accept Searle's view that collective intentionality cannot be reduced to individual intentionality. Making music is an excellent area to prove this.

As soon as I play together with other people, I engage in a genuine cooperative activity. As long as I play by myself, there are only imaginary persons or traces of other people (the score's composer, imagined listeners), but as soon as I play together with others, I necessarily treat them as candidates for cooperative agency. And here is where the Background comes to the fore again. 'Collective intentionality presupposes a Background sense of the other as a candidate for cooperative agency, that is, it presupposes a sense of others as more than mere conscious agents, indeed as actual or potential members of a cooperative activity' (Searle, 2002, p. 104).

There are various new conditions of satisfaction I have to face now. If we just aim at playing together, no matter the quality of the outcome, the purpose is comparatively easily accomplished. If we aim at realizing the score of X, meeting at least moderate aesthetic standards, it takes a lot more. For example, if my gestures don't fit in, if I cannot match the tempo, articulation, and expressiveness not only my intention fails (as in solitary playing) but the collective intention fails too. Let us have a look at the increasingly complex intentional structures that are involved here. According to Searle's (2010, p. 54) analysis, we can represent the intentional content of every individual co-performer in a group as follows:

(c.1) ia collective B by way of singular A (this ia causes: A my instrument plays, constitutes: B X is performed)

This can be read as 'I have a collective intention-in-action to achieve B, the collective goal of performing X, by way of contributing my part (instrumental or vocal, or the conductor's gestures), the singular A.' The part in brackets refers to the content of that intention, which is 'this intention-in-action causes it to be the case, as A, that my instrument (voice) plays, which constitutes its being the case, as B, that X is performed'. In addition to this content every co-performer has a belief that the others are cooperating, which is represented, again, using Searle's canonical notation:

(c.2) Bel (my co-performers in the collective have an intention-in-action of the form (ia collective B by way of singular A (this ia causes: other instruments play, constitutes B X is performed)))

This, in turn, can be read as, 'I have a belief to the effect that my co-performers in the collective also have intentions-in-action of the same form as mine, that is, to achieve a collective B, the co-performance of X, by way of a singular A, in this case to play every other instrument or part, as

A, which constitutes its being the case, as B, that X is performed' (cf. Searle, 2010, p. 54).

While in many cases of collective intentionality I am not able or in a position to influence causally the intentions or behaviour of my partners of the collective, musical joint performing allows for, actually requires, influencing the co-performers' intentions and actions. As a consequence, a more detailed analysis of the individual intentional content (c.1) would have to include my intentions to react to and influence my co-performers' parts. Correspondingly, my belief (c.2) would become more complex in that I need to take into account that I have a belief to the effect that my co-performers are willing to react to and to influence my and each other's parts. The analysis so far adumbrates the 'formal' structure of the collective intentionality, which gets more intricate to the extent that the collective concedes 'autonomy' to each member.

Next we consider a feature of co-performing music that makes this type of joint agency so special. There is a 'real feel', or 'vibrancy' of playing that every group strives to reach and that listeners expect from them. No matter what you prefer to call it, 'dialogue', 'the vibe', or 'spark', it is a matter of mostly subtle nuances that distinguish a merely correct rendition from a moving performance. As a rule, the higher the expectations of the performers (and listeners) the more conditions of satisfaction there are to be met or to fail to comply with. Persons who begin to learn an instrument may be content to produce something that is similar enough so others can identify the piece. Proficient, more ambitious performers may want to develop their own (collective) interpretation of the same piece.

Musicians as well as (most) listeners can tell strong, convincing, soulful performances from merely mechanical ones. A joint performance is only intense, strong, 'in the groove' if all involved performers connect to each other (that is, to what the other members are doing musically). One might even think of a threshold here. As long as I focus only on the score and how my gestures comply with the score, I don't engage in the musical dialogue. If all co-performers pass their threshold respectively, that is, 'open' to each other's playing (which essentially includes reacting to and influencing what others are playing), a dialogue can arise from the parts all group members contribute. This kind of mutuality in co-performing may not be a sufficient or the sole trait of a vibrant performance but according to the common experience of musicians, it can rightly be considered to be necessary.

There is an important consequence of this net of mutual intentional relations, which seems, to me, to make musical joint intentionality an extremely interesting, and maybe unique, example of collective intentionality. While we can be mistaken about the common goal in many other group activities, making music is like a litmus test of the presence of the common goal. The reason for this is, at least, partly, what Searle calls the *constitutive by-way-of relation*. Significantly, Searle himself uses the example of playing a duet to

explain what he means by that. Contrary to collective activities that *cause* some further effect, for instance, my pouring and your stirring cause the Bernaise sauce we prepare together, the group members' playing *constitutes* the intended effect, that is, the joint performance or realization of X. Searle calls the latter kind of relation 'constitutive by-way-of relation', the former 'causal by-means-of relation' (Searle, 2010, pp. 51f). The performed piece of music is not just some further effect of our individual contributions but it is already what we are doing together. There is a sense of immediacy involved in this type of activity that many other joint activities lack. I can be mistaken about your goal while you stir the sauce. Maybe your intention is to avoid trouble, so you give me a helping hand, even though you are not interested in making a Bernaise at all. If you try this in making music together, you will be found out soon. If you don't really 'get into the music' sooner or later, others will tell from the result. Experienced listeners, let alone performers, 'feel' when the interplay is only superficial.

Maybe your intention is to faint interest in playing together with me, just like you may stir the sauce without intending to make a Bernaise. But you still have to really engage with the playing or else I will begin to feel that you are not 'with the music', that is, with my goal of collectively performing X (or with us, in the case of a larger group). You can fake interest in the group (for example, you play gigs because you want to earn money, which is a by-means-of relation) but you cannot – continually, successfully – fake interest in playing X. This is what makes music, and probably only very few other forms of collective intentionality (I suggest, mainly loving relationships and team sports), so special and interesting for the philosopher or cognitive scientist. You can fake your interest in the game, in raising the children, but if you don't succeed in engaging in the particular games that the team plays or in emotionally tuning in to the children and so on, others will feel that you lack their collective intention. Maybe you can successfully fake your interest in the team and the club over years but you cannot fake your engagement with a particular game over a longer period of time. While you may be able to fake sharing the goals of your company or department over a long time without actually sharing them, you are most unlikely to do this successfully in music, team sports, or love.

## 5. Concluding remarks

In the present context, Searle's understanding of the nature of social reality may be of interest for those who explore the rather unmapped area of human collective agency: co-performing music. Most approaches to music, no matter whether in traditional psychophysics, psychology, or sociology of music, philosophy, or cognitive science, seem to take for granted some variety of (tacit or admitted) methodological solipsism. They focus on (isolated) subjects that perceive and process music. There are innumerable



experiments on perceptual thresholds, perception of pitch, intervals, scales, timbre, rhythm, memory, scene analysis, and many more. All of these abilities function without the need that the participant in the experiment interacts with others. More seldom, musical abilities have been considered: perfect pitch, timing, tuning, auditory and visual feedback, performance plans, and others. Again, most of these skills have been studied in subjects performing or practicing alone.<sup>15</sup> Searle's overall theory provides a framework for explications of musical experience as a matter of individual as well as collective intentionality. Only few people in the disciplines that reflect on or study music have been aware of the indispensable collective intentional relations that underlie human musical capacities and have studied some of these interrelations in playing. This substantiates Searle's project, all the more since he has been among those philosophers who first recognized, studied systematically, and brought to general attention, the essentially intersubjective, social nature of language. Similar to music, language has traditionally been interpreted as a medium of an interior mind to express itself to an outer world. Just like philosophers and linguists appropriately spotlighted the social nature of language as late as the twentieth century, philosophers, musicologists, and psychologists started to pay attention to the intersubjective, dialogical nature of music not till the last century. Probably musicians have always been aware of the essentially social, mutual nature of music, but it did not become a starting point in the psychology and philosophy of music until recently. Neither psychology nor philosophy had offered suitable tools for such an approach to music. Maybe significantly, the first author to deal successfully with the intentional structures of social relations that are presupposed by co-performing music was Alfred Schutz, a phenomenologist and sociologist (cf., Schutz, 1976, the manuscript of the text originates from 1947). Searle's contribution to the understanding of collective intentionality lends itself as a valuable, complementing tool for intersubjective approaches to music.

However, his theory of the Background seems to be too general or coarse-grained to underpin comprehensive studies on this subject. The label 'Background' buries several different levels or subsystems of pre-intentional capabilities. Drawing on one of Searle's favourite analogies, I'd like to put it as follows: if you are interested in the diverse processes of metabolism in the different organs of the body – and in the relationships among them – it is insufficient just to call all those processes 'metabolism'. As far as I can see, it is not part of Searle's project to fathom and explore those subsystems, though he is doubtlessly aware of the varied, dynamic dimensions that conceal behind the concept of Background capabilities. After all, he proposes, '[b]ackground phenomena as a separate category for investigation' (Searle, 1992, p. 177).

I suggest combining the Searlean approach and classical phenomenology to investigate the subsystems of the musical Background. Classical

phenomenology is capable of providing descriptions of musical experience that are suitable to capture the various layers of perceptual and motor intentionality, shifts of attention, the structure of phenomenological time, and others. Because this might sound preposterous or provocative, given Searle's critique of what he calls 'the phenomenological illusion' and the critique of his views in the name of existential phenomenology, I first need, very shortly, to try to justify this proposal.

Quite a few things could have been said about similar approaches, anticipations, and possible influences when I presented Searle's concept of the Background (Section 2). Searle himself refers, for instance, to Wittgenstein and Polanyi (cf. 1983, p. 150, 153), credits Hume with being 'the first philosopher to recognize the centrality of the Background in explaining human cognition' (1995, p. 132), and Nietzsche with being 'one of those most aware of [the Background's] contingency' (1992, p. 177). It would also be worthwhile, though, to relate Searle's approach to the concept of 'passive intentionality' in Husserl. Husserlian phenomenology has a surprising lot to offer on the topic of pre-intentional, pre-reflective (in Husserl's argot, 'passive') processes – surprising, at least, for readers who are not aware of the wealth of sophisticated understanding of pre-intentional cognition in classical phenomenology.<sup>16</sup> And here is the rub: Husserl has been misunderstood and misrepresented ever since his lifetime. In all fairness, it must be said that the most important reason for the continual misinterpretations of Husserl are his own severely misleading terminology and idealistic self-portraying. Husserl used Platonistic, Cartesian, and neo-Kantian terminology in trying to make himself understood by his contemporaries, thereby leading astray his contemporaries as well as today's readers. Understanding Husserl's theories requires re-enacting his descriptions and analyses, which are primarily expounded in his lecture notes and countless manuscripts that were not published during his lifetime (for example, Husserl, 1997). Not least Searle himself might be surprised to find that Husserl too distinguishes forms of intentionality rather than the way implicit and explicit epistemic anticipations are satisfied or dissatisfied than by the feel of conscious states. Functional arguments and logical structures, similar to Searle's (for example, Searle, 2010, [chapter 2](#)), play a major role in Husserl's taxonomy of types of intentional and pre-intentional capabilities. Searle's essay 'The Phenomenological Illusion' (2008, pp. 107–36) offers a detailed discussion of some key ideas of (mainly existential) phenomenology according to Dreyfus. It would take a separate essay to adequately discuss Searle's arguments, as well as Dreyfus'. Here, I will only try to indicate why I see possible common ground and a complementary relation rather than disagreement. (For a sketch of the phenomenological methods and a suggestion how to deal with naturalization, see Schmicking, 2010.)

First, Searle surely won't deny that the way we come to know about the (ontologically objective) basic facts, or social facts, for that matter, is by

human cognition, that is, (ontologically subjective) mental states and the Background. This is the point that Husserl tries to make when he refers to ‘transcendental subjectivity’, which is neither a Cartesian substance nor a Kantian transcendental ego, and embraces ‘passive’, pre-personal intentionality too. (For a clear explanation of Husserl’s views, compare Zahavi (2003), who also corrects some common misinterpretations; Føllesdals’s and Dreyfus’ included.)

Further, the following two examples may show how Husserlian phenomenology can complement the study of the Background of music: (1) phenomenology distinguishes different types and sub-categories of pre-intentional layers, for example, corresponding to perceptual and motor-sensory subsystems, and it offers a rich framework of descriptive tools. For instance, Husserl’s analysis of the perceptual constitution of spatial objects uncovers subsystems of kinaesthetic behaviour and their respective contents, which are, to a great extent, pre-intentional (cf. Husserl 1997). (2) The most basic level of ‘passive’ intentionality is inner time consciousness, or what Searle (1992, p. 127) calls ‘phenomenological time’. Relating to our exploration of collective intentionality (Section 4), a phenomenologically informed investigation reveals in addition that not only the performers of a piece of music but the listeners too (even if they are separated from the original performance by electro-acoustical technology) share the identical temporal experience, that is, the continuously developing stream of suspense and release, structures unfolding in time, repetitions, anticipations, surprises.<sup>17</sup> When their experiencing X is fully attentive, composer, performers, and listeners share the same unfolding of musical structures (cf. Section 3) in lived time, and, to that extent, they experience the same intentional content, no matter what their secondary associations with these musical structures are (personal memories, imaginations, and so on). This example makes clear that collective intentionality of making music together requires shared intentional contents throughout the entire experience, not only a goal shared by all persons involved.

There are still a few important problems I have to leave unsettled. For one thing, the evidence from life as well as neuroscience suggests equally that either there may be a mind that is furnished generously with rules that enable us to compute auditory input ‘deeply’ unconsciously or a mind high in neurobiological structures that allow for developing most of the dimensions and hierarchical structures that make up music. Searle’s characterization of the Background as neurophysiological capacities leads ultimately into the problem of defining the mental and distinguishing it from the non-mental. His solution pays the price of limiting the mental to the potentially conscious. As long as we don’t understand the grey area that gaps between mere physiology and the conscious mind, we cannot decide whether this solution is mistaken or on the right track.

For another, there is a whole bundle of issues under the heading of musical emotions and expression, which philosophers and psychologists of music

have been discussing for a few decades now.<sup>18</sup> The overwhelming majority of listeners experience music – mainly music that they like and are familiar with – as expressive of emotions and as having an affective impact on them. No matter whether emotions are intrinsic to composing and performing music, and which theory will prove itself most adequate to explain musical emotions, Background capabilities will play an important role in a comprehensive theory. The perception of emotions seems to be largely a matter of the Background, and the same goes for the musical elements that convey and arouse emotions, such as the ‘vitality affects’ (Stern, 2000).

Searle’s theory of the Background offers highly valuable analytic tools. It seems that his theoretical framework makes it possible to explicate, along general lines, many aspects of acquiring and performing musical skills. It would be possible, and rewarding, to take up the threads of this first application of his theory to music, and to develop a more detailed and comprehensive explanation. Among possible future tasks are questions such as whether music is entirely intentionality-relative (for instance, some species of birds show distinctive reactions to music), and whether we can classify music, or rather, styles of music or particular structural elements as institutional facts. The account should be informed and supported by phenomenology, all the more since Searle attributes ‘an essential role’ to phenomenological investigation of the sorts of phenomena that he has been concerned with (2008, p. 135).

## Notes

1. I am using the terms ‘Background’ and ‘Network’ in the technical sense developed in Searle’s writings throughout this paper. The capital ‘B’ and ‘N’ are to indicate this technical sense.
2. Cf. Searle (1992, [chapter 7](#)), and (2004, [chapter 9](#). II).
3. Evelyn Glennie, one of today’s most celebrated percussionists, is virtually deaf. She perceives the vibrations of musical instruments with different parts of her body. There are probably more musicians who are hard of hearing or (congenitally) deaf than most of us would expect.
4. ‘Humans have a remarkable ability to understand rapidly and efficiently aspects of the current state of the world around them based on the behaviour of sound-producing objects, or sound sources, even when these sources are not within their field of vision’ (McAdams, 1993, p. 146). For phenomenological analyses on these neglected aspects of auditory perception see Ihde (1982), and Schmicking (2003). The reason why these aspects have been neglected in psychoacoustics is obviously their acoustic complexity that runs contrary to the needs of the experimenter, who prefers more easily controllable stimuli (cf. McAdams, 1993, p. 174).
5. For a short survey of the experiments I am referring to see Goldstein (1996, pp. 307–10).
6. See, for example, Dowling and Harwood (1986, [chapter 4](#)), and Sloboda (1985, pp. 23–31).
7. Sloboda notes that human listeners have the ability to perceive both categorically and continuously, sometimes even at the same time: for example, we identify the

category a tone belongs in but hear that it is not correctly pitched. However, 'the degree of categorization tends to depend on musical experience' (Sloboda, 2005, p. 178).

8. There is still a serious problem with this weak concept of musical syntax. What gets contrasted, repeated, or varied should be, at least, broadly classifiable as discrete elements. However, it is far from clear, for every type of sound stream, where to cut it into pieces, that is, how to define the criteria of segmentation. What about glissandi or fast runs? For instance, runs in Chopin's piano works, or open rolls spread over the whole drum set in modern drumming often are so fast that listeners cannot perceive the discrete components and their temporal orders. Yet those runs and rolls are not perceived as totally unresolved compounds but as gestalts with contours. According to Warren, we employ two different processes for perceiving acoustic sequences: direct identification of components and their orders, and holistic pattern recognition (Warren, 1999, [chapter 5](#)). The latter kind of process obviously prevails when listening to fast sequences and runs in music (as in speech perception too). While we may be (intentionally) attentive to the entire contour of a run or roll, the holistic perception of the fast sequence of components is pre-reflective and thus can be allocated to the Background.
9. '[...] almost every member of a culture is a musical expert, but the expertise is usually hidden and tacit' (Sloboda, 2005, p. 248).
10. An experiment showed four-month-old German infants able to discern incorrect auxiliary-verb combinations in Italian utterances after 30 minutes of exposure to Italian spoken sentences. Cf. Angela Friederici 'Wie das Kind Sprache erwirbt', lecture given at Johannes Gutenberg University Mainz on 22 April 2010.
11. I received piano lessons, classical drum lessons, and some formal instruction (mainly ear training and some music analysis). Nonetheless I would characterize myself as a self-taught musician as far as my skills as a *performing* drummer are concerned. I have been continually learning entirely new playing techniques after my classical instruction ended, learned modern jazz, blues and funk drumming mainly by ear, and, what is even more important, I never learned a thing about performing live before I verbatim entered a band stand. The first band I regularly rehearsed and gigged with, didn't use any written material. I encountered the different culture of rock & roll 'cats', who were, from a classical Western musical perspective, 'functionally musical illiterates'. However, from performing together with these people, proficient singers and instrumentalists in their own right, I learnt not only the 'real feel', the kind of drive and intensity that music styles such as blues and rock & roll need, but also how to develop collectively arrangements that gradually emerge from playful rehearsing and performing rather than explicit reflection.
12. Cf. Palmer (1981, p. 112f.), and Wald (2004, [chapter 6](#)).
13. Cf. Armstrong (1999, p. 38).
14. Cf. [http://en.wikipedia.org/wiki/Art\\_Tatum](http://en.wikipedia.org/wiki/Art_Tatum), date accessed 22 October, 2010.
15. Likewise, ontological questions about the nature of a musical work of art and issues about expression and meaning in music have dominated theories and discussions in philosophy. The informational or intentional processes of the composer, performer, listener, or reader of music have been considered mainly to be a matter of individual intentionality and mental (or neurophysiological) states.
16. See Schmicking (2006) for a short survey of Husserl's analyses of the pre-reflective mind.
17. For a detailed analysis cf. Schutz (1976).

18. Cf. Stock (2010, pt. II and III), for contemporary debates on musical expression and meaning in philosophy, and Juslin and Sloboda (2001) for empirical perspectives.

## References

- Armstrong, L. (1999) *Louis Armstrong, in His Own Words: Selected Writings*, Th. Brothers (ed.) (Oxford, New York: Oxford University Press).
- Barenboim, D. (2009) *Everything Is Connected: The Power of Music*, E. Cheah (ed.) (London: Phoenix). [first published by Weidenfeld & Nicholson 2008.]
- Bregman, A. S. (1990) *Auditory Scene Analysis: The Perceptual Organization of Sound* (Cambridge/London: MIT Press).
- Dowling, W. J., and D. L. Harwood (1986) *Music Cognition* (San Diego: Academic Press).
- Goldstein, E. B. (1996) *Sensation and Perception*. 4th edn. (Pacific Grove, CA: Brooks & Cole).
- Husserl, E. (1997) *Thing and Space: Lectures of 1907*. R. Rojcewicz (trans.) Collected Works VII (Dordrecht: Kluwer).
- Ihde, D. (1983) 'On hearing shapes, surfaces and interiors' in R. Bruzina and B. Wilshire (eds.), *Phenomenology: Dialogues and Bridges (Selected Studies in Phenomenology and Existential Philosophy)*, (Albany: State University of New York Press), 241–51.
- Juslin, P. N. and J. A. Sloboda (eds.) (2001) *Music and Emotion: Theory and Research* (Oxford, New York: Oxford University Press).
- Koelsch, S. and W. Siebel (2005) 'Towards a neural basis of music perception', *Trends in Cognitive Science*, 9(12), 578–84.
- Lerdahl, F. and R. Jackendoff (1983) *A Generative Theory of Tonal Music* (Cambridge/London: MIT Press). (Reprint 1996, with new preface.)
- McAdams, S. (1993) 'Recognition of sound sources and events' in S. McAdams and E. Bigand (eds.), *Thinking in Sound: The Cognitive Psychology of Human Audition* (Oxford: Oxford University Press), 146–98.
- Palmer, R. (1981) *Deep Blues* (New York: Penguin Books).
- Patel, A. D. and J. R. Iversen (2007) 'The linguistic benefits of musical abilities', *Trends in Cognitive Science* 11(9), 369–72.
- Patel, A. D. (2008) *Music, Language, and the Brain* (Oxford, New York: Oxford University Press).
- Sacks, O. (2007) *Musicophilia: Tales of Music and the Brain* (New York, Toronto: Alfred A. Knopf).
- Schmicking, D. (2003) *Hören und Klang: Empirisch phänomenologische Untersuchungen* (Würzburg: Königshausen & Neumann).
- Schmicking, D. (2006) 'Husserl und präreflektive Kognition', in D. Lohmar & D. Fonfara (eds.), *Interdisziplinäre Perspektiven der Phänomenologie* (Dordrecht: Springer), 279–95.
- Schmicking, D. (2010) 'A toolbox of phenomenological methods' in S. Gallagher and D. Schmicking (eds.), *Handbook of Phenomenology and Cognitive Science* (Dordrecht: Springer), 35–55.
- Schutz, A. (1976) 'Making music together: A study in social relationship' in A. Schutz, *Collected Papers*. Vol. II. *Studies in Social Theory* (Den Haag: Nijhoff), 159–78.
- Searle, J. R. (1983) *Intentionality: An Essay in the Philosophy of Mind* (New York: Cambridge University Press).
- Searle, J. R. (1984) *Minds, Brains and Science* (Cambridge, MA: Harvard University Press).

- Searle, J. R. (1992) *The Rediscovery of the Mind* (Cambridge, London: MIT Press).
- Searle, J. R. (1995) *The Construction of Social Reality* (New York: Free Press).
- Searle, J. R. (1999) *Mind, Language, and Society: Philosophy in the Real World* (New York: Basic Books).
- Searle, J. R. (2002) *Consciousness and Language* (Cambridge: Cambridge University Press).
- Searle, J. R. (2004) *Mind: A Brief Introduction* (New York, Oxford: Oxford University Press).
- Searle, J. R. (2007) *Freedom and Neurobiology: Reflections on Free Will, Language, and Political Power* (Columbia University Press).
- Searle, J. R. (2008) *Philosophy in a New Century: Selected Essays* (Cambridge: Cambridge University Press).
- Searle, J. R. (2010) *Making the Social World: The Structure of Human Civilization* (Oxford: Oxford University Press).
- Sloboda, J. (1985) *The Musical Mind: The Cognitive Psychology of Music* (Oxford, New York: Clarendon Press).
- Sloboda, J. (2005) *Exploring the Musical Mind: Cognition, Emotion, Ability, Function* (Oxford/New York: Oxford University Press).
- Stern, D. N. (2000) *The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology* (New York: Basic Books).
- Stock, K., (ed.) (2010) *Philosophers on Music: Experience, Meaning, and Work* (Oxford, New York: Oxford University Press).
- Wald, E. (2004) *Escaping the Delta: Robert Johnson and the Invention of the Blues* (New York: Harper Collins/ Amistad).
- Warren, R. (1999) *Auditory Perception: A New Analysis and Synthesis* (Cambridge: Cambridge University Press).
- Zahavi, D. (2003) *Husserl's Phenomenology* (Stanford: Stanford University Press).

## **Part II**

# **The Further Unfolding of the Phenomenon**





# 7

## Implicit Precision

*Eugene T. Gendlin*

### I

An organism is an environmental interaction that continuously regenerates itself. It does not follow from the past, but it does take account of it. We can show that the regenerating is a kind of precision. We call it 'implicit precision'.

What the organism brings to the present interaction has been called the 'background', though the background has previously been considered as if it were a static thing rather than part of a regenerating process.

There is general agreement that the background is 'implicit', but what 'implicit' means has remained mysterious. It is often said to mean 'unconscious', but of course not really unconscious as from a blow on the head. But if we approach the implicit background *as part of the present process*, it may become evident *how it functions* in that process. I want to show exactly how something implicit functions *and* that it functions precisely, *as well as* exactly how regenerating takes account of its past.

There are two kinds of precision, a logical and an implicit kind. They are inherently connected and can be understood in relation to each other. This inherent connection can be seen in how the organism's accounting for its past generates new logic. The organism's taking account of its past is a *regenerative process*; this regenerative process *is* the implicit precision.

Implicit precision is not *unlogical*. It *generates logical precision*. Logical precision depends on defined units – objects – with *necessary relations*, as in mathematics. In contrast, the implicit precision functions neither as units nor as a whole, but as *a process*, to which body and environment always both contribute. This process generates and regenerates the background objects and their relationships, including logical scientific units. We can move between the two kinds of precision, keeping the science of logical units steady, but also considering the wider process of generating such units.

There is need for an alternative model to change some old assumptions. The old model starts from 'perception', which is a 'here' about an 'over

there', something supposedly 'inside' the body about something 'outside'. Perception leads us to assume the split between organism and environment. But organism and environment are always inherently *one interaction*, starting with primitive organisms before perception ever develops. The alternative I propose is *a model of process*. I have developed this model in detail elsewhere; here I use it to discuss three questions in the current philosophy about neurology.

## 1. Three current questions

*Question 1: What is the environment of the active organism?*

The organism seems confronted by an environment that is strange to it. Things it cannot deal with may strike it. But it responds very appropriately to a large variety of things. The question as usually stated is: how does the organism '*select and interpret*' what is relevant to it.<sup>1</sup> The question applies not only to humans, but to animals, trees, and single-cell organisms.

Selection and interpretation would not be necessary if by 'environment' we meant the organism's own, which it actively participates in generating. Recently some authors speak of organism and environment as mutually causing each other (Gallagher, 2007). We need distinctions so that we can use the word 'environment' in several ways.

Currently it is said that the organism is 'active in its own formation'. I think this is a great advance. But we can ask: just what is the active role of the organism in relation to its own environment? How are they originally linked, and why do they seem to be two things?

*Question 2: The background is said to be 'implicit', but how does something implicit function?*

To explain what the organism makes of the environment, some authors invoke a 'background', but this consists of entities that do not really occur. Past experiences function in some way but not by occurring again. The background includes a great number of experiences and items of knowledge, many more than could ever be enumerated. How does the organism *take them into account* without running through them all again each time?

The background may seem to be a 'holistic' merger as if without distinctions. But we find an organism's process always stubbornly precise, just this particular intricacy and not something else. It functions *neither as separate occurrences nor as a merged whole*.

The background is said to function '*implicitly*'. We need to spell out what this means. How does something function when it functions implicitly?

Polanyi (1958) said that the 'tacit' (the implicit) is like a skill, like *knowing how* to ride a bicycle. It is like 'knowing-how' to do something, not like 'knowing-that' such and such is so. Since we don't run through the 'internal' contents again each time, some authors (Rowlands, 2007; Clark, 2010) argue

that only what is 'external' functions in action. I think these authors might mean rather that every kind of knowledge *does* function, but *like* a skill, that is, implicitly. But can we spell out how something functions implicitly?

*Question 3: How can a body have cultural patterns?*

Currently, many authors feature our human interactions as the source of what we know and feel. For example, Gallagher (Chapter 4), Margolis (Chapter 5), and Stuart (Chapter 8), this volume). I think this is another great advance. But if our interactions are attributed to 'culture', we may seem culturally programmed since we are born into a world of language, art, and human relationships. Culture may seem imposed on human bodies.<sup>2</sup> But we can ask: how can a body have cultural patterns such as speech and art, and how can it act in situations? If we can explain this, we can explain how culture was generated and how it is now being regenerated further and further.

These questions cannot be answered in the current concepts which are built along the lines of a system that assumes the body divided from the environment.

## 2. Where the split between body and environment comes from: the perceptual split

The currently underlying conceptual system leads us to assume that what exists is always something that can be *presented before us*. So there are always two, what exists and also us, the before whom. Contact with anything real is assumed to be by perception. Perception (or even more narrowly, sensation) is supposed to be the beginning.

Perception involves a split between a *here* and a *there*. We sense here what is over there. Perception involves an *inside* and an *outside*; we sense in here in the body what is out there, outside, 'external' to us.

I call this the 'perceptual split'. The here–there generates a gap, the space between the here and the there. This space is supposed to contain everything that exists. To 'exist' means to fill some part of that 'external' space.

Only the 'out there' is supposed to exist. What exists is considered *cut off* from any other living process because perceiving is the basic starting process. But being perceived is not supposed to affect real things. They are conceptualized as inherently cut-off from living process. To be real they need only to fill the perceptual gap space.

For example, we tend to conceptualize even single-cell organisms as if they had perception, because they may have a 'detector', a specialized part that provides something inside them which indicates something in the environment. Although single-cell organisms are not said to have perceptions, their relation to the environment is considered along the same lines as perception.<sup>3</sup>

The perceptual split makes for the distinction between body and environment, the body here detecting the surrounding environment out there.

I am not saying that people believe what I just laid out. I am tracing an underlying system of assumptions. As I state it head-on, you probably don't believe it and never did. People have been trying to get out of that system for a long time. Gallagher and Stuart (this volume) are newly working on doing so.

For example, no one says that the organisms that don't have perception are *disconnected* from their environment. But their environmental connection is conceptualized as if it were perception. We need different concepts for the more basic way in which bodies form as environmental interactions in the first place.

I ask my reader not just to agree that body and environment are 'somehow' not split, but to notice that we can't say *how* they are more closely linked, because our concepts assume that they are two things in the out-there space.

I will show that this here–there 'perception' is not a body's actual perception. It is an already analysed cognitive kind of 'perception'. Originally perception does not just hang there like a picture floating alone. It develops as part of a behaviour sequence. It need not be taken as the here–there picture, which gives rise to the body/environment gap and the space-filling entities in our science.

But before we deprecate the current model even for a moment, let us be clear *why* science needs this perceptual split and these space-filling things. We make stable things and parts. I call them '*units*'. (I call it the 'unit model'.) Everything from the wheel to computers consists of stable parts that we make and combine. Seven billion of us could not live on the earth without technology, so let us not pretend we can denigrate science and its perceptual split and its units. We need them even to study and cure living things. The first sense of the word 'environment' I define is the environment that science presents. I call it 'environment #1'. Of course we will keep it, and keep developing it.

### 3. How we can get out of the split perceptual assumptions

The choice we have is to consider not *only* the science environment. Stable units are not alive. They are *made* things. But we can study living things also with a different basic conceptual system not modelled on things that are not alive. Such a second system is now developing. We can move back and forth between the two systems.

People have wanted to overcome the body–environment split for a very long time, but there was no alternative model. To get out of the unit model (while also staying in it, of course), we need a different conceptual model. If the one I offer isn't right in every way, I think it does move in a right direction.

We need not limit ourselves to already made things. We can also *ask about the processes that generate them*. We can conceptualize them as generative processes.

There are three different generative processes that need to be distinguished. If we don't distinguish them, then just one of them is assumed to explain everything else. The three are: (1) the formation of the concrete living body, (2) its behaviour, and (3) the patterning of gestures, art, language, and culture. Everyone knows these three processes, but let us consider them as *living and generative*. Then we can ask how they generate the environmental things as *objects of organisms*. Considered as living and generative, they have great explanatory power because they do in fact generate our objects. Let me say what I mean by taking them as living processes:

The formation of the concrete body is a living activity. The body is not only what is analysed and arranged by observers. And it generates *objects*. By 'objects', we mean specific parts of the environment to which the body responds with specific processes.

Secondly, behaviour is not only motion. Motion is a change in position, location-change (locomotion), so it is a change from someone's here to there. I will show that behaviour is not just a change of location. It is something like digging holes or building nests or eating. Behaviour sequences alter and differentiate the environment and generate the objects with which we act.

Thirdly, our bodies emit *patterns* such as gestures, waving hello to welcome someone. Or smiling. And speaking consists of sound patterns. Patterns come from the shape, sound, and feeling of the human body. The shape of the face affects us. Once we sense the patterns of the human body, all other things acquire *their own* patterns as profiles on our patterns. Then we divide and redesign them to make new objects, so many that it fills up the world's behaviour space. But our most important patterning is not making things but generating our world of human situations. Situations are carried forward with visible gestures and sound patterns. Patterns create situations which are the main objects in our lives.

We can consider these three processes as generative:

- body-constituting;
- behaviour;
- patterns.

Each can *explain* how the different *kinds of objects are generated* in the three processes. But to do it we need a new conceptual system.

#### 4. Some new concepts and distinctions

When we know where the here–there split comes from, we can consider an alternative model. This will be able to link body and environment more originally, and first of all in the process of forming the body.

The environment is not only what we observe and study. There is also the organism's own environment, or, as Dreyfus phrases it, the environment 'from the perspective of the animal' (2009, p. 61). Of course the phrase 'from the perspective of' contains the unwanted assumption of here about there, but all our main words assume this. I say 'we see' when I mean 'we understand', as if understanding were something perceived in front of me. But what could we mean by 'the organism's own environment'? What is the active organism's environment?

I propose that the active organism does something I call 'implying'. It implies the environment. The environment may or may not occur somewhat as the body implies. Implying and occurring are two interdependent functions that create one process. *Instead of body and environment being two things, let us distinguish between implying and occurring and spell out how their functions require each other.* If what I have said about body and environment is true, then they cannot exist without each other because what each is involves what the other is. Together *implying and occurring-into* begin to conceptualize the inherent relation of body-environment.

Implying never exists separately, only in some occurring. In a living process occurring occurs into an implying. *The body implies the environment. The environment occurs-into the body's implying.* This will allow us to begin with a single body-environment process (without the here-there split), but with new distinctions.

The body implies both one next environmental occurring and also a *sequence* of them. For example, hunger implies feeding. But feeding implies digestion and defecating, and resting, then getting hungry again. So hunger implies the sequence. But a sequence cannot occur all at once. The one next occurring will change the implying so that it implies the next occurring and the one after that. *A process is generated* when occurring changes implying so that it implies a further occurring which will further change it so as to imply still further occurings that will change it further.<sup>4</sup>

But what the body implies is never exactly what happens next. The sequence continues if what actually occurs *changes* the implying into a next implying. We call that special kind of change 'carrying forward'.

The first body-environment process is the formation of the body, the first of the three generative processes. I call it 'body-constituting'.

Body-constituting is a generative body-environment process (without the here-there split).

How a living body is generated and regenerated has been understood only as science presents it. Of course, we wouldn't want to do without what we know in embryology and biology. But there is more we can know if we consider body-constituting as a body-environment interaction process, not only as analysed by a spectator.

The forming of the body is a generative bodily process. The body is not first just made and then turned on only when it is completed. The process

that forms the body as a structure is a body–environment interaction *first*, before they can be two things.<sup>5</sup>

So I propose a distinction between environment#1 (the scientist’s observed environment) and environment#2 (body–environment as a single identical occurring). The body is an environmental process. It is ‘environment’ in this use of the word.

Everyone agrees that the body is made of environmental stuff, but it was assumed to be separate from the environment, merely perceiving and moving in it. But if we consider the body’s formation as a body process, then the body *is* environmental interaction from the start. The body is identical with its environment in one body-constituting process.

And body-constituting continues as long as life lasts. Certain special kinds of body-constituting are part of every ‘higher’ kind of process.

I will now discuss how the body-constituting process generates its environmental objects. This will show how a process can generate objects. I will then discuss how objects are generated in the other two processes.

## 5. The body-constituting process differentiates the environment and generates objects

Certain processes become differentiated; they occur just with certain parts of the environment. This generates specific environmental objects.

I need to emphasize that bodies without perception generate objects. We can take organisms that have not developed perception as our more basic starting point and model. Let us consider them ‘from the organism’ (not only as in science). Then I can show that such organisms differentiate their environment and generate objects.

