Theory and History of Ontology (ontology.co) by Raul Corazzon | e-mail: rc@ontology.co

Selected bibliography on the Contemporary Theories of Substance

Contents

This part of the section Theory of Ontology includes the following pages:

Introductory remarks (Origin and development of some fundamental concepts with a selection of the most relevant texts)

Being (Linguistic and philosophical perspectives)

Selected bibliography on Being in Linguistics and Philosophy

Existence (Definitions from some leading philosophers)

Selected bibliography on Existence in Philosophy

Selected bibliography on the history of the concept of Existence

The Problem of Nonexistent Objects

Bibliography on the Problem of Nonexistent Objects

Bibliography on the History of the Problem of Nonexistent Objects

Substance (The evolution of the concept from Ancient Greeks to Modern Times)

Selected bibliography on the History of the Concept of *Substance* (Current page)

Selected bibliography on the Definition of Substance in Contemporary Philosophy

Mathesis universalis: the Search for a Universal Science

Selected bibliography on the History of Mathesis Universalis

Bibliographie sur René Descartes et la recherche de la mathesis universalis

The section History of Ontology includes some pages on the philosophy of René Descartes

Bibliography

- 1. Anscombe, G. E. M. 1964. "Symposium: Substance." *Proceedings of the Aristotelian Society, Supplementary Volumes* no. 38:69-78.
- 2. Armstrong, David Malet. 1997. *A World of State of Affairs*. Cambridge: Cambridge University Press.

Contents: Preface XI; -XIII; 1. Introduction 1; 2. Some preliminary doctrines 11; 3. Properties I 19; 4. Properties II 47; 5. Powers and dispositions 69; 6. Relations 85; 7. Particulars 95; 8. States of affairs 113; 9. Independence 139; 10. Modality 148; 11. Number 175; 12. Classes 185; 13. Totality states of affairs 196; 14. Singular causation 202; 15. Laws I 220; 16. Laws Ii 242; 17. The unity of the world 263; References 270; Index 277.

"During the past twenty years or so, I have been working on ontological questions. What are universals, laws of nature, dispositions and powers, possibilities and necessities, classes, numbers? The present essay tries to bring all these topics together in a unified metaphysical scheme, an ontology. As a result, there is a certain amount of recapitulation of earlier writing. But putting the pieces together turned out to be quite difficult. A good deal of further work was necessary. Many mistakes, as I now think of them, had to be corrected. So what follows is not a mere sum of past thinking." (From the Preface)

"The hypothesis of this work is that the world, all that there is, is a world of states of affairs. Others, Wittgenstein in particular, have said that the world is a world of facts and not a world of things. These theses are substantially the same, though differently expressed.

The general structure of states of affairs will be argued to be this. A state of affairs exists if and only if a particular (at a later point to be dubbed athin particular) has a property or, instead, a relation holds between two or more particulars. Each state of affairs, and each constituent of each state of affairs, meaning by their constituents the particulars, properties, relations and, in the case of higher-order states of affairs, lower-order states of affairs, is a contingent existent. The properties and the relations are universals, not particulars. The relations are all external relations. It is useful to admit*molecular* states of affairs. These, however, are mere conjunctions (never negations or disjunctions) of the original states of affairs. Molecular states of affairs constitute no ontological addition to their conjuncts. But in one special case, to be mentioned in a moment, they become very important. For first-order states of affairs, that is, states of affairs that do not have states of affairs as constituents, the Tractarian thesis of Independence is somewhat speculatively, but nevertheless hopefully, advanced. No such state of affairs entails or excludes the existence of any other wholly distinct state of affairs. Given Independence, a rather simple and straightforward Combinatorial theory of what possibilities there are, can be put forward. If Independence fails, things get more complicated.

The present theory is not biased towards Atomism nor is it biased against Atomism. An epistemic possibility that requires to be noted is the possibility that every (first-order) state of affairs is molecular, that is, analysable into a conjunction of states of affairs. (A simple if to a degree controversial example: a' being F may be equivalent to a's being G & a' being H, with F=G & H. The pattern may be repeated for G and H, and so for ever.) Every first-order state of affairs may be a nest of first-order states of affairs: states of affairs all the way down. To allow for this epistemic possibility, a Combinatorial theory of what possibilities there are requires further elaboration." pp. 1-2.

3. Ayers, Michael. 1991. "Substance: Prolegomenon to a Realist Theory of Identity." *Journal of Philosophy* no. 88:69-90.

