that, if an argument about moral issues involves or leads to the denial of a moral certainty, the argument is not moral in a 'thick' sense and does not qualify as a proper response to a moral problem. We have good reason not to do whatever thin arguments involving the denial of moral certainties claim we ought to do, even if we have no reason to question the truth of the premises or the logical validity of the argument.

# THE CONSTRUCTIVIST DIMENSION OF THE **CONCEPTUAL FRAMEWORK OF THE CONTEMPORARY SYSTEMS BIOLOGY**

#### Alexandra Derra

Toruń, Poland

Recent methodological literature in biology has announced that the discipline is approaching the post-genome era of its studies aiming at the so-called 'systems biology'. Faced with enormous data biologists need to understand how the examined items work in complicated sets which produce certain behaviours, features and functions. They have to take into account not only elements, correlations and interactions among them, but also the results it reflexively produces in a complex system of its research, more properly labeled as 'a system of systems'.

I want to show that the transition of molecular biology from reductive methodology of pre-double helix time to a more holistic approach of systems biology wonderfully illustrates the conceptual power of a constructivist approach in science. I want also to point out how this discipline tries to build a new conceptual and theoretical framework at the crossroads of physics, computer science, new language and its own tradition.

# TRUTH IN ETHICS: WILLIAMS AND WIGGINS

### **Cora Diamond**

Charlottesville, USA

David Wiggins argued that there are ethical questions that admit of answers that are substantially true. He considers the case of slavery, and argues that, in response to the question about its moral legitimacy, there is nothing else to think but that it is unjust and insupportable. His view was criticized by Bernard Williams. I examine their disagreement, and consider the views of those who defended slavery, since it is central to Wiggins's argument that discrepancies in belief about a case of this sort need to be accounted for.

# ÜBERSICHTLICHE DARSTELLUNG AS SYNOPTIC PRESENTATION IN PHILOSOPHICAL INVESTIGATIONS, I, §122

## **Alexandra Dias Fortes**

Lisbon, Portugal

As was pointed out by Gordon Baker, Philosophical Investigations, I, §122 "(...) seems to condense into one short remark much of Wittgenstein's distinctive conception of philosophy" (Baker, 2004, 22.), and it "is well known and often quoted" (ibid.). Despite this latter circumstance, Baker proceeded to further elucidate the key notion in §122 of a "perspicuous representation" [übersichtliche Darstellung]. Notwithstanding Baker's reading, one further aspect might be important in trying to figure out what kind of view is an übersichtliche Darstellung, specifically, its translation. In my paper I want to suggest 'synoptic presentation' as a more befitting translation of übersichtliche

Darstellung. In so doing I will draw a distinction between representation and presentation that might help us read PI, §122, and I will consider the reasons for translating Übersicht as 'synopsis' (and übersichtliche as ,synoptic'). I conclude with a brief note on synoptic presentation and style.

## A PROBLEM FOR FREGE'S ANALYSIS OF PROPOSITIONAL ATTITUDE REPORTS AND ITS METAPHYSICAL CONSEQUENCES

#### Dušan Dožudić

Zagreb, Croatia

In this paper, I will consider a problem that affects Frege's analysis of propositional attitude reports. Firstly, I will outline Frege's analysis. Then, I will show how it straightforwardly leads into a problem that seems to undermine that very analysis. After that, I will consider an attempt to avoid the problem. Finally, I will point to potential metaphysical consequences of that problem that go well beyond Frege's framework and then connect Frege's problem with some more recent discussion concerning propositional attitude reports.

# HOW TO FIND A SOLUTION TO THE WORD PROBLEM FOR AN ENCODING SYSTEM: THE **ENTSCHEIDUNGSPROBLEM REVISITED** THROUGH WITTGENSTEINIAN CONSTRUCTIVISM

Susan Edwards-McKie

Cambridge, United Kingdom

What these problems have in common are difficulties between levels of a system, whether that be an opacity which blocks knowledge or information, or the creation of numbers or types which fall outside of the system and therefore cannot be described or accounted for within the system of origin. Wittgenstein wrestled with such problems throughout his work, whether we look at the type theoretic problems of the Tractatus, the heterological paradox and uebersichlichkeit of the later 1930s, the mathematically theoretical issues about recursion in the middle period, with a range of issues of differentiation and indiscernibility in the later years. Similarly, in mathematics and logic Goedel's Incompleteness Theorems and Cantor's Diagonal Proof on the Incommensurability of the Reals and the Natural Numbers are all issues which Wittgenstein returned to repeatedly in his MSS. I have argued elsewhere (2012, 2014, 2015) for a reappraisal of Wittgenstein as a significant philosopher of mathematics. In the inaugural HAPP lectures and in a projected book for Cambridge University Press, I argue for a reappraisal of Wittgenstein's philosophy of physics. In this short piece, I will draw together ideas of mathematics and physics, using a Wittgensteinian constructivist approach.

# **OBSERVATION, EVIDENCE, AND CAUSE IN** THE ANTHROPOCENE

Heike Egner

Klagenfurt, Austria

Since the Nobel Prize winner Paul Crutzen almost incidentally declared our present times to be the new era of the Anthropocene at a UN-conference in Mexico in 2000, an intensive debate has emerged on the plausibility of this statement and on the evidence the era of the