Perception (behaviour) is not the first kind of object-formation. The body is first constituted as environmental events and material, and some of this is always present in the environment. But some of it is *intermittent*; it disappears and reappears. For example, sugar, water, and light appear and are incorporated only sometimes. Then the body-constituting with these ‘objects’ becomes separated from the rest of the process (if the organism didn’t die in their absence). *Then the body has separate processes just for these parts of the environment. The moment they re-appear, just these processes resume.* So we call these differentiated parts of the environment ‘objects’.

But to think this, we need to say that *when something implied doesn’t occur, the body continues to imply it.* Until something meets that implying (‘carries it forward’, we say), the body continues to imply what was implied and didn’t occur. If part of what was implied did occur, then only the part that did not occur continues to be implied. This ‘*reiterated implying*’ is a basic concept. It explains how *objects in the environment become differentiated.* (We will discuss it further in Section II.)



## 6. Perception is a part of behaviour; behaviour is a body–environment process

Now how does behaviour generate its kind of objects? Let us not just assume them as already formed and merely perceived.

Perception arises as a part of behaviour. Rather than assuming everything already in a here–there perception, we can consider how perception is first generated in a process. That process is behaviour. I will show that when perception happens alone, it is already a cognitively modified kind of ‘perception’.

But I have to point out that behaviour is not only motion. Motion is just change of location. Locations are the here–there space. Motion is a change from there to there, something observed before us. Behaviour is not reducible to something in front of us. It can be understood as a special kind of body-constituting. If behaviour were merely motion, the objects would have to be assumed as already formed. Let us consider the generative process that forms and re-forms them.

Behaviour is a special kind of body-constituting. The kind of body-constituting that generates behaviour involves *bodily-sentient perceptions* resulting from the organism’s own doing. Perceptions and sensings imply each other and carry each other forward. The moment they fail to carry forward, the sequence stops. (For a detailed theory, see Gendlin 1997a, VI.)

We cannot omit the bodily sentience that comes in each bit of perception. Only both generate the behaviour sequence. Sentience is not just an added extra.

Sentience is consciousness. All animals (even worms and insects) have this behavioural sentience, which is consciousness. Consciousness is not something merely added to unconscious experiences. When you drive home while thinking of something else, that is not unconscious experience. You couldn’t do it if you were knocked out. The body must still feel the brake and the gas. The body is conscious. Consciousness is bodily, of course.

Consciousness (sentience) seems to be an essential relationship between one kind of implying and one kind of occurring-into, which forms a behaviour sequence. Consciousness is not a thing, and it cannot just be added to another thing. It is not like shining a light on something that is there as well in the dark. It seems to be inherent in a certain kind of sequence, namely behaviour.

What is striking about perceptions is that the body does *not* become them. Perceptions are not incorporated like water or sugar. The sentience in behaviour is a special kind of body-constituting. This was always understood in a way. Behaviour was explained as a postponed consummation, for example when food search is ‘motivated’ by eventual ingestion and digestion. But the behaving body soon develops very many new ‘consummations’, *new bodily needs for behaviours*, and new results of behaviours.

These are new body-constituting. Behaviour involves a special kind of body-constituting.<sup>6</sup>

I think Clark (2010) and Rowlands (2007) rightly deny that action (behaviour) involves a 'subjective' process which must then be bridged to the environment. The environment is directly involved when we act. But the environment should not be considered *external*. It is not in the here-there space of perception. Primitive bodies without perception are identical with their own environment#2. Their body-constituting occurs in their body-environment#2.

The current authors who want to consider only the 'external' seem to want just half of the perceptual split. What I think they really intend is not an externally viewed body, rather *the always already environmental body*. I agree that the body is indeed always environment#2, both in body-constituting and in behaviour. Now I turn to patterns.

## 7. The patterns of human interaction: they are body-environment interactions

In hierarchical monkey societies, each male monkey turns his back to superiors and receives the gesture from those below him. They fight if one of them doesn't turn. When male animals of any kind get ready to fight, just the getting ready makes a huge change over their whole bodies. But among monkeys, the simple turn takes the place of the whole fighting sequence and so they don't have get ready for it. That huge shift happens in their bodies only if the other monkey doesn't turn. A huge bodily difference depends on a simple turn.

Originally, the turn comes at the end of the fight when one monkey turns his back. But by doing the ending before the fight even starts, the gesture short-circuits the fighting behaviour. It changes the behaviour possibilities as fighting would, but without that behaviour sequence. We could almost say that the turn is like talking *about* the fighting rather than doing it. If there were a whole sequence of different *versions* of such turns, as in the human case, that would be a symbolic sequence. It would *be about* behaviour possibilities, rather than behaving.

We see how symbols arise, *continuous with behaviour* but changing the behaviour possibilities without any actual behaviour.

Human symbols are different, but we can understand their bodily connection from considering these 'animal rituals', as they are called. Animals have a few such body-shifting 'rituals', but humans have several hundred thousands of them just in language, as well as many more. Imagine monkeys who cause not one huge bodily shift, but long chains of such shifts in each others' bodies.

Human patterns enable us to have long chains of bodily shifts and changed behaviour possibilities just with patterns. Spoken language consists just of

sound patterns. Written patterns are purely visual. The sound and the visual patterns come in separated sense modalities.

The fundamental role of patterns in human life has not been well recognized. Of course, our all-important language consists of sound patterns. But language is not the only kind of pattern that brings large shifts in our bodies. Art makes them with its patterns of lines and colours, light and dark, and textures that are only visual. Music creates bodily shifts just with sound patterns. The bodily shifts can be *versions* of events from a lifetime, all now implied from one sound pattern to the next. I call the process '*versioning*'.

Human life in situations always involves the patterned bodily changes of *versioning*. Our patterns create a different world, not just behaviour possibilities. When we use patterns we might not behave overtly at all, except with the throat or the fingers. The patterns can change our behaviour possibilities. But human behaviour possibilities are different for being generated in the patterned spaces. We call those spaces 'situations'.

Patterns, situations, and bodies are inherently linked, and they must be understood together. They cannot be understood without each other. They must have developed together. A new language symbol must have developed to manage a new differentiation between situations. Human bodies produce visual and sound patterns directly from being in the situation. The patterns can change a situation. They involve large shifts in how the body feels the changed situation and newly implies what we will now do or say.

René A. Spitz (1945) discovered that infants require human interaction with facial patterns for their normal body-constituting. He found infants in filthy jails with their mothers developing normally, whereas orphans in good hospitals died or were retarded. This is why today in maternity hospitals the nurses regularly pick up the newborns and relate to them face to face.

Gallagher (2005) reports that newborns respond to gestures with gestures – on the first day! If you stick your tongue out, the newborn will do the same thing back at you. Move your tongue to one side and you get the same thing back. They report other findings that show that gestural interaction is inherited in the body. Adults gesture in the dark (and on the phone). Waving is a gesture, not a regular behaviour; you're not trying to grab something up there. Like hierarchical monkeys, we generate and feel the interactional effect of our body-looks and sounds. Wittgenstein (1953) wrote: '[...] one can imitate a human face without seeing one's own in a mirror' (p.285). From the body we feel the pattern on our face; we can change it from inside. It is evident that symbolic patterns arise directly from the human body.

Susan Stuart (Chapter 8, this volume) points to the crucial missing piece in most theories of language. What she calls 'enkinaesthesia' is what I am here calling the sentient half of a behaviour sequence and the sentience of patterned interactions, which is the sequence of bodily shifts I call '*versioning*'.

If we omit the enkinaesthesia, we cut language off from how it is generated and experienced by bodies in situations. Then language is considered an 'external' system. Yes, individuals are born into a language, but it is

generated only through individual chains of bodily shifts (the *enkinaesthesia*) from which they come.

How do words come? I open my mouth and they come, mostly saying what I wanted to say. What I wanted to say was not already in words. The words come directly from my living bodily in the situation.

The words come already arranged in phrases. They come arranged both grammatically and pragmatically. Of course always both, since they would not have their situational meaning without their grammatical patterning.

We have to wonder how it is that words come already arranged. Then we cannot fail to notice the role of the body. The dictionary doesn't know my situation. My body brings the words *directly* from living in situations, so they say something relevant to a situation.<sup>7</sup>

Human situations involve behaviour of vastly many new kinds, as well as those few old ones we still share with the animals. We still eat and make love, but our appetite is spoiled if certain patterns don't obtain. We still fight, but now we do it in many new ways. Our behaviour possibilities are situation-changes. We don't mainly feel the behaving we are doing; we mainly feel the situation and how we are changing it. That sentience implies the next thing we do or say.

Given this intimate bodily connection of signs and situations, we certainly cannot assume that our signs came about accidentally or by conventional agreement. Different patterns can develop in different places, but they develop in the same way and they are incredibly long-lasting. In *A Process Model*, VIIB (1997a), I have a long piece on how sound patterns *develop* and differentiate situations. The so-called signifiers were long thought to be arbitrary and unrelated to the 'signified' but this is certainly not the case.

Why am I arguing about this? It is because I want to bring home that human patterns carry our body-process forward, and that this is neither subjective nor external. Pattern interactions change situations and differentiate our environment.

Our symbolic patterns are generated by bodily process, and bodily process is body-environment interaction, so the patterns differentiate the world. They should no longer be called 'inter-subjective'.<sup>8</sup>

## II

What has been asserted in short form should now be filled in with a few points.<sup>9</sup> I rely on some readers turning to my *A Process Model* (1997a) to see the whole work.

### 8. The three-body processes occur *directly* in the environment

If we consider the three living processes not as truncated by the hidden perceptual split, but as generative and explanatory, then they can explain the

'background'. It is always in process, always the present body–environment interaction.

We shift *from the implicit to implying*. The 'implicit' is not a store of past things; rather it is the present activity, a process, an *implying*. The great number of things people can find in a background are all functioning, but the present doesn't repeat old pieces; it *regenerates* the past. The present would not be what it is if the past had been different, but present living changes how the past functions now.

Present experiencing consists of *implying* and occurring into *implying*. The body implies the environment. The environment occurs directly into the body's *implying* and carries it forward into a further *implying*.

The body<sup>10</sup> lives *directly* in each of our situations. That explains why our bodily implied situations contain so much more than could ever be enacted even in our thinking. What actually occurs – what we actually do, say, or think – occurs into the *implying* and further develops the situation.

All three living processes function to enable the body to imply so much. The body-constituting always continues and it is also a part of behaving. Both are involved in patterned human living, which is why we are *sentiently* sitting here, able to sense ourselves.

We are not *unconscious* of this bodily sentient ongoingness. We would be shocked if we suddenly didn't feel it, with its familiar sense of 'knowing what we're doing'. The body has to be understood as at least all three of these living processes, always freshly reconstituting itself.

As Gallagher (2005, pp. 37–9) has pointed out, the body-constituting includes micro-processes that are not themselves conscious but are directed by conscious behaviour and gestural interaction. The body-constituting is determined by action and speech; the muscles and nerves act to provide just what we want to do and say. The three processes are different but they constitute one *implying* of one next environmental occurring. They occur directly into environment which is thereby being regenerated.

So we need to distinguish another sense of the word 'environment': We need to speak not only of environment #1 and environment#2. There is also the much larger environment that the body *goes on in* and regenerates by going on in it.

Let me set out four uses of the word that we need.

## 9. Four uses of the word 'environment'

*Environment#1* is the scientific observer's view. We keep it distinct and move back and forth, developing it in reciprocity with the wider view.

*Environment #2* is the one identical body–environment interaction. The body is made of environmental stuff and its organismic events happen in the environment. The body *is* environmental body-constituting. Body–environment is a single sequence of environmental events.

*Environment #3* is the organism's own environment which it *goes on in* and thereby constantly regenerates. (The body transitively 'goes its environment#3 on', you might say.) The present process *goes the past on*. Environment #3 is much larger than the body=environment#2. Many processes go across the dividing membrane.

*Environment #0*, though mentioned fourth, really comes before the others. Of course, the organism doesn't make its environment #2 and environment#3 just from its own implying. The organism *is* an interaction with the freshly unpredictable environment, unknown until it occurs. (It goes on 'in reality', you might say.)

Even in the science environment#1 we cannot predict what really occurs. Of course, we test our logical conclusions with operations. Even if we predict correctly, much more than that happens. Every study brings more data than we expect. So the past can never *simply* repeat. Even if we observe the same thing over again, even if it seems to have done the same thing in every generation for millions of years, now it occurs newly in environment#0. Drawing them together, life process is analysed and aided in environment #1, identical as body=environment #2, goes on in its own wider regenerated environment #3, and occurs in environment #0.

These distinctions will now help us to say more about body-constituting, behaviour, and pattern process.

## 10. Body-constituting and object-formation

*I re-emphasize that the most basic way the body forms objects does not involve perception or detectors that work like perception.* The objects are differentiated in the process of body-constituting. All 'higher' kinds of object-formation involve body-constituting.

In our model, the body implies sequences. How do objects that stay the same arise from sequences? How does our model supply an inherent connection between process and object? This worked itself out in detail in chapters IV to VI as *A Process Model* (Gendlin 1997a) grew slowly. If those arguments are not wrong, we *can answer*: As I said briefly earlier, when the environment cooperates, something like the implied sequence occurs. When there is no cooperation, the body dies, or if enough of it can go on, it implies the unmet part over and over. If it goes on living, the body keeps implying the part of the process that did not occur. What is not carried forward becomes a *reiterative implying*.

Some missing aspects of the environment never return, but some come and go. The changing environment provides *intermittent* cooperation, for example the sun sometimes shines and sometimes it is dark. When the sun rises, a plant does incredibly complex things. When water comes, its body expands. So we say that the plant '*responds*' to just these environmental aspects. It responds not by perceiving them but by incorporating them,

doing its body-constituting with them. It doesn't need a separate perception or detection of the sun or the water *in addition* to incorporating these parts of the environment. The body *is* its body-constituting interaction with them. It is its environment #2, the body-environment interaction with them.

Because these body-constituting interactions were *constantly implied*, they suddenly occur when these environmental 'objects' return. The observer sees the plant doing complex photosynthesis in response to the sun. This complexity surely doesn't come just from the nature of sunlight and water. Obviously the organism contributes actively to the interaction. It *brings* a background of reiteratively implying that specific process. Then the process *occurs* the moment there is light and water.

Distinct and separate processes have developed in relation to just these differentiated parts of the environment. These parts have become objects. This kind of 'object' seems odd because the word usually means a perceived object.

We gave names to the two concepts we developed here. How a missing process is implied over and over I call '*reiterative implying*', and when a carrying forward object occurs I say that it '*resumes*' the process. This is a way to conceptualize that mysterious power of objects to elicit relevant processes from organisms. We conceptualize it as a body-constituting process.

In the observer's environment#1, it matters very much whether the implied object is familiar or new. We can do a lot about familiar objects. For example, we can provide water and artificial light. We can often improve the resuming objects. It is quite different for us when what is next implied is unknown. But for the body, the resuming object is always new.

A reiterated implying is always new and regenerating. And it is always open to *whatever* will carry it forward. Even if what does carry it forward is new in the history of the world, we can say that it '*resumed*' what was implied but missing. For example, we have an unsolved problem as a reiterated implying of a next step in a process that does not continue. When a solution comes, we can say that the missing process has '*resumed*'.

Here we see one way a background functions without representations. The body-constituting process doesn't need them to '*recognize*' light and water.

Now let us turn from body-constituting to behaviour. I need to show that behaviour generates a '*space*' of behaviour possibilities. We perceive objects in the space of behaviour possibilities, not in pictures that are just colours. Perception is first generated in behaviour, not as just a picture here about something over there.

## 11. The space of behaviour possibilities

We perceive *in* the space of behaviour possibilities. We perceive what we can do with objects. Objects are clusters of behaviour possibilities. Many

possible behaviours come with any object. The objects exist not just in locations but *in* the space of behaviour possibilities. *That is the behaviour space in which we act and perceive.*<sup>11</sup>

Perception does not consist only of momentary intakes from the sense organs. We *perceive* objects *in* the wider space of behaviour possibilities. The momentary sensations *come into* the wider behaviour space.

The organ intakes are separate colours, sounds, and smells, and so on. The separate intakes *come into the behaviour space*. We *perceive behavioural objects*, not just colours and sounds. Yes, humans can also analyze their perceptions into colours just as colours, and sounds just as sounds, but this is a cognitive capacity. You can't get the dog to do it, and you can't get a human to do it, for example, while a car is coming. If we are hiking down the middle of the road and hear a car coming, we immediately move to the side of the road. What we heard was *the car*, not a sound. Once on the side of the road, yes, we can examine the sound just as a sound, as we do in language and music.<sup>12</sup>

Therefore, let us recognize that the old reduction of experience to five separated kinds of sense data is an indispensable analysis, but it is a cognitive symbolic cultural product, *not the start of experience*. (Seeing this makes large changes in our theoretical assumptions which I cannot discuss here.)

The dog never sees colours *as* colours, sounds *as* sounds, or smells *as* smells. The dog sees me coming, sees *that* I'm eating food, and would like some. Humans *can* perceive colours *as* colours, and sounds *as* sounds. Patterns are *just* visual or *just* auditory. Only with patterns that are just sound can we speak. But like the dog, we primarily perceive the objects. We perceive the food we could eat. We take it out of the oven and *see that* it is still not cooked enough and we have to put it back.

We perceive changed possibilities. We *perceive that* someone could walk in because the door was left open.

When what we could do with an object has just changed, we perceive not only the object but the fact that what we could do has changed. We *perceive that* we can't go for a walk now because it has begun to rain. We *perceive that* an object with which we could have done behaviour X has just changed so that now we cannot do X, but now perhaps we can do Y.

We *perceive that* the steaming water is too hot to drink, that is, we perceive it *in* the space of behaviour possibilities. We *perceive that* the dusty chair needs brushing off before we sit in it.<sup>13</sup>

Because the body perceives objects as behaviour possibilities, therefore we can do skilful actions with the body without first having a separate perception (a 'just-perception', I call it) to see how we can. Without first just perceiving how I will do it, my hands rotate the empty pot so I can grab the handles. Similarly, Damasio (1999, p. 129) observed that before he perceived it, his body had switched his cup of coffee from one hand to the other so he could grab the banister.



Even when we have no organ intakes from the things at our side, we *perceive that* they are still at our side. We perceive that we could turn to them. For example, I find my thumb sticking out to hold back the stack of papers next to me on my easy chair so they don't fall on the floor as I get up.

My thumb move comes because my body implies sequences. It implies how the space of possibilities will change as I get up. So my thumb moves as I get up. *Many* sequences function implicitly in the coming of any *one* next behaviour.

We perceive the space and objects behind us (as Merleau-Ponty said, and I explain). *We perceive and walk in a space in which we could back up or turn around and go.* We would be shocked if we suddenly perceived that there was nothing behind us, a sheer abyss into which we would disappear if we backed up.

If 'perception' is defined only as the present organ intakes, then the behaviour possibilities have to be considered 'interpretation', something 'only internal', therefore 'subjective'. But behaviour possibilities are not subjective. The space of behaviour possibilities is environmental interaction.

An intake in a single sense is never perceived alone; it *comes into* the space of possible behaviours with objects, and it modifies that space. Behaviour objects are not constructed from momentary separate sense data alone.

*The body implies objects because it implies behaviour.* In behaviour, the objects are implied in all five sense modalities. The body implies five-sense objects even when only one sense is coming from one organ just now. A behaviour that is now forming can be modified by a single organ intake. If there is an intake from a second sense, it would also modify the ongoing formation, so it would join the first intake. This explains Gallagher's 'intermodal' perception (2005, p.160). He has established the concept of 'intermodality', but how the connections occur has remained a question because of the assumption that perception consists only of separate intakes from the different organs, although no neurological connector has been found. (Newborns connect the five modalities long before neurological connections develop.) The analysis in terms of organ-intakes is valid and highly useful, but perception cannot be conceptualized only as organ intakes. We perceive in the formation of behaviour.

Now let me show that the body implies a field of interrelated behaviour possibilities in the formation of one next behaviour.

## 12. The field of interrelated behaviour possibilities

Let us ask: How are behaviour possibilities interrelated? Each object comes with many possible behaviours (Gibson called them 'affordances'; 1966, p. 49). Behaviours are not mere motions, not mere changes in location. We perceive objects with the ways we could behave with them, for example hold them, or push them, eat them, sit on them.

If we consider just the things, they appear to be *side by side*. But the possible behaviours do *not* appear side by side. Let me expand this key point: Behaviour possibilities are not *side by side*. An object is perceived *in* a cluster of possible behaviours. Only the objects are spread out side by side in location space; the behaviour possibilities (what we *can* now do) are organized in a different way. The behaviour possibilities constitute an implicit space that is quite different from the space that consists just of objects. How are they organized?

As I said, *a behaviour changes the other behaviours that can now be done and how they can be done*. If we kick the ball we can no longer pick it up and throw it. If we kick someone, we can no longer fondle the person, or the fondling will now be a comforting. If we boil the eggs, we can't then fry them. *Each behaviour is a change of the cluster of implicit 'cans'*. If we do *this* we can no longer do *that*, or not in the same way as before. On the other hand, after each behaviour, we can do some that we couldn't do before.

A behaviour is not only itself, not only what occurs. A behaviour changes the implying of the cluster of behaviour possibilities. *It alters the cluster in which it occurs*. It occurs in the new cluster that its occurring has changed. Again we see: the past, the background, the 'context' *in* which something new occurs is the regenerated context, not the past. The behaviour occurs in the changed cluster.

Each of the other behaviours is also such a cluster-change when it occurs. Each of the many possible behaviours is a cluster that includes the one behaviour which just occurred. If the behaviour that occurred is new, each of the possible behaviours now has the new one in its cluster.

The many different consequences are necessarily taken account of in relation to each other. Each behaviour possibility interrelates the consequences of the possible behaviours in its cluster. The one behaviour that comes reforms the cluster of all of them.

*We see the precision*: Each changes the cluster in its own precise way and not like any of the others. Each is a different change in how the others can happen. The cluster consists of precise interrelations.

The items that the background is said to contain are not independent items. As part of behaviour possibilities, each is a change in the possibility of the others. In later examples, we will see that humans have many different situations, each of which is such a cluster.

### 13. Immediate formation is forming-into

Because a behaviour *is* also the cluster-change, therefore the change is immediate, not first this which then affects that. Now we can further explain the taking account of the past. Since the very forming of a behaviour is also the re-forming of the cluster of behaviour possibilities, therefore it is a taking account of the way the others have been possible. It is by changing them

that the behaviour takes account of them. How it *goes on in* the previous changes the previous.

Behaviour *forms-into* the implicit cluster of behaviour possibilities. *Therefore a behaviour does not form without (what we called) 'taking account' of the previous moves* (the cluster of other behaviours). Its forming and coming is implicitly also their re-forming.

This is the reason why the taking account happens in the very coming. The coming *is* the taking account of the other possibilities, because it is also their re-formation. So the behaviour cannot form except by forming into them. And a behaviour cannot help but be a *precise* taking account of the others in the cluster that it forms into, and of which it is a present re-forming.

I want to have shown that the body implies a field of interrelated behaviour possibilities in the coming of one next behaviour. This is one instance of how the 'background' functions, ever present and precise. The past functioned in the present process without needing to be reviewed. The present process implies and enacts the next behaviour without needing a preview of it in advance.

Now I take up two examples of interrelated possibilities, both from humanly patterned interactions.

#### 14. Implying and taking into account: two examples

Consider the special case when we work on a problem. At first nothing comes. If we are asked about the problem, we can easily say many things, why it matters, how it came about. Many old thoughts are implicit, but if we aren't asking about those, they don't come. Nothing comes to advance the problem.

*This 'nothing comes' is really quite smart.* It involves the implicit knowing why the old thoughts have no chance of providing even a small advance on the problem. What does come can include very unlikely ideas that fail examination immediately, but the old answers do not come.

You can feel when a thought has the slightest chance of advancing the problem. It might be a big idea or only a little lead. What came might fail immediately, but if it came at all, it had some slight chance to move the problem.

Of course, the 'nothing comes' is not plain nothing. It reproduces the problem over and over. It is the continually regenerated hold we have of the problem. If you get distracted you may lose hold of 'it'. Then you work to have your sense of the problem come back. 'Oh, yes, there it is again'. Any new thought goes on in this reiterative implying, and carries it forward.

You can observe in detail how your knowledge has implicitly functioned, if someone asks you about one of those old well-known thoughts. You are immediately ready to lay out quite logically why it won't advance the

problem. You could show how each old answer about which you are asked has *functioned implicitly in not coming*. Each old thought you consider turns out to have functioned precisely and logically in not coming.

We can see how this *intricate process* has happened. No implicit store of old knowledge and experience has occurred. The actually functioning background is not the old products but a new *implying* which may produce a new *occurring* – or not.

Rather than repeating the past, the new implying *further develops the past* by implying something new. We have seen that the process accounts for each item from the past precisely, but we have not yet explained how it can do that. My next example should show how it can see the concepts and what they do.

## 15. A second example: chess masters

Dreyfus (2009) has pointed out that chess masters make new moves *without deliberating*. They don't spend time considering each of the many possible moves. Only the new move comes to them. We are explaining this. Masters have spent years studying books of games; they know many possible moves at any point. Now they don't have to run through all those old moves (as the computer does). Those moves don't come to mind to be considered. We have just explained why nothing comes until a promising move comes.

The master doesn't deliberate when playing with ordinary players. When masters play each other, they want every minute of allotted time *to examine the move they are about to make*. Several new moves may occur to them, but certainly not the many old moves.

A new move has to be examined by seeing its consequences many moves ahead. The coming of the new move has already accounted for the consequences of each possible old move, and these consequences in relation to each other. Any of the old moves would result in problematic situations in which the new move is already more promising.

As in the previous example, we can see how all this has implicitly happened, if we ask the master about any one old move, 'Why didn't you do well-known move X?' The master would be ready to reply by comparing the possible consequences of the old and the new move.

*To compare old and new consequences many moves down would generate a new logical system. Of course, the system could not have been created before the new move came.* The move is the source, not the result of that system. It compares the old consequences with the new ones that the move just brought. The new consequences are new units, implicitly created in the new coming.

If not asked about old moves, the master does not think those, but uses the time to examine the new move by generating its consequences one by one, separately. This might reveal some possibilities that need to be pursued

or avoided. Here we can see how logic and implying expand each other reciprocally. The new move was *more* than the old units, but laying it out by generating new units from it makes *still more*.

Again we see the inherent precision with which the implicit background functions. A next occurring is precisely implied. Nothing occurs that does not carry this implying forward. The implying is the opening for the unknown occurring, which will carry it forward. It does not have the form of a finished product; it is the continuing of the process from the finished products to something that has not yet happened. When it comes into the implying it will change the implying into a further implying. Then we can generate new units that can lay out how what came took account of what already existed.

This process happens not only in chess, of course.<sup>14</sup> A new thought can come in any situation, and when it does we examine what follows from it. We do that by generating the new units which are precisely implied in it, just these and just so.

*Humans* live in *many* situations. If you are reminded of another one, you can change your plans in it, or go to take care of something in it, then return to chess or the problem you were working on. We move between situations. Only some of them are problems, fortunately, but *each is an implying where new ideas come only if they carry our old knowledge forward*.

The problem we are working on is kept separate from all our many other situations. They are all *kept neatly separate* from each other, each in its own history and precise detail. They are *not merged*, but they do have multiple interconnections because some of their details are related to some other situations.

How can we understand this 'holding' of the separate situations? The holding is the implying of a next which has not occurred. When it doesn't occur, the implying repeats over and over (if some of life did continue). We discussed this earlier and called it 'reiterative implying'. What holds each situation is a reiterative implying. When we *act in* a situation, the reiterative implying is a kind of background that holds the situation so that we 'know what we're doing' and which situation we're in, and so that we bodily feel how to meet the situation.

## 16. Carrying forward differentiates and expands the world

Are cognition and behaviour 'really' in the world of body-constituting, so that we humans live on the plane of the bacteria, or are behaviour and body-constituting 'really' in the vastly larger cognitive world which humans discover? And the answer has to be: *both, of course!*

If we said only one or the other, we would have either the usual scientific reductionism (we *are* our brains and tissues) or the old idealism in which

reality was the order of thought. But our model can show exactly how they are in each other, resulting neither in reductionism nor idealism.

Gallagher (2005) has been saying that the body provides necessary structural events, but they are directed and shaped by the cognitive level.

When in the context of a game I jump to catch a ball, that action cannot be fully explained by the physiological activity of my body. The pragmatic concern of playing the game [...] even the rules of the game [...] may define how I jump [...]. (142–3)

*How the rules of the game exist in the muscles (how each 'higher' process is in each 'lower' one) cannot really be anything else than how the muscles exist in the patterned interactional world (how each 'lower process' is in each higher). The rules direct the muscles because the rules are a training in the muscles, which is possible since human muscles grow in a patterned interactional world. There is only one implying which has to be said both ways. That the rules are in the muscles is the same fact as that the muscles are in a cognitive cultural world.*

*Human body-constituting and behaviour now form in the patterned situations in which we live. The body implies its situations even when we sleep. Psychosomatic effects are not mysterious. And conversely: the pattern sequences involve a kind of behaviour and body-constituting.*

The fact that structural events are needed to jump in the game shows that we still behave and body-constitute, although all in one process with playing a game. The three living and generative processes each differentiate the environment. What exists is differentiable.<sup>15</sup> The pattern sequences with which we interact change the world. Things come onto our body patterns where they cast their profiles,<sup>16</sup> which we then divide, analyse, move, and change with our scientific patterns. The things are by-products of the pattern process which creates the human world of situations in which we live. *The pattern process of our inter-human situations differentiates the world.*

## 17. Conclusions

The background is not something that occurs separately; rather it is always regenerated in what presently occurs.

We probably knew that the background can't work when a person is unconscious and that it is not an infinite number of actually occurring entities, nor a fuzzy merger. If the background were a fuzzy merger, it couldn't make for the relevant environmental responses that it is meant to explain.

We knew that the background functions 'implicitly' but how something implicit functions couldn't be explained, because we had concepts only for something presented before us (an appearance, perception, object, entity.)

But we can consider anything like that as a product generated by a process. With a model of products and process we can explain how the background functions implicitly.

With our new distinctions, by using the word 'environment' in four ways, we can specify in what exact way body–environment is a single process. We can distinguish between implying and occurring-into, two interdependent functions which create that one process.

The process always *generates* the events. It does not consist of already-formed products that are repeated or rearranged. It always *regenerates* its past. And the organism is interaction with the actual environment, unpredictable and unknown until it occurs. The implying and the occurring into it regenerate the body-environment.

We cannot logically deduce the present from the past, but we can always find (and with new units exhibit) how the regenerating took account of the past. We saw the precision of this taking account, for example when a new chess move comes. Then it can be shown logically and precisely why its consequences are superior to those of any one of the old moves that did not come. The not coming is the present implying and occurring. We can show this in thinking about any problem.

If the three processes we discussed (body-constituting, behaviour, and patterned interaction) are considered as *both living and generative*, then they can *explain* what will otherwise be only asserted. But they have to be distinguished; no one of them can explain what the other two generate.

When we have distinguished them, we can see that body-constituting is an essential part of behaviour and both are essential for patterns. The development of the three is also the development of the body. That is why the human body generates behaviour and patterns. These three generating processes will always exceed their products. Finished products are alive only in the present process that regenerates them.

## Acknowledgement

I want to thank Mary Hendricks, Kye Nelson, Rob Parker, and Zdravko Radman for very helpful readings and comments.

## Notes

1. Dreyfus has been 30 years with the extremely unpopular message that computers will never become able to replace human intelligence. He pointed out that humans don't have to run through their stored-up experiences as computers do, and are not then limited to doing one of those, as computers are.

Here I quote from his (2009) article.

'It seemed to me, however, that the deep problem [for artificial intelligence] wasn't storing millions of facts; it was knowing which facts were relevant [...]' (p. 41).

'The problem is an artifact [...] from the perspective of the researcher rather than from the perspective of the animal [...]. But, according to Freeman the cell assemblies are not just passive receivers of meaningless input from the universe but [...] are tuned to [...] respond *directly* to significant aspects of the environment [...] *on the basis of past significant experience*' (p. 61; emphases added).

I think this answers his question only if we can also explain how 'past significant experience' was possible in the first place, and then also how the past functions in the present without needing to be gone through, as a computer does.

2. See Collins (2009). 'What is missing is any understanding of the difference between human and animals'. '[...] in the case of humans the main determinant [...] is not the body but language. [...] The obsession with the body [...] is misplaced (p. 80). What is needed is to understand socialisation [...]' (p. 84) I agree with him that the human//animal difference has not been understood, but this applies as well to the human body.

I don't agree with the rest of what he says, but he is the only one I know so far pointing to *the difference between* two of my generative processes.

3. Evan Thompson (2005) writes that the living body is 'organized as a self-producing and self-maintaining network', and he calls this the 'core form of biological autonomy' (p. 407). But then he goes directly to saying that 'this core form is recapitulated in a more complex form in metazoan organisms with a nervous system' (p. 407). Thereafter the whole discussion assumes perception.
4. Implying always implies many sequences, always *many in one*. It implies one specific next environmental event. Even the most primitive organisms and single cells imply many sequences, many processes. The implying is much more than could occur at once.

Because implying implies sequences, therefore occurring into implying generates a more complex kind of time than just now now now, as if there were only occurring occurring occurring. (See my *A Process Model*, IVB).

5. This is of course an odd use of the word. This 'interaction' is prior to two separate things that would first meet in order to interact. I call it 'interaction first'.
6. Developing more behaviour involves body-constituting. In every species, all the parts of the body are formed so that it can enact its behaviours. Obviously body and behaviour formed together. We see body-constituting also in the finding that every species has 'fixed action patterns', behaviour that the body will eventually enact if no occasion for it presents itself for a long time. There is no doubt that behaviour is inherited along with body structure. This definitely includes human gestures and the capacity for art and sound patterns.

The fact of inheritance should not be used to explain behaviour and patterns; it rather needs to be explained. It involves a body-constituting process that is part of the 'higher' processes, behaviour, and patterns.

7. Stuart and the others are quite right to consider all this as interactional and inter-human. People are not in situations only as individuals, but always with others. I would only point out that this doesn't begin with culture. Many animals have very complex relations with each other. In many species, their most numerous behaviour is with each other and some of them clearly feel each others experiencing. (For example, Jane Goodall [personal communication] described how when a young monkey was injured, his little sister held the two sides of the cut together and comforted him.) Bodily inter-personal sensing originates much



earlier than humans and culture. Stuart recognizes this with her term ‘agents’ which applies to people and animals.

8. I recognize that people intend this word to mean *not*-subjective, but it still assumes that human living is something alien in a real world modelled on our not being here. So it still makes the world we live in seems to be ‘inside’ us.
9. For more, I refer again to *A Process Model* and articles all available on [www.focusing.org](http://www.focusing.org) (*Philosophy of the Implicit*). See also Ellis 2000, Gendlin 1979b, 2004, 2009a, 2009b, Jordan and Ghin 2007, O’Regan and A. Noë 2011, Thompson 2005, Varela et al. 1991.
10. The words ‘organism’ and ‘body’ differ, partly because the latter is still often used to denote only the body structure. I will argue for a structural-behavioural-symbolizing body nearly as wide as ‘organism’, except that the latter can include the person. The person–body relation is a large topic I cannot go far into here. It involves a crucial variable: attention. Attention is being studied separately, but still in the old Gestalt model. See Arvidson (2006).

In our TAE (Thinking At the Edge) a kid asked: ‘*Am I my body or do I have a body?*’ A fast answer might have been: ‘Neither, as you recognized or you wouldn’t be asking. And good for you for seeing it! The answer is that it’s *this way*, the way you have here. We don’t have good concepts for it yet’.

In this chapter, I use both words. I follow current usage with ‘organism’ but I emphasize how *the body* becomes able to provide the implicit background. The body lives directly in our situations so that attention to the body can reveal more of me than I knew. (See Gendlin, 198/2007; 1993).

11. Current theory assumes ‘sensory-motor coupling’. But I would predict that there won’t be clear findings until behaviour, rather than just motion, is assumed to be coupled to sensing.
12. Aesthetics will greatly profit if it is understood that pictures and music involve not just behaviour and perception, but the purely human capacity to see colours as just colours and to hear sounds as just sounds. These are processes with patterns, only visual or only auditory. Patterns create and differentiate the many different situations as well as a world of art, music, and technology. Patterns make vastly many more versions of bodily sentience than behaviour can. Pattern process is a versioning.
13. The fact that what we perceive is so much more than our momentary intakes is supported by the unexplained finding that only a murky 20% of the clear scene we see registers on the cortical measures at any one time. See Mahoney (1991, p. 100 ff).
14. Of course, the chess rules form a conceptually limited scheme which is not changed by a new move. There is probably a limit on possible new moves so that the computer might eventually contain all possible moves and regularly defeat chess masters as it has sometimes defeated Kasparov. Our situations always remain open to present regenerating.
15. See Gendlin (1997b), Petitmengin (2009).
16. All patterns derive from the human body. Our bodies feel and enact the patterns of how the body looks and gestures or sounds in interaction. Human bodies imply patterns along with all implying. Because the tree comes onto our human body patterns, it reaches for the sky. It comes onto our chemistry and mathematics. *On our patterns* the things really have their own patterns by which they can be taken apart and altered. New patterns can be moved onto things that never had them. With humans the patterns of the world come loose.