"The aim of the present paper is to show how traditional realist doctrines, suitably interpreted, have an explanatory force that pragmatism or any other form of conceptualism cannot hope to match. The explanations it supplies are of structural features of our thinking to which considerations drawn from the philosophy of physics are simply irrelevant.

Although preconceptualist realists disagreed over what things are paradigm substances, as well as over the details of what it is to be a substance, it is not difficult to extract from the tradition at least a rough list of the category's leading characteristics. Such a list of properties should even help us to map and understand the disagreements and divergences. Yet orthodoxy and broad principles are more relevant to the immediate purpose than heresy and idiosyncratic variations. The present argument will therefore assume that such things as horses and plane trees are paradigm substances, whereas homoeomerous substances such as gold and water call for special, but integrally related treatment (treatment sketched out below under the heading "materiality"). Attributes, such as a thing's redness or squareness, and events, actions, or processes, such as walks, walking, thunderstorms, and the like, exemplify nonsubstances or (for the sake of a single name) "modes." Most of the claims embodied in the following list have on occasion been impatiently brushed aside, or simply ignored, by modern philosophers arguing on behalf either of empiricism or of conceptualism. Some of them, however, have been reinterpreted and absorbed into this or that version of conceptualism. One aim of the present argument is to reveal the coherence of the list, which will emerge in so far as each item can be explained, and needs to be explained, by reference to the others. Some effort will be made, of course, to present the principles as tenable, although more than one principle will be modified after consideration of the motives for which it has been held.

- 1. Substances are the ultimate subjects of predication, and therefore the only beings with independent existence.
- 2. Substances are real unities (both natural and logical).
- 3. Substances are material. Individual substances are distinguished from one another at any one time by their matter.
- 4. Substances exist all at once, and exist through time, or endure. (Events, in contrast, take time or unfold.)
- 5. Substances are active, the ultimate sources of change. Their underlying natures or essences are the ultimate principles of explanation.
- 6. Only substances fall into true natural kinds, and every truly individual substance is a member of a natural kind.
- Let us consider these candidate properties of the category seriatim." (pp. 69-70).
- 4. Bastit, Michel. 2012. La Substance. Essai Métaphysique. Les Plans sur Bex (Suisse): Les Presses Universitaires de l'IPC. Sommaire: Introduction 11; I. Comment pratiquer la métaphysique? 19; II. Substance et intuitions premières 57; III. La substance et ses accidents 67; IV. Propriétés ou tropes? 109; V. Pur individu, pur substrat, ou individuation? 151; VI. Indépendance et identité de la substance 187; VII. La substance forme en acte et cause de l'existence 229; Conclusion. Consistance ontologique et fécondité métaphysique 287; Bibliographie 293; Index nominum et rerum 303-308. "La question de la substance s'impose au philosophe, en dépit des dénégations de certains ou en raison de ces dénégations.

Les expériences les plus naïves semblent bien nous présenter le monde sous forme d'êtres relativement autonomes dont dépendent d'autres réalités moins autonomes. Peut-être ces expériences premières sont-elles illusoires et doivent-elles être remises en cause par une connaissance mieux informée, notamment par les acquis des sciences naturelles. En tout état de cause, il est nécessaire et important de prendre position sur cette question. Bien des raisons militent en faveur de l'inscription de la substance à l'ordre du jour de la philosophie. Si toute la réalité doit se diviser en

réalités autonomes et réalités non autonomes, la description et la compréhension de l'ensemble de la réalité est engagée dans cette problématique. La substance s'impose plus encore à la réflexion si l'on considère que la philosophie doit énumérer les êtres. Pour compter, il faut en effet catégoriser et donc distinguer à quel type d'êtres on a à faire. Mais la catégorisation implique à son tour de préciser les relations de dépendance entre les catégories et donc aussi entre les êtres. Le mot de réalité désigne ici l'être, l'ensemble des étants, de sorte qu'en mettant en relation ceux-ci entre eux il soit possible de parvenir à savoir quels sont ceux qui dépendent les uns des autres et quelles sont les causes de cette dépendance. Le terme de la recherche sera ainsi une connaissance des relations qui constituent la réalité et de ce fait mènera à la connaissance de cette réalité considérée elle-même comme un effet de ces relations de dépendance." (p. 11)

