#### Foreword to the second edition

After fifteen years, a second edition of *Ontological Investigations* will now appear. It contains three appendices: First, a summary of the conclusions of the book in aphoristic form; second, a piece on universals which provides a more elaborate defence of my realist point of departure; and, third, an appendix on ontology in information science, a topic which is also addressed in this Foreword.

## 1. Ontology and information science

At the time when Ontological Investigations was being written, the term 'ontology' was slowly entering the world of information science. It is easy to understand why. A philosopher ontologist is someone who tries to capture large chunks of the abstract structure of the world. In doing so, of course, he (or she) has to use concepts. But he is using these concepts only in order to say something about the world. He is not looking at concepts in order to find conceptual connections between them. When I say that the English word "cat," the German word "Katze," and the Swedish word "katt" are synonymous, then I am looking at the concept that the three words have in common. But when I make an assertion by using the words "The cat is on the mat," then I am using the concept cat in order to speak about a cat in the world. The assertions in this book are like "The cat is on the mat," though more general and abstract. Knowledge engineers in information science look at concepts and conceptual models. But they need classifications of very abstract concepts for their work, and, rather naturally, they have chosen to call these abstract classifications "ontologies," too.

I once gave a brief talk at an AI-workshop about the difference between using concepts to denote entities in the world and viewing concepts as entities in themselves. It is here published as appendix 3.

Out of every philosophical ontology, one can construe an ontology for knowledge engineers. Conversely, every information science ontology can (if only for the peculiar purposes of the philosopher) be regarded as an hypothesis about the abstract structure of the world and as such serve as an object of philosophical discussion. Now, just as ordinary engineers can often reach their practical goals more efficiently with theoretically obsolete theories (such as Newtonian mechanics) drawn from the natural sciences rather than with more truthlike ones such as quantum mechanics, so it might well be the case that knowledge engineering can be done more efficiently with bad philosophical ontologies than with truthlike ones. At the moment, however, there seems to be nothing in particular that speaks in favour of such a view. (I find it nice that I am, while writing this foreword, working in a place – the Institute for Formal Ontology and Medical Information Science at the University of Leipzig – where the relationship between philosophical ontologies and information science ontologies has been put on the agenda.)

# 2. Ontology and political correctness

At the beginning of sub-chapter 15.7, I report that "This theory of categories of mine is marxist in inspiration and (to a lesser extent) as regards the problems dealt with, but somewhat analytic in its way of handling these problems. The resulting ontology, however, is most closely related to the positions of two philosophers who belong neither to marxism nor to analytic philosophy: Aristotle and Hussserl." When I wrote the book I was a Marxist and a so-called Euro-Communist (that is, I believed in the combination of planned economy, democracy, and independence from the Soviet Union), and I did as much as I could to stress overlaps between my ontological views and those of classical Marxism. In particular, I did three things: I wrote the sub-chapter 15.7 on "Marxist dialectics and intentionality"; I stressed (in chapter 2) the fact that Friedrich Engels put forward a kind of level ontology; and (in chapter 16.1) that not only Karl Popper, but also Lenin, has claimed that truth can admit of degrees. I even expression "the Lenin-Popper position Retrospectively, I can now see that I am almost certainly the only one who has ever found this expression funny.

As far as I can see, one can without inconsistency combine the realist ontology of my book with both a conservative, a liberal, a socialist, and a feminist political philosophy. This notwithstanding the fact that during the 90s of the last century many philosophically-minded socialists and feminists were radical social constructivists who denied the existence of a mind-independent world about which knowledge can be obtained. Note that I am not saying that each and every part of an ontology has to be

ideologically neutral, parts of the ontology of human nature are probably not. Furthermore, if the belief that the whole of nature is imbued with mind or spirit is regarded as a political ideology, as a kind of "ecologism," then not even this book is ideologically neutral. It denies such a view.

### 3. Ontology and natural theology

Most contemporary Western theologians seem to think that talk of God can have no ontological import whatsoever. Religion, they say, is "merely a language game." However, there are some religious philosophers and some theologians who think otherwise. They think one can rationally argue about the existence of God, even though, for them, the question is both normatively and emotionally loaded. That is, they believe in what the medievals called natural theology. Now, so do I; I regard it as part of ontology. My conclusion, however, differs from theirs. In my considered judgement, the spatiotemporal whole in which we live is for its existence not dependent on any "higher" and non-spatiotemporal existent. In my opinion and in this book, space-time is at the end of the ontological dependence line, though I do not anywhere in the book argue that this has to be the case. This fact, I want all prospective natural theologian readers to notice.