## References

- Arvidson, S. (2006) *The Sphere of Attention: Context and Margin* (Dordrecht: Springer).
- Clark, A. (2010) 'Memento's revenge: The extended mind, extended' in R. Menary (ed.) *The Extended Mind* (Cambridge, MA: MIT Press).
- Collins, H. M. (2009) 'The new orthodoxy: Humans, animals, Heidegger and Dreyfus' in K. Leidlmaier (ed.) *After Cognitivism: A Reassessment of Cognitive Science and Philosophy* (Dordrecht: Springer).
- Damasio, A. (1999) *The Feeling of What Happens* (London: William Heinemann).
- Dreyfus, H. L. (2009) 'How representational cognitivism failed and is being replaced by body/world coupling' in K. Leidlmaier (ed.) *After Cognitivism: A Reassessment of Cognitive Science and Philosophy* (Dordrecht: Springer).
- Ellis, R. (2000) 'Consciousness, self-organization, and the process-substratum relation', *Philosophical Psychology*, 13(2), 173–190.
- Gallagher, S. (2005) *How the Body Shapes the Mind* (Oxford: Oxford University Press).
- Gallagher, S. (2007) 'Book review: Mark Rowlands' *Body Language: Representation in Action* (*Notre Dame Philosophical Reviews*, <http://ndpr.nd.edu/review.cfm?id=11183>).
- Gendlin, E. T. (1982) *Focusing*, Second edition (New York: Bantam Books).
- Gendlin, E. T. (1993) 'Improvisation provides', Paper presented at a panel on 'Improvisation', organized by R. Crease at the Society for Phenomenology and Existential Philosophy in New Orleans, 24 October 1993. Available at: [http://www.focusing.org/gendlin/docs/gol\\_2223.html](http://www.focusing.org/gendlin/docs/gol_2223.html).
- Gendlin, E. T. (1997a) *A Process Model* (New York: The Focusing Institute). A slightly corrected version is available at: <http://www.focusing.org/process.html>.
- Gendlin, E. T. (1997b) 'The responsive order: A new empiricism', *Man and World*, 30 (3), 383–411. Also available at: <http://www.focusing.org/gendlin4.html>.
- Gendlin, E. T. (2004) 'Introduction to thinking at the edge', *The Folio*, 19(1), 1–8. Also available at: <http://www.focusing.org/tae-intro.html>.
- Gendlin, E. T. (2009a) 'We can think with the implicit, as well as with fully formed concepts' in K. Leidlmaier (ed.) *After Cognitivism: A Reassessment of Cognitive Science and Philosophy*, 47–161 (Dordrecht: Springer). Also available at: [http://www.focusing.org/gendlin/pdf/gendlin\\_we\\_can\\_think\\_with\\_the\\_implicit.pdf](http://www.focusing.org/gendlin/pdf/gendlin_we_can_think_with_the_implicit.pdf).
- Gendlin, E. T. (2009b) 'What first and third person processes really are', *Journal of Consciousness Studies*, 16(10–12), 332–62. Also available at: [http://www.focusing.org/gendlin/pdf/gendlin\\_what\\_first\\_and\\_third\\_person\\_processes\\_really\\_are.pdf](http://www.focusing.org/gendlin/pdf/gendlin_what_first_and_third_person_processes_really_are.pdf).
- Gibson, J. J. (1966) *The Senses Considered as Perceptual Systems* (Boston: Houghton Mifflin).
- Goodall, J. (Personal communication).
- Jordan, J. S. and M. Ghin (2007) 'The role of control in a science of consciousness', *Journal of Consciousness Studies*, 14(1/2), 177–97.
- Mahoney, M. J. (1991) *Human Change Processes* (New York: Basic Books).
- O'Regan, J.K. and A. Noë (2001), 'A sensorimotor account of vision and visual consciousness', *Behavioural and Brain Sciences*, 24(5), 939–73.
- Petitmengin, C. (2009) 'Listening from within', *Journal of Consciousness Studies*, 16(10–12), 252–84.
- Polanyi, M. (1958) *Personal Knowledge* (New York: Harper & Row).
- Rowlands, M. (2007) 'Understanding the "active" in enactive', *Phenomenology and the Cognitive Sciences*, 6(4), 427–43.

- Spitz, R. A. (1945) 'Hospitalism: An enquiry into the genesis of psychiatric conditions in early childhood', *Psychoanalytic Study of the Child*, 1, 53–74.
- Thompson, E. (2005) 'Sensorimotor subjectivity and the enactive approach to experience', *Phenomenology and the Cognitive Sciences*, 4(4), 407–27.
- Varela, F., E. Thompson, and E. Rosch (1991) *The Embodied Mind: Cognitive Science and Human Experience* (Cambridge MA: MIT Press).
- Wittgenstein, L. (1953/2001) *Philosophical Investigations* (Oxford: Blackwell Publishing).

# 8

## Enkinaesthesia: The Essential Sensuous Background for Co-Agency

*Susan A. J. Stuart*

The primary aim of this chapter is to present a case for a heavily revised notion of heterophenomenology. I will refer to the revised notion as 'enkinesthesia' because of its dependence on the experiential entanglement of our own and the other's felt action as the sensory background within which all other experience is possible. Enkinaesthesia<sup>1</sup> emphasizes two things: (i) the neuromuscular dynamics of the agent, including the givenness and ownership of its experience and (ii) the entwined, blended and situated co-affective feeling of the presence of the other(s), agential (for example, human, horse, cat, beetle) and non-agential (for example, cup, bed, apple, paper) and, where appropriate, the anticipated arc of the other's action or movement, including, again where appropriate, the other's intentionality. When the 'other' is also a sensing and experiencing agent it is their – in this case, the pair's – affective intentional reciprocity, their folding, enfolding and unfolding, which co-constitutes the conscious relation and the experientially recursive temporal dynamics that lead to the formation and maintenance of the deep integral enkinaesthetic structures and melodies which bind us together, even when they pull us apart. Such deeply felt enkinaesthetic melodies emphasize the dialogical nature of the backgrounded feeling of being.

I will begin by drawing out the idea of kinaesthetic anticipation through an analysis of kinaesthetic memory and kinaesthetic imagination. This kinaesthetic experiential horizon will then be brought together with Husserl's notion of 'intentional transgression', detecting the other's intentional trajectory, to substantiate claims for an enkinaesthetic background to all lived experience. At this point, I will put the necessary enkinaesthetic to use to – forcibly – reshape Dennett's affectively barren notion of heterophenomenology, the 'phenomenology of another not oneself' (Dennett, 2003), to fit the notion of a direct enkinaesthetic anticipation of the other's actions. Heterophenomenology rejects first-person introspective report in favour

of detached scientific interpretation, but this is to fatally misrepresent the fact that third-person analysis can only occur if there already exists some background capacity for communication; this, I will argue, is exactly what we get with enkinaesthesia, our revitalized, affectively rich, experientially entangled heterophenomenology.

We will begin with a quotation from Wittgenstein's work, followed by five preliminary theses which will be fleshed out in the body of the text. The remarks, in particular, provide the metaphysical framework for the paper, and should be used as a guide by the reader for the terrain of ideas they are about to cross.

In Paragraph 129 of the *Philosophical Investigations*, Wittgenstein writes that

The aspects of things that are most important for us are hidden because of their simplicity and familiarity. (One is unable to notice something – because it is always before one's eyes.) The real foundations of a man's enquiry do not strike a man at all. Unless *that* fact has at some time struck him. – And this means: we fail to be struck by what, once seen, is most striking and most powerful. (1953, p. 129)

Wittgenstein's emphasis on the simple and familiar remaining hidden, and how, 'once seen', and he means, grasped or understood, it becomes 'most striking and most powerful', will be echoed throughout this chapter. By drawing our attention back to the now sub-liminal feeling of the co-lived life and experience of one another, we will be struck once more by the disclosure of what lies in the background of all our experience.

Five preliminary theses:

- Boundaries are mutable and yielding.
- Consciousness and agency are co-constituting.
- Consciousness is the relations between agents and agents, and agents and objects.
- Causality is, at least, bi-directional, but more likely to be reciprocally recursive.
- The substance/state ontology is misconceived.

## 1. Situating the debate

Since it is not central to my debate, I will set the scene by presenting only a couple of approaches to understanding the mind and human engagement.<sup>2</sup> The first will be a view antagonistic to my own, the computational or cognitivist, and the second will be a view that bears more closely on the one I will go on to develop here.

The cognitivist or computational view of the mind, that presents the mind as symbolic, representational, and reducible to a set of physical states and processes that are fully explicable through scientific experiment and analysis, has been the predominant explanation for the mind in the second half of the twentieth century. At heart, it is individual-centred<sup>3</sup> and utilizes a substance-state ontology that treats temporality and spatiality as uniform and regular, and consisting of discrete or punctuated events, points, objects, and places. On top of this it appears to maintain the Enlightenment ideal of systematization – carving nature at its joints.<sup>4</sup>

The computationalist's concentration on the representational and symbolic aspects of cognition misses a great deal of what it means to be an experiencing agent within the world, and especially in the non-conceptual, non-representational area of, what I will describe as, the enkinaesthetic background.<sup>5</sup>

The mind cannot be separated from the entire organism. We tend to think that the mind is in the brain, in the head, but the fact is that the environment also includes the rest of the organism: includes the fact that the brain is intimately connected to all of the muscles, the skeletal system, the guts, and the immune system, the hormonal balances and so on and so on. It makes the whole thing into an extremely tight unity. In other words, the organism as a meshwork of entirely co-determining elements makes it so that our minds are, literally inseparable, not only from the external environment, but also from what Claude Bernard already called the *milieu intérieur*, the fact that we have not only a brain but an entire body. (Varela, 1999, p. 73)

Enactivism, on the other hand, emphasizes the agent's situation and embodiment in terms of its active, ongoing, processual, non-symbolic, non-representationally based engagement in its world. It is essentially anti-dualistic, but unlike cognitivism's inclination towards a monist materialism, the enactivist ontological commitments are rather more complicated. The agent is embodied and dynamically coupled to the world of other agents and things; thus, agent, world, and action are necessarily intricately interwoven, and the agent's body, experience, action, and world together shape the way in which she deals with her everyday pragmatic concerns. Under this conception, mind and world are inseparable, and it is embodied affective practice rather than cognitive deliberation that is the hallmark of the agent's engagement with her world. Thus agential enquiry is based on the 'history of the variety of actions that a being in the world performs' (Varela, Thompson, and Rosch, 1991, p. 9) and, through its ongoing sensori-affective felt dynamics, that a being builds up non-conscious intentional expectations about how its world will continue to be for it. So, when I step forward to cross the room, I expect the ground to continue to resist my

downward force, and I do not have to conceptualize it as a question. When I reach for an apple I expect the apple to resist my hand as my hand closes around it, and not that it be a mere holographic image of an apple. In agent-directed action, whether it is taking a step forward, reaching out tentatively with a hand, or gazing out over the landscape, we are continually, as part of our experiential horizon, asking tacit, non-propositionalized questions about our world and our being *with* and *within* it (Cotterill, 1995, 1998). The enquiry is plenisentient, fully 'switched on' proprioceptively, kinaesthetically, visually, auditorially, tactilely, and so on, and is expressed through the homeostatic self-regulating system that enables the maintenance of a bodily chemical equilibrium, the activity of the vestibular apparatus in the inner ear that functions in conjunction with the attitude of the body, and the subtle haptic pressure we put on, for example, the apple as we lift it and bring it towards our mouth.

Objects are, for agents, sources of information but they can also have meaning. In not simply being information-bearers, objects change for us phenomenologically and epistemologically, though not, of course, ontologically (Husserl 1977, 1983). Our bearing and attitude towards an object changes as our epistemological relationship with it alters and develops. For the infant in utero everything, even their body and how it can be moved, starts out as an unknown and becomes known through a shifting process from being an information-bearer to having a meaning in the life of the child. Here again we see that perception itself is a skilful mode of enquiry constituted by a bodily know-how, which has been brought about by the 'in-corporation' of sensory-motor skills (Merleau-Ponty, 1962), but it must be an affectively laden if it is to become meaningful (Stuart, 2010b).<sup>6</sup> So, the enactive system '[t]hrough a network consisting of multiple levels of interconnected, sensorimotor subnetworks, possesses a structural coupling that brings forth a world' (Varela et al., 1991, p. 206).

With only a slight modification, enactivism embraces enkinaesthesia; the focal point moves from the agent and their individual agency to the necessity of our being co-agential in a co-dynamically continuous, affectively laden enkinaesthetic processual horizon of experience. 'By a "way of finding oneself in the world"' Ratcliffe says, 'I mean a sense of the reality of self and of world, which is inextricable from a changeable feeling of relatedness between body and world' (2008, p. 2). Thus it is that feeling bodies and things together in a dialogue of community and reciprocity with other feeling bodies and things play an integral role in full-bodied pre-linguistic sense-making relations.

We routinely spill over into the bodily experience of others for it is this which establishes the community and reciprocity of our affective co-engagement. We might say that we inhabit the other's activity, for that's how we learn, how we become enculturated, and how we develop our sensory and kinaesthetic and enkinaesthetic imagination that enables us to

anticipate what the other might do. It's a process that begins with syn-rhythmic regulation<sup>7</sup> coupling the 'volitional and experiential functions of the minds of infant and mother through sympathetic response of their brains to the anatomical forms and dynamics of movement in structures of their body' (Trevarthen et al. 2006, p. 107). Thus, the givenness of the infant's own experience is never in isolation from the givenness of the Other. Enkinaesthetically we experience the feeling of presence of the Other (agential and non-agential alike) alongside the anticipated intentional arc of the Other's action and movement.

So, our concern here is with the feeling, sensing, moving body within the non-individual-centred, enactivist dialogical nature of thought, mind, and agency. '[T]here is no inner man, man is in the world, and only in the world does he know himself' (Merleau-Ponty, 1962, p. xii). Thus, we are always, without fail, in dialogue with our world, and it becomes uncontroversial to claim that all action is interaction. This dialogue is with objects and agents with which and with whom we are in a topologically complex web of intentional, processual, affective relations of community and reciprocity or, as Maturana states, we 'operate in a domain of reciprocal co-ontogenic structural coupling through reciprocal structural perturbations' (1988, §9.5). We are not simply 'in' our world as individuated agents acting upon other things as though they are discrete entities, separate and separable from us; we are irreconcilably *with* and *within* our world, as much affected and effected by it as we effect and affect it.

In previous work, I have emphasized the essential role of the kinaesthetic body in conscious experience and, in particular, the formation of kinaesthetic memories, melodies, and imagination through the agential concerting of action with objects, bodies, and other agents within their world (Stuart, 2006, 2007, 2008, 2010a, 2010b). This work is motivated by the prominence of kinaesthesia in Husserl's later work particularly *Ideas II* (1989), *Crisis* (1970), and *Cartesian Meditations* (1991), and it echoes and develops the work of Merleau-Ponty who writes that movement with its 'internal articulation and as a kinetic melody gifted with a meaning [carries within itself] an immanent intelligibility' (Merleau-Ponty, 1963, p. 130), and of Luria who argues that 'with the development of motor skills the individual impulses are synthesized and combined into *integral kinaesthetic structures* or *kinetic melodies*' (1973, p.176). Similarly Sheets-Johnstone speaks of the formation of non-linguistic, corporeal concepts and kinaesthetic memories formed through action and repetition (Sheets-Johnstone, 1990, 1999, 2000, 2003, 2009).

An infant closing and opening its hand over an object is at the same time forging a nonlinguistic, i.e., corporeal, concept that we might designate as *in*, *inside*, *being inside*, or more generally, as *insideness*. (Sheets-Johnstone, 2009, p. 221)



These affectively laden, intentional enkinaesthetic actions concert with the object to form 'integral kinaesthetic structures' that possess corporeal resonances through which a 'kinetic dynamics unfolds that is at once familiar and yet quintessentially tailored kinetically to the particular situation at hand' (ibid. p. 255). And, there is very strong evidence to demonstrate that these actions, leading to the formation of corporeal and kinaesthetic bodily skills and the anticipation of action possibilities begin *in utero*:

Between week six and ten, fetal bodies burst into motion, achieving graceful, stretching, and rotational movements of the head, arms and legs. Hand to head, hand to face, hand to mouth movements, mouth opening, closing, and swallowing are all present at 10 weeks (Tajani and Ianniruberto, 1990). By 14 weeks, the complete repertoire of fetal movements seen throughout gestation are already in evidence (deVries, Visser, and Prechtl, 1985). Movement is spontaneous, endogenous, and typically cycles between activity and rest. Breathing movements and jaw movements have begun. Hands are busy interacting with other parts of the body and with the umbilical cord.

From this early stage onward, movement is a primary activity, sometimes begun spontaneously, sometimes provoked by events. Spontaneous movement occurs earliest, probably expressing purely individual interests and needs. Evoked movement reflects sensitivity to the environment. For example, between 10 and 15 weeks g.a., when a mother laughs or coughs, her foetus moves within seconds (Chamberlain, 1997) (see also Piontelli, 1992; Chamberlain, 1995).

Human foetuses tentatively touch the placenta, umbilicus, and the uterine wall with their hands at 11 weeks. They make jaw movements and swallow amniotic fluid, expressing pleasure or disapproval at tastes injected into it by sucking and smiling or grimacing with disgust. Complex movements of trunk, arms and legs position the body, and may react to the mother's body movements and the contractions of the muscles of her uterus. (Lecanuet *et al.*, 1995; Piontelli, 2002; Trevarthen *et al.*, 2006; Trevarthen and Reddy, 2007)

Piontelli (2002) has also shown marked differences in the behaviour, the community, and reciprocity with their world, of twins and singles *in utero*. All of this experience begins with the motor enquiry of backgrounded dispositions which develop corporeal capacities like the proprioceptive 'material me' (Sherrington, 1906) and the tactile senses through afference and re-fference (feedback) which confirm the sensory effects of moving. So, even in utero the infant begins to establish bodily habits and expectations which gradually slide, apparently unnoticed, over a period of approximately

eighteen to twenty-four months, into the background, as the post-natal infant's prelinguistic experience comes to an end. It is this pre-natal experience which makes it possible for the new born to engage in an enkinaesthetic dialogical intimacy so soon after birth. It comes already equipped with a repertoire of actions, and as Sheets-Johnstone reminds us, these actions 'constitute that basic, vast, and potentially ever-expandable repertoire of "I cans" (Husserl, 1970, 1973, 1980, 1989) permeating human life: walking, speaking, reaching, hugging, throwing, carrying, opening, closing, brushing, running, wiping, leaping, pulling, pushing' (Sheets-Johnstone, 2009, pp. 255–6), and crucially the enaction of each 'I can' carries with it its own 'distinctive temporal-spatial-energetic qualities' (2009, p. 258). It is these temporal-spatial-energetic qualities that enable the modulation of our action and interaction as they occur within an horizon of the living-streaming present.<sup>8</sup> In providing the example of hearing a melody Husserl says:

consciousness is engaged in continuous alteration. The actual [*leibhaftig*] tonal now is constantly changed into something that has been; constantly, an ever fresh tonal now, which passes over into modification, peels off. However, when the tonal now, the primal impression, passes over into retention, this retention is itself again a now, an actual existent. And every retention is already a continuum. (§11, Husserl, 1964, pp. 50–1)

And later he continues, saying:

In order now to understand the disposition of this constituted unity of lived experience, 'memory', in the undivided stream of lived experience, the following must be taken into account: every act of memory contains intentions of expectation whose fulfillment leads to the present. Every primordially constitutive process is animated by protentions which voidly [*leer*] constitute and intercept [*auffangen*] what is coming, as such, in order to bring it to fulfillment. (§24, 1964, p. 76)

So, contrary to the temporal synchronist, horizons of living-streaming consciousness 'appear as potentialities for future activities and unfold in organized ways' (Ratcliffe, 2008, p. 131); there is no full-blown sense that what we are experiencing is happening at this particular non-extended, punctuated moment, all action brings with it expectation, protention, and anticipation.

Switching from an auditory example to a kinaesthetic one<sup>9</sup> reveals the diachronic horizon of conscious experience just as clearly. We might think back to our pre-reflective, pre-conceptual questioning of our world as we move around grasping, touching, and caressing enquiry, but similarly we could think of the rhythm, or momentum, we build up when walking on a

moving walkway in an airport, or when walking down a moving, descending escalator; think about how smoothly this intentional activity establishes kinaesthetic expectations about how the world will continue to be, and how in this engagement we are travelling with our background in the background, out of sight but not phenomenologically hidden. It is living-streaming sense-making enacted through our enkinaesthetic relations which draw us into a kind of kinaesthetic prosody with our changing world, and it's a prosody which is jarred and fragmented when we leave the walkway, or the next walkway we anticipate to be moving is not, or the escalator stops unexpectedly. At that point our background is foregrounded.

The content of the 'intuition' or experience is non-conceptual, pre-noetic, and neutral with regard to time, though that is certainly not to say it is atemporal. As Heidegger writes, 'in the non-linear how of our being we are "thrown" out of the past, we "fall" into the present, and "project" ourselves into the future in a structural unity' (Heidegger, 1962, p. 264, 221–2). The how of our being is plenisentient, vibrating with the still resonating echo of what has just passed, the vivacity of the current impression, and the associated energetic qualities of the anticipation of what might come. '[P]erceptual presence is not punctual; it is a field in which now, not-now, and not-yet-now are given in a horizontal gestalt' (Zahavi, 2007). So, experience is always processual and temporally recursive, happening in relation to all other experience, with our affective kinaesthetic and enkinaesthetic activity being a form of lived temporality, not an awareness of something occurring in time, and not a consciousness of time itself.

Perceptions are plaited into my here-now flow of movement just as my here-now flow of movement is plaited into my perceptions. Movement and perception are seamlessly interwoven; there is no 'mind-doing' that is separate from a 'body-doing'. (Sheets-Johnstone, 1999, p. 487)

And there is no 'body-doing' that is separate from 'world-doing', and all 'world-doing', that is, all action *simpliciter*, is affectively replete intersubjective, intercorporeal, and enkinaesthetic.

## 2. Husserlian 'intentional transgression'

For a psychic being to be, to have *Objective* existence, the *conditions of possibility of intersubjective givenness* must be fulfilled. (Husserl, 1989, p. 101)

The existence of a solipsistic experiencing agent or ego is also an impossibility for Husserl, but his suggested means of bridging the gap, from our own private experience as ego to the intersubjective experience of the other as an experiencing intentional alter ego, are less successful than the means

outlined above in the affective kinaesthetic and enkinaesthetic dialogue that exists necessarily – with the commencement of movement and sensation – between ego and other.<sup>10</sup> And, although we share the same desire to bridge or close the gap – to look for a path from the immanency of the ego to the transcendency of the Other – the enkinaesthetic approach has its feet firmly in the phenomenological camp, whilst Husserl claims that his doctrine does not: ‘The doctrine may lack a phenomenological foundation; but essentially it is right in the end, since it looks for a path from the immanency of the ego to the transcendency of the Other’ (Husserl, 1991, p. 89).

Husserl’s proposals are first a visual explanation (1991) and then, being unsatisfied with that, an auditory one (1989). In each case an ‘intentional transgression’ takes place and, in each case, it depends on an ‘analogizing apprehension’ of my perception of my body with the body of the other. ‘For Husserl, the own body is the basis for experiencing and understanding the corporeity or behaviour of the other. If the ego witnesses the other in his corporeity or in his bodily behaviour, an intentional transgression takes place’ (De Preester, 2008, p. 136). There’s a lot going on here, so, let’s unpick it a little.

In seeing the other’s body we cross its boundaries and ‘see’, that is, understand, it as being another living – ensouled – body or *Leib*. We co-present it and understand it to be, not simply a body like an object (*Körper*), but as having a psychic layer. In this we satisfy the *conditions of possibility of intersubjective givenness*, consciously aware of both ego and alter ego in this coupling or *Paarung*. In fact it is in *Paarung* that self and other are united in consciousness, not as one and the same thing, but corporeally analogized (having similar bodies) and psychically distinct but appresented (there is something more, a mind, but it is not experienced as my own). As Depraz reminds us, ‘*Paarung* contributes to the elucidation of intersubjectivity insofar as it reveals its deep bodily anchorage’ (Depraz, 2008, p. 239), and Gallagher and Meltzoff extend this to the proprioceptive awareness of the ego and alter ego, saying that ‘[t]he body schema, working systematically with proprioceptive awareness, operates as a proprioceptive self that is always already “coupled” with the other. What Husserl (1970) calls “intentional transgression” is operative from the very beginning’ (Gallagher and Meltzoff, 1996, p. 226). From an enkinaesthetic point of view, ‘from the beginning’ must include the commencement of spontaneous foetal movement and sensation, but, unfortunately, this cannot be the case for Husserl for whom visual and auditory analogizing require visual and auditory access to the agent’s own body and voice, respectively.

With his emphasis on the living body as the source of identification and co-constitution with the alter ego, and the fact that ‘[a]ll perceptual appearances are accompanied by a co-functioning but unthematized kinesthetic experience’ (Zahavi, 1994, p. 67) to such an extent that ‘kinesthesia must be regarded as a condition of possibility for the constitution of the object as an

identity in a manifold of appearances' (ibid., pp. 67–8), it seems strange that enkinaesthetic affect remains undisclosed, lying latent, for it is that affective folding, unfolding, and enfolding, which is the constitutive precondition for intersubjectivity and communication, and not simply an observed moving body observed by another moving body, on occasion, returning the observation. The observer experiences their world plenisentiently and so the identification of the object or the other living body will be through a blend or combination of sense modalities. So, for example, we have a blend of visuo-motor capacities in this example, and they will be accompanied by affect relayed through the somatosensory system:

Infants already apprehend, with quickly-improving precision, the equivalencies between the visible body transformations of others and their own invisible body transformations which they experience proprioceptively. The concept of a supramodal code means that the visual and motor systems speak the same 'language' right from birth. (Gallagher and Meltzoff, 1996, p. 225)

Intentional transgression is inherent in our enkinaesthetic dialogue as the prenoetic affect, which makes alter ego identification, co-presentation, mutual understanding, and co-action possible. It is an experientially recursive dynamic – where changes in my existence are provoked by changes in the other, and these, in turn, change her – which forms the extended enkinaesthetic melodies of relationships-in-time. '[T]aking up [the other's] intention is not a process of thinking on my part, but a synchronizing change of my own existence, a transformation of my being' (Merleau-Ponty, 1962, pp.183–4) wherein the reciprocity and community of this synchronized co-modulation with other living-streaming, feeling bodies, and things is what constitutes full-bodied pre-linguistic sense-making relations.

So, with an enkinaesthetic phenomenology which seeks the intersubjective as a condition and not as a problem, one would wonder why anyone would need to conceive of another way of reinforcing solipsism, but still they do, and this is where we get Dennett's notion of heterophenomenology: the 'phenomenology of *another* not oneself' (Dennett, 2003).

### 3. Heterophenomenology

[H]eterophenomenology is nothing new; it is nothing other than the method that has been used by psychophysicists, cognitive psychologists, clinical neuropsychologists, and just about everybody who has ever purported to study human consciousness in a serious, scientific way. (Dennett, 2003, p. 22)

It is, he continues, ‘the bridge – between the subjectivity of human consciousness and the natural sciences’ (2007, p. 249) and ‘the way to save the rich phenomenology of consciousness for scientific study’ (2003, p. 19), for

What this interpersonal communication enables you, the investigator, to do is to compose a catalogue of *what the subject believes to be true about his or her conscious experience*. The total set of details of heterophenomenology, plus all the data we can gather about concurrent events in the brains of subjects and in the surrounding environment, comprise the total data set for a theory of human consciousness. It leaves out no objective phenomena and no subjective phenomena of consciousness. (Dennett, 2003, p. 20)

Now, whilst I agree with Dennett that the investigator is a heterophenomenologist, it seems at the same time to be a truism. We are all both observers and observed, both the subjects of experience and the objects of other’s experience. We are all experiencers within a modally and socially complex horizon of dynamic affective enkinaesthetic relations, affecting other feeling sensing bodies and bringing about change in our world, and being affected by other agents and things. We are naturally phenomenological and naturally heterophenomenological, and there’s no escaping it, unless, of course, we are sociopathic. Our enkinaesthetic background enables us to slide easily from ego to alter ego, spilling over into the experiential life of the other, in our ongoing plenisentient prebending and apprehending enquiry.

In two fields, quite distinct from the infant and pre-natal studies or the Husserlian phenomenological project already mentioned, we can find support for the enkinaesthetic background thesis. These fields are the theory of event coding (TEC) (Hommel *et al.*, 1998), and the mirror neuron theory; each draws on cognitive and ecological theories of action<sup>11</sup> to open up the ‘intentional transgression’ that operates routinely at a pre-linguistic and, nearly always at a, sub-personal level. By implication, from all that has been said, it is the entwined experiential presence, the enkinaesthetic backgrounding, which makes this possible.

According to TEC perception, attention, intention, and action share a common ‘representational’ domain, where ‘representational’ is used to refer to a ‘common code’ that exists for perceptual and motor action such that perceiving an event will activate the associated action, and acting will activate the associated perception.

Basically, the theory holds that cognitive representations of events (i.e., of any to-be-perceived or to-be-generated incident in the distal environment) subserve not only representational functions (e.g., for perception, imagery, memory, reasoning) but action-related functions as well (e.g., for

action planning and initiation). According to TEC, the core structure of the functional architecture supporting perception and action planning is formed by a common representational domain for perceived events (perception) and intended or to-be-generated events (action). (Hommel et al., 1998, p. 849)

This work provides interesting and robust support for the kinaesthetic imagination and anticipation claims made earlier, but there's also much more than this. There's context understanding and evaluation made possible by the enkinaesthetic experiential entanglement which operates, not only intra-specifically, but also inter-specifically, and interobjectively,<sup>12</sup> making it possible to understand and anticipate the other's intentional trajectory. As Ricoeur says, 'understanding is not concerned with grasping a fact but with apprehending a possibility of being' (1981, p. 56), and understanding these action possibilities in other agents is crucial for our social lives and, ultimately, our survival.

Rizzolatti and his colleagues have argued that action imitation is not the primary function of the mirror neuron system, rather it is the basis for action understanding.<sup>13</sup> (Rizzolatti et al., 2001) They ask what the neural mechanisms might be that underlie action understanding, where by 'action understanding' they mean 'the capacity to achieve the internal description of an action and to use it to organize appropriate future behaviour' (ibid., p. 661). Their response is that 'Virtually all mirror neurons show congruence between the visual actions they respond to and the motor responses they code' (Rizzolatti and Craighero, 2004, p. 170), and that

Each time an individual sees an action done by another individual, neurons that represent that action are activated in the observer's premotor cortex. This automatically induced, motor representation of the observed action corresponds to that which is spontaneously generated during active action and whose outcome is known to the acting individual. Thus, the mirror system transforms visual information into knowledge. (ibid., p. 172)

De Preester reworks this in an Husserlian context saying that 'the visual perception of the body of the other is mapped onto our own kinaesthetic representation, or the *Körper* is mapped onto the *Leib* (and receives the latter's status). Thanks to this identification, an understanding of the other arises' (2008, p. 139). But again there is much more going on.

Mirror neurons, which are found in the inferior frontal gyrus (region F5), the inferior parietal lobule (Di Pellegrino et al., 1992; Gallese et al., 1996; Rizzolatti et al., 1996), and the cortex of the superior temporal sulcus (Perrett et al., 1989, 1990) in Macaque monkeys, are activated when they engage in action and when they perceive goal-directed action in others. But the

stronger claim, and the one that underpins the enkinaesthetic background, is that mirror neurons may provide for the agent an 'inner view' but only because they have first an outer view of something with which they have a co-feeling (Di Pellegrino et al., 1992; Gallese et al., 1996; Rizzolatti et al., 1996), and crucially, I am arguing, that that co-feeling comes first, making us natural heterophenomenologists. The distribution of mirror neurons and the fact that most are somatosensory supports this claim: in the rostral part of the inferior parietal lobule a third of the neurons are somatosensory, just over one-tenth are visual, and the other 56 per cent are bimodal (somatosensory and visual) neurons (Rizzolatti and Craighero, 2004).

Like Marbach (2007), I agree that Dennett's 'own first-person point of view is *presupposed* in [his] ability to be a heterophenomenologist' (Dennett, 2007, p. 265). We anticipate the intentional arc of the other, even if we don't speak their language, because we are prehensively open and share with them a lived experiential domain, one in which the background assumptions are more readily available than when language masks and sometimes, as in the case of deception, fictionalizes them. Dennett maintains that we would 'work around our mismatch in habits' (ibid.), precisely so, but these would be enkinaesthetic bodily habits, of which we have a life-time's co-agential experience. And yet that life-time's worth of experience can be quite short and still reveal itself as enkinaesthetically, intentionally, and comprehensively rich:

A baby of fifteen months opens its mouth if I playfully take one of its fingers between my teeth and pretend to bite it. And yet it has scarcely looked at its face in a glass, and its teeth are not in any case like mine. The fact is that its own mouth and teeth, as it feels them from the inside, are immediately, for it, an apparatus to bite with, and my jaw, as the baby sees it from the outside, is immediately, for it, capable of the same intentions. Biting has immediately, for it, an intersubjective significance. It perceives its intentions in its body, and my body with its own, and thereby my intentions in its own body. (Merleau-Ponty, 1962, p. 410)

For Husserl, as De Preester writes, '[t]he apperceptive transfer, in which the other is constituted as another *Leib*, and thus as having a psyche, is the point of arrival in both cases' (2008, p. 136), and heterophenomenology becomes something we must posit scientifically, distancing it yet again from the natural and experiential, but, if we take neither the visual nor the auditory senses to be primary, and instead focus on the kinaesthetic and enkinaesthetic we have no puzzle to resolve, we are affectively engaged from the outset with both *Leib* and *Körper*, and not as a point of arrival but as our point of departure.

There can be little doubt that Dennett's presentation of 'heterophenomenology' is intended to provoke and amuse his audience, but it need not exist



in its current Dennettian – deliberately distancing, keeping the gap prised open – formulation. We are natural heterophenomenologists through our enkinaesthetic experiential entanglement, and this begins with the commencement of movement, exploration, and sensation.

So, it is patronising of Dennett to feign ‘saving’ the rich phenomenology of consciousness for scientific study when his concern remains, counter-intuitively,<sup>14</sup> with utterances – ‘For heterophenomenologists, the primary data are the utterances, the raw, uninterpreted data. But before we get to theory, we can interpret these data, carrying us via (c) speech acts to (b) beliefs about experiences’ (Dennett, 2003, p. 21). His approach is retrogressive and constraining, appealing once again to cognitivist, symbolic, representational and solipsizing notions that simply overlook, or dismiss as trivial, the enkinaesthetic sensuous co-agency that is their very essence and pre-condition. Without the enkinaesthetic background, we would have no heterophenomenological capacity we would have no science, no philosophy, no art, and no language (Stuart, 2011), and even a cursory look at the scientific community reveals that our enkinaesthetically guided intentional engagement with our world is already the subject of extraordinary scientific investigation,<sup>15</sup> and the desire to naturalize phenomenology is, with no pun intended, an entirely natural aspect of that science.<sup>16</sup> Perhaps, after all it is simply that, as observed by Wittgenstein, Dennett just fails to be struck by what is most striking and most powerful.

## Notes

1. ‘Enkinaesthesia’ is characterized by ‘immanence’, a term used by Deleuze and Guattari (1980) to emphasize the direct, non-duality of the inescapable experience of ‘other’. This is also emphasized in the use of ‘enkinaesthesia’ as opposed to ‘interkinaesthesia’ because (i) with the prefix ‘en’ the experiential entanglement of agent and agent, agent and object is emphasized and (ii) it doesn’t bastardize the Latin and Greek etymological roots.
2. For a range of approaches to embodied cognition, see Wilson (2002); for philosophical, psychiatric, and neuroscientific approaches see Hundert (1989); and for a very up-to-date resource on philosophical approaches to the mind-body see Taylor (2010).
3. Clark provides the starkest example of an individual-centred cognitive approach in his hypothesis of organism-centered cognition (HOC):  
Human cognitive processing (sometimes) literally extends into the environment surrounding the organism. But the organism (and within the organism, the brain/CNS) remains the core and currently the most active element. Cognition is organism centered even when it is not organism bound (Clark, 2008, p. 139).
4. Possibly a phrase originating in Plato’s *Phaedrus*, 265d–266a.
5. This is not to suggest that they haven’t thought how to but brain, body and world back together again, see for example, Clark (1997); it’s just that their approach, can all too frequently, seem dangerously skewed in an unhelpful direction.
6. See also a germinal paper on this topic by O’Regan and Noë (2001).

7. 'Synrhythmia' can be defined as the reciprocal co-regulation of well-being or experience.