"Le premier chapitre de cet ouvrage est consacré à déterminer et justifier la méthode adoptée pour l'étude de la substance. Nous commençons par argumenter en faveur du réalisme, après quoi nous justifions naturellement l'utilisation d'une méthode descriptive et analytique, par décomposition et résolution, à condition de pousser cette analyse descriptive jusqu'à une analyse causale faisant ressortir les dépendances ontologiques inscrites dans la réalité. Sans recourir en permanence aux instruments formalisés, l'analyse est formelle au sens où elle ne vise pas à l'analyse d'une substance particulière mais à celle de la substance comme telle. Le second chapitre essaie de saisir les intuitions les plus élémentaires qui conduisent vers la substance à partir d'une analyse du langage le plus ordinaire et de l'expérience sensible élémentaire. Il semble important, dans le cadre de l'option réaliste défendue et adoptée, de pouvoir demeurer en lien avec ces données

Le troisième chapitre établit la réalité des accidents en montrant qu'il existe une partie de la réalité, accessible aux sens, qui est plus contingente et fluctuante que d'autres. Il précise que cette partie de la réalité n'existe que dans et grâce à l'existence d'une seconde partie de la réalité moins contingente et plus permanente, les substances. La question de l'existence de réalités intermédiaires entre ces deuxci est traitée en distinguant des substances et des accidents concrets les propriétés et les accidents abstraits. Au terme, la division entre les substances et les accidents est largement justifiée et la confusion entre les deux types d'être apparaît contestable et dommageable à une description fidèle du monde.

primitives, même aux cours des analyses les plus abstraites.

Le chapitre quatre entame l'analyse de la substance elle-même et examine si elle peut se comprendre comme un ensemble de propriétés ou de tropes. La réponse est négative en raison de l'universalité des propriétés, de leur caractère abstrait et enfin du risque de défaut d'unité, que leur compréhension comme ce dont est faite la substance - fait courir à la substance. La discussion des tropes, tout en saluant leur caractère actuel, montre que leur notion est contradictoire et que leur mode d'unité ne permet pas non plus de rendre compte de la substance. On conclut à la nécessité d'une forme individuelle actuelle où se réalisent l'unité et l'actualisation des propriétés.

Le chapitre cinq discute l'identification de la substance soit avec un pur individu soit avec un pur substrat. Ces identifications s'avèrent impossibles en raison de l'indétermination des purs individus ou du substrat. Tout en acceptant le rôle fondamental du substrat pour certaines substances, il est démontré que seule la forme peut rendre compte de la détermination et de l'appartenance du substrat aux substances.

Le chapitre six exhibe les caractères fondamentaux de la substance et montre qu'ils résistent aux mises en cause dont ils sont l'objet sur la base soit des théories de la quadridimensionalité, soit de la non-localité, les unes et les autres inspirées par une interprétation discutable et nullement nécessaire des données scientifiques contemporaines. La discussion de l'individualité, de la distinction des endurants et des perdurants permet de conclure à la nécessité, pour préserver l'identité et l'indépendance de la substance, d'une partie substantielle première informante et

déterminante. A partir de ces acquis est présentée une table des catégories qui place la substance actuelle au premier rang et dont dépendent les autres catégories d'êtres. Le chapitre sept rejette la conception modale de la substance. Puis il examine un certain nombre de conceptions de la substance comme essence, comme famille de parties, comme individu existant et en retient certains éléments: partie première, dépendance et indépendance ontologiques, causalité. Enfin il montre comment la substance conçue comme forme, partie première de la substance, actuelle, est seule capable de rendre compte complètement de la substance et de la manière dont elle existe." (pp. 14-16).

- 5. Boutot, Alain. 1998. "Les Théories De La Morphogenèse Et Le Dilemme De La Substance." *Revue de Métaphysique et de Morale* no. 2.

 "Les théories de la morphogenèse, à travers une approche tout-à-fait originale, c'est-à-dire structurale des morphologies, mettent un terme à cet idéalisme des relations. Dans ces théories, les formes empiriques ne sont pas de simples accidents de la matière, des épiphénomènes sans consistance, des configurations aléatoires dues au jeu des forces internes ou externes en présence, mais le reflet de structures mathématiques bien déterminées. Grâce à cette analyse, elles parviennent à concilier dans une certaine limite bien évidemment les deux points de vue que nous venons d'opposer: la thèse substantialiste et l'antithèse relationniste. Elles réussissent à conjuguer d'une manière qui pourra paraître paradoxale à première vue le primat des relations sur la substance, et le primat des substances sur les relations. Elles relativisent tout autant qu'elles substantialisent les relations. (35)" (p. 199)
 - (35) Afin de prévenir tout malentendu, il convient de lever dès à présent une ambiguïté concernant le sens que nous donnons ici au mot « substance ». Dans le chapitre 5 des *Catégories*, Aristote distingue deux acceptions de la substance: la substance peut désigner d'une part l'individu, le composé de matière et de forme (la substance première), et d'autre part l'essence (la substance seconde). Lorsque nous parlons d'une « relativisation » des substances, nous prenons le mot « substance » dans le premier de ces deux sens (individu), mais lorsque nous parlons d'une substantialisation des relations, nous le prenons dans le second (essence). La raison d'être de cette ambiguïté apparaîtra par la suite.