# 4. Ontology and analytic philosophy

As a student in philosophy in Gothenburg, Sweden, I was trained and educated within analytic philosophy. This tradition, though, has been very heterogeneous. For instance, Cambridge analytic philosophy (in particular, Bertrand Russell) and Austrian analytic philosophy (i.e., followers of Franz Brentano such as Alexius Meinong) affirmed ontology, whereas logical positivism and Oxford analytic philosophy after "the linguistic turn" denied it. I wrote my book in the wake of the appearance (1978) of David Armstrong's two-volume book *Universals and Scientific Realism*, in which an anti-Platonist *immanent* realist position on universals is defended. I thought, quite mistakenly, that Armstrong's Aristotelianism would progressively conquer the Anglo-American and Scandinavian strongholds of analytic philosophy. Therefore, I took very lightly the defence of my realist point of departure, which comprises just a few pages in chapters 1.3

and 1.4. I hope that in this edition this mistake is somewhat remedied by appendix 2 and by the three paragraphs below.

Obviously, we regard our everyday mesoscopic world as perceivable and as containing numerically different things with many different properties. Often, several things are perceived as having the same property. In such perceptions there seems to be an immediate revelation to the effect that the world contains universals. If one perceives, let's say on a tennis court, three exactly similar spherical balls, one may find it obvious that, independently of language and of relations of resemblance, there are three different things that are qualitatively identical with respect to their shape. Apart from *numerical* identity and difference, the world seems to contain *qualitative* identity and difference; and where there is qualitative *identity* there is a universal.

Every non-Aristotelian view of universals seems to contain some flagrantly non-commonsensical stain. The non-realisms of conceptualism and predicate nominalism imply a complete denial of mind-independent properties such as shape; everything that is universal is said to belong to concepts or predicates. The essence of the non-realism of trope nominalism is the astonishing view that every property is necessarily only a once-andfor-all occurrent. Platonist realism, on the other hand, posits the existence of universals outside space and time plus a peculiar relation of "participation in" between the spherical tennis balls in this world and a universal sphericality outside this world. Immanent realism, with its view that universals have a repeatable existence in – and only in – the ordinary spatiotemporal world, may seem to lack a corresponding remarkable peculiarity, but this is not quite true. When worked out in its details, such a realism has to claim that one single universal can be wholly present in several different things that are spatially or temporally scattered. Prima facie, this is a bit odd, too, which means that all positions on the problem of universals are odd. But they are not equally so. Immanent realism is the least odd position, and the existence of universals in re is the best explanation of the kind of property perceptions mentioned. According to Plato, all instances of a certain universal participate in "their" universal. According to my brand of immanent realism, it is rather the other way round: a universal participates in all its instances. Here come five views of mine:

- (i) there are universals, but there are no universals outside the spatiotemporal world;
- (ii) since a universal can have many instances, it cannot be identical with any of its instances;
- (iii) since a set does not exist *in* any of its elements (a set *has* elements), a universal cannot be identical with the set of its instances (or e.g. with a set of tropes);
- (iv) since a mereological sum does not exist *in* any of its parts (it *has* parts), a universal cannot be identical with the mereological sum of its instances (or with such a sum of tropes);
- (v) since a spatiotemporal aggregate does not exist *in* any of the aggregated units, a universal cannot be identical with the aggregate of its instances (or with any aggregate of tropes).

Besides Armstrong's book, there is another great analytic-philosophical book that I would like to mention, namely John Searle's *Intentionality* (1983). Here, language is ontologically embedded. I read it in 1984, but, unfortunately, I only had time to comment on it in footnotes in the first edition of this book. Had it appeared some years earlier, I would have tried to stand on its shoulders in the way I tried to do with Armstrong's book (see chapter 1.3).

Having paid this truly earnest homage to Armstrong and Searle, I want to make another point perfectly clear. Armstrong has defended immanent realism with respect to universals, but he has also (mistakenly) tried to reduce intentional states to ordinary material states. Searle, on the other hand, has (rightly) argued that intentional states are non-reducible entities, but he regards (mistakenly) the problem of universals as merely a conceptual muddle not worth the attention of serious philosophers. There is, though, one great philosopher who has defended both a kind of immanent realism for universals ("species") and the non-reducibility of intentional states, namely Edmund Husserl. Furthermore, Husserl laid bare the existence of different kinds of "relations of existential dependence," and the latter, as will become clear, are absolutely crucial to my ontology. In spite of his "transcendental turn," I regard Husserl as the greatest philosopher of the twentieth century.