In each environment, the vitality of the child is dependent on regulations across a succession of 'frontiers' with the human world, first physiological or amphoteronomic, then by the special direct psychological communications which we define as synrhythmic, and finally by sharing symbolic awareness of culture and language. (Trevarthen et al., 2006, p. 69)

8. We need only observe the experience of people suffering with visual or cerebral akinetopsia (motion blindness) to see how successful action depends on an experiential horizon. LM, the patient most frequently cited in this studies, 'had difficulty in pouring tea or coffee in a cup because the fluid appeared to be frozen, like a glacier. She could not cross the street because of her inability to judge the speed of a car, but she could identify the car itself without difficulty' (Zihl et al., 1983, p. 315. See also Zeki, 1991 for an excellent review.)
9. Modalities act singly only in very unusual and infrequent circumstances, possibly following neurological damage or in ecologically invalid scientific experiments.
10. The problem of other minds continues to present as an enormous problem in the philosophy of mind, and the scientized notion of heterophenomenology, only serves to deepen and sustain the divide between experience and science. But the naturalistic approach presented in the necessary affective enkinaesthetic dialogue deflates the problem once and for all because we are inherently, pre-cognitively, communicative.
11. The influence of the cognitive and ecological sciences can be seen in the following quotation, as can the authors' non-specific use of the term 'representation':  
In constructing TEC, we have drawn on many ideas from other theoreticians, especially, of course, those emphasizing the intimate relationship between perception and action planning. For instance, we share the general perspective of Dewey (1896) and Gibson (1979) that perception and action are functionally linked and that it is only their coordination that allows for adaptive behavior. We further adopt the notion put forward by Greenwald (1970), James (1890), and Lotze (1852) that action control is anticipatory, that is, controlled by representations of intended action effects. And we also follow Allport (1987) and Singer (1994) in assuming that representations of perceptual contents and action plans are content-specific composites of codes presumably stored in a distributed fashion (Hommel et al., 1998, p. 859).
12. Interobjective entanglement is mentioned only to remind the reader that agents must also be moved by objects, not just agents in their environment, for otherwise they would be incapable of evaluating the affordance the object can have for them.
13. This is still consistent with the claim by Jeannerod (1994) that mirror-neuron activity mediates imitation.
14. I suspect that Dennett is using the term 'phenomenology' synonymously with 'qualia' and, in so doing, he demonstrates his unwillingness to move beyond his intellectual preconceptions.
15. There's too much to list here, but see, for example, the work of Vasu Reddy on infant communication [2008], the work that has followed on from Francisco Varela's presentation of neurophenomenology as a formal methodology [1996], and the cognitive ethological work carried out by Juan-Carlos Gomez (2009, 2010, 2011).

16. See, for example, the fascinating work of Panksepp (1998a,1998b), Reddy (2008), Malloch and Trevarthen (2009), Bråten (2009), Stern (2000, 2010), Markoš et al., (2009), and, of course, the 'dynamic sensorimotor hypothesis' Hurley and Noë (2003) in which they outline the way in which qualitative expression, and thus communication, depends on dynamic patterns of interdependence between sensory stimulation and embodied activity.

## References

- Allport, D. A. (1987) 'Selection for action: Some behavioral and neurophysiological considerations of attention and action' in H. Heuer and F. Sanders (eds.) *Perspectives on Perception and Action* (Hillsdale, NJ: Erlbaum).
- Bråten, S. (2009) *The Intersubjective Mirror in Infant Learning and Evolution of Speech* (Amsterdam/Philadelphia: John Benjamins).
- Chamberlain, D. B. (1995) 'Communication Before Language', <http://www.birthpsychology.com/lifebefore/comm.html>, accessed 20 September 2010.
- Chamberlain, D. B. (1997) 'The Fetal Senses: A Classical View', <http://www.birthpsychology.com/lifebefore/fetalsense.html>, accessed 20 September 2010.
- Cicchetti, D. and Cohen, D. J. (2006) *Developmental Psychopathology*, Vol. 2, (New York: John Wiley & Sons, Inc.).
- Clark, A. (1997) *Being There: Putting Brain, Body, and World Together Again* (Cambridge, MA/London: MIT Press).
- Clark, A. (2008) *Supersizing the Mind: Embodiment, Action, and Cognitive Extension* (Oxford: Oxford University Press).
- Cotterill, R. M. J. (1995) 'On the unity of conscious experience', *Journal of Consciousness Studies*, 2(4–5), 290–311.
- Cotterill, R. M. J. (1998) *Enchanted Looms: Conscious Networks in Brains and Computer* (Cambridge: Cambridge University Press).
- Dennett, D. C. (2003) 'Who's on first? Heterophenomenology explained', *Journal of Consciousness Studies*, 10 (9–10), 19–30.
- Dennett, D. C. (2007) 'Heterophenomenology Reconsidered', *Phenomenology and the Cognitive Sciences*, 6 (1–2), 247–70.
- Depraz, N. (2008) 'The rainbow of emotions: at the crossroads of neurobiology and phenomenology', *Continental Philosophy Review*, 41 (2), 237–59.
- De Preester, H. (2008) 'From ego to alter ego: Husserl, Merleau-Ponty and a layered approach to intersubjectivity', *Phenomenology and the Cognitive Sciences*, 7 (1), 133–42.
- Dewey, J. (1896) 'The reflex arc concept in psychology', *Psychological Review*, 3, 357–70.
- Di Pellegrino, G., L. Fadiga, L. Fogassi, V. Gallese, and G. Rizzolatti (1992) 'Understanding motor events: a neurophysiological study', *Experimental Brain Research*, 91, 176–80.
- Gallagher, S. and A. Meltzoff, (1996) 'The earliest sense of self and others: Merleau-Ponty and recent developmental studies', *Philosophical Psychology*, 9 (2), 211–34.
- Gallese, V., L. Fadiga, L. Fogassi, and G. Rizzolatti (1996) 'Action recognition in the premotor cortex', *Brain*, 119, 593–609.
- Gibson, J. J. (1979) *The Ecological Approach to Visual Perception* (Boston: Houghton Mifflin).

- Gomez, J. (2009) 'Embodying meaning: Insights from primates, autism, and Brentano', *Neural Networks*, 22(2), 190–6.
- Gomez, J. (2010) 'The emergence of eye contact as an intersubjective signal in an infant gorilla: implications for models of early social cognition', *Acción Psicológica*, 7(2), 35–43.
- Gomez, J. (2011) 'The ontogeny of triadic cooperative interactions with humans in an infant gorilla', *Interaction Studies*, 11(3), 353–79.
- Greenwald, A. G. (1970) 'Sensory feedback mechanisms in performance control: With special reference to the ideomotor mechanism', *Psychological Review*, 77, 73–99.
- Heidegger, M. (1962) *Being and Time* (London: SCM Press).
- Hommel, B., J. Messeler, G. Aschersleben, and W. Prinz (1998) 'The Theory of Event Coding (TEC): A Framework for Perception and Action', *Behavioral and Brain Sciences*, 24, 849–937.
- Hundert, E. M. (1989) *Philosophy, Psychiatry and Neuroscience—Three Approaches to the Mind: A Synthetic Analysis of the Varieties of Human Experience* (Oxford: Clarendon Press).
- Hurley, S. L. and A Noë (2003) 'Neural Plasticity and Consciousness', *Biology and Philosophy*, 18, 131–68.
- Husserl, E. (1959) *Erste Philosophie* (1923/4) *Erster Teil: Kritische Ideengeschichte* (First Philosophy (1923/24), Part 1: Critical History of Ideas), R. Boehm (ed.) (The Hague, Netherlands: Martinus Nijhoff).
- Husserl, E. (1964) *On the Phenomenology of the Consciousness of Internal Time* (Bloomington, IN: Indiana University Press).
- Husserl, E. (1970) *The Crisis of European Sciences and Transcendental Philosophy*, (1936/54), D. Carr, trans. (Evanston: Northwestern University Press).
- Husserl, E. (1973) *Zur Phänomenologie der Intersubjektivität*, Dreiter Teil: 1929–1935, *Husserliana* (Vol. 15) (The Hague: Martinus Nijhoff).
- Husserl, E. (1977) *Phenomenological Psychology*, trans. J. Scanlon (The Hague: Martinus Nijhoff).
- Husserl, E. (1983) *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, First Book (Ideas I), trans. F. Kersten (The Hague: Martinus Nijhoff).
- Husserl, E. (1989) *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, Second Book (Ideas II), trans. R. Rojcewicz and A. Schuwer (Dordrecht: Kluwer).
- Husserl, E. (1991) *Cartesian Meditations: An Introduction to Phenomenology*, D. Cairns (trans.) (The Hague : Nijhoff, Kluwer Academic Press).
- James, W. (1890/1981) *The Principles of Psychology* (Macmillan/Harvard University Press).
- Jeannerod, M. (1994) 'The representing brain Neural correlates of motor intention and imagery', *Behavioral and Brain Science*, 17, 87–245.
- Lecanuet, J.-P., W. P. Fifer, N. A. Krasnegor and W. P. Smotherman (eds.) (1995) *Fetal Development: A Psychobiological Perspective* (Hillsdale, NJ: Erlbaum).
- Lotze, R. H. (1852) *Medicinische Psychologie oder Physiologie der Seele* (Leipzig: Weidmann/ 1966 Amsterdam: Bonset).
- Luria, A. R. (1973) *The Working Brain: An Introduction to Neuropsychology*, transl. B. Haigh (London : Allen Lane).
- Malloch, S. and C. Trevarthen (2009) (eds.) *Communicative Musicality: Exploring the Basis of Human Companionship* (Oxford: Oxford University Press).

- Marbach, E. (2007) "No heterophenomenology without autophenomenology: Variations on a theme of mine", *Phenomenology and the Cognitive Sciences*, 6 (1–2), 75–87.
- Markoš, A., F. Grygar, L. Hajnal, K. Kleisner, Z. Kratochvíl, and Z. Neubauer (2009) *Life as Its Own Designer: Darwin's Origins and Western Thought* (Biosemiotics) (Dordrecht: Springer).
- Maturana, H. (1988) 'Ontology of observing: The biological foundations of self-consciousness and the physical domain of existence', *Texts in Cybernetic Theory*, American Society for Cybernetics.
- Merleau-Ponty, M. (1962) *Phenomenology of Perception*, C. Smith (trans.) (London: Routledge & Kegan Paul).
- Merleau-Ponty, M. (1963) *The Structures of Behavior*, A. L. Fisher (trans.) (Boston: Beacon Press).
- O'Regan, J.K. and A. Noë (2001) 'A sensorimotor account of vision and visual consciousness', *Behavioral and Brain Sciences*, 24 (5), 939–1031.
- Panksepp, J. (1998a) 'The periconscious substrates of consciousness: Affective states and the evolutionary origins of the self', *Journal of Consciousness Studies*, 5 (5–6), 566–82.
- Panksepp, J. (1998b) *Affective Neuroscience: The Foundations of Human and Animal Emotions* (New York: Oxford University Press).
- Piontelli, A. (1992) *From Fetus to Child: An Observational and Psychoanalytic Study* (London/New York: Tavistock/Routledge).
- Piontelli, A. (2002) *Twins: From Fetus to Child* (London: Routledge).
- Perrett, D. I., M. H. Harries, R. Bevan, S. Thomas, P. J. Benson, A. J. Mistlin, A. J. Chitty, J. K. Hietanen, and J. E. Ortega (1989) 'Frameworks of analysis for the neural representation of animate objects and actions', *Journal of Experimental Biology*, 146, 87–113.
- Perrett, D. I., A. J. Mistlin, H. M. Harries, and A. J. Chitty (1990) 'Understanding the visual appearance and consequence of hand actions' in M. A. Goodale (ed.) *Vision and Action: The Control of Grasping* (Norwood, NJ: Ablex), 163–342.
- Ratcliffe, M. (2008) *Feelings of Being: Phenomenology, Psychiatry and the Sense of Reality* (Oxford: Oxford University Press).
- Reddy, V. (2008) *How Infants Know Minds* (Cambridge MA: Harvard University Press).
- Ricœur, P. (1981) *Hermeneutics and the Human Sciences* (Cambridge: Cambridge University Press).
- Rizzolatti, G., L. Fadiga, L. Fogassi, and V. Gallese (1996) 'Premotor cortex and the recognition of motor actions', *Cognitive Brain Research*, 3, 131–41.
- Rizzolatti, G., L. Fogassi and V. Gallese (2001) 'Neurophysiological mechanisms underlying the understanding and imitation of action', *Nature Reviews, Neuroscience*, 2, 661–70.
- Rizzolatti G., and L. Craighero (2004) 'The mirror-neuron system', *Annual Review of Neuroscience*, 27, 169–92.
- Scerif, G., J. C. Gomez, and R. W. Byrne (2004) 'What do Diana monkeys know about the focus of attention of a conspecific?' *Animal Behaviour*, 68, 1239–47.
- Sheets-Johnstone, M. (1990) *The Roots of Thinking* (Temple University Press).
- Sheets-Johnstone, M. (1999) *The Primacy of Movement* (Amsterdam/Philadelphia: John Benjamins).
- Sheets-Johnstone, M. (2000) 'Kinetic tactile-kinesthetic bodies: Ontogenetical foundations of apprenticeship learning', *Human Studies*, 23, 343–70.

- Sheets-Johnstone, M. (2003) 'Kinesthetic Memory', *Theoria et Historia Scientiarum*, 7, 69–92.
- Sheets-Johnstone, M. (2009) 'Animation: The fundamental, essential, and properly descriptive concept', *Continental Philosophy Review* 42(3), 375–400.
- Singer, W. (1994) 'The organization of sensory motor representations in the neocortex: A hypothesis based on temporal coding' in C. Umiltà and M. Moscovitch (eds.) *Conscious and nonconscious information processing: Attention and performance XV* (Cambridge, MA: MIT Press).
- Stern, D. N. (2000) *The Interpersonal World of the Infant: A View from Psychoanalysis and Development Psychology*, (Second Edition, with new Introduction) (New York: Basic Books).
- Stern, D. N. (2010) *Forms of Vitality: Exploring Dynamic Experience in Psychology and the Arts* (Oxford: Oxford University Press).
- Sherrington, S. S. (1947/1906) *The Physiological Position and Dominance of the Brain* (New Haven, CT: Yale University Press).
- Stuart, S. A. J. (2006) 'Extended Body, Extended Mind: The Self as Prosthesis' in R. Pepperell and M. Punt (eds.) *Screen Consciousness: Mind, Cinema and World* (Amsterdam, New York: Rodopi).
- Stuart, S. A. J. (2007) 'Machine Consciousness: Cognitive and Kinaesthetic Imagination', *Journal of Consciousness Studies*, Imprint Academic, 14 (7), 141–53.
- Stuart, S. A. J. (2008) 'From Agency to Apperception: Through Kinaesthesia to Cognition and Creation', *Journal of Ethics and Information Technology*, 10, 255–64.
- Stuart, S. A. J. (2010a) 'Conscious Machines: Memory, Melody and Imagination', *Phenomenology and the Cognitive Sciences*, 9 (1), 37–51.
- Stuart, S. A. J. (2010b) 'Enkinaesthesia, Biosemiotics and the Ethiosphere' in Cowley, S. J., J. C. Major S. Steffensen and A. Dinis (eds.) *Signifying Bodies: Biosemiosis, Interaction and Health*, (Braga: Portuguese Catholic University Press), 305–30.
- Taylor, J. G. (2010) 'Mind-body problem: New approaches', [http://www.scholarpedia.org/article/Mind-body\\_problem](http://www.scholarpedia.org/article/Mind-body_problem)
- Trevarthen, C., K. J. Aitken, M. Vandekerckhove, J. Delafieldt-Butt and E. Nagy (2006) 'Collaborative Regulations of Vitality in Early Childhood: Stress in Intimate Relationships and Post natal Psychopathology' in Cichetti and Cohen (2006).
- Trevarthen, C. and V. Reddy (2007) 'Consciousness in infants' in M. Velman and S. Schneider (Eds.) *A Companion to Consciousness* (Oxford: Blackwells), 41–57.
- Varela, F. (1996) 'Neurophenomenology: A methodological remedy for the hard problem', *Journal of Consciousness Studies* 3, 330–49.
- Varela, F. (1999) 'Steps to a science of Interbeing: Unfolding the Dharma implicit in modern cognitive science' in G. Watson, S. Batchelor, and G. Claxton (eds.) *The Psychology of Awakening: Buddhism, Science and Our Day-to-day Lives* (New York, NY: Rider/Random House), 71–89.
- Varela, F., E. Thompson, and E. Rosch (2003). *The Embodied Mind: Cognitive Science and Human Experience* (Cambridge: MIT Press).
- Velman, M. and S. Schneider (eds.) (2007) *A Companion to Consciousness* (Oxford: Blackwells).
- Wilson, M. (2002) 'Six Views of Embodied Cognition', *Psychonomic Bulletin and Review*, 9 (4), 625–36.
- Wittgenstein, L. (1953) *Philosophical Investigations*, G. E. M. Anscombe (trans.) (New York: Macmillan).
- Zahavi, D. (1994) 'Husserl's Phenomenology of the Body', *Études Phénoménologiques*, 19, 63–84.

- Zeki, S. (1991) 'Cerebral akinetopsia (visual motion blindness): A review', *Brain*, 114, 811–24.
- Zihl, J., D. von Cramon, and N. Mai (1983) 'Selective disturbance of movement vision after bilateral brain damage', *Brain*, 106, 313–40.
- Zimmermann, F., F. Zemke, J. Call, J. Gomez, and M. Tomasello (2009) 'Orangutans (*Pongo pygmaeus*) and bonobos (*Pan paniscus*) point to inform a human about the location of a tool', *Animal Cognition* 12, 347–58.

# 9

## Steps Entailed in Foregrounding the Background: Taking the Challenge of Linguaging Experience Seriously

Maxine Sheets-Johnstone

*'[C]onsciousness of the world [...] is in constant motion; we are conscious of the world always in terms of some object-content or other, in the alteration of the different ways of being conscious (intuitive, nonintuitive, determined, undetermined, etc.) and also in the alteration of affection and action, in such a way that there is always a total sphere of affection and such that the affecting objects are now thematic, now unthematic; here we also find ourselves, we who always and inevitably belong to the affective sphere, always functioning as subjects of acts but only occasionally being thematically objective as the object of preoccupation with ourselves'*

(Husserl, 1970a, p. 109)

*'There is a longstanding controversy about the respective roles of the two main first-person cues in conscious knowledge about one's actions. This issue was the topic of the classical "Two Williams Debate", where Wilhelm Wundt held that our knowledge is based on a priori efferent information of a central origin, whereas William James defended the opposite opinion that all that we know about our movements is based on a posteriori information from sensory organs. [...] Experimenters have consistently failed to resolve this issue, mainly because of the methodological difficulty of isolating the two sources of information from one another. There are no reliable methods for suppressing kinesthetic information arising during the execution of a movement'*

(Jeannerod, 2006, p. 56; emphases added)

### 1. Introduction

This chapter is an attempt to foreground the background by a critical examination of contemporary language practices that unthinkingly cast the



background ever further into darkness. The practices oftentimes arise in the context of attempts to take experience into serious account. Such attempts, notably those in cognitive science, neuroscience, and diverse strands of philosophy, necessarily involve the dual challenges of studying experience and of languaging it, challenges that unfortunately can and often do go unnoticed. When they do, the subtleties and complexities of experience and the words that might do them justice are overridden either by traditional ways of thinking together with their traditional vocabulary or by the invention of a new global term that signifies a range of ideas putatively capturing the whole of experience, thereby putting subjectivity from the ground up into a linguistic nutshell. In constructive terms, the aim of the chapter is to show that movement and affectivity – what Husserl consistently referred to as ‘action and affect’ and described as ‘the root soil’ – are crucial existential dimensions of any cognitive human venture. Focal attention is thus due to them in any endeavour to uncover the foundations of human knowledge. It matters not whether the endeavour be that of an individual or a school of thought, or whether it is in the context of methodological concerns or of a scientific enterprise. Indeed, the chapter aims to show that elucidations of movement and affectivity are not just essential, indispensable staples of human knowledge and self-understanding; they are of fundamental importance in their own right. As such, they demand assiduous examination and fine-grained analyses to the end that their relegation to second-class background status be recognized for the error it is and their integral and integrated relationship to cognition be justly brought to light.

That the kinetic and affective dimensions of experience remain largely uninvestigated by phenomenologists as areas of study in and of themselves and of no less significance than cognition itself is a lapse only partially explainable by Husserl’s insistently ‘underground’ characterization of them.<sup>1</sup> Husserl observes, for example, that ‘the subject of spiritual acts’ – the reasoning subject – ‘finds itself dependent on an *obscure underlying basis* of traits of character, original and latent dispositions, and thereby dependent on nature’ (Husserl 1989, p. 289; italics in original). He speaks specifically in this context of ‘the ancient distinction’ between reason and sensibility, sensibility being ‘a stratum of *hidden reason*’ (ibid.; italics in original), a stratum he elsewhere specifies as ‘instinct’ (Husserl 1970, p. 52; see also Husserl 1989, p. 346). He later likens the stratum to a ‘root soil’ (ibid., p. 292), ‘a *background that is prior to all comportment* and [that] is [...] presupposed by all comportment’ (ibid., p. 291; italics in original). In all such observations, Husserl distinctly indicates that we cannot scrutinize the background. At the same time, however, he writes consistently of ‘affect and action’ and at length of ‘the animate organism’. There is thus clearly a paradox in that ‘affect and action’ are not in and of themselves background phenomena and the animate organism is in fact scrutable. In turn, the idea dawns – indeed, there is a clear intimation – that *animation* is at the heart of what is traditionally

dubbed ‘the background’ – a spatial metaphor, we might note, strongly suggestive of a visual origin and orientation and perhaps even visual bias – and that phenomenological attention to, and investigations of animation – not a metaphor at all, but the bedrock of life across the animal kingdom – may readily resolve the paradox. *Animation* is patently ‘prior to all comportment’, after all, and is ‘presupposed by all comportment’. In finer Husserlian terms, movement and affectivity are prior to all position-taking acts: in and of themselves, they disclose the primordial ground of animation, the natural ground of all motivated and intentional acts of the animate organism, who is not only part of Nature as one of untold numbers of other animate forms, but substantively nature through and through. Moreover due attention to the actual experience of affectivity and movement – of ‘action and affect’ – readily contravenes the idea that the background is inscrutable, that is, closed to phenomenological analysis (see, for example, Sheets-Johnstone, 1999a/expanded second edition 2011, 1999b). Indeed, what Zahavi characterizes as ‘shared manner of givenness’ with respect to experiences being the experiences of the same subject or ‘self’<sup>2</sup> (Zahavi, 2005, p. 132; see also Zahavi, 2000, pp. 67–8) rests on animation in its doubly primordial sense of movement and affectivity, dimensions of the ego that, as Zahavi himself notes, Husserl cites over and over again ‘[i]n his repeated characterization of the ego as a *pole or center of action and affection*’ (Zahavi, 2000, note 6, p. 70; italics in original).

A phenomenology that passes over this foundational egoic ground omits what is essential in a veritable phenomenology, that is, a probing of ‘the root soil’ that is ‘action and affect’. If the ego-pole is ‘[a]n absolutely identical, though non-autonomous, centre for affects and actions’ (Husserl, 1989, p. 324), if ‘even each free act has its comet’s tail of nature’ (ibid., p. 350), if a ‘root soil’ supports and extends ‘even into the sphere of position-taking’ (ibid., pp. 292–3), if ‘[e]very spirit has a “natural side”’ that is ‘precisely the underlying basis of subjectivity’ (ibid., p. 292), then surely it behoves us to recognize and attempt to illuminate this soil, to recognize that the roots of subjectivity can be plumbed phenomenologically.

What comes prominently to light in this phenomenological archaeology of human nature is the fact that ‘subjective feel’ is basically not a matter of a ‘my’ at the heart of experience (cf. Zahavi 2000, 2005) but of *felt qualitative dynamics*, and in fact of a *developmental familiarity* with respect to felt qualitative dynamics (Sheets-Johnstone, 2006a). It is thus equally not a matter of a vague, phenomenologically under-described ‘first-person givenness’ (Zahavi, 2000, 2005), but of those same developmentally established familiar dynamics that commonly hover recessively but not hermetically at the borders of focal awareness in typical everyday adult experience. Indeed, when we consult adult human experience, when we *do* phenomenology, we see that what is ‘given’ at the most basic level in wakeful activity are the *felt dynamics* of wakeful activity (Sheets-Johnstone, 2006a) – the felt dynamics of raking leaves, of recoiling at the sight of an accident, of picking up a bag

of groceries, of excitement at the prospect of a meeting, and so on. In light of these felt dynamics, the consciousness that is 'in constant motion' (Husserl, 1970, p. 109) is not a metaphoric or otherwise figurative consciousness but a literally animated consciousness resonating kinaesthetically and affectively in the ongoing dynamics of life itself. In finer terms, animate beings are indeed *animate*, animate through and through; they are in motion not simply on behalf of perception, but on behalf of feelings, projects, images, memories, and so on, which at a more fundamental level of analysis is to say they are in motion far less on the basis of '*fields of sensation*' (Husserl, 1973, p. 97) than on the basis of fields of dynamic patternings (Kelso, 1995; Kelso and Engström, 2006; Sheets-Johnstone, 2010a, 2010b), which in the end is only to affirm what Husserl himself consistently if implicitly affirms: we are not merely *organisms*, but *animate organisms*.

## 2. The background in light of contemporary language practices; motor talk and other such linguistic obfuscations

Consistent talk of motor activity, motor plans, motor intentions, motor processes, motor intentionality, and so on (for example, Varela and Shear, 1999; Varela, Thompson, and Rosch, 1991; Merleau-Ponty, 1962; Noë, 2004; Thompson, 2007), removes all thought of animation from the scene of discussion, much less recognizes animation as foundational to the discussion itself. The language is unfortunate since animation is the bedrock of the multi-faceted dynamics that constitute our everyday aliveness and is thus essential both to understandings of 'the background' and to any possible harmonization of first- and third-person accounts.

Kinaesthesia is exemplary in this respect. It captures both the neurophysiological and experiential dynamics of self-movement and postural bodily tensions. It is indeed *the mediator* of the most basic complementarity obtaining between first- and third-person accounts. Movement felt and movement observed as a neuro-physiological event in a laboratory have a common denominator not in a *mechanics* of life, a human *motorology*, but in the living dynamics of kinaesthesia and the tactile-kinaesthetic body that is its foundation. Russian neurologist Aleksandr Romanovich Luria had a fine sense of this complementarity when he wrote of 'kinaesthetic/kinetic melodies', that is, of voluntary movement that, as a result of learning, flows forth effortlessly as in writing one's name, reciting the months of the year, or solving an arithmetical problem (Luria, 1966, p. 226; see also pp. 256, 290; see too Luria, 1973). What unfolds experientially and neurophysiologically in the course of these melodies unfolds sequentially in dynamically complementary ways. Being anchored in a living dynamics, the experiential and neurophysiological melodies anchor first- and third-person accounts of movement in a manner that, for example,

neither the term 'body image' nor the term 'body schema' can approximate (see Sheets-Johnstone, 2003, 2005a). They do so because they recognize a bodily-kinetic dynamic having an inherent temporal organization and inherent spatial coordinates at the level of both neurology and the experiencing individual, whether a matter of brushing one's teeth, giving directions, marching in a parade, or learning to walk. Their complementary bodily-kinetic dynamic articulates complex forms of animation that linguistically inexact and vague theoretical constructs on the order of 'body image' and 'body schema' cannot remotely approximate, any more than can a human motorology. Indeed, in no less than *The Cambridge Handbook of Consciousness* (Zelazo, Moscovitch, and Thompson, 2007), in a chapter therein titled 'Consciousness and Control of Action' – a chapter in which one would rightfully expect to find a finely detailed discussion of kinaesthesia and proprioception if not an outright discussion of kinetic/kinaesthetic melodies, we find the following near-opening statement: 'In the present chapter, I am concerned exclusively with motor (that is, bodily) actions' (Umiltà, 2007, p. 327). What kind of body could possibly be the source of these 'motor actions'? Surely not an animate body alive in a world that is never quite the same from one moment to the next and that requires in the most basic evolutionary sense a mindful body capable of making its way successfully in a changing world.

Equating an account of first-person experience to an answer to the question 'what is it like?' (Zahavi, 1999, p. 111; 2005, pp. 116–32; see also 2000, p. 69) similarly removes kinaesthesia from the scene of discussion. Kinaesthesia is not *like* anything. Experientially, it is what it is: a qualitatively felt kinetic dynamic. Though not adverting in the least to 'what it is like' in their attempt to account for first-person experience, Varela and Shear are equally oblivious of kinaesthesia. In the introduction to their edited volume *The View from Within: First-Person Approaches to the Study of Consciousness*, they state that by 'first-person events', they mean 'the lived experience associated with cognitive and mental events' (italics in original), an experience that, they go on to affirm, has 'a "subjective" side' and that includes 'vision, pain, memory, imagination, etc.' (Varela and Shear, 1999, p. 1). The omission of kinaesthesia in 'lived experience' on the 'subjective side' is odd in both instances, not least in light of Husserl's prominencing of 'the kinestheses' in perceptual experience, and not least either in the fact that in the second instance, the omission occurs explicitly within a survey of first-person methodologies that seek 'to provide the basis for a *science of consciousness which includes first-person, subjective experience as an explicit and active component*' (ibid., p. 2; italics in original).

The oddity of omitting kinaesthesia is obviously compounded when put in the light of Jeannerod's straightforward if totally neglected observation that 'There are no reliable methods for suppressing kinesthetic information arising during the execution of a movement' (Jeannerod, 2006, p. 56). The

observation should indeed be not only an eye-opening insight, even a revelation, as to the foundational reality of kinaesthesia, but a sizable spur to investigate kinaesthetic 'information' in terms of its livingly experienced qualitative dynamics. The oddity is compounded even further when viewed in light of ontogeny and neuro-embryology, that is, in light of the fact that the first neurosensory developments of the embryo are those serving kinaesthesia and tactility (Robeck, 1978; Windle, 1971) and that the initial learnings of infants centre on learning their bodies and learning to move themselves (Sheets-Johnstone, 1999a, expanded second edition 2011). It is compounded furthermore in view of the fact that kinaesthesia is the bedrock of affectivity. Husserl himself observes that 'all activity of the Ego presupposes affection' (Husserl, 1989, p. 349). In fact, a disembodied subject not only cannot act, but does not and cannot feel any motivation to act. Affects animate and stir us to move; they both *motivate* and *inform* our movement. Trust, for example, moves through the body and moves the body to move in ways wholly unlike fear; joy moves through the body and moves the body to move in ways wholly unlike sadness (Sheets-Johnstone, 2005b). Moreover the tactile-kinaesthetic and affective bodies are dynamically congruent. I have elsewhere spelled out their congruency phenomenologically and exemplified it empirically as well both in non-human animal life and in fictional literature (Sheets-Johnstone, 1999b). It is of particular interest to note in this context that the intertwining that Merleau-Ponty invokes in relation to the touched and touching hand and subsequently extrapolates with respect to vision (the seer and the seen) and to 'the reversibility of the visible and the tangible' (Merleau-Ponty, 1968, pp. 142–3) is not only removed from everyday realities of animate life – we are not in the habit of essentially wringing our hands<sup>3</sup> – and thus a second-order, constructed phenomenon, but a second-order, constructed phenomenon with respect to Husserl's earlier existential delineation of intertwining as 'a *double reality*' (Husserl, 1989, pp. 352, 353).

Husserl's concept of intertwining as a double reality is implicitly rooted in animation, in the mutually influential and concomitantly animating corporeal and psychic dimensions of our humanness. At bottom, his description of the double reality corresponds with the lived dynamic congruency of movement and affectivity and with the dynamic complementarity of the experiential and the neurological. In his pointed concern to reconcile subjectivity and the natural sciences through a phenomenology of human being, he writes, for example, that 'expression creates everywhere a kind of unity [...] linguistic expression and meaning, symbol and symbolized [...] hence double-sided unities, which manifest the ever more intimate intertwining of the two sides the more articulated in various ways is the expression, or the expressing, and the more sensuous parts there are that have a meaning function, and specifically within the unity of one meaning' (ibid., p. 352).

As is apparent, what Husserl is at pains to describe in these passages is not a basic *reversibility* of being but a basic *unity* of being whose complexity is richly variable according to the complexity of its sensuous and intentional aspects, precisely as befits the ‘Bodily-spiritual unity’ that is a human being (*ibid.*). The complex reality of the ‘intertwining’ that Husserl describes is indeed not properly attested to by what philosopher Marjorie Grene describes as ‘that hand trick’, that is, the ‘tactual palpations’ of Merleau-Ponty that purport to show the reversibility of subject and object (Grene, 1976, p. 619; Merleau-Ponty, 1968, pp. 133 ff.), and which, as suggested above, in terms of actual life experience is exemplified in hand-wringing. It can be attested to in direct experience, specifically, in two foundationally living ways: the existential unity of *Leib* and *Körper*, that is, *the existential fit* of physical and lived bodies (Sheets-Johnstone, 1986a), and the everyday trenchancy of an Aristotelian-spawned insight, namely, that living beings are always in touch with something (see Sheets-Johnstone, 1990, p. 310; Aristotle, 435b, 16–17).

Viewed from these foundational living vantage points, the background does not recede into darkness but brightens in the light of the phenomenon of life itself. What the fundamental truth of the existential coherency of physical and lived bodies reveals is that humans, like other animate organisms, are not simply alive in the world but *livable* (Sheets-Johnstone, 1986a; cf. Thompson, 2007 on ‘the body-body problem’ and Hanna and Thompson (2003) on ‘The Mind-Body-Body Problem’, in essence, fabricated problems). Human aliveness, like the aliveness of all animate forms, embodies – *embodies in the literal sense of concretely forming or corporealizing* – a particular kind of livability in the world – a livability defining a certain *sensory-kinetic world* and certain *sensory-kinetic powers*, hence a certain possible *repertoire of ‘I cans’*. However unwittingly, evolutionary anthropologist William Howells pithily and keenly epitomized this existential-evolutionary truth when he wrote, ‘hands and a big brain would not have made a fish human; they would only have made a fish impossible’ (Howells, 1959, p. 341). What the fundamental truth of our being always in touch with something reveals is that, whenever we care to turn our attention to it, our tactile-kinaesthetic body is always there and always integrally enmeshed in the world, precisely as Jeannerod implicitly, if however unwittingly, affirms in his statement about ‘kinesthetic information’. Proprioceptively endowed creatures are in fact not only always in touch with something outside themselves, something objective like food, a leafy nest, a bed, a rock, a chair, a branch, the floor, or the very earth itself, but often in touch with their own bodies in the very process of moving. They tactilely compress and deform themselves bodily as they move, and not only as inch worms do in moving forward, but as we humans do in eating and running, for example: when moving our hand to our mouth, the inside of our forearm and upper arm touch at the elbow; when running, the backside of our lower and upper leg

touch behind the knee. There is no subject and object in this touching, no reversibility of being, but a unity of being in the process of inching its way forward, or of eating or running. Tactility thus enters naturally into animation – through the front door, one might say – and thus naturally into the essentially kinetic cognitional abilities by which creatures discriminate both objects and aspects of the world, and aspects of themselves as animate forms in the world (Sheets-Johnstone, 1999a/expanded second edition 2011, pp. 59–60).

The background of our adult human world is indeed saturated in the dynamic congruency of affect and movement and in the kinetically articulated bonds that originally linked us epistemologically to the world as infants (see *ibid.*, [chapter 5](#)). We explored the world and came to know it through touch and movement. However submerged this congruency and these bonds might be for us as adults, that is, however submerged they are in the unnoticed but familiar dynamic relationships we spontaneously enjoy in our lived world today – tying a shoelace, hugging a friend, turning towards something of interest, climbing a ladder, writing our name, picking up an egg, kicking a ball – they are illuminable through an attentive examination of experience and an attentive languaging of experience that properly and fittingly captures the processual spatio-temporal-energetic dynamics of the ‘body-spiritual unity’ that is motivated and attentively rapt in the doing of what it is doing. Danish ontogenist Stein Bråten rightfully likens human epistemological development not to a ladder but to a staircase, noting that ‘[e]ach lower level endures throughout life as an evolving operating domain supportive of higher level domains’ (Bråten, 1998, p. 373). Infant psychiatrist Daniel Stern’s delineation of the core self accords with Bråten’s simile. What we as adults term ‘the self’ has its origin in bodily experience, specifically in the core phenomena of self-coherence, self agency, self-affectivity, and self-history, all of which, as Stern describes them, are implicitly rooted in proprioception (Stern, 1985; see Sheets-Johnstone, 1999a for an explicit delineation). What develops initially, then, is a knowing body – a knowing body, which, however ultimately submerged in, and overshadowed by, its body of adult knowledge, is open to phenomenological resuscitation, and indeed, whose adult body of knowledge is itself always open to historical resuscitation through the practice of genetic phenomenology (for case studies of same, see Sheets-Johnstone, 1990).