"On dit quelquefois que la philosophie moderne a substitué la question du sens à la vieille question de l'essence. Pour les modernes, à la différence des anciens, les choses n'ont pas d'essence, pas de nature, mais un sens, et ce sens leur vient du sujet ou de l'esprit. « C'est (...) nous-mêmes, dit Kant, qui introduisons l'ordre et la régularité dans les phénomènes que nous appelons nature, et nous ne pourrions les y trouver s'ils n'y avaient pas été mis originairement par la nature de notre esprit »(41). Cet antagonisme du sens et de l'essence est au fond une nouvelle formulation du dilemme de la substance dont nous sommes parti. Les théories de la morphogenèse réussissent à réduire cet antagonisme en concevant l'essence comme sens, c'est-à-dire comme structure et réciproquement. Elles amorcent ce faisant la constitution de ce que Thom appelle une sémiophysique. une physique du sens. La nature a un sens qu'il s'agit de découvrir. Ce sens est contenu dans des structures typiques, qui ne sont pas des constructions axiomatiques plus ou moins arbitraires, des systèmes formels, mais possèdent une objectivité fondamentale. Elles constituent la raison d'être de la chose, et abritent son essence. Cette sémiophysique nous reconduit d'une certaine manière dans les parages de la pensée aristotélicienne de l'être naturel comme composé d'une matière et d'une forme. Elle ne la reproduit certes pas purement et simplement, mais la renouvelle en profondeur en substituant à la vieille notion de forme le concept moderne de structure, réalisant ainsi l'alliance apparemment improbable de la substance et de la relation." (p. 204) (41) Critique de ia raison pure. Paris, PUF. 1975. p. 140.

- 6. Brennan, Sheilah O'Flynn. 1977. "Substance within Substance." *Process Studies* no. 7:14-26.
 - "It is undoubtedly true that Whitehead's conception of the presence of one actual entity in another plays a key role in his metaphysics. On it, indeed, he bases such

- central themes of his philosophy as his concepts of organism, internal relations, universal relativity, process, and time. Nevertheless, not all Whiteheadian scholars have been convinced that he has successfully accounted for the immanence of substance within substance.(1) The following study will undertake an investigation of Whitehead's metaphysics in order to determine whether it provides adequate support for his claim. At the same time, since Whitehead supposes his position to traverse directly an Aristotelian thesis, the article will also attempt to establish in what manner and to what extent Whitehead is in fact in opposition to the Greek philosopher." (p. 14)
- (1) 1 Cf. Dorothy Emmet, Whitehead's Philosophy of Organism (New York: 1966), pp. xxii-xxvi. After reading her hook, Whitehead expressed appreciation, but took her to task for stressing the transmission of form to the neglect of his theory of immanence. You seem to me at various points," he writes, "to forget my doctrine of 'immanence' which governs the whole treatment of objectification. Thus at times you write as the connection between past and present is merely that of a transfer of character." In the preface of the second edition, Emmet confesses that she is at a loss to explain what Whitehead meant. "I do not know," she says, "that anyone has really elucidated it. Professor Christian had a try at it in his An Interpretation of Whitehead's Metaphysics but came down on the view that what are repeated from one actual occasion to another are characteristics. '[his is undoubtedly the view which is easiest to make plausible, and I was inclined to it myself; but we have Whitehead's emphatic statement that it is not what he meant." Victor Lowe also testifies to the fact that "many philosophers laid down Process and Reality unconvinced that the author had said clearly how one actual entity can be present in another" (Understanding Whitehead [Baltimore, 1966], p. 360). Quoting Whitehead, he indicates what he thinks might be the reason for this lack of understanding: "The truism that we can only conceive in terms of universals has been stretched to mean that we can only feel in terms of universals." However, even if one admits on the basis of experience alone that one feels individuals, and that by this very fact one is inclined to the view that somehow individuals are immanent, the question still remains: Does Whitehead's metaphysics provide an adequate philosophical account of this fact of experience?
- 7. Broackes, Justin. 2006. "Substance." *Proceedings of the Aristotelian Society* no. 106:131-166.
 - "The Aristotelian notion of a First Substance (like Fido the dog), an enduring thing with perhaps changing properties, became ridiculed and rejected in the period from Locke to Hume. I clarify the idea and explain how, when separated from some unnecessary accretions, it emerges as a notion to which we are all committed, perhaps, indeed, innocently. One standard objection (that the substance ends up, absurdly, having 'no properties') involves the misconception that the Aristotelian subject of Fido's properties needs to be some extra item, other than, literally, Fido. The main rival view treats things as 'bundles' of properties or 'tropes'; I explore some difficulties in conceiving the components of the bundles. The root of the trouble, I think, lies in the Humean view that if two things are non-identical, they must also be capable of existing separately: this immediately, and disastrously, makes it impossible to recognize ontological dependence between non-identical objects. I end by replying to two special worries: that if substances existed at all, they would be imperceptible and unknowable."
- 8. Bunge, Mario. 1977. Treatise on Basic Philosophy. Iii: Ontology: The Furniture of the World. Dordrecht: Reidel.