Back to analytic philosophy. I know neither who has coined the term analytic metaphysics nor exactly when it came into common use. But I

know that it was not available to me when I wrote Ontological *Investigations.* Had it been, then I would have made clear that, while each chapter in the book can be regarded as a piece of analytic metaphysics, it would be nonetheless misleading to give the whole book such an epithet. Why? Because the book is an attempt at systematic metaphysics, too. In my opinion, analytic and systematic metaphysics are too distinct endeavours which should however be approached in tandem. Systematic metaphysics ought to be done the way analytic metaphysics is done, and systematic metaphysics is needed even by those who have no urge for a complete ontology; they need it as a consistency test of all the fragmentary presumed truths they have come to accept when visiting various corners of analytic metaphysics. If one has taken definite stands on the problems of, say, universals, causality, and the mind-body relation, then one ought also to ask oneself if the three positions taken are consistent with each other. If one concludes that they are, then one has entered the domain of systematic Armstrong, Searle, metaphysics. and Husserl, are systematic metaphysicians in this sense, and so also were Aristotle and Plato.

#### 5. Ontology and epistemology

Leibniz claimed (and I agree) that even an omnipotent God would have to stay within the framework of logical truths. Analogously, I would like to claim that even an omnipotent epistemology (which I do not believe exists) would have to stay within the framework of ontology. Just take a look at Descartes and Kant. Descartes claimed that philosophy ought to start with an all-embracing systematic doubt. But when he tried to doubt everything, he came to the conclusion that, for sure, a thinking enduring substance exists. Some of his contemporaries complained, rightly, that he should have confined himself to the conclusion that necessarily a "thought" or a "something" exists. My point is that one cannot rationally claim that nothing at all exists. Every epistemology has to start with some ontology. In Kant, this fact comes out in the following way. He claimed that philosophy ought to start with an investigation of the faculty of knowing; but, then, he presupposed the *existence* of such a faculty.

As is clearly stated in the last chapter of the book, I regard substantive epistemological investigations as regional-ontological investigations, and I

regard all regional-ontological investigations such as those made in the book as fallible.

## 6. Ontology and ontological thinking

Since the publishing of the first edition of the book in 1989. I have in some articles been able to make some of the ideas put forward more clear and distinct. These articles are listed below and related to different chapters.

Chapter 1.1:

 Hume's Scottish Kantianism, in the Polish journal Ruch Filozoficny LIX (2002), 421-53. (Here, in contradistinction to the book, I make a real attempt to unravel David Hume's ontology.)

Chapters 1.3 and 1.4:

• Determinables as Universals, The Monist 83 (2000), 101-21; see appendix 2.

Chapter 2:

- Hartmann's Nonreductive Materialism, Superimposition, and Supervenience, Axiomathes XIII (2001), 1-21.
  Critical Notice of Armstrong's and Lewis' Concepts of Supervenience, SATS Nordic Journal of Philosophy 3 (2002), 118-22.
- The Asymmetries of Property Supervenience, in S. Lindström & P. Sundström (eds.), *Physicalism, Consciousness, and Modality*, Umeå Preprints in Philosophy 2002:1, 95-124.
  (In chapter 2, I ought to have mentioned the fact that the proposed ontology contains relations of *supervenience*, but I didn't.)

Chapters 4.1, 4.5, and 11.2:
Physical addition, in R. Poli & P. Simons (eds.), Formal Ontology, (Kluwer: Amsterdam 1996), 277-88.
Presuppositions for Realist Interpretations of Vectors and Vector Addition, in U. Meixner & P. Simons (eds.), Proceedings of the 22nd International Wittgenstein Symposium 1999, (öbv&hpt: Wien 2001), 200-06.

Chapter 5:

- Functions, Function Concepts, and Scales, *The Monist* 86 (2004), 96-115.
- Chapter 6: Pattern as an Ontological Category, in N. Guarino (ed.), Formal Ontology in Information Systems, (IOS Press: Amsterdam 1998), 86-94.
- Chapter 8: Marty on Grounded Relations, in K. Mulligan (ed.), Mind, Meaning and Metaphysics, (Kluwer: Amsterdam 1990), 151-56.

Chapter 13.5:

Intentionality and Tendency: How to make Aristotle up-to-date, in K. Mulligan (ed.), Language, Truth and Ontology, (Kluwer: Amsterdam 1992), 180-92.

Chapter 13.7:

Perception as the Bridge Between Nature and Life-World, in C. Bengt-Pedersen & N. Thomassen (eds.), Nature and Life-World, (Odense UP: Odense 1998), 113-37.

Chapter 14:

The Unnoticed Regional Ontology of Mechanisms, Axiomathes, VIII (1997), 411-28.

Chapter 15:

• Searle's Monadological Construction of Social Reality, in D. Koepsell & L.S. Moss (eds.), John Searle's Ideas About Social Reality, (Blackwell: Oxford 2003), 233-55.

## 7. Ontological gratitude

First, I want to thank the publisher and ontologist Rafael Hüntelmann for taking the risk of publishing this volume. Second, I want to thank Kevin Mulligan and Barry Smith for having helped me, supported me, encouraged me, and discussed with me for more than twenty years now, and for having urged me to try to get a second edition published.

Leipzig in February 2004,

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