### **3. The background in light of contemporary language practices; enaction and embodiment**

The term *enaction* is problematic, and this in spite of its laudable attempt to cut through the erroneous notion of a mind representing the world, as if cognition were simply a matter of neural imprinting, a readymade mind receiving a readymade world. The problem ironically centres on the stem word *action*, a word that implies movement, though not necessarily

animation, and that similarly implies a kinetic dynamics, but does not articulate its structure. The word is thereby curiously sterile with respect to a recognition much less an elucidation of the movement of animate forms. Indeed, counter to the original definition of *enaction*, we do not ordinarily experience ourselves cognitively in our everyday adult worldly lives as ‘performing’ actions (Varela, Thompson, and Rosch, 1991, p. 9), or indeed experience ourselves as ‘acting’ at all, unless we are one-step removed from what we are experiencing, encapsulating and condensing our actual experience – were someone to ask – in a word such as ‘walking’, ‘weeding’, ‘eating’, ‘conversing’, ‘laughing’, ‘driving’, and so on. When we consult actual everyday experience, we experience ourselves moving, and moving in familiar, coordinated dynamic patterns (Kelso, 1995; Kelso and Engstrøm, 2006) that commonly flow forth with such familiarity and consequent ease that they are at the fringe rather than at the centre of our awareness.<sup>4</sup> In effect, in the familiarity and consequent ease of everyday experience, we ordinarily pay them no mindful attention. Mindful attention to them in the actual process of moving would be akin to the practice of walking meditation in which one focuses attention precisely on the movements of ‘lifting’, ‘pushing’, and ‘placing’ (Thera, 1965, p. 96). In a different but not wholly dissimilar way (Sheets-Johnstone, 2002), phenomenological examination of everyday experience brings coordinated dynamic patterns prominently to the fore in the form of kinaesthesia and the tactile-kinaesthetic body. We become focally aware of the spatio-temporal-energetic dynamics of our habitual and comfortable patterns of movement, the shifting intensities with which we hold the wheel of the car and turn it this way and that as we steer down the street or through traffic, for example, or the complex linear patterns we describe bodily as we jog, our arms moving back and forth, our feet circling, and our body as a whole moving up and down. We no longer identify ourselves verbally as *driving* or *jogging*, but are immersed in unravelling the tactile-kinaesthetic foundations of a complex and highly coordinated kinetic dynamic.

Enaction remains at a remove from kinaesthesia, and hence at a remove from those fundamental concepts of space, time, and force that we forge from infancy onwards on the basis of self-movement, that are generated in and by movement, and that inform our movement throughout our lives, providing our ‘actions’ the coherency they have and thus ultimately grounding the meaning they have. These kinetically rooted concepts have to do with our sense of amplitude, direction, effort, speed, and the qualitative character of our movement, whether attenuated, bouncy, smooth, forceful, hesitant, and so on, and with our global sense of a kinetic dynamic. Enaction is a term that putatively centres attention on cognition as an *active* process, but that actually covers over the very kinetic engagement with the world that it purports to engender and illuminate: it elides the living dynamics of movement and fundamental human – if not species-specific pan-animate – concepts



deriving from those dynamics.<sup>5</sup> It elides them in a neurology that not only ‘generates and maintains its own coherent and meaningful patterns of activity’, but in a neurology that even ‘creates meaning’ (Thompson, 2007, p. 13).<sup>6</sup> Indeed, *enaction* hides the living, experienced dynamic realities of movement in a way similar to the way in which – in earlier times – *behaviour* hid them. It not only condenses experience, packaging it in a ‘performance’ of some kind, in an ‘*embodied action*’ (Varela, Thompson, and Rosch, 1991, for example, pp. 172, 180; see also below), but, like *behaviour*, offers a basically third-person description of experience.

The lack of a first-person perspective is evident not only in the outright omission of the experience of kinaesthesia, our direct sense of movement, but in specifications of *embodied action* in terms of ‘sensorimotor capacities’, ‘sensory and motor processes’ (ibid., for example, p. 173), ‘motor behaviour’ (Thompson, 2001, p. 7), ‘Sensorimotor Subjectivity’, a ‘motor loop’, a ‘motor “background of significance”’, ‘motor actions’, ‘motor embodiment’, and so on (Thompson, 2007, chapter 9, pp. 367, 245, 369, 376–7, respectively; see also Noë, 2004, 2009) – in short, in terms of a motorology. Clearly, as noted earlier, we do not experience *motor* capacities, processes, actions, and so on, much less a sensorimotor subjectivity, any more than we ordinarily experience ourselves *performing* actions or any more than we experience ourselves *behaving* – unless, of course, in the latter two instances, we have removed ourselves from the actual experience of self-movement and theoretically transformed the inherently dynamic kinaesthetic realities of the experience into a *linguistic event*, that is, into ‘enaction’, ‘embodied cognition’, ‘embodied action’, ‘behaviour’, and so on. The qualitative kinaesthetic dynamics of greeting someone, chopping wood for a fire, or even sneezing, are thereby elided; their kinaesthetic/kinetic melodies go unheard. In short, and in actual fact, when we are mindful or examine everyday experience phenomenologically, we find that we experience ourselves *moving*, and moving in familiar and ordinarily comfortable, that is, coordinated, dynamic patterns.

The theoretical program of *enaction* to conjoin brain, body, and environment into the science of cognition is a genuine improvement over information-computational renditions of mind, but the program has not essentially moved away from a reductionist model of cognition, that is, an account of cognition anchored basically in a motorology. As indicated, the term *enaction* itself conceptually subverts the enterprise by perpetuating an eclipse of movement, thereby postponing even further the realization of a veritable phenomenology of animation and an elucidation of those quintessential and utterly central dimensions of experience that are commonly labelled ‘the background’. In lieu of the living phenomenon itself, complete with its substantive affective-kinetic dimensions, we have a deflective packaging of experience that, by dint of language, seduces us into thinking we have captured the whole.

*Enaction* is akin to the term *embodiment* in this respect, and is actually defined as ‘embodied cognition’ (Varela, Thompson, and Rosch, 1991, pp. 147–84). The problem with enaction and the enactive approach is in fact substantively exemplified in the primary example given of *embodied cognition*, that is, of a system in which ‘meaning [...] is not prescribed from outside [as in stimulus/response or input/output systems] but is the result of the organization and history of the system itself’ (Varela, Thompson, and Rosch 1991, pp. 157–71). The primary example is, oddly enough, the perception of colour. The example is not idiosyncratic. In a later text, visual perception is more generally taken ‘as a good illustration of the embodiment thesis’ (Thompson 2001, p. 3), specifically in a section titled ‘Enactive Cognitive Science and the Embodied Mind’, a section in which the goal of the enactive approach is stated to be that of showing that the perception of visual space arises not ‘from a unified model of space in the brain, but from numerous spatial maps, many of which are located in cortical areas involved in the control of bodily movements’ (ibid.). While a shred of ‘action’ is discernible in the later text via reference to ‘bodily movements’, not a shred of ‘action’ is discernible in the earlier text. In fact, when Varela, Thompson, and Rosch cite the painter Kandinsky on the relation between colour and motion, to the effect that ‘brief contemplation will reveal in the yellow [coloured circle] a spreading movement out from the center, and a noticeable approach to the spectator’ (Varela, Thompson, and Rosch 1991, p. 162), the choice of colour as ‘[p]erhaps the best example’ of ‘embodied cognition’ (ibid., p. 157) becomes all the more puzzling: it is thoroughly distant from any bona fide experiential investigations and analyses of the body, the very phenomenon that a proper, that is, ‘embodied’, study of cognition wants to include. Though Varela, Thompson, and Rosch, coincident with a citation from Mark Johnson (1987, p. 84), pointedly draw attention to the fact that ‘motion [...] here is obviously not movement in the physical space of the picture [...] [but] is, rather, motion in our perceptual space’ (Varela, Thompson, and Rosch, 1991, p. 162), the latter space is in actuality, in Johnson’s account, identified as a ‘metaphorical’ space (Johnson 1987, p. 84), the word *movement* even being in quotation marks. In effect, all talk of ‘bodily movement’, ‘motion’, and ‘action’ notwithstanding, the idea that ‘color provides a paradigmatic domain in which our twin concerns of science and human experience naturally intersect’ keeps the kinesthetic/kinetic background that is part and parcel of experience hidden in sensorimotor processes and the like, precisely as with the blanketing term ‘enaction’ and the lexical band-aid ‘embodiment’ and all its derivatives (see also phenomenological uses of the ‘band-aid’: for example, ‘Embodied Subjectivity’, ‘Embodied Self-Experience’, Zahavi, 2005, pp. 156–63, 197–206, respectively).

Thompson’s own recent and more general espousal of a ‘dynamic sensorimotor approach’ together with its ‘sensorimotor contingency theory’, both being part of his elucidation of ‘Sensorimotor Subjectivity’,

similarly eclipses movement. The theory claims that perceptual experience is 'a skillful activity constituted in part by the perceiver's implicit, practical knowledge of the way sensory stimulation varies with movement' – the way the eyes rotate, for example, directly affects 'sensory stimulation on the retina'; 'the optic flow pattern on the retina' changes coincident with whether 'the body' moves forward or backward (Thompson, 2007, pp. 254–5). The qualitative dynamics of movement that flow through and inform our everyday lives are nowhere recognized in this approach. To be recognized, sensory-kinetic intentionalities and patternings require recognition, and thereby not only the *style* or kinetic melodies of others but our own kinaesthetic melodies as revealed in our own *habitual dynamics* would be recognized (see Sheets-Johnstone, 2003, 2005a, 2006a).

In sum, lacking bona fide anchorage in a living body in lived experiences of movement, the enactive approach in practice dissolves the subject of action into neurology and the subject's action into motorology. In effect, the background that is in fact the real-life backbone of cognition lacks substantive *experiential* moorings: the 'experience of acting' (Thompson, 2007, p. xx) is not commensurate with the experience of moving; 'proprioceptive awareness' (Gallagher, 2003; Bermúdez, 2003) is not commensurate with kinaesthesia; self-awareness as exemplified in listening to a melody (Zahavi, 2005; Thompson, 2007) is not commensurate with the most basic form of self-awareness, which is an awareness of oneself in motion.<sup>7</sup> Linguistic reference and implications to the contrary, the latter awareness is not an awareness of 'a self' – hence not a question of whether 'proprioceptive awareness' is a pre-reflective self-consciousness of the body-as-object or the body-as-subject (see Thompson, 2007) – but a *kinaesthetic* awareness of a qualitative kinetic dynamic being created in the flow of the living present, a dynamic constituted transcendently in the flow of that same living present. Created and constituted in the course of everyday life, these qualitative kinetic dynamics inform our lives from the beginning. They are at the core of our being animate beings and of our being the animate beings we are.

#### 4. Animation

There is an obvious need to naturalize cognitive science in the sense of giving cognition a natural history, which means giving consciousness a natural history. The world is indeed not the same from one day to the next for any animate creature and making a living in whatever way a creature is naturally endowed to make a living includes not just recognizing what is good and what is noxious as something passes by, but being integrally and essentially animate, which means moving knowledgeably or exploratively towards something, or knowledgeably or evasively away from something, and being capable of moving towards something – approaching – and

moving away from something – avoiding – in the first place. Unless creatures are sessile and simply wait till their surrounding world blows something their way, animate creatures must forge their way in the world. They could hardly do so – they could hardly move effectively and efficiently – if they were unaware of their own movement. Like kinaesthesia, proprioception – the larger biological sense of self-movement (see Sheets-Johnstone, 1999a/expanded second edition 2011, specifically [chapter 2](#), Part I and note 13, p. 83 for the distinction between the two terms) – is integral to animation. Animation is the foundation of life. Motors have neither friends nor hunger; they do not go forth in the world in search of a lost companion any more than they go forth in search of food. They are not motivated to move; they are incapable of affectivity: they lack feeling. By the same token, they lack agency. Accounting for the background of movement and affectivity is not a matter of gathering up missing pieces and performing linguistic surgery or linguistic therapy to accommodate them. What is needed is a weaning of *cognitive science* away from *the brain*, not to mention a cessation of separating the brain from the body, as if the diverse and wondrous morphological features of nature were inherently divisible into a bounded top and bottom – or into a bounded front and back, depending on the animal. Animate forms are by nature all of a piece. It is humans who carve at the joints, joints that are not necessarily those of nature. Though they may certainly be of theoretical interest, artificial joints are prone to serve self-interests rather than the verities of Nature herself. What is needed is a *life science*, a science that not only takes in the whole of nature in both an ontogenetic and phylogenetic sense, but whose point of departure is the inherent dynamics of animate life. Granted, *cognitive science* is much more prestigious sounding than *life science*, a science that might, after all, be thought contaminated by non-intelligent ‘lower’ forms of life. From such a vantage point, moreover, we would see that the ‘background’ is rooted not in ‘know-how’ (Thompson, 2007, p. 13) or in third-person sensorimotor capacities and systems but in the first-hand phenomenon of animation and the realities of life itself, that is, in the integral and integrated experiential dynamics of feeling, moving, and sensing.

Present-day academic linguistic practices bypass this background. The practices are linguistically irresponsible; they fail to recognize much less rise to the challenge of languaging experience – lip-service or devoted explorations given to phenomenology notwithstanding – and thus fail to describe the realities of animation in a living sense. They rely instead on a mechanistic physiological, anatomical, and neurological vocabulary and kinetically stifling terminology. They thereby unwittingly distort the very phenomenon they are striving to understand: in the broadest terms, human knowledge. Like the knowledge of any creature, human knowledge rests on animation. Animation in a biological sense means responsivity (see Curtis, 1975), and it rests fundamentally on the capacity to move. In finer terms, it means the capacity to move effectively and efficiently in relation to that to

which one is present, whether to explore it, run away from it, grab it, bite it, embrace it, or whatever. To be animate is to be conjointly kinetically, affectively, and cognitively alive to the world; in von Uexküll's fine-grained descriptive account, it is to be kinetically, affectively, and cognitively alive to an *Umwelt* – a distinctive world, the objects of which have a distinctive meaning or functional 'tone', a predator, for example, having a danger tone (von Uexküll, 1957, pp. 46–50).

Given the foundational significance of animation to the realities of life itself, it is puzzling that movement is ignored. Indeed, one may well ask why there is a seeming aversion to the actual experience of movement – self-movement and the movement of others – and why in turn there is an aversion to the challenge of elucidating it. *Action* – or enaction – after all, is not *movement*; *embodied* action is not movement. The terms are at an experiential and conceptual remove from fundamental understandings of the living *dynamics* that constitute movement and that do so from the very beginnings of life, both ontogenetically and phylogenetically. Armed with such terms, it is difficult to conceive how one would ever arrive at fundamental human and non-human animal concepts, for example, concepts having to do with distance, direction, effort, slow, fast, and so on, concepts inherent in the dynamics of movement itself.<sup>8</sup> Moreover neither action – or enaction – nor embodiment is dynamically congruent with *emotion*; it is movement that is. When we strip the lexical band-aid of embodiment and of enaction off the 350+ year-old wound of the mind/body split, we find animation, the foundational reality of the living. Growth – from small to large, from seed to plant life, from cell to organism – and movement – of animals and of sun-seeking plants and trees – are emblematic marks of the animate. As Aristotle lucidly observed, 'Nature is a principle of movement and change' (Aristotle, 200b12). Human knowledge, like the knowledge of all creatures, is grounded in that principle; it is thus grounded alike in the kinetic and the historical, each of which is saturated in the affective: animate forms are moved to move; 'all activity of the Ego presupposes affection'.

Clearly, a basic conceptual, and in turn, linguistic reformation is required. If we are to gain insight into the background, and if we are to reconcile first- and third-person accounts, we must indeed return to 'the things themselves', and let the things themselves guide us in our pursuit of knowledge and in our attempt to language experience. When we do so, we are led inexorably to the foundational phenomenon of animation, to the phenomenon of being alive, and to a painstaking and assiduous phenomenological examination of the phenomenon. When we do so, we find that the so-called background is alive with meanings that are kinetically and affectively forged. Constitution in a phenomenological sense is passive only because the subject is animate, and as animate is actively engaged in the world. We

see this clearly to begin with in the fact that sensory experience is itself passive. Either I move in some way – for example, draw closer to hear, move my eyes or turn my head to see, inhale to smell, open my mouth to taste, brush with my hand to feel – or the surrounds move in some way. That sensory experience is by itself passive is not a commonly recognized fact of life. It is with good reason, then, not only that we follow physiological psychologist Hans-Lukas Teuber's advice to 'start at the other end and work our way (sic) back', that is, begin with movement and work back toward the sensory,<sup>9</sup> but that we strongly agree both methodologically and conceptually with Teuber's observation that to start with movement 'requires some different way of looking' (Teuber, 1966, pp. 440–1). Indeed, a basic methodological and conceptual turn is required. Cognitive science is a limited and at times biased science that fails to do justice to the complex facets of life. Progress is not made by adding features that have been left behind or by linguistic retooling in the hope of holding one's academic place, but by starting afresh with a veritable *life science* whose foundational, all-encompassing, naturally empirical and unified reality is animation. Recognition of a life-world demands recognition of a veritable life science, a science properly grounded not in cognition but in animation.

In sum, the background was once the foreground. The phenomenological practice of making the familiar strange in essence testifies to this relationship. However distant the background presently is for us now with respect to our awareness of it as adults and however distant it might in fact be from any desire we might have to know it more closely is perhaps a measure not simply of our ignorance and interests, but a measure of how experientially distant we are from movement and from our own bodies and even a measure of how distant we wish to remain.

## Notes

1. It should be well noted, however, that Husserl analyses *affection* at length and in fine detail with respect to perception and constitutive syntheses, that is, with respect to 'affective awakenings', for example, and 'affective force' (Husserl, 2001).
2. Zahavi's concern with this relationship narrows to the cognitive and away from anything bodily or kinetic. The problem aside of just what an emotional 'state' amounts to phenomenologically, Zahavi seems to suggest that emotional 'states' are equivalent to 'the "raw feel" of sensation' when he affirms first that 'the phenomenal dimension of experience' is not limited to '*sensory or emotional states alone*', and later comments that 'the widespread view that only sensory and emotional states have phenomenal qualities [...] is not only simply wrong, phenomenologically speaking, but its attempt to reduce phenomenality to the "raw feel" of sensation marginalizes and trivializes phenomenal consciousness and is detrimental to a correct understanding of its cognitive significance' (Zahavi, 2005, pp. 116, 119, respectively; italics in original).

3. It is of interest to note that hand-wringing, unlike hand-rubbing and hand-clapping, is a differentiated tactile experience, an experience in which each hand is indeed felt as either the touched or the touching. In rubbing our palms together as when we are cold, for example, or clapping our palms together in appreciation of some performance, we have on the contrary a non-differentiated tactile experience of our hands.
4. Thompson (2007) is on shaky ground when he states that the 'background of tacit and unreflective experience [...] can never be made fully explicit', that making fully explicit 'unavoidably involves interpretation and the creation of meaning', and that, in turn, 'accounts of prereflective experience are interpretive and not merely descriptive' (p. 317).

'Merely descriptive' is to begin with an odd way of characterizing accounts that set forth basic structural and qualitative features of experience such as motivation, attentiveness, hesitancy, determination, and so on, the latter features describing modes of feeling and moving and in fact underscoring the basic dynamic congruency of emotion and movement (Sheets-Johnstone, 1999b). Moreover the phenomenological analysis of movement does not 'unavoidably [involve] interpretation and the creation of meaning'. On the contrary, it describes precisely the qualitative structures underlying the kinetic dynamics of movement. Just such descriptive foundations are essential to veritable understandings of 'action'. More broadly, they are foundational to understandings of animation.

On the other hand, to say that the background 'can *never* be made fully explicit' might be to say that the neurology of the kinetic dynamics can never be made fully explicit. While this claim is certainly a reasonable claim to make given the 100 billion neurons that compose the human nervous system (Edelman and Tononi, 2000), that reasonability does not support the claim that the qualitative structures underlying the kinetic dynamics of movement and the living experience of those dynamics cannot be made fully explicit. The challenge is not to surmount 'interpretation' and avoid 'the creation of meaning', but precisely *to rise to the challenge of movement and the challenge of languaging experience* (on the latter topic, see Sheets-Johnstone, 2006b).

5. For an innovative and notable move towards a recognition of movement within an enactive program of research, see De Jaegher and Di Paolo's (2007) essay on social cognition – an essay that stresses the need to examine the relational dynamics of the interaction process.
6. While Thompson is at pains to separate off enactive understandings of the brain from computational-informational understandings of the brain, his notion that a nervous system 'creates meaning' overreaches itself – surely living subjects, not nervous systems, create meaning. Thompson's later claim that 'making aspects of experience explicit' involves 'the creation of meaning' not only conflicts with the notion but sustains precisely the fact that living subjects create meaning. See note 4.
7. Indeed, when Zahavi explains that retention and protention are not equivalent to recollection and expectation and states that the former 'are passive processes that take place without our active contribution', the difference is nowhere better exemplified than in movement, everyday movement such as getting into a car and starting the motor, wiping a dish and putting it away, and so on. We indeed experience *continuity* and our experience itself is indeed *continuous* (Zahavi 2005, p. 58).
8. Should readers balk at the idea of non-human animal concepts, they should consider not only how beavers build effective dams, for example, but how one

might otherwise explain the finely-tuned movements of hunting lionesses whose directional shifts, changes in speed, and so on, all play into a successful – or unsuccessful – hunt. (For more on this topic, see Sheets-Johnstone, 1986b.)

9. That Teuber spoke not of starting with *movement* but with ‘the motor side’ and of working our way back to ‘sensation’ does not alter his basic methodological insight.

## References

- Aristotle, *De Anima*, J. A. Smith (trans.) in *The Complete Works of Aristotle*, J. Barnes (ed.), vol. 1, 641–92 (Princeton: Princeton University Press) (Bollingen Series LXXI. 2).
- Aristotle, *Physics*, R. P. Hardie and R. K. Gaye (trans.) in *The Complete Works of Aristotle*, J. Barnes (ed.), vol. 1, 315–446 (Princeton: Princeton University Press) (Bollingen Series LXXI.2).
- Bräten, S. (1998) *Intersubjective Communication and Emotion in Early Ontogeny*, Stein Bräten (ed.) (Cambridge: Cambridge University Press).
- Curtis, H. (1975) *Biology*, 2nd ed. (New York: Worth Publishers).
- De Jaegher and E. Di Paolo. ‘Participatory sense-making: an enactive approach to social cognition’, *Phenomenology and the Cognitive Sciences* 6 (4), 485–507.
- Gallagher, S. (2003) ‘Bodily self-awareness and object perception’, in *Theoria et Historia Scientiarum* VII(1), 53–68.
- Grene, M. (1976) ‘Merleau-Ponty and the renewal of ontology’, *The Review of Metaphysics* 29(4), 605–25.
- Hanna, R. and E. Thompson (2003) ‘Neurophenomenology and the spontaneity of consciousness’, in *The Problem of Consciousness: New Essays in Phenomenological Philosophy of Mind*, Evan Thompson (ed.) (Calgary, Alberta, Canada: University of Calgary Press), 133–62.
- Howells, W. (1959) *Mankind in the Making* (New York: Doubleday & Co.).
- Husserl, E. (2001) *Analyses Concerning Passive and Active Synthesis*, A. Steinbock (trans.) (Dordrecht: Kluwer Academic Publishers).
- Husserl, E. (1989) *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy (Ideas II)*, R. Rojcewicz and A. Schuwer (trans.) (Dordrecht: Kluwer Academic Publishers).
- Husserl, E. (1973) *Cartesian Meditations*, D. Cairns (trans.) (The Hague: Martinus Nijhoff).
- Husserl, E. (1970) *The Crisis of European Sciences and Transcendental Phenomenology*, D. Carr (trans.) (Evanston, IL: Northwestern University Press).
- Jeannerod, M. (2006) *Motor Cognition: What Actions Tell the Self* (Oxford: Oxford University Press).
- Johnson, M. (1987) *The Body in the Mind* (Chicago: University of Chicago Press).
- Kelso, J. A. S. (1995) *Dynamic Patterns* (Cambridge, MA: MIT Press).
- Kelso, J. A. S. and D. A. Engström (2006) *The Complementary Nature* (Cambridge, MA: MIT Press).
- Luria, A. R. (1966) *Human Brain and Psychological Processes*, B. Haigh (trans.) (New York: Harper & Row).
- Luria, A. R. (1973) *The Working Brain: An Introduction to Neuropsychology* B. Haigh (trans.) (Harmondsworth, England: Penguin Books).
- Merleau-Ponty, M. (1968) *The Visible and the Invisible*, C. Lefort (ed.), A. Lingis (trans.) (Evanston, IL: Northwestern University Press).



- Merleau-Ponty, M. (1962) *Phenomenology of Perception*, C. Smith (trans.) (New York: Routledge & Kegan Paul).
- Noë, A. (2004) *Action in Perception* (Cambridge, MA: MIT Press).
- Noë, A. (2009) *Out of Our Heads: Why You Are Not Your Brain, and Other Lessons from the Biology of Consciousness* (New York: Hill and Wang).
- Robeck, M. C. (1978) *Infants and Children* (New York: McGraw-Hill Book Co).
- Sheets-Johnstone, M. (2010a) 'Kinesthetic experience: understanding movement inside and out', *Body, Movement and Dance in Psychotherapy* 5(2), 111–27.
- Sheets-Johnstone, M. (2010b) 'Body and movement: basic dynamic principles' in *Handbook of Phenomenology and Cognitive Science*, S. Gallagher and D. Schmicking (eds.) (Dordrecht: Springer).
- Sheets-Johnstone, M. (2006a) 'Essential clarifications of „self-affection” and Husserl's „sphere of ownness”: first steps toward a pure phenomenology of (human) nature', *Continental Philosophy Review* 39, 361–91.
- Sheets-Johnstone, M. (2006b) 'On the challenge of languaging experience', Guest lecture, German-American Institute, Heidelberg (June 2006).
- Sheets-Johnstone, M. (2005a) 'What are we naming?' in *Body Image and Body Schema: Interdisciplinary Perspectives on the Body*, H. De Preester and V. Knockaert (eds.). Amsterdam/Philadelphia: John Benjamins Publishing, 211–31. (Originally Keynote Address at International Workshop conference at Ghent University, 2003, on 'Body Image and Body Schema: (Neuro)phenomenological, (Neuro)psychoanalytical and Neuroscientific Perspectives').
- Sheets-Johnstone, M. (2005b) 'Sur la nature de la confiance', A. Ogien (trans.) in *Les moments de la confiance*, A. Ogien and L. Quéré (eds.) (Paris: Economica), 23–41. (Originally presented as invited paper at international conference at the École des Hautes Études en Sciences Sociales, 2003.)
- Sheets-Johnstone, M. (2003) 'Kinesthetic Memory', *Theoria et Historia Scientiarum* VII(1) (special issue on 'Embodiment and Awareness' S. Gallagher and N. Depraz (eds.)), 69–92; expanded version of same forthcoming 2012.
- Sheets-Johnstone, M. (2002) 'Theoretical and experiential similarities between phenomenology and vipassana (buddhist) meditation and their implications for cognitive science', invited guest lecture, Center for Subjectivity Research, University of Copenhagen.
- Sheets-Johnstone, M. (1999a /expanded second edition 2011) *The Primacy of Movement*. (Amsterdam/Philadelphia: John Benjamins Publishing).
- Sheets-Johnstone, M. (1999b) 'Emotions and movement: a beginning empirical-phenomenological analysis of their relationship', *Journal of Consciousness Studies* 6(11–12), 259–77.
- Sheets-Johnstone, M. (1990) *The Roots of Thinking* (Philadelphia: Temple University Press).
- Sheets-Johnstone, M. (1986a) 'Existential fit and evolutionary continuities', *Synthese* 66, 219–48.
- Sheets-Johnstone, M. (1986b) 'Hunting and the evolution of human intelligence: an alternative view', *Midwest Quarterly* XXVIII/1, 9–35.
- Stern, D. (1985) *The Interpersonal World of the Infant: A View from Psychoanalysis and Developmental Psychology* (New York: Basic Books).
- Teuber, H. L. (1966) "“Discussion” of “Cerebral Organization and the Conscious Control of Action”" by D. M.J. MackKayi in *Brain and Conscious Experience*, J. C. Eccles (ed.) (New York: Springer-Verlag), 442–45.
- Thera, N. (1965) *The Heart of Buddhist Meditation* (York Beach, ME: Samuel Weiser, Inc.)

- Thompson, E. (2001) 'Empathy and Consciousness', *Journal of Consciousness Studies* 8(5–7), 1–32.
- Thompson, E. (2007) *Mind and Life: Biology, Phenomenology, and the Sciences of Mind* (Cambridge, MA: Belknap Press/Harvard University Press).
- Umiltà, C. (2007) 'Consciousness and Control of Action' in *The Cambridge Handbook of Consciousness*, P. D. Zelazo, M. Moscovitch, and E. Thompson (eds.) (Cambridge: Cambridge University Press), 327–51.
- Varela, F. and J. Shear (1999) 'First-person methodologies: what, why, how?' *Journal of Consciousness Studies* 6(2–3), 1–14.
- Varela, F., E. Thompson, and E. Rosch (1991) *The Embodied Mind* (Cambridge, MA: MIT Press).
- von Uexküll, J. 1957 [1934] 'A stroll through the worlds of animals and men' C. H. Schiller (trans.) in *Instinctive Behavior*, C. H. Schiller (ed.) (New York: International Universities Press), 5–80.
- Windle, W. F. (1971) *Physiology of the Fetus* (Springfield, IL: Ch. C. Thomas).
- Zahavi, D. (1999) *Self-Awareness and Alterity: A Phenomenological Investigation* (Evanston, IL: Northwestern University Press).
- Zahavi, D. (2000) 'Self and Consciousness' in *Exploring the Self: Philosophical and Psychopathological Perspectives on Self-Experience*, D. Zahavi (ed.), (Amsterdam/Philadelphia: John Benjamins Publishing), 55–74.
- Zahavi, D. (2005) *Subjectivity and Selfhood: Investigating the First-Person Perspective* (Cambridge, MA: Bradford Books/MIT Press).
- Zelazo, Ph. D., M. Moscovitch, and E. Thompson (eds.) (2007) *The Cambridge Handbook of Consciousness* (Cambridge: Cambridge University Press).

# 10

## The Body as Background: Pragmatism and Somaesthetics

*Richard Shusterman*

### I

The notion of the background has progressively moved into the foreground of philosophical discussion. Over the past century, philosophers have increasingly recognized that the mental life of which we are conscious and through which we act to realize our intention cannot adequately function without relying on a background of which we are not properly conscious but which guides and structures our conscious thought and action. The body has also been largely neglected, misinterpreted, and negatively valued by the dominantly idealistic tradition of Western philosophy, but it too has also increasingly moved to the foreground of philosophical theory, and has indeed constituted my principal axis of research for the last decade. But because the term 'body' is too often contrasted with mind and used to designate insentient, lifeless things, while the term 'flesh' (used by Maurice Merleau-Ponty) has such negative associations in Christian culture and moreover focuses merely on the fleshly part of the body, I have chosen the term *soma* to designate the living, sensing, dynamic, perceptive body that lies at the heart of my research project of somaesthetics.<sup>1</sup>

If background and body have both moved towards the forefront of discussion, this is not a mere coincidence. The body and the background are conceptually very closely connected in contemporary theories of the background that assert its crucial importance for mental life and that thus recognize the crucial somatic dimension of mind. This chapter will examine the body's role as structuring unreflective background to conscious mental life and purposive action. But I will go on to explain why this unreflective somatic background needs to be brought into the foreground of consciousness, not just theoretically but also sometimes in practical action. Such foregrounding of the somatic background in practical contexts of action goes against the received wisdom of master thinkers as different as Immanuel Kant, William James, and Maurice Merleau-Ponty. So this chapter will critically address their key arguments while suggesting some advantages

of foregrounding background body consciousness and elaborating how such foregrounding can be integrated and reconciled with the continuing somatic background.

Discussions of the body as background extend over a wide range of philosophical approaches, too many for this chapter to cover in any detail. I shall therefore focus mainly on its treatment by pragmatism, not only because pragmatist thought seems especially rich on this topic but also because its contributions to the topic have received much less contemporary attention than other philosophical orientations to the embodied background have received, though the pragmatist treatment preceded them (and arguably may have influenced some of them).<sup>2</sup> But before examining the pragmatist approach to the body as background, I should at least introduce the other approaches and say something about why they all view the background as crucial, even if they sometimes see it rather differently.

## II

Besides pragmatism, we can identify at least three different philosophical approaches that affirm the embodied background's central role: phenomenology, analytic philosophy, and social theory of the sort most clearly exemplified by Pierre Bourdieu.

Phenomenological accounts of the embodied background, though extending back to Edmund Husserl and Martin Heidegger and extending to Hubert Dreyfus today, seem to find their most pointed and famous formulations, in Maurice Merleau-Ponty, who powerfully foregrounds the body's value while intriguingly explaining the body as silent, structuring, concealed background. 'Bodily space [...] is the darkness needed in the theatre to show up the performance, the background of somnolence or reserve of vague power against which the gesture and its aim stand out'. More generally, 'one's own body is the third term, always tacitly understood, in the figure-background structure, and every figure stands out against the double horizon of external and bodily space' (Merleau-Ponty, 1962, 100–1). The body is also mysterious as a locus of 'impersonal' existence, beneath and hidden from normal selfhood. It is 'the place where life hides away' from the world, where I retreat from my interest in observing or acting in the world, 'lose myself in some pleasure or pain, and shut myself up in this anonymous life which subtends my personal one. But precisely because my body can shut itself off from the world, it is also what opens me out upon the world and places me in a situation there' (Merleau-Ponty, 1962, pp. 164–5).

For Merleau-Ponty, the body's background role is so essential that he seems to make background status (its being kept in the background) equally necessary for our proper functioning. His most radical argument against reflective somatic observation is not simply that preoccupation with such bodily observation or representations is unnecessary and also interferes with

the spontaneous, unthematized somatic perception, but rather that one simply cannot observe one's own body at all, because it is the permanent, invariant perspective through which we observe other things. Unlike ordinary objects, the body 'defies exploration and is always presented to me from the same angle [...] To say that it is always near me, always there for me, is to say that it is never really in front of me, that I cannot array it before my eyes, that it remains marginal to all my perceptions, that it is *with me*', as a background condition for observing other things. 'I observe external objects with my body, I handle them, examine them, walk round them, but my body itself is a thing which I do not observe; in order to be able to do so, I should need the use of a second body' (Merleau-Ponty, 1962, pp. 90–1). 'I am always on the same side of my body; it presents itself to me in one invariable perspective' (Merleau-Ponty, 1968, p. 148).<sup>3</sup>

Turning to analytic philosophy, we can briefly note Ludwig Wittgenstein and John Searle as influential advocates of the background who recognize its crucial somatic dimension. A complex, elusive thinker, Wittgenstein brought very convincing arguments (often directed at the views of William James) to show that mental concepts such as emotion, will, and personal identity could not be reduced to bodily feelings that are often closely associated with such concepts and used to explain them. Instead, he argued that such concepts can be properly explained only in terms of a whole surrounding context of life, aims, and practices, 'the whole hurly-burly of human actions, the background against which we see any action'; for example, with respect to will, 'What is voluntary is certain movements with their normal *surrounding* of intention, learning, trying, acting' (Wittgenstein, 1967, pp. 567, 577).

But Wittgenstein nonetheless affirmed the body's importance as a crucial dimension of the underlying background and orientation for mental life, including the refinements of culture and aesthetics, which, like our mastery of language and other rule-governed practices, involves a basic level of motor training for mastery of habits of competency. As with Merleau-Ponty, the body serves Wittgenstein as a central instance and symbol of what forms the crucial, silent, mysterious background for all that can be expressed in language or in art, the unreflective source for all that can be consciously grasped in reflective thought or representation. 'The purely corporeal can be uncanny', he declares. 'Perhaps what is inexpressible (what I find mysterious and am not able to express) is the background against which whatever I could express has its meaning' (1980, pp. 16, 50). Meaning relies on a network of practices, competencies, and activities that provide the necessary contextual background for making sense of things and making language meaningful, and the performance of such practices and activities. He suggests the constitutive power of this somatic background through the example of music. Music's inexpressible depth of meaning and its grand, mysterious power derive from the body's silent role as creative ground and intensifying background. That is how a surface of ephemeral sounds can

touch the very depths of human experience. 'Music, with its few notes & rhythms, seems to some people a primitive art. But only its surface [its foreground] is simple, while the body which makes possible the interpretation of this manifest content has all the infinite complexity that is suggested in the external forms of other arts & which music conceals. In a certain sense it is the most sophisticated art of all' (1980, p. 8).<sup>4</sup>

Moreover, Wittgenstein argued that background kinaesthetic feelings help us derive a greater fullness, intensity, or precision in our experience of art because (at least for some of us) aesthetic imagination or attention is facilitated or heightened by certain bodily movements that somehow feel as if they correspond to the work (even if these feelings remain in the background and not in our explicit consciousness). He writes: 'When I imagine a piece of music, as I often do every day, I always, so I believe, grind my upper and lower teeth together rhythmically. I have noticed this before though I usually do it quite unconsciously. What's more, it's as though the notes I am imagining are produced by this movement. I believe this may be a very common way of imagining music internally. Of course I can imagine without moving my teeth too, but in that case the notes are much ghostlier, more blurred and less pronounced'<sup>5</sup> (1980, p. 28).

Searle acknowledges Wittgenstein as an analytic forerunner to his own theory of the background. For Searle, intentionality and linguistic meaning are not 'self-interpreting' they instead require in order to function properly, a background context that is 'preintentional', 'a bedrock of mental capacities that do not themselves consist of Intentional states (representations), but nonetheless form the preconditions for the functioning of Intentional states' (Searle, 1983, p. 143). Dubbing this 'bedrock' (a term Wittgenstein famously employed) as 'the Background', Searle argues that '[i]ntentional phenomena such as meanings, understandings, interpretations, beliefs, desires, and experiences only function within a set of Background capacities that are not themselves intentional' (1992, p. 175). He later elucidates this as: 'Any intentional state only functions, that is, it only determines conditions of satisfaction, against a set of Background abilities, dispositions, and capacities that are not of the intentional content and could not be included as part of the content' (1995, pp. 131–2). In other (representational) terms, 'all representation, whether in language, thought, or experience, only succeeds in representing given a set of nonrepresentational capacities' (1992, p. 175).