 "This book and its companion, namely Volume 4 of our Treatise, concern the basic.
 - "This book and its companion, namely Volume 4 of our *Treatise*, concern the basic traits and patterns of the real world. Their joint title could well be *The Structure of Reality*. They constitute then a work in ontology, metaphysics, philosophical cosmology, or general theory of systems. Our work is in line with an old and noble if maligned tradition: that of the pre-Socratic philosophers, Aristotle, Thomas Aquinas, Descartes, Spinoza, Leibniz, Hobbes, Helvetius, d'Holbach, Lotze, Engels, Peirce, Russell, and Whitehead. But at the same time it departs from tradition in the

matter of method. In fact our aim is to take the rich legacy of ontological problems and hints bequeathed us by traditional metaphysics, add to it the ontological presuppositions of contemporary scientific research, top it with new hypotheses compatible with the science of the day, and elaborate the whole with the help of some mathematical tools.

The end result of our research is, like that of many a metaphysical venture in the past, a conceptual system. It is hoped that this system will not be ridiculously at variance with reason and experience. It is intended moreover to be both exact and scientific: exact in the sense that the theories composing it have a definite mathematical structure, and scientific in that these theories be consistent with and moreover rather close to science - or rather the bulk of science. Furthermore, to the extent that we succeed in our attempt, science and ontology will emerge not as disjoint but as overlapping. The sciences are regional ontologies and ontology is general science. After all, every substantive scientific problem is a subproblem of the problem of ontology, to wit, *What is the world like?*

After a long period underground, talk about metaphysics has again become respectable. However, we shall not be talking at length about ontology except in the Introduction. We shall instead do ontology. In the process we shall attempt to exhibit the mathematical structure of our concepts and we shall make the most of science. Being systematic our ontology may disappoint the historian. Being largely mathematical in form it will be pushed aside by the lover of grand verbal (but sometimes deep and fascinating) systems - not to speak of the lover of petty verbal matters. And being science-oriented it will fail to appeal to the friend of the esoteric. Indeed we shall be concerned with concrete objects such as atoms, fields, organisms, and societies. We shall abstain from talking about items that are neither concrete things nor properties, states or changes thereof. Any fictions entering our system will be devices useful in accounting for the structure of reality. (Constructs were dealt with in Volumes 1 and 2 of this work.)" pp. XIII-XIV.

Contents: Preface to *Ontology I* XIII; Acknowledgements XV; Special symbols XVI; Introduction 1; 1. Substance 26; 2. Assembly 39; 3. Thing 108; 4. Possibility 164; 5. Change 215; 6. Spacetime 276; 7. Concluding remarks 330; Bibliography 334; Index of names 344; Index of subjects 348-352.

9. Campbell, Keith. 1990. *Abstract Particulars*. Oxford: Blackwell. Contents: Preeface XI-XII; 1. A One-category Ontology 1; 2. The Problem of Universals 27; 3. Some General Objections to Trope Theory 53; 4. The Pattern of the Properties 81; 5. Relations, Causation, Space-Time and Compresence 97; 6. Fields: Draling with the Boundary Problem 135; 7. The Human and Social Worlds 157; Notes 175; References 181; Index 185-187.

"Many philosophers have held, explicitly or implicitly, that any comprehensive survey of the world's constituents would include the casts of qualities and relations that occur at particular places and times as the qualities and relations of particular objects. It is not so common to affirm that such cases are themselves particulars in their own right, rather than deriving their particularity from their association with a substance, but this was G. F. Stout's distinctive claim (Stout, 1905).

D. C. Williams took another step: these cases, or tropes as he called them, not only form a distinct and independent category of existent, they are the very alphabet of being, the simple, basic, primal items from which all else is built or otherwise derives (Williams, 1966). In presenting his view, Williams acknowledged that it 'calls for completion in a dozen directions at once'. This work is my attempt to press ahead towards that completion. The great, liberating insight which Stout and Williams offer us is this: properties can be particulars, so the denial of universals need not be the denial of properties. In other words. Particularism (which is economical, plausible and appealing) does not have to take the form of Nominalism (which is economical, but neither plausible nor appealing).

While the principal inspiration for this book is Williams' work, I have also gained a great deal from discussions with David Armstrong, who remains a Realist about

Universals, but whose successive publications in this area provide sympathetic treatments of the trope or abstract particularist view (Armstrong, 1978, 1989). Another colleague, John Bacon, has pursued the trope idea in a more formal way (Bacon, 1988, 1989), while David Lewis treats it as a serious option for dealing with certain intractable problems facing Realism over universal (Lewis, 1983, 1986). Wilfrid Sellars recognized tropes by another name, although not, I think, as the sole fundamental category.

Frank Ramsey counselled that when a philosophical dispute presents itself as an irresolvable oscillation between two alternatives, the likelihood is that both alternatives are false and share a common false presupposition. It is my contention that Realism and Nominalism in the problem of universals exhibit precisely this pattern, their common, false presupposition being that any quality or relation must be a universal.

This book explores the implications of this position. It also argues for theses about relations (Foundationism) and basic physical properties (field theory), which are particularly congenial to a trope philosophy, but are in large measure independent of it. They have merits irrespective of the truth about properties in general." (from the *Preface*).

References:

George F. Stout, "Things and Sensations", *Proceedings of the British Academy*, 2, 1-13.

Donald C. Williams, *Principles of Empirical Realism*, Springfield: Charles C. Thomas, 1966.

David. M. Armstrong, *Universals and Scientific Realism*, Cambridge: Cambridge University Press, 1978 (2 volumes).

David M. Armstrong, Universals, Boulder: Westview Press, 1989.

John Bacon, "Four modal modellings", *Journal of Philosophical Logic*, 17, pp. 207-220.

John Bacon, "A single primitive trope-relation", *Journal of Philosophical Logic*, 18, pp. 141-154.

David Lewis, "New work for the theory of universals", *Australasian Journal of Philosophy*, 61, pp. 343-377.

David Lewis, "Against structural universals", *Australasian Journal of Philosophy*, 64, pp. 25-46.

10. Chisholm, Roderick M. 1996. *A Realistic Theory of Categories. An Essay in Ontology*. Cambridge: Cambridge University Press.

Contents: Acknowledgments IX;

Part One: The Realistic Background.

- 1. Introduction 3; 2. The Nature of Attributes 11; 3. The Existence of Attributes 19;
- 4. Propositions as Reducible to Attributes 23; 5. The Intentional Structure of Attributes 29; 6. The Primacy of the Intentional 35;

Part Two: The Basic Categories

7. The Ontology of the Theory of Classes 45; 8. The Nature of Relations 51; 9. Times and the Temporal 55; 10. States and Events 71; 11. Spatial Entities and Material Substance 85; 12. Persons and Their Bodies: Some Unanswered Questions 99;

Part Three: Homeless Objects

13. Appearances 109; 14. Intentionalia 115; 15. Fictitious Objects 121;

Part Four: Application to Philosophical Theology

16. Necessary Substance 127;

Notes 133; Index 145.

- 11. Clark, Ralph W. 1976. "The Bundle Theory of Substance." *New Scholasticism* no. 50:490-503.
- 12. Code, Alan. 1978. "No Universal Is a Substance." *Paideia* :65-74.
- 13. Copi, Irving M. 1954. "Essence and Accident." *Journal of Philosophy* no. 51:706-719.

Reprinted in Ruth Groff (ed.), Revitalizing Causality. Realism about causality in philosophy and social science, New York: Routledge, 2008, pp. 45-55.

14. Correia, Fabrice. 2005. Existential Dependence and Cognate Notions. München: Philosophia Verlag.

Contents: Introduction 11; 1. Preamble 17; Introductory Break 39; 2. Simple Dependence I: Presentation, and Rejection of Some Accounts 43; 3. Metaphysical Grounding 57; 4. Simple Dependence II: The Foundational Approach 69; 5. Some Other Notions of Existential Dependence 93; 6. Supervenience 135; Appendix: A. The Logic 155; B. Disjunctive Sums 161; C. Parameter Covariance 163; Bibliography 165; List of Figures 169; List of Symbols and Notations 171; List of Named Propositions, Conditions and Rules 173; Index 175.