Searle gives seven functions of the background to show precisely how it must be presupposed for the proper functioning of our mental life, from the interpretation of linguistic meaning and perceptual content (which requires a framing and disambiguating contextual background), through the structuring of consciousness and the narrative organization of experience, and on to the coherent orientation of our motives, our readiness to deal with certain situations rather than others, and our behavioural

dispositions. In his words: *'First, [...] the Background enables linguistic interpretation to take place.'* [...] *'Second, the Background enables perceptual interpretation to take place.'* [...] *'Third, the Background structures consciousness.'* [...] *'Fourth [because of the Background], temporally extended sequences of experiences come to us with a narrative or dramatic shape. They come to us under what for want of a better word I will call "dramatic" categories'* [that are constituted from the Background of capacities and activities and institutions or forms of life]. [...] *'Fifth, each of us has a set of motivational dispositions [of which we may not be consciously aware of, hence existing in the Background], and these will condition the structure of our experiences.'* [...] *'Sixth, the Background facilitates certain kinds of readiness.'* [...] *'Seventh, the Background disposes me to certain sorts of behavior.'* (1995, pp. 132–6).

Searle departs from Wittgenstein (and Merleau-Ponty) in explaining the background as essentially causal, biological, and confined to the brain. Defining the background in terms of 'neurophysiological structures that function causally in the production of certain sorts of intentional phenomena' (1995, 130), Searle insists that '[i]t is important to see that when we talk about the Background we are talking about a certain category of neurophysiological causation. Because we do not know how these structures function at a neurophysiological level, we are forced to describe them at a much higher level' (1995, p. 129). So we should think of the background's 'abilities, capacities, tendencies, and dispositions ontologically speaking as a set of brain structures. These brain structures enable me to activate the system of intentionality and to make it function, but the capacities realized in the brain structures do not themselves consist in intentional states' (Searle, 2000, p. 58).

I should note (but cannot explore) three problematic aspects of Searle's theory: its presumption that the background exists only as a neurophysiological cause (rather than some other sort of orientation or motivation); its claim that the background exists only within the individual agent (rather than extending beyond the agent to the agent's natural and social environments that structure the individual's capacities, tendencies, and dispositions); and that – even if it is indeed only neurophysiological and within the individual – the background causality is confined to brain structures and does not involve other aspects of the individual's nervous system and physiology.

Besides Wittgenstein, Searle also acknowledges the French social theorist Pierre Bourdieu as having a substantive theory of the background (Searle, 1995, p.132). Bourdieu's philosophical influences include not only the phenomenological tradition (against which he rebelled because of what he saw as its insufficient attention to the social world which he alleges profoundly conditions the phenomenologist's experience) but also the analytic philosophy of Wittgenstein and John L. Austin (who too was a strong influence on Searle and who likewise emphasized the need of background contexts for understanding linguistic meaning).<sup>6</sup> Bourdieu's theory of the background is

conceptualized through his technical notion of *habitus*, which he explains as 'a structured and structuring structure' that is *structured* by background social conditions beyond the individual agent or particular social group while *structuring* the individual's (or group's) dispositions, perceptions, behaviour, and beliefs by constituting an organized *structure* or grid of categories of understanding, value, and action through which the world is perceived, understood, and engaged.<sup>7</sup>

Bourdieu repeatedly insists on the bodily dimension of *habitus* and the way its incorporation in the body of social categories, norms, beliefs, and values determines the unconscious but guiding background of perception, action, and thought. 'The social order inscribes itself in bodies', and it is through 'the incorporation of social structures in the form of dispositional structures, of objective chances in the form of expectations or anticipations' in our bodies that we acquire the implicit practical sense and unreflective modes and methods for dealing with the social (including our linguistic) world and also with those dimensions of our physical world that society helps structure. 'Habitue, understood as an individual or a socialized biological body, or as the social biologically individuated through incarnation in a body' constitutes a background set of dispositions that 'impose presuppositions and limitations on thought which, being embedded in the body, are beyond the reach of consciousness', providing an 'immediate', '*corporeal knowledge* that provides a practical comprehension of the world quite different from the intentional act of conscious decoding that is normally designated by the idea of comprehension', an immanent bodily understanding that is not a 'representation' explicitly grasped 'a self-conscious perceiving subject'<sup>8</sup> (Bourdieu, 2000, pp. 130, 135, 141, 142, 157, 182).

Bourdieu (who was also strongly influenced by the French sociological tradition of Émile Durkheim) admits that his theory of *habitus* bears 'quite striking' affinities with the pragmatist theory of background as habit, elaborated most fully by John Dewey<sup>9</sup> but also earlier suggested by James, who likewise insists on its bodily dimension. It is on their important pragmatist theories of the background and its bodily dimension that this chapter will now focus.

### III

There are two kinds of embodied background theory in the pragmatist philosophy of James and Dewey. The first can be described as phenomenological or qualitative because it is constituted by a kind of background quality of experience that is felt but not known or thematized or represented as an intentional object, yet that is essential for the proper functioning of all coherent thought and action. The second pragmatist theory of the background is wider. Rather than focusing on experienced qualities, the background is here defined in terms of entrenched habits, environing conditions,



and purposes. But habit is the dominant notion in this background theory through which the other components are connected to explain the background. Dewey elaborates both strains of the theory more systematically than James, whose trail-blazing *Principles of Psychology* Dewey however acknowledged as the strongest influence on his philosophy of mind.<sup>10</sup> Before examining in detail each of these specific pragmatist versions of the body as background, we should introduce Dewey's and James's general perspective on the background's role in mental life.

'Mind', Dewey writes, 'is more than consciousness, because it is the abiding even though changing background of which consciousness is the foreground' (1987, p. 270). Through experience, one acquires habits, 'attitudes and interests' that 'become a part of the self' as 'funded and retained meanings' that constitute mind's resources and orientation. As 'mind forms the background upon which every new contact with surroundings is projected', so such background is not 'passive' but rather formatively 'active'. 'This active and eager background lies in wait and engages whatever comes its way so as to absorb it into its own being. Mind as background is formed out of modifications of the self that have occurred in the process of prior interactions with environment', is directed 'toward further interactions'; and its environments for interaction are social as well as natural or physical. As habits always incorporate conditions from the environments in which they are formed, so do the habits that constitute the background of mind. 'Since it is formed out of commerce with the world and is set toward that world', Dewey argues, mind should never be regarded as 'something self-contained and self-enclosed'. Even in its acts of meditative withdrawal from the world, 'its withdrawal is only from the immediate scene of the world' while 'it turns over and reviews material gathered from the world' (1987, p. 269).

In the vast bulk of our voluntary behaviour, our unreflective habits spontaneously execute our will and direct our thought and action. Because 'habits are demands for certain kinds of activity', they form the mind's will even if they remain in the background and unnoticed by conscious thought. As formative, active background, their "projectile power" of "predisposition" is an immensely more intimate and fundamental part of ourselves than are vague, general, conscious choices'. In constituting the background of mind, habits 'form our effective desires and they furnish us with our working capacities. They rule our thoughts', without our even recognizing their power because they rule implicitly, unthinkingly, through their incorporation in our bodies (Dewey, 1983, p. 21)

This is why Dewey so fervently advocated the somatic work of Matthias F. Alexander as a way of improving thought, will, and action by reconstructing our habits to be more effective. For William James (who earlier described people and minds as 'bundles of habits'), habit likewise provides the background that enables our perceptions and actions to proceed automatically

or unreflectively without demanding any attention of the mind's 'higher thought-centres' or foreground consciousness (1983, pp. 109, 120). Like Bourdieu, James recognized that such background habits are socially formed and also function socially to constrain not only the action but the thoughts, tastes, and desires of different professional and social classes. 'Habit is thus the enormous fly-wheel of society, its most precious conservative agent. [...] It alone prevents the hardest and most repulsive walks of life from being deserted by those brought up to tread therein [...] It keeps different social strata from mixing' (1983, p. 125).

Alongside this view of entrenched, environmentally and socially conditioned habit as a structuring, guiding mental background, Dewey and James also proposed a phenomenological form of mental background defined in terms of qualities that are felt in the unattended to background of consciousness and that structure or orient consciousness but are not part of the explicit content, focus, or foreground of consciousness. Dewey described this background as 'the "subconscious" of human thinking', because its background status removes it from explicit consciousness; and he affirmed the essential somatic dimension of those categories in characterizing them as resulting from 'immediate organic selections, rejections, welcomings, expulsions, appropriations, withdrawals, shrinkings', and so on that our organism makes (1929, p. 227). Though we generally 'are not aware of the qualities' and 'do not objectively distinguish and identify them [...] they exist as feeling qualities, and have an enormous directive effect on our behaviour'. Dewey explains that '[e]ven our most highly intellectualized operations depend on them as a 'fringe' by which to guide our inferential movements. They give us our sense of rightness and wrongness, of what to select and emphasize and follow up, and what to drop, slur over, and ignore, among the multitude of inchoate meanings that are presenting themselves'. They indicate when we are going in a promising direction or whether we are 'getting off track' (1929, p. 227). Here Dewey is borrowing directly from James' account of the qualitative background or felt 'fringe' that structures and guides our explicit or representational consciousness.

Indeed, this idea – that each definite content, image, or representation of consciousness appears through a structuring background or fringe of feeling of which we are not properly aware but which guides the direction of our thought – is one key reason why James famously refers to the stream of consciousness rather than the train of thought. 'What must be admitted', James insists, 'is that the definite images of traditional psychology form but the very smallest part of our mind as they actually live'. Moreover, in the movement of consciousness, the successive mental content is not clearly individuated like separate cars in a train or even like separate pails of water, but rather forms part of a continuous interpenetrating flow. 'Every definite image in the mind is steeped and dyed in the free water that flows round it. With it goes the sense of its relations, near and remote, the dying echo of

whence it came to us, the dawning sense of whither it is to lead. The significance, the value, of the image is all in this halo or penumbra that surrounds and escorts it, – or rather that is fused into one with it and has become bone of its bone and flesh of its flesh' (1983, p. 246).

James describes this background 'halo of felt relations' (1983, p. 247) as an 'unarticulated' psychic 'fringe' that guides thought by giving us a sense of what belongs to and advances thought's current flow or instead distracts or hinders it. This unreflective guidance is done in terms of implicitly felt relations of 'harmony and discord, of furtherance or hindrance' with that background quality 'felt in the fringe'. In other words, 'any thought the quality of whose fringe lets us feel ourselves "all right" is an acceptable member of our thinking' (1983, pp. 249–50). For James, part of this fringe of thought's stream is always a feeling of one's body. 'We think; and as we think we feel our bodily selves as the seat of the thinking. If the thinking be our thinking, it must be suffused through all its parts with that peculiar warmth and intimacy that make it come as ours', a 'warmth and intimacy' from 'the feeling of the same old body always there' (1983, p. 235).

It is Dewey, however, who makes the most sustained and systematic argument for the qualitative background as necessary to mental life, a transcendental argument that he first articulated in an article 'Qualitative Thought' published in 1930. Perception, judgment, action, and thinking, Dewey argues, are never performed in absolute isolation but only in terms of a background contextual whole, a unity of experience that he calls 'a situation'. He further claims that such a situation also always structures our experience as a felt whole and guides or orients our understanding of it. But what, then, enables the constituting of the situation and gives it the unity, structure, and limits that define it as a particular situation or experience? Dewey's answer is a special kind of background, a directly perceived 'immediate quality'. The situation or experience is 'held together, in spite of its internal complexity, by the fact that it is dominated and characterized throughout by a single quality' felt as 'a direct presence', though only as a background presence that is not explicit or represented as part of the content of the situation itself (1984, pp. 246, 248). Besides this first function of the background quality, Dewey articulates four others.

In constituting the situation, this 'immediate quality of the whole situation' (1984, p. 249) also controls the distinction of objects or terms that thinking later identifies and employs as parts (relations, elements, objects, distinctions) of the situation or experience. 'The underlying unity of qualitiveness regulates pertinence or relevancy and force of every distinction and relation; it guides selection and rejection and the manner of utilization of all explicit terms' because such terms 'are *its* distinctions and relations' (1984, pp. 247–8). But this underlying quality is not itself an explicit term or content of the situation. For if it become so, it would no longer be in the background but would become a part or an intentional content of a new

situation with its own underlying background quality. The 'underlying pervasive quality' that constitutes a situation and structures the terms of that situation or experience serves yet a third function by providing a sense of what is adequate in judgment, what level of detail, complexity, or precision is sufficient to render the contextual judgment valid. We can always make our judgments more detailed and precise. 'But enough', as Dewey says, 'is always enough, and the underlying quality is itself the test of the "enough" for any particular case' (1984, pp. 254, 255).

A fourth function of immediate quality is to determine the basic sense or direction of the situation and to sustain it over time, despite the confusing general flood of experience. Although the quality is non-discursively 'dumb', it has 'a movement or transition in some direction' which provides the unifying background, the thread, and directive clue for unity and continuity in ongoing inquiry. 'This quality enables us to keep thinking about one problem without our having constantly to stop to ask ourselves what is it after all that we are thinking about' (1984, pp. 248, 254).

Fifth, Dewey claims that the unifying quality of immediate experience is the only adequate way to explain the association of ideas. The standard explanations of physical contiguity and similarity are insufficient, he argues, to make the associative link, because 'there is an indefinite number of particulars contiguous to one another in space and time' and because everything in some respect is similar to everything else. Dewey concludes that association must be 'an intellectual connection' produced through 'an underlying quality which operates to control the connection of objects thought of'; 'there must be relevancy of both ideas to a situation defined by unity of quality' (1984, p. 258).

It is indeed possible that we do often feel a pervasive unifying quality of immediate experience that performs all these five functions for our mental life: structuring our experience into a coherent whole, organizing its terms and limits, giving our thought direction, and determining relevance and appropriateness of association. However, as I have elsewhere shown (Shusterman, 1997, pp. 162–7). Dewey's arguments do not decisively demonstrate that such a felt unifying background quality of immediate experience must *always* be present and is always necessary. This is because other pervasive background factors of our experience could together perform all those five functions – notably such factors as the continuity and direction of habit and the practical focusing unity of purpose, factors that Dewey himself emphasizes.

Purpose binds together the situational elements enlisted in its pursuit, and habit already implies an internal organization of activity that projects itself onto further organization. Habit and purpose not only shape our distinctions of objects and relations within the situation, but also guide our judgments of their relevance and importance. Habit and purpose also give the situation and its experience a sustained direction. Dewey insists that

'all habit has continuity' and is 'projective' by its very nature, so our thinking habits naturally continue their directional course, and tend to resist interruption of distraction (1983, pp. 31, 168). Purpose, too, as Dewey recognizes, gives 'unity and continuity' of action, because its 'end-in-view' calls forth a series of coordinated means to reach it (1985, p. 185). Moreover, as Dewey admits, purpose further explains what is adequate in judgment, since 'any proposition that serves the purpose for which it is made is logically adequate' (1984, p. 255). Finally, habit and purpose can explain our association of ideas without invoking an ineffable unifying quality to link them. 'When I think of a hammer', Dewey asks, 'why is the idea of nail so likely to follow?' (1984, p. 258). The more obvious answer is not the glue of immediate, ineffable unifying quality but rather the entrenched habit of functional association for practical purposes of building.

Dewey's transcendental argument that coherent thought requires an immediately felt qualitative background is not entirely successful. But its weaknesses only point to the necessity of another background – namely habit – that is firmly situated in the body. Moreover, the failure of his argument for the necessity of qualitative background feelings does not in any way negate that such background feelings exist, that they (frequently and significantly) help orient our thought and behaviour, and that they are felt somatically even if they escape our explicit attention.

#### IV

James and Dewey form a united pragmatist front in affirming the somatic background as cognitively necessary for mental life and by foregrounding this bodily background in their theories of mind and behaviour. Their views are divided sharply, however, on whether the bodily background feelings should ever be brought to the foreground in practical life. Though James urged psychologists to cultivate heightened awareness of their somatic feelings and movements as a means to improve their theoretical observations because he thought their theories suffered from superficial introspection of such feelings, he still followed the dominant tradition of urging that the somatic background be kept in the background.

James seems to have had several reasons for rejecting somaesthetic reflection in practical life. He thought that the spontaneous action of habit not only 'simplifies' the movements required to achieve' our ends and thus 'makes them more accurate and diminishes fatigue' but also, by diminishing 'the conscious attention with which our acts are performed', enables us to concentrate our limited amount of attention on other things that require it (James, 1983, pp. 117, 119). Though he recognized that in learning a skill of performance, 'the singer may need to think of his throat or breathing; the balancer of his feet on the rope'; James insisted that for already skilled performers the somatic must stay in the background since to foreground it

in our attention 'would be a superfluous complication' (1983a, p. 126). Just focus on the target you want to hit and pay no mind to the bodily movements you make to hit it, letting them work in the background. In short, 'Trust your spontaneity', James urged (1962, p. 109), just as his admired godfather Ralph Waldo Emerson had earlier insisted that 'spontaneous action is always the best' (1990, p. 177). Besides the faith that spontaneous habitual action was more efficient and accurate, James shared Kant's worry that somatic introspection in practical life 'is either already a disease of the mind (hypochondria) or will lead to such a disease and ultimately to the madhouse', for he also shared Kant's avowed personal tendency to hypochondria (Kant, 1996, p. 17).<sup>11</sup> Throughout his youth, James suffered extended periods of depression related to psychosomatic symptoms that he scrutinized with great attention during his long periods of convalescence at various spas in Europe.

Though Dewey too recognized the dangers of ruminative introspection, his extended experience with Alexander's technique of reconstructing habits through heightened body consciousness convinced him that disciplined, intelligently focused somatic introspection was much more valuable than destructive.<sup>12</sup> Though spontaneous habit often functions most effectively, we are subject to the formation of bad habits. As we cannot properly correct them without knowing what they are, so we cannot know what they are without paying attention to the somatic movements and feelings with which they are performed. Systematic somatic reflection is necessary, Dewey argues, because it is essential to improving self-use and because self-use is essential to our use of all the other tools at our disposal. 'No one would deny that we ourselves enter as an agency into whatever is attempted and done by us. [...] But the hardest thing to attend to is that which is closest to ourselves, that which is most constant and familiar. And this closest constant is precisely, ourselves, our own habits and ways of doing things' through our primal tool or agency the body-mind or soma. To understand and redirect its workings requires attentively self-reflective 'sensory consciousness' and control. Modern science has developed all sorts of powerful tools for influencing our environment. But 'the one factor which is the primary tool in the use of all these other tools, namely ourselves, in other words, our own psycho-physical disposition, as the basic condition of our employment of all agencies and energies' also needs to be 'studied as the central instrumentality' (1983b, pp. 314-15).

What James and others have advocated as spontaneous freedom, Dewey sees more critically (through his study with Alexander) as blind obedience to entrenched habit. True freedom of will, he argues, means having control of unreflective habit so that one can bring it into conscious critical attention when one wants to in order to reconstruct or refine it so that can consciously do with one's body what one really wants to do. Such freedom is not a native gift but an acquired skill involving mastery of inhibitory

control as well as positive action. As Dewey puts it: 'True spontaneity is henceforth not a birth-right but the last term, the consummated conquest, of an art – the art of conscious control', an art involving 'the unconditional necessity of inhibition of customary acts, and the tremendous difficulty of not "doing" something as soon as the habitual action is suggested' (1982, pp. 351, 352; 1985, p. 318).

Inhibition's crucial role in freedom finds more recent support from experimental studies in neuroscience (introduced by Benjamin Libet) showing that motor action depends on neurological events that occur about 350 milliseconds before our conscious awareness of deciding to make a movement, even though we feel that our conscious decision is what initiated the movement. Libet nonetheless argues that free will remains possible because his findings show we still have an inhibitory ability to 'veto' that act between its conscious awareness and actual implementation: 'the final decision to act could still be consciously controlled during the 150 ms or so remaining after the conscious intention appears' and before its 'motor performance' (1985, pp. 529, 536).<sup>13</sup> Free will, on this account, amounts essentially to a free 'won't'. Though the general concept of voluntary action and free will should not be limited to this inhibitory model (with its focus on unsituated 'abstract' experimental movements and a razor time-slice of 150 milliseconds for decision), Libet's findings lend scientific support to Dewey's and Alexander's emphasis on inhibition for exercising conscious constructive control in motor performance.<sup>14</sup>

Not only essential in restraining problematic habits, inhibition is also necessary for the very effectiveness of somatic reflection that allows us to foreground and thus observe our behaviour more accurately so that we can inhibit the problematic habit and replace it with a superior mode. We cannot reliably change our actions if we do not really know what we are actually doing, yet most of us are very unaware of our habitual modes of bodily behaviour, which lurk in the background of consciousness and do not come into focus: Which foot do you use when taking your first step in walking; which leg bears the most weight in standing; on which buttock do you more heavily rest in sitting? We are not at all inclined to pay attention to such things, because as active creatures striving to survive and flourish within an environment, our sustained attention is habitually directed primarily to other things in that environment that affect our projects rather than to our bodily parts, movements, and sensations. For good evolutionary reasons, we are habituated to respond directly to external events rather than analyse our inner feelings; to act rather than to carefully observe, to reach impulsively for our ends rather than holding back to study the bodily means at our disposal. Thus inhibitory power is needed even to break our habits of attending to other things so that we can sustain a focus on reflective somatic consciousness.

There are other arguments that can be adduced to support the Deweyan view that the bodily background can be usefully brought to the foreground in practical contexts. First, if James and other advocates of spontaneity admit that attention to bodily movements and feelings can be useful in the learning process, then we can argue that learning is never complete because we can always further refine an already learned skill. Second, there is always the possibility that we may need to correct or revise an acquired skill when it no longer proves satisfactory because of new conditions: either new conditions of the performer (for example, an injury) or new environing conditions in which the task is performed (swimming in the ocean versus swimming in a pool). In a world where our technological lived environment changes so rapidly, we cannot rely on entrenched habit to keep up with these changes and for satisfactory new habits to form by themselves in dealing with them. We need to be able to monitor the unreflective ways our body performs by bringing it into the foreground, at least for the time of critical reflection and possible reconstruction. Thereafter, it can be allowed to return to the background while we bring our focused, foregrounding attention to other things.

In other words, I am not urging the impossible task that the somatic background be always brought to the foreground and that all spontaneity be eschewed. Full transparency of our actions and feelings is not only unachievable but not worth achieving in practice; in most occasions our focus is best directed elsewhere, to the world in which we must act. The very nature of the background/foreground distinction means that there must always be something in the background beyond or beneath our foregrounding focus, but for pragmatism the distinction is somewhat flexible in that some elements of the background can be brought into the foreground and that in certain practical contexts such foregrounding is valuable. Thus rather than one-sidedly urging spontaneity or reflection, my pragmatist policy would urge an intelligent reconciliation of spontaneous and reflective moments through strategies of phasing. Having elaborated these arguments elsewhere (Shusterman, 2008), let me conclude this essay by noting another way that foregrounding the bodily background can be useful in practical life.

The somatic habits and qualitative feelings of the background are both conditioned by the environments in which the soma is situated and derives its energies and horizons of action. These environments are both physical and social. By bringing the somatic background into the foreground, we can also get that further somatic-shaping environmental background into clearer focus. Consider three examples. By noticing a very slight sensory discomfort in one's breathing (that might normally go unnoticed as an insignificant background feeling), one can be apprised of the poor quality of the air in one's environment and do something about it (whether than means opening a window in stuffy room, cleaning an air filter or residual mould in an air



conditioning system, or petitioning for restrictions in motor vehicle traffic in one's city). By noticing one's muscular discomfort at one's work station (and finding that various postural changes fail to alleviate it), one can learn that one's chair or desk are poorly suited for long-term effective and painless performance or that one's work routine must allow for repeated pauses so that one can rest from the uncomfortable posture one's work station induces.

The idea that unsatisfactory social conditions of labour can be brought into focus by foregrounding the somatic background of discomfort provides a good transition to my third example, which has deep and painful social relevance. By critically scrutinizing one's somatic feelings and bringing those background feelings into the foreground, a person may come to notice certain previously unrecognized feelings of discomfort in interaction with (or mere proximity to) people of certain races, religions, or ethnicities, and through the recognition of such feelings come to recognize that he may have prejudices of which he was previously unaware. Such recognition can further lead to the quest for personal and social changes to overcome these prejudices. One reason why racial and ethnic enmity are so hard to cure is that its visceral roots lie in background feelings and habits that do not come to clear, foregrounded consciousness so that they can be effectively dealt with, either through simply controlling them or transforming them through more positive somatic feelings, which once achieved can be put back into the background to structure more positive spontaneous relations with people from those races or ethnicities.

The pragmatist theory of the background and of its crucial somatic dimension is primarily a theory of logic, psychology, or philosophy of mind that is meant to explain the coherence of our perception, interpretation, action, and thought by means of a background that enables, frames, or structures such coherence. That we conclude with practical matters and ethical issues like environmentalism, labour conditions, and racism is not, however, inappropriate. This is because one crucial feature of pragmatist philosophy is to draw practical and ethical conclusions from its theories of mind and logic, and also to assess in part the value of those theories in terms of their contribution not only to a better understanding of our world (and of ourselves) but also to the more successful pursuit of our practical and ethical lives.

## Notes

1. For initial formulations of this project, see Shusterman (2000, 1999a,b, 1997). For elaborations and critical discussions of somaesthetics, see, for example, Jay (2002); Mullis (2006); Sullivan (2001); Heyes (2007); Malecki (2008). The fullest account of somaesthetics can be found in Shusterman (2008). For an updated bibliography of writings on somaesthetics by other authors, see [http://www.fau.edu/humanitieschair/Somaesthetics\\_Bibliography\\_Others.php](http://www.fau.edu/humanitieschair/Somaesthetics_Bibliography_Others.php). For an updated bibliography of Shusterman's texts on somaesthetics, see [http://www.fau.edu/humanitieschair/Somaesthetics\\_Bibliography.php](http://www.fau.edu/humanitieschair/Somaesthetics_Bibliography.php).

2. Wittgenstein's views on the background seem to be influenced (albeit polemically) by some of James's views on the somatic background. For a discussion of Wittgenstein's critique of James's narrowly phenomenological account of bodily feeling as the essential background, see Shusterman (2008, [chapter 4](#)).
3. These arguments of Merleau-Ponty are criticized in detail in Shusterman (2008, [chapter 2](#)).
4. The parenthetical term 'foreground' refers to the German '*Vordergrund*', which was a textual variant to 'surface' (*Oberfläche*) in the manuscripts. See the revised second edition of *Culture and Value* (1998, p. 11), from which I cite here.
5. It may be that Wittgenstein's habits as a clarinet player had something to do with these somaesthetic feelings because playing this instrument involves holding the teeth together.
6. For Bourdieu's relationship to Wittgenstein and Austin, see Shusterman (1999b), pp. 14–28.
7. Bourdieu (1984), p. 171.
8. Similar affirmations of the body's central role in *habitus* can be found throughout his work; for example, 'Belief in the Body', in (Bourdieu 1990, pp. 66–79).
9. For Bourdieu's reference to his affinities with Dewey, see P. Bourdieu and L. Wacquant (1992), p. 122. Shusterman (1999b).
10. W. James, *The Principles of Psychology* (1890; Cambridge, MA: Harvard University Press, 1983), p. 308. For Dewey's explicit recognition of this book's influence on him, see Jane Dewey, 'Biography of John Dewey' in Schilpp and Hahn (1989), p. 23.
11. He confessed his 'disposition to hypochondria' in *The Conflict of the Faculties* (1992, p. 189). For more details on James's worries about hypochondria related to his condition of neurasthenia, see Shusterman (2008, pp. 168–9).
12. Confessing to a friend that 'being too introspective by nature, I have had to control the direction it takes', Dewey expresses particular unease about 'autobiographical introspection [...] as it is not good for me'. Letter to S. Klyce, cited in S. Rockefeller (1991, p. 318).
13. See also Libet (1992, 1999, 2003) works, as well as Haggard and Libet (2001).
14. For a detailed account of the methodical use of inhibition in the Alexander Technique, see Shusterman (2008), [chapter 6](#).

## References

- Alexander, F. M. (1923) *Constructive Conscious Control of the Individual* (New York: Dutton).
- Bourdieu, P. (2000) *Pascalian Meditations* (Stanford: Stanford University Press).
- Bourdieu, P. (1990) 'Belief in the body' in P. Bourdieu, *The Logic of Practice* (Stanford: Stanford University Press), 66–79.
- Bourdieu, P. (1984) *Distinction: A Social Critique of the Judgment of Taste*, R. Nice (trans.) (Cambridge, MA.: Harvard University Press).
- Bourdieu, P. and L. Wacquant (1992) *An Invitation to Reflexive Sociology* (Chicago: University of Chicago Press).
- Dewey, J. (1987) *Art as Experience* (1934; Carbondale: Southern Illinois University Press).
- Dewey, J. (1981) *Experience and Nature* (1929; Carbondale: Southern Illinois University Press).

- Dewey, J. (1985) *Ethics* (Carbondale: Southern Illinois University Press).
- Dewey, J. (1984) 'Qualitative thought' in *John Dewey: The Later Works*, Vol. 5 (Carbondale: Southern Illinois University Press), 243–62.
- Dewey, J. (1983) *Human Nature and Conduct* (1922; Carbondale: Southern Illinois University Press).
- Emerson, R. W. (1990) 'Intellect' in R. Poirier (ed.) *Ralph Waldo Emerson* (New York: Oxford University Press).
- Haggard, P. and B. Libet (2001) 'Conscious intention and brain activity', *Journal of Consciousness Studies* 8, 47–63.
- Heyes, C. (2007) 'Somaesthetics for the normalized body' in C. Heyes *Self-Transformations* (Oxford: Oxford University Press), 111–32.
- James, W. (1983) *The Principles of Psychology* (1890; Cambridge: Harvard University Press).
- James, W. (1962) 'The gospel of relaxation' in *Talks To Teachers on Psychology and To Students on Some of Life's Ideals* (New York: Dover), 99–112.
- Jay, M. (2002) 'Somaesthetics and democracy: Dewey and contemporary body art', *Journal of Aesthetic Education*, 36, 55–69.
- Kant, I. (1992/1798) *The Conflict of the Faculties*, M. J. Gregor (trans.) (Lincoln: University of Nebraska Press).
- Kant, I. (1996) *Anthropology from a Pragmatic Point of View*, V. Dowdell (trans.) (Carbondale: Southern Illinois University Press).
- Libet, B. (2003) 'Can conscious experience affect brain activity?', *Journal of Consciousness Studies*, 10 (12), 24–8.
- Libet, B. (1992) 'The neural time-factor in perception, volition, and free will', *Revue de Métaphysique et de Morale*, 2, 255–72.
- Libet, B. (1985) 'Unconscious cerebral initiative and the role of conscious will in voluntary action', *Behavioral and Brain Sciences*, 8, 529–66.
- Libet, B. (1999) 'Do we have free will?', *Journal of Consciousness Studies*, 6(8–9), 47–57.
- Malecki, W. (2008) 'Von nicht diskursiver Erfahrung zur Somästhetik', *Deutsche Zeitschrift für Philosophie*, 56, 677–90.
- Merleau-Ponty, M. (1962) *Phenomenology of Perception*, C. Smith (trans.) (London: Routledge).
- Merleau-Ponty, M. (1968) *The Visible and the Invisible*, A. Lingis (trans.) (Evanston: Northwestern University Press).
- Mullis, E. (2006) 'Performative somaesthetics', *Journal of Aesthetic Education*, 40, 104–17.
- Rockefeller, S. (1991) *John Dewey: Religious Faith and Democratic Humanism* (New York: Columbia University Press).
- Schilpp, P. and L. Hahn (eds.) (1989) *The Philosophy of John Dewey* (LaSalle, IL: Open Court).
- Searle, J. R. (2001) *Rationality in Action* (Cambridge, MA: MIT Press).
- Searle, J. R. (1995) *The Construction of Social Reality* (New York: Free Press).
- Searle, J. R. (1992) *The Rediscovery of the Mind* (Cambridge, MA: MIT Press).
- Searle, J. R. (1983) *Intentionality: An Essay in the Philosophy of Mind* (Cambridge: Cambridge University Press).
- Shusterman, R. (2008) *Body Consciousness: A Philosophy of Mindfulness and Somaesthetics* (Cambridge: Cambridge University Press).
- Shusterman, R. (2000) *Performing Live* (Ithaca, NY: Cornell University Press).

- Shusterman, R. (1999a) 'Somaesthetics: A disciplinary proposal', *Journal of Aesthetics and Art Criticism*, 57, 299–313.
- Shusterman, R. (1999b) 'Bourdieu and Anglo-American philosophy' in R. Shusterman (ed.), *Bourdieu: A Critical Reader* (Oxford: Blackwell).
- Shusterman, R. (1997) *Practicing Philosophy: Pragmatism and the Philosophical Life* (New York: Routledge).
- Sullivan, S. (2001) "Transactional somaesthetics," in S. Sullivan, *Living across and through Skins* (Bloomington: Indiana University Press).
- Wittgenstein, L. (1980) *Vermischte Bemerkungen* in *Culture and Value*, P. Winch (trans.) (Oxford: Blackwell)
- Wittgenstein, L. (1967) *Zettel*, G.E.M. Anscombe (trans.) (Oxford: Blackwell).

# 11

## The Background: A Tool of Potentiality

*Zdravko Radman*

### 1. Introduction: not directness, but directedness

The sometimes unbearable attractiveness of the idea of the directness of experience, or the immediacy of knowledge of the world, has a long and persistent history in philosophy and related disciplines. It comes in a variety of versions, from naïve realism to ecological approaches and certain forms of phenomenology. The idea is, additionally, cultivated in the study of consciousness where the qualitative as ‘raw feels’ is affirmed as requiring no further mental translating and, in that sense, as being unmediated. Though some connotations of the idea of directness seem to be a welcome antipode to intellectualism, it turns out to be its overcorrection that is the problem. At the same time, the absence of thought does not necessarily preclude directness. The basic motivation of this chapter is to draw attention to the mental mechanism that takes charge of cognition and resists the hegemony of consciousness and thought.

It seems that any attempt to affirm the concept of directness needs a notion of passivity, insofar as immediacy presupposes a permissive subject – an obedient servant to the externally given. But more recent findings in the empirical sciences, as well as theories that accord with the new facts, provide a persuasive account of the lack of evidence in favour of such an idea. That is, scientific insight into the physiological functioning of our nervous system reveals nothing of a faithful mechanism which is capable of replicating the externally given; no ‘grandmother neuron’, and so no point of conversion, is found in the brain wherein particularized data would be merged into a unified mental event. More specifically, there is no *homunculus* – no internal observer gifted with the capacity to faithfully mirror the ‘real’.

We nowadays know that a passive eye, which is powered for ‘direct pick-up’ activity, cannot see anything – and the same holds for other sense organs – unless there is a cognitive mechanism capable of recognizing the incoming stimuli as relevant in some sense for the organism. And though the *critique* of a naïve or innocent eye, as formulated in, for instance, psychology and the

theory of art,<sup>1</sup> has been with us for quite some time, an analogous attempt, which could be called a *critique* of the *innocent mind*, obviously still awaits formulation. It seems that it would be particularly difficult to expose consciousness to a possible revision of its immediacy, and 'purity', especially now that so much theoretical effort has been invested into the phenomenal aspects of the supposedly immediate sensory qualities of objects. Such a critique would have to question the notion of the given, on the one hand, and the faithful uptake, on the other hand, the consequence of which would necessarily bring any founded notion of directness into doubt.

A recent critique of the naïve idea of directness is provided by neuroscientist Chris Frith. He says: 'Even if all our senses are intact and our brain is functioning normally, we do not have direct access to the physical world. It may feel as if we have direct access, but this is an illusion created by our brain' (2007, p. 40). (I am inclined to see the cognitive system as being in charge of knowledge of the world whereas the neuroscientist reserves this for the brain.) In a straightforward manner, Frith further says: 'My knowledge of my own body and how it acts on the world is not direct' (2007, p. 81).<sup>2</sup>

If the critique of the innocent eye, the deconstruction of the idea of the *homunculus* (both logical and physiological), and the refutation of the idea of the given and of its faithful representation by the biology of the body is consequently applied, then it would lead to the decay of the myth of directness. It would also be the final judgment on the notion of passivity. Indeed, as Clarence Irving Lewis remarks, 'For the merely receptive and passive mind, there would be no objects and no world' (1929, p. 137). In further clarifying the assumption, he concludes: '*It is only because we are active beings that our world is bigger than the content of our actual experience*' (p. 140). To be active, surely, does not merely mean to be physically alert, but above all to be cognitively competent so that appropriate action can be initiated in the first place. This implies that we always somehow 'start on the inside',<sup>3</sup> from what is available as a starting 'schema',<sup>4</sup> from some initial cognitive scratch that is needed to qualify what we can then expect in experience.