"Some methodological points have to be made clear from the start. It is not my intention in this work to claim, for instance, that such and such entities are actually existentially dependent, in whichever sense, upon such and such entities, e.g. that mental phenomena depend on brain phenomena, accidents on substances, or again wholes on parts. I am not here interested in how the world is—not even in how the world must be or might be, if 'must' and 'might' are understood as expressing metaphysical necessity and possibility, respectively. My investigation is a conceptual one: I am interested in the notions of existential dependence, not in their extensions, be it in the actual world or in other metaphysically possible worlds. That is to say, this work is not one of metaphysics, if we agree to take metaphysics to be specifically concerned with what there is and how the things there are relate to one another—in this world alone, or in arbitrary metaphysically possible worlds. It may rather be called a work of meta-metaphysics, or of ontology if one wishes; for it is primarily concerned with the concepts which may be used by the metaphysician in his attempt to propose a picture of the universe. (1) Such ontological investigations are of central importance, of course. For insofar as he wants to provide us with a satisfactory picture of the world, the metaphysician must as clearly as possible explain the basic concepts he uses.

He may then play the role of the ontologist; or alternatively, he may invoke some already available ontological study." (p. 13)

(1) There is no well established terminology which we can rely on here. The terms 'metaphysics' and 'ontology' have been both used in various ways, sometimes even as synonymous.

"Defining the category of substance is normally not taken to be giving a mere stipulative definition of the predicate 'is a substance'. One usually starts with a certain view as to what belongs to the category (paradigmatic substances) and as to what is outside of the category (paradigmatic nonsubstances), and one then tries to find necessary and sufficient conditions for belonging to the category which respect the initial view. This is how I shall understand the activity of defining substances." (p. 127)

- 15. Daly, Chris. 1994. "Tropes." *Proceedings of the Aristotelian Society* no. 94:253-261.
- Denby, David A. 2007. "A Note on Analysing Substancehood." *Australasian Journal of Philosophy* no. 85:473-484.

 "I propose an analysis of the notion of a substance. I define two 'quasi-logical' independence relations, and state the analysis in terms of the distribution of these relations among substances and properties generally. This analysis treats the categories of substance and property as mutually dependent. To show that it (probably) states a sufficient condition for substance, I argue that it is in a certain kind of equilibrium. This illustrates a promising general approach to analysing fundamental metaphysical notions."
- 17. Denkel, Arda. 1992. "Substance without Substratum." *Philosophy and Phenomenological Research* no. 52:705-711.
- 18. ——. 1996. *Object and Property*. Cambridge: Cambridge University Press.

Contents: Acknowledgements XI; 1. Introduction 1; 2. Ultimacy and objecthood 16; 3. Individuation and objecthood 44; 4. Identity and individuality 71; 5. Change, matter and identity 93; 6. Properties, particularity and objecthood 153; 7. Essence and individuality 195; 8. Causation and particular properties 228; Works cited 248; Index 258.

"The present study concerns the nature of object, change and property. I propose to introduce my discussion of these issues by an informal sketch of the development of some of the earliest attempts made in the same direction. I am interested in looking into the way in which the relevant fundamental problems of ontology and the principal rational attempts to solve them first emerged. My descriptions are not intended to be historically complete (or perhaps even fully accurate), and I will allow myself some freedom of interpretation." (p. 1)

"Below I formulate a more explicitly ontological version, often used in current philosophical debates. The argument begins by observing

that the sensible world of particular entities is full of repetitions and recurrences. It looks as though the same colour, the same

pattern, is here, there, and scattered all over the universe. This shirt, that pencil, the sea and the sky are all blue. Many particulars

share the same thing; they all have blue as a common aspect.

There seem to be identities, therefore, amongst non-identical particulars. This fact is neither something we create, nor a mere

appearance. It reflects the truth, and hence the existence of universals must be acknowledged.

If plausible, this argument establishes that there exist universal entities shared by a multiplicity of particulars. As such, however, it does not demonstrate that universals reside in a world different from that of the concrete particulars of perception. Thus there is an open choice between placing them in an independent transcendent reality, or within manifest things. Plato took the former alternative, and Aristotle opted for the latter, each choice being made at a certain cost.