Not even the actually given is exempt from this rule; it too is not available for passive uptake, and so cannot be conveyed in any immediate way, but has to be 'discovered' and recognized, thus requiring an active being that *knows* how to deal with data. This is the path *from input to information*, which is neither simple nor straightforward. That which follows from this strengthens the view that any attempt to explain the nature of human cognition and action has first to consider the subject's *capacity to cope* with what we call 'data' because this data does not tell us anything unless there is a cognitive apparatus equipped with the requisite knowledge to make sense of it. (That 'knowledge' here is not used in the propositional sense will be clear from what I say below. Meanwhile, it should also be evident that this term has been corrupted by the cognitive sciences, at least until recently, to

mean only what can be explicitly represented in the form of information processing – a notion quite unlike the one I develop here.)

Let me capture this aspect, as the very precondition of any form of our cognitive engagement with the world, by referring to *directedness*. It refers to the sum of experiences, motivations, attitudes, perspectives, intentions, expectations, desires, and so on – without which no stimulation could make sense and no input could be taken as meaningful. Starting ‘on the inside’, it is what creates the precondition for shaping a perspective on what is going to turn out to be mental content.

Now, if *directness* is a myth, and *directedness* is a more promising theoretical concept (owing to, among other things, its intricate relatedness to intentionality), then we have to ask ourselves what compensates for the lack of the former and what facilitates the latter. If we are to name the system responsible for this sort of coping, in my view it would be the background. Philosophers have not only been largely blind to its existence, but also to a recognition of its productive role in action and cognition. Even when they ponder over the sophisticated and minute aspects of mentality, they fail to name the organ responsible for that capacity – and, by extension, never really take the initiative to look for the underlying mechanism that facilitates those aspects. They seem to be perceptive of their effects, but do not succeed in identifying what causes or enables them.<sup>5</sup>

We are often blinded by the effortlessness of own doing, both motor and mental, and interpret it as directness. In a similar way, we understand thoughtlessness as immediacy. But we neither imply that the ease with which we act presupposes a simple structure worthy of theoretic concern, nor do we reflect on the automatism with which it is performed as something that is deserving of further consideration. In order to prevent confusion, I distinguish between the *mode* and the *nature* of doing. Thus it does not follow from what appears in self-reflection as easygoing and effortless in the *mode* consists in its *nature* of simple and underlying processes. On the contrary, behind the seemingly most straightforward acts lies a tremendously complex set of processes that are hidden to the observer’s eye. Though they remain largely ‘invisible’, this does not mean that they are inaccessible to theoretical thought or that their nature is primitive, or that their part in making up the mental is negligible.

If minds are understood as *forms of participation directed towards the environment and the world*, we need to explain what facilitates this activity and what sort of mental mechanism this engagement requires. Here I want to flesh out the idea that the background has a profound role to play in this process. More generally, this chapter represents an attempt to locate the background in the world of human mentality; more specifically, it seeks to affirm the background as a sort of knowing that is instantly available and automatically operative without recourse to conscious thought processes. I suggest that the background is a massive and robust body of capacities which

occupies most of what constitutes the mind; it is not so much a structure or 'infrastructure',<sup>6</sup> but rather a cognitive *tool* which continuously takes charge of adaptations to what is implicitly judged as the most probable life-situation for the organism. I thereby hope to show that much of what our organism knows is *available without awareness*; that acting does not require a propositional plan, but is instead founded on the activation of backgrounded guesswork. Some of these aspects will be elaborated, some will be alluded to, and some will remain as hidden premises or tacit conclusions.

## 2. On incompleteness of input

'In any perception of a physical object, my perception is always *incomplete* in regard to the object – I never see a complete object all at once. Let's call this "perceptual *incompleteness*". There is always something more to see that is implicitly there, even in the perception of the simplest object" (Gallagher and Zahavi, 2008, p. 8; emphases added). Hence the question: What would be a 'complete object'? Is 'completeness' arrived at in proportion to the amount of sensory data available, such that the more we can register the closer we are to what they point to in reality? Or is it the case that non-perceptual elements have a determining role to play in the process? One thing is certain. If we could be receptive to all the existing stimuli – that is, have a 'complete' sensory account – we would obviously be overwhelmed. If everything mattered in our receptiveness to all the existing stimuli, then nothing would be recognized as relevant. Objects, therefore, appear as 'complete' not on the basis of the amount of sensory data to which we have access, nor are they 'incomplete' if, say, some visual information is missing or if its presentation is fragmentary. That which 'completes' experiential objects, in a substantial sense, is a complex of tacit assumptions that goes beyond the sensory record. Crudely speaking, it is not about how much input an organism receives, but how it manages it.

Take a simple example. An 'incomplete perception' of a house misses not just its hidden (say, rear) side, but also knowledge of the sort of object that goes beyond the visible. Such knowledge implies that the house consists of closed rooms designed for living, and not for storing water. So, when you open the door, you expect an empty room which you can freely step into, and not a massive burst of water. You also expect the walls of the empty room to be solid, and not a piece of scenery, so when you lean against a wall, it will not fall down. Perception of a house thus entails much more than its visual appearance (which itself is not reducible to the optical). Informing it, above all, is knowledge of the function of the house as an abode for living, and this in turn supplies us with instructions about how we should behave in it.

There is no information in input. Only through cognitive intervention, conscious or unconscious, can the latter become the former. For instance, a red circle may be part of Japanese flag, but it can also be a tag on items on



sale in retail stores. The retina does not decide which one is the case in a given situation. Red circles emerge in experience as respected objects only if you possess some notion of 'flag', 'Japan', and 'sale'. They can be small or large, partially visible, or even presented in the black-and-white modus; and yet you are normally not deceived as to what they are. (In the case of black-and-white presentation, you will experientially colour what you actually do not see, sort of in the way you 'hear' the whistle of a battleship in a silent movie of Eisenstein.) You can have an experience even of that which is not presented to the senses, and you can do so only because you possess a mental mechanism that enables you to read what is not literally given in input.<sup>7</sup>

Strictly speaking, perceptions are not incomplete, as Gallagher and Zahavi claim, but input records or sensory 'representations' are. It is also questionable to claim, as they do, that 'I never see a complete object all at once.' Indeed, equipped with sufficient knowledge of the type we have at our disposal in the massive body of the background, *objects in perception are as complete as we need them to be*. This means that the cognitive apparatus, provided that there is a requisite level of competence, fills in what is missing – but also eliminates the surplus of details that would burden experience, insofar as they are deemed useless from the cognitive point of view. We generally fill in with ease what is 'missing', and eliminate what is irrelevant in the situation with equal ease. We ignore much of what is in our visual field if it momentarily does not correspond to our needs or interests. And the same goes with auditory perception; we filter what we are going to hear according to the implicit strategy of our goal-oriented acting. This lends weight to the conclusion that the degree of completeness does not depend on the amount of sensory data, but rather on the level of *backgrounded competence* that includes our needs, interests, demands, and judgments of relevance. We simply do not judge 'completeness' on the optical or general sensory level according to the dictates of input. You may, for instance, see a man in front of you in terms of a caricature, and you may perceive the highly schematic lines of a caricature and recognize a full-blooded person.

Any human mental act is thus a case of *taking* and *making*; and what we take and how we make is determined not so much by the nature of input or the amount of sensory data available to us as by the standard of backgrounded competence. In this way, 'houses' are created in experience from hints; 'boats' emerge in perception from sensory bits; dots and lines may be seen as 'faces', graphic signs as 'poems', optical patterns on the screen as 'movies'. The colour green stand in for 'go' if you know basic rules of traffic; this [MCMLXXXVIII] is the number '1988' if you know Roman numbers; and this [木] is 'tree', if you are familiar with Japanese Kanji symbols. The general point I make here is that things matter to us not according to how they appear in sensation, but according to how they matter in the context of background knowledge.

A similar observation can be made about language. Words are poor designators of objects and human action in the world. They too are as 'incomplete' as visual records. Moreover, they are arbitrary, provisional, 'transferred', vague, indexical, fictional, and so on. What concepts describe, when put into words, is a distant cry from what the body performs in behaviour. Just as 'image' on the retina is more like graphic artistry than a replica of the real, so too words are more like poetic hints than precise designators of objects to which they refer. Take, for instance, the command 'jump'. It is understood in a different way if you are at the edge of a swimming pool, or if you are sitting in the tree, or if you prepare for a high jump in an athletic competition. The same word presupposes distinct motions. The indiscriminable in words are phrases that stand in for quite different bodily acts. Even the most simple 'eat' requires a variant motor treatment if you have soup, steak, ice-cream, or avocado in front of you. 'Eating' contains no instructions for eating, nor is what you see equipped with guidelines for how exactly to deal with it. Similarly, to 'play' the piano and 'play' cards, to 'hit' the ball and 'hit' the road, to 'make' money and 'make' love, have nothing in common except the same words that affiliate them. To 'give' the plate and 'give' a word, to 'open' the door and 'open' a bottle, book, or new era or chapter of life<sup>8</sup> – all this is testimony to the 'incompleteness' of semantics and urges us to realize that understanding is not reducible to lexical meanings.<sup>9</sup> And, again, we can say that the indeterminacy does not matter, so long as there is a cognitive organ that can effortlessly differentiate what language does not discriminate, as well as helps us to make guesses, be attuned for adaptations, and undertake possible actions without it.

We clearly do not 'do things with words' in any strict sense. Even when we talk while doing something, doing itself is wordless, and it happens in an autonomous way in relation to the narratives. That, however, does not mean that an action cannot be initiated by a concept; rather, what it actually means is that the action is performed dependent on the way it is *read by the background*, that is, independent of contemplation and also often removed from or behind the veneer of consciousness. Concepts might be heralds of action,<sup>10</sup> but acting itself can do without them. It is performed without lexical assistance because the body knows what to do and how to perform what it does without having to engage in thinking, and so without recourse to conceptualization. In short, words may cause behaviour, but we don't need them in the very execution of what they initiate. We instead assume that behaviour is rendered possible by the background.

I believe there are enough elements in the above to help us draw a not so trivial conclusion: *there is a severe underdetermination of mental processes by sensory data*. This implies that what matters for the organism as information is not given in input, and also that meanings are not attached to incoming stimuli. After all, 'events don't come labelled "stimulus" or "response"' (Kirk, 1994, p.107). Similarly, as C. I. Lewis puts it: 'Objects do not classify

themselves and come into experience with their tickets on them' (1929, p. 88). If this is the case, then 'labelling' and 'ticketing' look like interventions 'on the inside'. Inputs, through processes of intervening, have to be *made* informative and stimuli meaningful. With this much in mind, I would claim that any attempt to address the mechanism responsible for such a productive role must take into account the role of the background. It will be shown, upon closer examination, that the issue is not so much what is actually and literally going on in the sensory field, but rather the background being engaged in figuring out what might be the case in the world.

### 3. Perceiving the plausible

What follows from the underdetermination hypothesis is that the 'given' appears to be a poor guide in deciphering the 'real', that inputs are not instructive unless there are means that can assist us in reading what they can possibly mean, and that even the 'affordances' themselves are futile unless there is a cognitive instrument that can make them matter for the organism as such. So there must be competences more profound than those based on the sensory record; there must be a 'knowing' of some sort that enables an organism to act in the world independent of its appearances.

'If you see a stick in the water, it looks curved, but if you *know* it is a stick, you *know* that you can grasp it the same way you would grasp a straight object. Stick in the water and out of the water look different, but they afford the same actions' (Prinz, 2009, p. 429; emphases added). Jesse Prinz does not make reference to the background here, but, in my interpretation, it is background *knowing* that enables one to read the situation in such a way and that the hand is not deceived by the eye. Vision, though important, is not an exclusive guide to action and, as noted above, neither is verbal language. Also, what we see is dominated more by the function and possible use of objects (as well as virtually the entire experiential history we have of them) than by their appearance and physical features alone. Knowledge of the former is what influences our attitude towards objects and our way of handling them. A plate may look elliptic to you, but you handle it as a round object. The box that is optically shortened in perspective is manually treated as a cube. The car that appears tiny on the horizon exists in your experience as distant, and not as miniature (as it approaches it does not grow in size, but is experienced as coming closer). You also see the moon as larger than the objects of the same optical size on the retina (for instance, a penny) because you implicitly *know* it is a celestial body of certain dimensions.

We realize, once again, that the important thing is not what is going on in the photo-receptors, but what the organism makes of the incoming stimuli, based on the embodied experiential record. This decides the contents of perception. In other words, what 'is' is read in terms of what it might be.

The contents of perception are created according to what seems *most plausible to be the case*. And plausibility might not even be judged on the sensory evidence, as in the case of the ‘bent’ stick or ‘elliptic’ plate.

In summing up the results of his research, Walter Freeman (1999a) succinctly notes: perception is about *expectations*. Alva Noë likewise confirms: ‘People hear what they expect to hear’ (2009, p. 109) – and, we might add, see mostly what they believe is the case; move into what seems to be the most probable configuration of a surrounding; enter social exchange through dialogues that are taken from the storage of expected stereotyped rhetoric samples. Frith says that perception is based on *beliefs* (2007, p. 126). And Searle, along similar lines, talks about ‘readiness’ (1995, [chapter 6](#)).<sup>11</sup>

You generally *know* what to expect when you see a book (for instance, printed and not empty pages; blank pages behind the cover can be a mistake or a joke, but not a book). You also know how to handle the book; you don’t ‘open’ the cover of the book the way you ‘open’ a plastic box with pasta in it. This means that fingers are tuned to meet pages and not *penne*. And, when you glimpse at a written text, you know what sort of ‘object’ it is, and this recognition automatically means that you are normally not checking *how* it appears graphically (normally, the font and size of the letters are irrelevant), but *what* it means. Hence we say that we *read* the text, and not that we *look at* it. Converting from *looking at* to *reading* the text presupposes gearing into a different perceptual mode, which is done on the background level.

Expectation is a selective process. Leaving out is as important as taking into account. There is always much more of that which has to be ignored than what has to be recorded in consciousness. As an illustration, consider Hubert Dreyfus’ example of the experience of a familiar type of room. He says: ‘We are skilled at *not coping* with the dust, unless we are janitors, and *not paying attention* to whether the windows are open or closed, unless it is hot, in which case we know how to do what is appropriate’ (1993: p. xxviii; emphases added). Appropriateness is entirely contextual. What is habitual or normal in one situation need not be so in another. If, for example, you are in a plane, you *know* it is not appropriate to jog in the aisles, and even less so to have a picnic. If you are at a classical music concert, you will not sing as you do under the shower when hearing the same piece (though you can do that at a rock concert). You will not appear in the lecture room (un)dressed as you are when in a swimming pool. And you will not swing your head when you eat as you do when you watch tennis. To do what is appropriate simply means not to do what is inappropriate. That is, an element of potentiality also entails the *potentiality not to do* what is not appropriate.<sup>12</sup>

*Inhibition* is thus vital for mentality – otherwise we would be overwhelmed and burdened with the trivial. In this context, inhibition refers to the mechanism devised to prevent some mental contents from becoming available in consciousness and thought. We need, in that sense ‘incompleteness’, and welcome it. ‘Dust’ of which Dreyfus speaks is everywhere, and it is fortunate

that, for the most part, we do not see it. Yet even if it does not reside in awareness, it can still influence our behaviour. That is one of the tremendous merits of the background. Some notions that are crucial for human life remain 'invisible' in the background, even though they affect our behaviour in profound ways. Take, for example, the idea of 'death'. Early in life we get to learn that we are mortal; that is, that one day we will not be around any more, and if we do not want death to happen before the 'natural' end, we have to take on board life-preserving measures. From a very early age onward we are instructed by our parents to avoid dangers (fire, electricity, cars, heights, snakes, strange people, and so on). To do what is appropriate means, in this case, to secure a level of maintenance of vital processes, and *not to do* what would endanger life or threaten health. Yet, no matter how important this 'to be or not to be' might be at each and every moment of living, it is not computed in conscious awareness. We simply do not normally think about all the possible and actual dangers, nor do we have a concept of death permanently processed in awareness. And yet, even if hosted by the unconscious, the background, as a reliable bodyguard, normally serves us well, and is helpful precisely in being invisible. If that were not the case, if the idea of death were always in the foreground, then the alarm would permanently be on, and all attempts at action would probably be paralysed out of fear that whatever we do might be lethal. (For a more general discussion of the relation between the background and foreground, see Maxine Sheets-Johnstone and Richard Shusterman's chapters in this volume.)

What one can learn from the empirical research is very much in accord with the thesis outlined here. Ever more scientific findings speak in favour of the view that what the neural system does is to self-generate options for what the organism can expect in the world. 'All that brains can know has been synthesized within themselves in the form of *hypotheses about the world* and the outcomes of their own tests of the hypotheses, success or failure, and the manner of failure' (Freeman, 1999a, p. 121; emphasis added. See also Roth, 1996, [chapter 6](#)). This likewise means that we have to re-examine the very notion of environment as a form of the given, and to therewith stop treating surroundings as providing us with 'affordances' to which we are obedient. Environment is a 'matter of choice' (Harth, 1993, p. 118) – something which we have selected to be, or become, an experience of what appears as a part of our world. Nothing is simply there unless we have allowed it to matter to us in some way. Even when the 'choice' is most often not volitional or conscious, it presupposes a complex mechanism of inhibition, selection, and projection of the possible.<sup>13</sup>

Environment, far from being offered up for passive uptake or faithful representation, is something to be figured out in terms of *backgrounded bets* about the most likely version of what there 'is'. To have it in experience is, as already mentioned, neither to pick up what is externally given, nor to register what is actually contained in input, but to appropriately project the most

plausible mode of adaptation to what seems to be the case. What is at stake here is, basically, *guesswork* – an estimate or inference about the most probable states and situations of the natural and social environment. But this is not computed in conscious thought; the vast majority of this type of mental activity resides outside the margins of conscious awareness. Surely, there is no warranty for guesswork, and making guesses is vulnerable to mistakes. But it is useful (unless, of course, it is harmful or lethal), and the organism can only welcome it. Guesswork helps us to make corrections and improve steps in adaptations. Yet, it should be noted, the first step is always a guess. It is first the future, and then what of it applies to the present.

We may rightly dwell on how able is our biological organism to execute this type of mental mission. If one consults more recent neurophysiological sources, then one would be amazed to learn how supportive they can be. For instance, if we have come to the conclusion that the gist of mentality is *anticipation without reflection*, we would realize that this is precisely what the biological organism does: ‘The brain and body anticipate inputs, perceive, and make movements without need for reflection’ (Freeman, 1999a, p. 23). We would further realize that ‘our experience of the visual world in rich detail is an experience of what is *potentially available* to us rather than what is already represented in our brain’ (Frith, 2007, p. 44; emphasis added). What the neural system does, then, is provide ‘a map of signs about *future possibilities*’ (ibid., p. 98). For Erich Harth, ‘[t]he future is, in fact, already present in our mind, and hence in the nervous system, *before* it happens in the world of objects’ (1993, p. 95; emphasis added). Indeed, ‘[i]t may even be said that *future* events affect present neural activity, because the brain – joyfully or fearfully – anticipates, projects into, the future’ (ibid, p. 61). Richard L. Gregory already recognized this: ‘[O]bjects have pasts and futures; when we know its past and can guess its future, an object transcends experience and becomes an embodiment of knowledge and expectation without which life of even the simplest kind is impossible’ (Gregory, 1966, p. 8).<sup>14</sup>

Neuroscientists and psychologists seem to stop short of posing the question: How is the ‘future’ in this sense possible at all, and what enables it? What is the source of competence that provides information ‘beyond the (presently) given’? What sort of mechanism is capable of anticipation and adaptation to the possible? The response, from the perspective presented here, is pretty unambiguous: the capacity for devising possible scenarios of the ‘real’ is due to the massive background knowledge that provides a horizon of possibilities for reading stimuli and reacting to them in terms of what they most likely represent. The background supplies this potentiality to the cognitive organism, granting it sufficient knowledge to cope with the world promptly and appropriately. By initiating expectations and outlining guesses it does not, however, create fancy – something nice, but not necessary. Instead, it provides the basic means of navigation in natural, social, and cultural surroundings.

Bearing this in mind, and contrary to what the term denotes, the background is entirely in the service of *anticipation*. The literal meaning of the term deceives us, insofar as it suggests an orientation towards the past, when in fact it is better to think of it as a type of mental vehicle that is fully engaged in the organism's preparation with respect to what is going to come, what to do next, and so enables the organism's participation in worldly affairs in timely and appropriate ways. What Arthur S. Reber asserts about implicit leaning is, therefore, also perfectly applicable in this context. The background can be seen as a 'knowledge that [...] is always ahead of the capability of its possessor to explicate it' (1989, p. 229).

#### 4. On automaticity and adaptability

In the previous section, I was mainly concerned with the assumption *that* the background is indispensable in human cognition and action; this section aims to illustrate *how* the background exercises its role – and so is less concerned with its nature, such as whether it is representational or not,<sup>15</sup> and instead focuses more on its mode of operation.

Unlike memory, which presupposes the recall or reconstruction of particular past episodes, the background presupposes an instantaneous and effortless activation of potentiality that provides options for motor and mental coping with life situations, and most often without conscious engagement. To say that something operates in an easy and effortless manner means that it is exercised *automatically*; and thus implies that it is performed without conscious awareness and independent of control or deliberation. This, I think, can be best understood in terms of Ludwig Wittgenstein's reference to skills. Echoing Wittgenstein (1953), Searle also says that we know many things *simply by doing*.<sup>16</sup>

I use the phrase 'just doing' to refer in general to such reactions without reflection. But whilst many authors affiliate this sort of action primarily with motor habits, I am prone to extend the term far beyond bodily behaviour to include complex mental processes such as perception, memory, action, learning, and thought. 'Just seeing' and 'just thinking' would then mean that even complex cognitive operations such as visual perception and reasoning are not spared of skilled routines by which they are brought about. The ease of the doing is not only that of walking and typing, swimming and cycling, but also that of seeing, talking, remembering, and imagining. Effortlessness is not only a physical skill but also a mental habit; and the same can even be said of complex cognitive processes and scientific enterprises, such as mathematics. As George Lakoff and Raphael Núñez put it: 'Most cognition happens backstage. That includes mathematical cognition' (2000, p. 27). Analogously, we can say that just as we drink or drive, we also 'just calculate' or 'just infer' – or 'just diagnose'. On this point, Michael Polanyi insightfully remarks: 'The medical diagnostician's skill is as much

an art of doing as it is an art of knowing. The skill of testing and tasting is continuous with the more actively muscular skills, like swimming or riding a bicycle' (1958, p. 54).

On a more elementary level, there is something like 'just judging': why I prefer brown over blue; why Cabernet Sauvignon tastes better to me than Chardonnay; why I am more attracted to chamber music than opera; why Bach fulfils my musical demands better than Brahms; why Picasso excites me than Pissarro, and so on. Even when I think I can provide *reasons* for such judgments, it so happens that I have *preferences* for reasons that are 'just' had as background suppositions. Lexical justifications come into play only later.

The 'just doing', understood as a form of automaticity, is by no means trivial.<sup>17</sup> The benign phrase may deceive us concerning the power and impact of the processes it encompasses. Were it of some service to us at every instance of our mental life, we would have to permanently process the sensory data in consciousness, check them in memory, or question them in thought. Not only would this be too time- and energy-consuming, but it would also be like a computing machine processing data. Human mentality does not function that way. If it did, we would always be running behind in whatever action we undertake. The mismatch could be funny, but also fatal. Instead, automaticity enables us to *adapt* not only to environmental, but also to social and cultural circumstances promptly and effortlessly.

Just as the hand 'knows' how to properly size the object (see, for instance, Jeannerod, 1997, 2006), and so not be deceived by visual indications (Frith, 2007, [chapters 3 and 4](#); Ramachandran and Blakeslee, 1998, [chapter 4](#)), so too do we know where to step into, how to unlock the door, dial the phone, use the ATM, and so on. And in the same manner we know how to orient ourselves in time; how to understand mirror images; how to read passport photos; how to properly attribute subtitles to persons in movies (of which they are not originally a part); how to communicate with people in the post office or bank; what to do if we have to apply life-saving measures, and so on. In motor movements we rely on kinaesthetic routines, and in mental endeavours we practice cognitive skills. And it goes all the way to religious beliefs and ideologies.

Routine replaces reasoning; skill bypasses awareness; habits enable orientation in the world without calculating the moves. Exemplification of this in philosophical literature is most often focused on motor habits. However, unlike authors who identify the background primarily with physical skills, I above all view it as a capacity for routine practices in figuring out what is going on in the environment, for making guesses about what is relevant for us, and for (re)acting in an adequate way. Motor skilled behaviour can then, at best, be taken as a useful analogy – a metaphorical illustration of what it should primarily denote: an automatic, that is, instant and effortless, coping with the world that includes cognition as much as motion. We can



say, in that sense, that we talk with ease when we walk; that we understand sentences as we grasp things; that greeting neighbours is like chewing food; that posing questions is somewhat like kicking the ball; that saying 'Hi' and 'Bye' is as effortless as switching the light on and off; that 'Yes' and 'No' is no different than nodding with the head; that watching weather forecasts on TV is like drinking a soft drink; that interacting with people that annoy you is like eating food which you do not like; that listening to someone in small talk is like licking ice-cream; that recognition of a familiar face is like hearing a familiar melody; that calculating small amounts of time or money is as easy as fastening buttons; that conversing on the phone is like driving the car. Our words 'roll' in conversation as pedals turn in cycling; our perceptions wander through space spontaneously as our bodies balance in it; memories come in just as we inhale fresh air; we understand humour with ease when we smile. Basically these illustrations show us that we know how to behave and what to do in particular situations that represent challenges for the cognitive person, and that we make use of available solutions from the repertoire of backgrounded possibilities with the same ease as routines which are typical of motor skills. This is not just to say that we do the former in a way analogical to the latter, but that there must be the same basic mechanism that brings them about.<sup>18</sup>

It must be that, in some sense, talking can be viewed as barking. As Noë remarks: '[M]uch talking is more like barking than it is anything like what the linguists have in mind. Moreover, a good part of what enables me to understand what you say is that I already know what you are going to say before you say it! I never even encounter the problem of needing to assign a meaning to your utterance on the basis of prior knowledge of the words and the rules for their combination. That problem just does not arise' (2009, p. 108). Furthermore, he says: 'One of the very many false ideas about language is that its primary function is to express information or communicate thoughts. Speech has many functions, but surely a large part of it is more like the grooming behaviour of chimpanzees or the shepherding behaviour of dogs than it is like reasoned discourse among parliamentarians. [...] The bulk of what we say and do each day is more like grunts and signals baseball players use to indicate who'll catch the pop fly than it is like a genuine conversation' (2009, p. 107).

I would propose that the same is true of thinking. Having thoughts about the personal past is more like picking up food at the buffet table: you decide on the preferences by some implicit affinities, weigh liking and disliking on the 'criteria' the body knows, and language only a fortiori learns and respects. And to think of the future is, in some way, like playing a game: you act as though to predict the next move by means of what you already know, but you can never foresee the outcome.

The gist of my discussion is that you do not have to 'reinvent the wheel' if you already have one that can serve the purpose in question. So just as a

neuroscientist says that ‘the brain does not have to reinvent the wheel, from a neuronal circuit (connectivity) perspective, each and every time a particular routine movement is required of the body by circumstance’ (Llinás, 2001, p. 220), we might say that no reinvention of this sort is necessary in your mental life if you have the means to routinely bypass conscious computing. As you do not have to reinvent it, you simply or ‘just’ use or ‘roll’ it the moment you find the motive to ‘move’. That is, you act with what you already have at hand. If it is a wheel, you will automatically ‘roll’ with it, and if it is a ‘hammer’, as Abraham Maslow says,<sup>19</sup> then you will cope with reality in terms of ‘hammering’. ‘Wheels’ and ‘hammers’ are tools of the background that we have instantly at hand in order to deal with things that have to be ‘moved’ or ‘nailed’. If the tool is *images*, we will tailor experience in those terms; and if it is *words*, our dealing with the social world simply will rely on that powerful ‘wheel’. If it is religious or political ideas, our reality will be curved according to the sorts of beliefs or ideological convictions we might have.

Is it then not justifiable to talk about the ‘language of  *coping* ’ rather than the ‘language of  *contemplation* ’? Should we not also introduce the notion of the ‘language of  *talk* ’ rather than the somewhat mysterious and elusive ‘language of  *thought* ’?<sup>20</sup> Is it not equally legitimate to talk about the ‘language of  *emotion* ’ that has its ‘word’ in everything we do? Can we not conceive of the routines of navigating familiar spaces and the rituals of ordinary conversations as a  *language of habituation*  that is perfectly operative without conscious thought?

I believe that when philosophers relate something as complex as speaking and something as biologically simple as barking, and affiliate remembering and dining, seeing and reaching, greeting and grasping, and so on, they do not equate the former with the latter, or reduce one to the other. Instead, they propose the idea that our most authentic mental processes – those that are taken as distinctive marks of our humanity, such as language usage or memory – are processed away from thought and conscious control, and are ruled by automaticity rather than deliberation. This all amounts to the conviction that concepts, thoughts and reflection are late products in the chain of mental processing. When they get shaped within experience, and when they become objects of awareness, much has already been cognitively carried out (and pre-*pared*) in the backstage of the mind. Rather than being pre-conceived plans for action, thoughts appear to be conscious protocols of the processes accomplished within the background. The once implicitly guessed is then legitimized in awareness as ‘real’.

## 5. Conclusions and consequences

For some time now, the idea of a  *homunculus*  has been expelled from its supposed domicile in the brain; but fearing to leave the epicentre of

mentality without a smart instance that takes care of all the sophistications human minds are capable of performing, theorists have installed other intelligent inhabitants of the world 'within'. Based on what contemporary empirical sources teach us, however, and what follows from the above, the message is unambiguously clear: there is no 'observer' in the brain (Singer, 2002), no internal 'interpreter' (Gazzaniga, 1998), no multiple 'selves' (Ramachandran and Blakeslee, 1998, [chapter 12](#)), or other superior instances of a similar kind. What we do have is above all a massive and potent body of backgrounded dispositions, practices, and skills. This is our major cognitive organ that does the 'observing', 'interpreting', and 'monitoring', without having to process them in consciousness and thought.

The view from the background, therefore, is by no means a view from nowhere. It is the view shaped by a powerful practical knowing founded on the entire experiential history which an organism needs in order to cope with its natural and social surroundings. Without that capacity, *embodiment* would be ignorant, *embeddedness* naïve, *enactment* arbitrary or even chaotic, and *extendedness* probably impossible.<sup>21</sup> None of these would be able to fulfil human cognitive demands.

We nowadays know that only a very small portion of the mind is realized in consciousness; by far the greater part remains salient in its backstage. This subsequently means that the philosophical ambition to understand and define the mind exclusively in terms of conscious thought and deliberation cannot be adequate any more.<sup>22</sup> A non-mysterious way to deal with that 'invisible' sphere would be to focus on the background that constitutes much of it.<sup>23</sup> Such a view deserves full theoretical attention owing to its profound role in cognition and action. So the nature, structure, and function of the background should be studied in the way that we study perception, memory, and emotion.

There are elements in this chapter that are hinted at rather than elaborated, hypothetical ideas that lack empirical support. This is because we still generally know very little about the mechanisms which we treat as unconscious, and specifically those concerning the instantaneous availability of knowledge that is not processed in awareness. Also, we should keep in mind that the issues hinted at have been largely ignored by theorists, or theorists have failed to recognize their import. Many important aspects remain yet to be tackled and analysed. The one that I believe is far reaching, and so requires extra attention and elaboration, is the idea that the background has dominance over the deliberative mind. One might say that it has a reason of its own<sup>24</sup> that is 'there' prior to our conscious reactions and judgments. This means that the conscious 'self' enters the scene after background processing, and that 'deliberation' most often follows automatized tacit decisions.

Thanks to the potency of the background, we can say that the cognitive organism is smart precisely when it is silent. Even if it is in the conscious

off-modus, it is not ignorant, and when no thinking is involved, it is not incompetent in facilitating prompt and appropriate judgments about the world as the human mind knows it. The *knowing body* is already at stake before the 'I' is conscious of its own beliefs and desires, before decisions to act are made, and before it learns about them from its own words.

## Acknowledgement

I want to thank the Croatian Ministry of Science, Education and Sport for providing support to my project 'Embodied Mind and Intentional Act' (number 191–1911111-1089). This article draws on the results of research conducted as part of the project.

## Notes

1. Among the most prominent proponents of such a critique count R. L. Gregory and E. H. Gombrich.
2. I think that not even 'affordances', a concept Gibson (1977, 1979) introduced to account for qualities of objects in the environment to allow an agent to act upon them, can change much in favour of directness because the organism first has to figure out what for it appears as affordable. We should thus not be thinking of affordability as being provided in the form of a given (see also Fodor and Pylyshyn, 1981).
3. 'When we perceive something, we actually *start on the inside*: a prior belief, which is a model of the world in which there are objects in certain positions in space. Using this model, my brain can predict what signals my eyes and ears should be receiving' (Frith, 2007: 126; emphases added). However, to affirm the 'inside' is not to define the locus of the process, nor to understand it as opposed to embedded and extended cognition, but to stress the importance of the mechanism by means of which human embodiment can be realized in the first place.
4. Here I see a possible analogy with what E. H. Gombrich says in relation to art: 'Without some starting point, some initial schema, we could never get hold of the flux of experience [...] it matters little what these first categories are [...] the starting point of a visual record is not knowledge but a guess conditioned by habit and tradition' (quoted in Goodman, 1972, p. 143).
5. An exception is J. Searle, who actually invented the philosophical usage of the term background, and elaborated on it in his works (1983, 1992, 1995, 2010). See also B. Stroud (1991).
6. The expression S. Auyang (2000) uses.
7. This ability of humans to generate experiences of things not actually presented to the senses is of tremendous importance, and is a precondition for symbolic praxis.
8. For a more extensive discussion on this, see Searle (1983, [chapter 5](#); 1995, [chapter 6](#); 1992, [chapter 8](#)).
9. This is not quite in accord with Searle's saying that: 'what one understands goes beyond meaning' (1983, p. 146), because what I consider as meaningful goes beyond the propositional and includes all that is, in some sense, relevant for the organism, what seems not to be the case in Searle's usage.

10. See, for instance, Prince and Clark (2004).
11. That is also how Freeman sees action, namely, as an act that 'requires a *prior state of readiness* that expresses the existence of a goal, a preparation for motor action to position the sense organ [...]' (1999b, p. 146, emphases added).
12. See, for instance, Agamben (2000).
13. Not to be able to see the possible is a trait of the pathology that K. Goldstein noted in his patients. 'Thus we may also describe the deficiency in these patients as a lack of capacity for approaching a 'possible' situation [...] Our patients have the greatest difficulty in starting any performance which is not determined directly by external stimuli [...] They have great trouble in involuntary shifting, in switching over voluntarily from one topic to another. Consequently they fail in performances in which such a shift is necessary [...] Shifting presupposes that I have in mind simultaneously the object to which I am reaching at the moment and the one *to which I am going to react*. One is in the foreground, and the other in the *background*. But it is essential that the *object in the background be there as a possible object for future reaction*' (Quoted in Cassirer, 1944, p. 58; emphases added).
14. This, again, is in accord with contemporary views. For instance, Freeman talks about 'reliable predictions' that the brain creates, and which 'exist as awareness of future possibilities, without which the self cannot prevail. [...] the future need not merely happen; to some extent it can be caused' (1999b: p. 168)
15. For the sort of discussion see other chapters in this volume, such as those by Schmitz (Chapter 3) and Hutto (Chapter 2).
16. Searle, for instance, says: '[...] we don't need the walking rules in the first place; we just walk' (1983: p. 153).
17. Extensive research on this topic has been done by J. A. Bargh. See his (1994, 1999, 2000) works.
18. The view accords with neuroscientific findings. Consider what Edelman and Tononi say on motor and cognitive routines: '[...] it is becoming increasingly clear that loops through the basal ganglia are not only involved in motor routines, but that depending on which part of the cortex they originate from, they may be involved in various kinds of cognitive activities. This conclusion prompts the generalization that in addition to automatic motor routines, there are also a large number of cognitive routines having to do with speaking, thinking, planning, and so on and that such routines may be unconscious for the same reason that automatic motor routines are unconscious' (2000, p. 186).
19. 'If the only tool you have is a hammer, you tend to see every problem as a nail' (1966, p. 15).
20. I tend to say that there is no 'language' in the strict sense of the word; there is only a non-representational horizon of potential significations.
21. I refer here to the '4 Es' of the contemporary philosophy of mind and cognitive science according to which mind is not an encapsulated mental structure but is rather conceived as embodied, embedded, enactive and extended.
22. 'If we are to understand how the mind, through the brain, makes us who we are, we need to consider the *whole* mind, not just the parts that subserve thinking'. (LeDoux, 2002, p. 24)
23. 'As the precondition of Intentionality, the Background is as invisible to Intentionality as the eye which sees is invisible to itself'. (Searle, 1983, p. 157).
24. An analogy is made here to Pascal's dictum that 'the heart has its reasons, whereof reason knows nothing (*Le cœur a ses raisons, que la raison ne connaît point.*), *Pensées*, (ed. Brunschvicg), 277.

## References

- Agamben, G. (2000) *Potentialities: Collected Essays in Philosophy* (Stanford: Stanford University Press).
- Auyang, S. (2000) *Mind in Everyday Life and Cognitive Science* (Cambridge, MA: MIT Press).
- Bargh, J. A. (1994) 'The four horsemen of automaticity: Awareness, intention, efficiency, and control in social cognition' in R. S. Wyer and T. K. Srull (eds.) *Handbook of Social Cognition*, Vol. 1, (Hillsdale, NJ: Erlbaum).
- Bargh, J. A. and T. L. Chartrand (1999) 'The unbearable automaticity of being', *American Psychologist*, 54/7, 462–79.
- Bargh, J. A. and M. J. Ferguson (2000) 'Beyond behaviorism: On the automaticity of higher mental processes', *Psychological Bulletin*, 126/6, November, 925–45.
- Cassirer, E. (1944) *An Essay on Man: An Introduction to a Philosophy of Human Culture* (New Haven, CT: Yale University Press).
- Dreyfus, H. L. (2003) *What Computers Still Can't Do* (Cambridge, MA: MIT Press).
- Edelman, G. M. and G. Tononi (2000) *A Universe of Consciousness: How Matter Becomes Imagination* (New York: Basic Books).
- Fodor, J. A. and Z. W. Pylyshyn (1981) 'How direct is visual perception?: Some reflections on Gibson's "Ecological approach"', *Cognition*, 9, 139–96.
- Freeman, W. J. (1999a) *How Brains Make up their Minds* (London: Phoenix).
- Freeman, W. J. (1999b) 'Consciousness, intentionality, and causality', *Journal of Consciousness Studies*, 6, 143–73.
- Frith, Ch. (2007) *Making up the Mind* (Malde, MA: Blackwell).
- Gallagher, S. and D. Zahavi (2008) *The Phenomenological Mind: An Introduction to Philosophy of Mind and Cognitive Science* (London: Routledge).
- Gazzaniga, M. S. (1998) *The Mind's Past* (Berkeley: University of California Press).
- Gibson, J. J. (1979) *The Ecological Approach to Visual Perception* (Boston: Houghton Mifflin).
- Gibson, J. J. (1977) 'The theory of affordances' in R. Shaw and J. Bransford (eds.) *Perceiving, Acting, and Knowing: Toward an Ecological Psychology* (Hillsdale, NJ: Erlbaum Associates).
- Goodman, N. (1972) *Problems and Projects* (Indianapolis: Bobbs Merrill).
- Gregory, R. L. (1966) *Eye and Brain: The Psychology of Seeing* (New York: McGraw-Hill).
- Harth, E. (1993) *The Creative Loop: How the Brain Makes a Mind* (Reading, MA: Addison-Wesley).
- Jeannerod, M. (1997) *The Cognitive Neuroscience of Action* (Oxford: Blackwell).
- Jeannerod, M. (2006) *Motor Cognition* (Oxford: Oxford University Press).
- Kirk, R. (1994) *Raw Feelings: A Philosophical Account of the Essence of Consciousness* (Oxford: Clarendon Press).
- Lakoff, G. and R. E. Núñez (2000) *Where Mathematics Comes From* (New York: Basic Books).
- LeDoux, J. (2002) *Synaptic Self: How Our Brains Become Who We Are* (New York: Penguin Books).
- Lewis, C. I. (1929) *Mind and World Order: Outline of a Theory of Knowledge* (New York: Dover).
- Llinás, R. R. (2001) *I of the Vortex: From Neurons to Self* (Cambridge, MA: MIT Press).
- Maslow, A. (1966) *The Psychology of Science* (New York: Harper & Row).
- Noë, A. (2009) *Out of Our Heads* (New York: Hill and Wang).

- Polanyi, M. (1958) *Personal Knowledge: Towards a Post-Critical Philosophy* (New York: Harper & Row).
- Prinz, J. and A. Clark (2004) 'Putting concepts to work: Some thoughts for the twenty-first century', *Mind and Language*, 19/1, 57–69.
- Prinz, J. (2009) 'Is consciousness embodied?' in Robbins and Aydede (eds.).
- Ramachandran, V. S. and S. Blakslée (1998) *Phantoms in the Brain: Probing the Mystery of the Human Mind* (New York: William Morrow and Co.).
- Reber, A. S. (1989) 'Implicit learning and tacit knowledge', *Journal of Experimental Psychology, General*, 118, 219–35.
- Robbins, P. and M. Aydede (eds.) (2009) *The Cambridge Handbook of Situated Cognition* (New York: Cambridge University Press).
- Roth, G. (1996) *Das Gehirn und seine Wirklichkeit: Kognitive Neurobiologie und seine philosophischen Konsequenzen* (Frankfurt am Main: Suhrkamp).
- Searle, J. R. (1983) *Intentionality: An Essay in the Philosophy of Mind* (Cambridge: Cambridge University Press).
- Searle, J. R. (1992) *The Rediscovery of the Mind* (Cambridge, MA: MIT Press).
- Searle, J. R. (1995) *The Construction of Social Reality* (New York: Free Press).
- Searle, J. R. (2010) *Making the Social World: The Structure of Human Civilization* (Oxford: Oxford University Press).
- Singer, W. (2002) *Der Beobachter im Gehirn: Essays zur Hirnforschung* (Frankfurt am Main: Suhrkamp).
- Stroud, B. (1991) 'The background of thought' in *John Searle and his Critics*, E. Lepore and R. van Gulick (eds.) (Cambridge, MA: Blackwell).
- Wittgenstein, L. (1953) *Philosophical Investigations* (Oxford: Blackwell).

# 12

## Embodied Technology as Implicit Background of Modern Civilization

*Klaus Mainzer*

### 1. Classical AI: symbolic representation and control

Knowledge representation, which is today used in database applications, artificial intelligence (AI), software engineering, and many other disciplines of computer science has deep roots in logic and philosophy (Mainzer, 2003a, 2003b). In the beginning, there was Aristotle (384–322 B.C.) who developed logic as a precise method for reasoning about knowledge. Syllogisms were introduced as formal patterns for representing special figures of logical deductions. According to Aristotle, the subject of ontology is the study of categories of things that exist or may exist in some domain.

In modern times, Descartes considered the human brain as a store of knowledge representation. Recognition was made possible by an isomorphic correspondence between internal geometrical representations (*ideae*) and external situations and events. Leibniz was deeply influenced by these traditions. In his '*mathesis universalis*', he required a universal formal language (*lingua universalis*) to represent human thinking by calculation procedures and to implement them to mechanical calculating machines. An '*ars iudicandi*' should allow every problem to be decided by an algorithm after representation in numeric symbols. An '*ars inveniendi*' should enable users to seek and enumerate desired data and solutions of problems. In the age of mechanics, knowledge representation was reduced to mechanical calculation procedures.

In the twentieth century, computational cognitivism arose on the background of Turing's theory of computability. In his functionalism, the hardware of a computer is related to the wetware of human brain. The mind is understood as the software of a computer. Turing argued: If human mind is computable, it can be represented by a Turing program (Church's thesis), which can be computed by a universal Turing machine, that is, technically by a general purpose computer. Even if people do not believe in Turing's



strong AI-thesis, they often claim classical computational cognitivism in the following sense: Computational processes operate on symbolic representations referring to situations in the outside world. These formal representations should obey Tarski's correspondence theory of truth: Imagine a real-world situation  $X_1$  (for example, some boxes on a table), which is encoded by a symbolic representation  $A_1 = \text{encode}(X_1)$  (for example, a description of the boxes on the table). If the symbolic representation  $A_1$  is decoded, then we get the real-world situation  $X_1$  as its meaning, that is,  $\text{decode}(A_1) = X_1$ . A real-world operation  $T$  (for example, a manipulation of the boxes on the table by hand) should produce the same real-world result  $A_2$ , whether performed in the real world or on the symbolic representation:  $\text{decode}(\text{encode}(T(\text{encode}(X_1)))) = T(X_1) = X_2$ . Thus, there is an isomorphism between the outside situation and its formal representation in Cartesian tradition. As the symbolic operations are completely determined by algorithms, the real-world processes are assumed to be completely controlled. Therefore, classical robotics operate with completely determined control mechanisms.

## 2. New AI: self-organization and controlled emergence

Knowledge representations with ontologies, categories, frames, and scripts of expert systems work along this line. But, they are restricted to a specialized knowledge base without the background knowledge of a human expert. Human experts do not rely on explicit (declarative) rule-based representations, but on intuition and implicit (procedural) knowledge (Dreyfus, 1979). Further on, as already Wittgenstein knew, our understanding depends on situations. The situatedness of representations is a severe problem of informatics. A robot, for instance, needs a complete symbolic representation of a situation which must be updated if the robot's position is changed. Imagine that it surrounds a table with a ball and a cup on it. A formal representation in a computer language may be  $\text{ON}(\text{TABLE}, \text{BALL})$ ,  $\text{ON}(\text{TABLE}, \text{CUP})$ ,  $\text{BEHIND}(\text{CUP}, \text{BALL})$ , and so on. Depending on the robot's position relative to the arrangement, the cup is sometimes behind the ball or not. So, the formal representation  $\text{BEHIND}(\text{CUP}, \text{BALL})$  must always be updated in changing positions. How can the robot prevent incomplete knowledge? How can it distinguish between reality and its relative perspective? Situated agents like human beings need no symbolic representations and updating. They look, talk, and interact bodily, for example, by pointing to things. Even rational acting in sudden situations does not depend on internal representations and logical inferences, but on bodily interactions with a situation (for example, looking, feeling, reacting).

Thus, we distinguish formal and embodied acting in games with more or less similarity to real life: Chess, for instance, is a formal game with complete representations, precisely defined states, board positions, and formal operations. Soccer is a non-formal game with skills depending on bodily interactions, without complete representations of situations and

operations which are never exactly identical. According to Merleau-Ponty, intentional human skills do not need any internal representation, but they are trained, learnt, and embodied in an optimal 'gestalt' which cannot be repeated (Merleau-Ponty, 1962). An athlete like a pole-vaulter cannot repeat her successful jump like a machine generating the same product. Husserl's representational intentionality is replaced by embodied intentionality. The embodied mind is no mystery. Modern biology, neuro-, and cognitive science give many insights into its origin during the evolution of life.

The key concept is self-organization of complex dynamical systems (Mainzer, 2005, 2007). The emergence of order and structures in nature can be explained by the dynamics and attractors of complex systems. They result from collective patterns of interacting elements in the sense of many-body problems that cannot be reduced to the features of single elements in a complex system. Non-linear interactions in multi-component ('complex') systems often have synergetic effects, which can neither be traced back to single causes nor be forecasted in the long run or controlled in all details. The whole is more than the sum of its parts. This popular slogan for emergence is precisely correct in the sense of non-linearity.

The mathematical formalism of complex dynamical systems is taken from statistical mechanics. If the external conditions of a system are changed by varying certain control parameters (for example, temperature), the system may undergo a change in its macroscopic global states at some critical point. For instance, water as a complex system of molecules changes spontaneously from a liquid to a frozen state at a critical temperature of zero Celsius. In physics, those transformations of collective states are called 'phase transitions'. Obviously they describe a change of self-organized behaviour between the interacting elements of a complex system. The suitable macrovariables characterizing the change of global order are denoted as 'order parameters'. They can be determined by a linear stability analysis (Mainzer, 2005). From a methodological point of view, the introduction of order parameters for modelling self-organization and the emergence of new structures is a giant reduction of complexity. The study of, perhaps, billions of equations, characterizing the behaviour of the elements on the micro-level, is replaced by some few equations of order parameters, characterizing the macro-dynamics of the whole system. Complex dynamical systems and their phase transitions deliver a successful formalism to model self-organization and emergence. The formalism does not depend on special, for example, physical laws, but must be appropriately interpreted for different applications.

There is a precise relation between self-organization of non-linear systems with continuous dynamics and discrete cellular automata. The dynamics of non-linear systems is given by differential equations with continuous variables and a continuous parameter of time. Sometimes, difference equations with discrete time points are sufficient. If even the continuous variables are replaced by discrete (for example, binary) variables, we get functional

schemes of automata with functional arguments as inputs and functional values as outputs. There are classes of cellular automata modelling attractor behaviour of non-linear complex systems, which is well-known from self-organizing processes.

But in many cases, there is no finite program in order to forecast the development of future patterns. In general, there are three reasons for computational limits of systems dynamics: (1) A system may be undecidable in a strict logical sense. (2) Further on, a system can be deterministic, but non-linear and chaotic. In this case, the system depends sensitively on tiny changes of initial data in the sense of the butterfly effect. Long-term forecasting is restricted, and the computational costs of forecasting increase exponentially after some few steps of future predictions. (3) Finally, a system can be stochastic and non-linear. In this case, only probabilistic predictions are possible. Thus, pattern emergence cannot be controlled in any case.

Self-organization and pattern emergence can also be observed in neural networks, working like brains with appropriate topologies and learning algorithms. A simple robot with diverse sensors (for example, proximity, light, collision) and motor equipment can generate complex behaviour by a self-organizing neural network. In the case of a collision with an obstacle, the synaptic connections between the active nodes for proximity and collision layer are reinforced by Hebbian learning: A behavioural pattern emerges, in order to avoid collisions in future.

Obviously, self-organization leads to the emergence of new phenomena on sequential levels of evolution. Nature has demonstrated that self-organization is necessary, in order to manage the increasing complexity on these evolutionary levels. But non-linear dynamics can also generate chaotic behaviour which cannot be predicted and controlled in the long run. In complex dynamical systems of organisms, monitoring and controlling are realized on hierarchical levels. Thus, we must study the non-linear dynamics of these systems in experimental situations, in order to find appropriate order parameters and to prevent undesired emergent behaviour as possible attractors. The challenge of complex dynamical systems is controlled emergence.

A key application is the non-linear dynamics of brains. Brains are neural systems which allow quick adaptation to changing situations during the lifetime of an organism. In short, they can learn. The human brain is a complex system of neurons self-organizing in macroscopic patterns by neurochemical interactions. Perceptions, emotions, thoughts, and consciousness correspond to these neural patterns. Motor knowledge, for instance, is learnt in an unknown environment and stored implicitly in the distribution of synaptic weights of the neural nets. In the human organism, walking is a complex bodily self-organization, largely without central control of brain and consciousness: It is driven by the dynamical pattern of a steady periodic

motion, the attractor of the motor system. Motor intelligence emerges without internal symbolic representations.

What can we learn from nature? In unknown environments, a better strategy is to define a low-level ontology, introduce redundancy – and there is a lot in the sensory systems, for example – and leave room for self-organization. Low-level ontologies of robots only specify systems like the body, sensory systems, motor systems, and the interactions among their components, which may be mechanical, electrical, electromagnetic, thermal, and so on. According to the complex systems approach, the components are characterized by certain micro-states generating the macro-dynamics of the whole system.

Take a legged robot. Its legs have joints that can assume different angles, and various forces can be applied on them. Depending on the angles and the forces, the robot will be in different positions and behave in different ways. Further, the legs have connections to one another and to other elements. If a six-legged robot lifts one of the legs, this changes the forces on all the other legs instantaneously, even though no explicit connection needs to be specified (Pfeifer and Scheier, 2001). The connections are implicit: They are enforced through the environment, because of the robot's weight, the stiffness of its body, and the surface on which it stands. Although these connections are elementary, they are not explicit and included if the designer wished. Connections may exist between elementary components that we do not even realize. Electronic components may interact via electromagnetic fields that the designer is not aware of. These connections may generate adaptive patterns of behaviour with high fitness degrees (order parameter). But they can also lead to sudden instability and chaotic behaviour. In our example, communication between the legs of a robot can be implicit. In general, much more is implicit in a low-level specification than in a high-level ontology. In restricted simulated agents with bounded knowledge representation, only what is made explicit exists, whereas in the complex real world, many forces exist and properties obtain, even if the designer does not explicitly represent them. Thus, we must study the non-linear dynamics of these systems in experimental situations, in order to find appropriate order parameters and to prevent undesired emergent behaviour as possible attractors.

But not only 'low level' motor intelligence, but also 'high level' cognition (for example, categorization) can emerge from complex bodily interaction with an environment by sensory-motor coordination without internal symbolic representation. We call it 'embodied cognition: An infant learns to categorize objects and to build up concepts by touching, grasping, manipulating, feeling, tasting, hearing, and looking at things, and not by explicit representations. The categories are based on fuzzy patchworks of prototypes and may be improved and changed during life. We have an innate disposition to construct and apply conceptual schemes and tools (in the sense of Kant).

Moreover, cognitive states of persons depend on emotions. We recognize emotional expressions of human faces with pattern recognition of

neural networks and react by generating appropriate facial expressions for non-verbal communication. Emotional states are generated in the limbic system of the brain which is connected with all sensory and motor systems of the organism. All intentional actions start with an unconscious impulse in the limbic system, which can be measured some fractals of a second before their performance. Thus, embodied intentionality is a measurable feature of the brain (Freeman, 2004). Humans use feelings to help them navigate the ontological trees of their concepts and preferences, to make decisions in the face of increasing combinatorial complexity: Emotions help to reduce complexity.

The embodied mind (Balke and Mainzer, 2005) is obviously a complex dynamical system acting and reacting in dynamically changing situations. The emergence of cognitive and emotional states is made possible by brain dynamics which can be modelled by neural networks. According to the principle of computational equivalence (Mainzer, 2003, 2007), any dynamical system can be simulated by an appropriate computational system. But, contrary to Turing's AI thesis, that does not mean computability in any case. In complex dynamical systems, the rules of locally interacting elements (for example, Hebb's rules of synaptic interaction) may be simple and programmed in a computer model. But their non-linear dynamics can generate complex patterns and system states which cannot be forecast in the long run without increasing loss of computability and information. The main reason is the stochastic and non-linear dynamics of the brain. There is a continuous random noise of firing neurons in the background of any measured neural signal. Further on, non-linear stochastic dynamics can lead to stochastic chaos, depending sensitively on tiny changing conditions. Thus, artificial minds could have their own intentionality, cognitive and emotional states which cannot be forecast and computed like in the case of natural minds. Limitations of computability are characteristic features of complex systems (Mainzer, 2010).

In a dramatic step, the complex systems approach has been enlarged from neural networks to global computer networks like the World Wide Web. The internet can be considered as a complex open computer network of autonomous nodes (hosts, routers, gateways, and so on), self-organizing without central mechanisms. Routers are nodes of the network determining the local path of each information packet by using local routing tables with cost metrics for neighbouring routers. These buffering and resending activities of routers can cause congestions in the internet. Congested buffers behave in surprising analogy to infected people. There are nonlinear mathematical models describing true epidemic processes like malaria extension as well as the dynamics of routers. Computer networks are computational ecologies (Mainzer, 2007).

But complexity of global networking does not only mean increasing numbers of PCs, workstations, servers, and supercomputers interacting via data traffic in the internet. Below the complexity of a PC, low-power, cheap,

and smart devices are distributed in the intelligent environments of our everyday world. Like global positioning system (GPS) in car traffic, things in everyday life could interact telematically by sensors. The real power of the concept does not come from any one of these single devices. In the sense of complex systems, the power emerges from the collective interaction of all of them. For instance, the optimal use of energy could be considered as a macroscopic order parameter of a household realized by the self-organizing use of different household goods according to less consumption of electricity during special time-periods with cheap prices. The processors, chips, and displays of these smart devices don't need a user interface like a mouse, Windows, or keyboards, but just a pleasant and effective place to get things done. Wireless computing devices on a small scale become more and more invisible to the user. Ubiquitous computing enables people to live, work, use, and enjoy things directly without being aware of their computing devices.

### **3. Embodied systems: knowing without thinking**

Implicit knowledge, unconscious routines, and background experience have already been the key of human survival during evolution. Conscious calculations of chances need too much time in a rapidly changing world. Further on, in a complex technical world, decision-making and acting is only possible under conditions of bounded rationality. Bounded rationality results from limitations on our knowledge, cognitive capabilities, and time. Our perceptions are selective, our knowledge of the real world is incomplete, our mental models are simplified, our powers of deduction and inference are weak and fallible. Emotional and subconscious factors effect our behaviour. Deliberation takes time and we must often make decisions before we are ready. Thus, knowledge representation must not be restricted to explicit declarations. Tacit background knowledge, change of emotional states, personal attitudes, and situations with increasing complexity are challenges of modelling information and communication systems. Human-oriented information services must be improved in order to support a sustainable information world.

Thus, we need bodily instrumentation and routine procedures of systems in order to handle the complexity of human-robot interactions. Biological systems take advantage of layers with recursive processing of self-monitoring and self-controlling from the molecular and cellular to the organic levels. Self-monitoring leads to knowledge without thinking and without consciousness that is used by a system to control its own processes and behaviours. Therefore, we can construct self-monitoring systems without consciousness that may even be better than biological systems for certain applications. It is well known that technical instruments (for example, sensors) already surpass the corresponding capacities of natural organisms with many orders of magnitude. Self-monitoring systems can help to improve bodily interaction with humans and controlled emergence in a complex world.

In a complex world, we are involved in many simultaneous activities, information processing, and noise in the background. The background is hidden to our consciousness, but still influencing our tacit knowledge and embodied acting. When people are engaged with additional and difficult problems, they are expected to forgo verbal communication automatically. An excursive examination taken from everyday life strengthens this bottleneck assumption quite well. Driving a car in bad traffic in an unfamiliar city is considered a complex cognitive and psycho-motor activity in which verbal communication with passengers is automatically restricted. Listening to a live concert on the radio and reading a newspaper, solving a chess problem and discussing politics, preparing a complicated meal and, at the same time, discussing with children or neighbours, all of these are examples of double or multiple tasks. The background and the implicit must be handled automatically.

Task-related information from different cognitive fields arrive in tight chronological succession via separate cognitive channels in central cognitive information channels in central cognitive information processing. The shorter the time gap, the more strongly decelerated the processing of the second task. The general assumption is that the higher the demand made by a primary problem solving task (for example as a consequence of complexity, time pressure, or fear of danger) the less communication there will be. There is some evidence to support the idea that this system works automatically and autonomously.

According to Fodor (1983), all these cognitive fields are modularized, information encapsulated, and domain specific. Their operations of input are mandatory. There is only limited central access to the processing. A module functions fast, and its location is neutrally fixed. These assumptions are confirmed by modern brain research and cognitive science. From a technical point of view, it is a challenge to integrate humans in complex technical environments in a way that all these human information channels and cognitive abilities can handle simultaneous activities, information processing, and noise in the background more or less autonomously. Thus, the technical task is to adapt complex technical environments to humans, not to replace them. This kind of adaptation means embodiment in technology.

But, how far should we go with technical simulations? Self-consciousness is a highly sophisticated state of human brain dynamics. The brain does not only observe, map, and monitor the external world, but also internal states of the organism, especially its emotional states. Feeling does not only mean self-monitoring, but self-awareness of one's emotional states. In neuromedicine, the 'theory of mind' (ToM) analyses the neural correlates of subjective and social experience, which are situated in special areas of the neocortex. People, for example, suffering from Alzheimer disease, lose their feeling of empathy and social responsibility because the correlated neural areas are destroyed. Therefore, even our moral reasoning and deciding have a clear

basis in brain dynamics. Moral responsibility would not be possible without human self-consciousness.

Nevertheless, living in a complex world needs embodied systems with implicit and unconscious knowing of their dynamic background. In the future, global information networks will control and grow together with our traffic, energy, food, medical, and other networks of delivery and supply for all kinds of goods and services. They will work in the background with high degree of autonomy, tacitly and hidden to the public consciousness. These kinds of embodied networks will be the global background of our technical civilization.

## References

- Balke, W.-T. and K. Mainzer (2005) 'Knowledge representation and the embodied mind: Towards a philosophy and technology of personalized informatics', in *Lecture Notes of Artificial Intelligence, 3782: Professional Knowledge Management* (Berlin: Springer), 586–97.
- Dreyfus, H. L. (1979) *What Computer's Can't Do: The Limits of Artificial Intelligence* (New York: Harper & Row).
- Fodor, J. A. (1983) *The Modularity of Mind* (Cambridge MA: The MIT Press).
- Freeman, W. J. (2004) 'How and why brains create sensory information', *International Journal of Bifurcation and Chaos*, 14, 515–30.
- Mainzer, K. (2010) *Leben als Maschine? Von der Systembiologie zur Robotik und Künstlichen Intelligenz* (Osnabrück: Mentis).
- Mainzer, K. (2007) *Thinking in Complexity. The Computational Dynamics of Matter, Mind, and Mankind* (New York: Springer).
- Mainzer, K. (2005) *Symmetry and Complexity: The Spirit and Beauty of Nonlinear Science* (Singapore: World Scientific).
- Mainzer, K. (2003a) *Computerphilosophie* Hamburg: Junius.
- Mainzer, K. (2003b) *KI – Künstliche Intelligenz: Grundlagen intelligenter Systeme*, Darmstadt: Wissenschaftliche Buchgesellschaft.
- Merleau-Ponty, M. (1962) *Phenomenology of Perception* (Routledge & Kegan Paul).
- Pfeifer, R. and C. Scheier (2001) *Understanding Intelligence* (Cambridge MA: MIT Press).





# Index

- action-oriented representations  
(AORs), 27ff, 34, 45
- actions, 67, 92, 125, 127, 169, 171,  
172, 173, 177, 178, 188, 189, 194,  
197, 198, 200, 206, 211, 212, 214,  
217, 218, 219, 220, 225, 229, 230,  
234, 238, 248
- embodied, 196
- joint, 86
- motor, 196
- aesthetics, 116, 208
- affordances, 17, 28, 30, 33, 86, 230, 232
- Alexander, Matthias F., 212, 218
- Angst*, 29ff
- animation, 188, 189, 190, 192, 194,  
198–201
- Aristotle, 85, 86, 104, 105, 200, 243
- artificial intelligence (AI), 14, 16, 31,  
44, 79, 83, 87, 88, 91, 243, 244
- Austin, John L., 107, 210
- automaticity, 126, 226, 234, 235, 237,  
238, 250
- automatism, *see* automaticity
- awareness, 226, 232, 235, 237
- background  
*and* mind/mental life, 212
- as* abilities, 64, 66, 71, 110, 124
- as* adaptive know-how, 15
- as* ambient light (Homer), 2, 5
- as* brain capacity, *see* background:  
*as* neurophysiological capacity
- as* conscious, 64ff, 117
- as* coping, 14, 19, 20, 22, 31, 33, 34
- as* embedded and embodied, 44
- as* field of forces (Bourdieu), 5, 7, 9
- as* guesswork, 227, 233
- as* habit, 216
- as* hidden, 1ff, 3, 226, 250
- as* holistic, 1, 3, 5, 7, 18, 22, 33,  
38, 142
- as* implicit, 3, 4, 14, 141, 142, 161,  
162, 243, 251
- as* indeterminate, 3
- as* intentional, 60ff, 63, 64, 89
- as* neurophysiological capacity, 40,  
64, 89, 90, 109, 110, 111, 116, 117,  
118, 125, 134, 210
- as* non-conceptual (coping), 7,  
72ff, 79
- as* non-conscious, 57, 64ff, 71, 72,  
80, 118, 251
- as* non-intentional, 9, 109, 209
- as* non-propositional, 9
- as* non-representational, 38, 39, 43,  
44, 59, 61, 80, 117, 118
- as* phenomenon of world  
(Heidegger), 4
- as* potentiality (Radman),  
224ff, 233
- as* preintentional, 39, 59, 61, 64,  
117, 132, 209
- as* somatic, 206ff, 216, 219, 220
- as* withdrawn (Heidegger), 4, 5, 6,  
9, 14
- functions of, 209ff
- hypothesis of, 117ff
- Background (Searle)
- deep (biological), 37, 38, 40ff,  
118ff, 128
- local (cultural), 37, 38, 50ff, 120ff
- background knowledge, 18, 34,  
85, 86, 87, 92, 228, 233,  
244, 249
- behaviour, x, 13–18, 24–7, 31, 47, 51,  
63, 67, 84, 112, 122, 125, 126,  
130, 144, 145ff, 147–60, 213, 232,  
236, 249
- possibilities, 154–8, 211,  
218, 229
- beliefs, 68, 72ff, 75ff, 84, 90, 110, 113,  
122, 130, 209, 211
- body, xi, 148–56, 158, 160–2, 170–6,  
178–95, 197, 198, 206, 207, 211,  
216, 239
- as* background, 206

- Bourdieu, Pierre, 5, 100, 104, 111, 207, 210, 211
- Bråten, Stein, 194
- Brooks, Rodney, 91
- Cappuccio, Massimiliano, 21
- Chinese Room Argument (Searle), 80, 83, 87–93
- Chomsky, Noam, 52, 102
- Clark, Andy, 45, 149
- cognition, 44, 45, 133, 160, 169, 188, 225, 238
- embodied, 197
- social, 83, 84ff, 85, 94
- cognitive science, 14, 37, 45ff, 53, 54, 61, 131, 197, 198, 199, 245, 250
- cognitivism, 14, 169, 243, 244
- conditions of satisfaction, 3, 38, 58, 59, 61, 62, 63, 69, 71, 72, 117, 118, 127, 209
- consciousness, 57, 64–7, 70, 75, 80, 89, 101, 112, 117, 118, 148, 168, 173, 177, 187, 190, 198, 206, 209, 212, 213, 218, 220, 224, 229, 231, 238, 246, 250
- coping, 235, 237
- absorbed (Dreyfus), 14ff, 22, 24, 30, 34, 44, 49
- embodied, xi
- skilled, 22, 25, 30, 31, 33, 34, 44
- Crane, Tim, 91
- culture, 7, 87, 91, 94, 98, 100, 105, 143, 155, 161, 208, 233
- Damasio, Antonio, 155
- declarations (Searle), 100, 104, 107, 109
- Dennett, Daniel, 167, 176, 177, 180
- Depraz, Natalie, 175
- De Preester, Helena, 178
- Descartes, René, 243
- desires, 84, 113, 122, 128, 209
- Dewey, John, 211–18
- dispositions, 68, 70, 209, 210, 217, 238
- Dreyfus, Hubert L., 14, 18, 20, 22, 26, 33, 44, 46–8, 52, 79, 133, 159, 207, 231
- Durkheim, Émile, 104, 211
- Emerson, Ralph Waldo, 217
- enactivism/enaction, 37, 44, 45, 49, 86, 92, 169, 170, 194, 195, 196, 197, 200, 238
- radical (Hutto), 37, 49
- enkinaesthesia (Stuart), 167, 174, 177, 179, 180
- environment, 142, 144ff, 147, 149, 151, 152ff, 162, 177, 218, 219, 226, 232
- epiphenomenalism, 67
- Evans, Gareth, 75
- Fodor, Jerry, 250
- folk psychology, 51ff, 83, 84
- Foucault, Michel, 104
- frame problem, 16, 27, 31, 83, 91ff
- Freeman, Walter, 18, 231
- free will, 218
- Frith, Chris, 225
- Gadamer, Hans Georg, 105
- Gallagher, Shaun, 17, 144, 150, 152, 156, 161, 175, 228
- Glenie, Evelyn, 118
- Goldman, Alvin, 84
- Grene, Marjorie, 193
- Ground-level intelligence (Dreyfus), 14, 16, 17, 20, 29, 33
- Habermas, Jürgen, 104
- habits, 215, 216, 217, 218, 219, 220, 234
- habitus (Bourdieu), 211
- Harth, Erich, 233
- Hegel, Georg Wilhelm Friedrich, 99, 105
- Heidegger, Martin, 1, 4, 5, 7, 21, 22, 24, 26, 25, 30, 34, 44, 174, 207
- Herder, Johann Gottfried, 105
- heterophenomenology, 167ff, 176, 179, 180
- Homer, 1, 7
- Howells, William, 193
- Hume, David, 133
- Husserl Edmund, 1, 3–5, 6, 133, 134, 167, 171, 173, 174, 175, 188, 189, 190, 191, 192, 193, 207, 245
- Hutto, Daniel D., 79

- implying (Gendlin), 146–7, 152, 154, 156, 158ff  
 inhibition, 218, 231  
 institutions, 111  
 intellectualism, 224  
 intentional arc (Merleau-Ponty), 18  
 intentionality, 41ff, 48, 49, 50, 53, 57, 80, 198, 245, 248  
   collective, 100, 103, 106, 109, 111, 112, 127ff, 129, 130, 131, 134  
   motor, 47, 90, 116, 190  
   non-conscious, 118  
   preconceptual, 78  
 intersubjectivity, 86, 87, 90, 92, 94, 174, 175, 176  
  
 Jackendoff, Ray, 122  
 James, William, 75, 187, 206, 211–16  
 Jeannerod, Marc, 191, 193  
 Johnson, Mark, 197  
  
 Kant, Immanuel, 99, 206, 217  
 Kelly, Sean D., 6, 8, 9, 14  
 kinaesthesia, 190–2, 195  
 kinaesthetic  
   background, 198  
   experience, 175  
   imagination, 167, 170  
   melody, 190  
   memory, 167, 171  
 knowledge  
   practical, 85, 86, 92, 198  
 Kripke, Saul, 69  
  
 Lakoff, Georg, 234  
 Leibniz, Gottfried Wilhelm, 52, 243  
 Lerdahl, Fred, 122  
 Lewis, Clarence Irving, 225, 229  
 Libet, Benjamin, 218  
 Luria, Aleksandr Romanovich, 190  
  
 Marbach, Eduard, 179  
 Maslow, Abraham, 237  
 Mataric, Marina, 27  
 Maturana, Humberto, 171  
 McDowel, John, 47–8  
 Meltzoff, Andrew N., 175  
  
 memory, 91  
 Merleau-Ponty, Maurice 1, 6, 8, 9, 14, 17, 44, 47, 171, 192, 206, 207, 208, 245  
 minimal representation, 27, 30, 34  
 mirror neurons, 19, 178, 179  
 motor, 190, 246, 247  
   actions, 191  
   intentionality, 190  
 music, 116, 118ff, 150, 208, 209  
  
 narrative practices, 87  
 network (Searle), 38, 72, 90, 109, 110, 111, 117  
 Nietzsche, Friedrich, 133  
 Noë, Alva, 102, 231, 236  
 Non-conscious, *see* unconsciousness  
 Núñez, Raphael, 234  
  
 other minds, problem of, 83  
  
 perception, 92, 141ff, 143ff, 147, 148, 155, 156, 174, 177, 197, 198, 211, 212, 214, 220, 227ff, 234, 238, 246, 249  
 phronemos, 85  
 Piontelli, Alessandra, 172  
 Plato, 52  
 Polanyi, Michael, 133, 142, 234  
 practical knowledge, 15, 27, 68, 74, 76, 85, 86, 198  
 pragmatism, 206, 220  
 problem of relevance, 14, 16, 17, 18, 19, 26, 29, 34  
 proprioception, 118, 172, 193, 199  
 Putnam, Hilary, 102  
  
 Ramsey, William M., 44  
 Ratcliffe, Mathew, 170  
 Ravenscroft, Ian, 51  
 Ray, Georges, 46, 49, 50, 51  
 Reber, Arthur S., 234  
 Ricœur, Paul, 178  
 Rietveld, Erik, 14, 17, 18, 20, 22, 31, 32, 33  
 Rizzolatti, Giacomo, 178  
 robots, 19, 27, 83, 88, 89, 91, 92, 93, 94, 244, 246, 247, 249  
 Rosch, Eleanor, 197

- Rousseau, Jean Jacques, 107, 111  
 Rowlands, Mark, 149
- Schmitz, Michael, 39, 40  
 Schutz, Alfred, 132  
 Searle, John, 37ff, 57–80, 87–91,  
 98–113, 116–35, 208, 209, 210, 234  
 self-organization, 246, 249  
 Shear, Jonathan, 191  
 Sheets-Johnstone, Maxine, 171, 173  
 signs (Heidegger), 25ff  
 Simmel, Georg, 104  
 simulation, 83, 84, 85, 87, 250  
 skills, xi, 4, 7–8, 15ff, 17, 19, 23, 24,  
 26, 39, 52, 58, 72, 75, 76, 77, 119,  
 124, 125, 126, 127, 132, 142, 156,  
 172, 216, 217, 219, 234, 235  
 Sloboda, John, 126  
 social ontology (Searle), 98ff, 109,  
 110, 112, 113  
 somaesthetics (Shusterman), 206  
 Stern, Daniel, 194  
 Stich, Stephen, 51  
 Stuart, Susan, 144, 150  
 Sutton, John, 23, 26
- Teuber, Hans-Lukas, 201  
 Thompson, Evan, 197  
 thrownness (Heidegger), 15, 16, 22,  
 30, 31  
 touch/tactility, 125, 173, 192, 193,  
 194, 247  
 Turing, Alan, 243
- unconsciousness, xi, 121, 122, 123,  
 125, 127, 134, 209, 232  
 underdetermination, 229
- Varela, Francisco, 191, 197  
 von Uexküll, Jakob, 200
- Weber, Max, 104  
 Wheeler, Michael, 14, 21  
 Wittgenstein, Ludwig, 5, 7, 44, 58,  
 69, 93, 99, 100, 104, 109, 111,  
 133, 150, 168, 180, 208, 209,  
 210, 234, 244  
 Wundt, Wilhelm, 187
- Zahavi, Dan, 189, 228  
 zombies, 66