I have tried to trace some of the main lines of the ancient background of the philosophical debate concerning change, object and property. Some later historical material and contemporary contributions will be supplied as the main discussion develops. Thus parts of chapters 2, 5 and 6 will be concerned with properties and universals; parts of chapters 2, 3, 4 and 5 will treat objecthood.

Change will be among the principal topics of chapters 4 and 7." (p. 9)

- 19. ——. 2000. "The Refutation of Substrata." *Philosophy and Phenomenological Research* no. 61:431-440.
- 20. Dewan, Lawrence. 2006. "The Importance of Substance." In *Form and Being. Studies in Thomistic Metaphysics*, 96-130. Washington: Catholic University of America Press.

Originally (1997) published on the website of the Jacques Maritain Center at the University of Notre Dame.

21. Fernández Beites, Pilar. 2008. "Teoría De La Sustantividad: Una Necesaria Ampliación De La Teoría De La Sustancia." *Pensamiento* no. 64:197-223. "This article aims to expound the ontological theory of Xavier Zubiri in order to come up with a «theory of substantivity» capable of incorporating the classical theory of substance. An even more fundamental difference than classical theory's distinction between substance and accidents is the distinction between whole and parts: the independent or autonomous parts that structure the real are not principally «substances» but «substantivities» or wholes. But defending a theory of substantivity does not presuppose rejecting the theory of substance. In the theory of substantivity, substance continues to play an important ontological role for two reasons. First, because we cannot descriptively do away with the substance-accident relation: a substantivity has to be considered a substance (not in the strict sense) insofar as it supports accidents and the same is true with the «independent parts», since their independence is precisely the expression of their substantiality. Second,

we cannot give up the theory of substance because we have to admit at least the existence of a substance in the strict sense, of a simple substance (simplicity in the strict sense), which is the «I» as pure subject (the «soul» of classical theory). And it is at this point that the article definitely distances itself from the later Zubiri."

22. Fine, Kit. 1994. "Essence and Modality." *Philosophical Perspectives* no. 8:1-16. "The concept of essence has played an important role in the history and development of philosophy; and in no branch of the discipline is its importance more manifest than in metaphysics.

Its significance for metaphysics is perhaps attributable to two main sources. In the first place, the concept may be used to characterize what the subject, or at least part of it, is about.

For one of the central concerns of metaphysics is with the identity of things, with what they are.

But the metaphysician is not interested in every property of the objects under consideration. In asking 'What is a person?', for example, he does not want to be told that every person has a deep desire to be loved, even if this is in fact the case. What then distinguishes the properties of interest to him? What is it about a property which makes it bear, in the metaphysically significant sense of the phrase, on what an object is?

It is in answer to this question that appeal is naturally made to the concept of essence. For what appears to distinguish the intended properties is that they are essential to their bearers." p. 1.

It is my aim in this paper to show that the contemporary assimilation of essence to modality is fundamentally misguided and that, as a consequence, the corresponding conception of metaphysics should be given up. It is not my view that the modal account fails to capture anything which might reasonably be called a concept of essence. My point, rather, is that the notion of essence which is of central importance to the metaphysics of identity is not to be understood in modal terms or even to be regarded as extensionally equivalent to a modal notion. The one notion is, if I am right, a highly refined version of the other; it is like a sieve which performs a similar function but with a much finer mesh.

I shall also argue that the traditional assimilation of essence to definition is better suited to the task of explaining what essence is. It may not provide us with an analysis of the concept, but it does provide us with a good model of how the concept works. Thus my overall position is the reverse of the usual one. It sees real definition rather than de re modality as central to our understanding of the concept." p. 3

23. ——. 1994. "Compounds and Aggregates." *Noûs* no. 28:137-158.

"Some objects appear to be composed of parts: a quantity of sand of its grains, a throbbing pain of its throbs, a set of its members, and a proposition of its constituents.

There seem to be two fundamentally different ways in which an object can be composed of parts. One is nonstructural in character; the parts just merge. The other is structural; the parts hang together within a structure. Thus of the examples above, the first two, the sand and the pain, are composed from their parts in a nonstructural fashion, while the last two, the set and the proposition, are composed in a structural manner.

The notion of a nonstructural method of composition may be taken to be one which conforms to certain structure-obliterating identity conditions. These are as follows: order and repetition among the composing objects is irrelevant to the result; the composition of a single object is the object itself; and the composition of compositions of objects is the composition of those very objects'. Thus the first of these conditions excludes concatenation as a nonstructural method of composition; while each of the remaining conditions excludes the set-builder (the operation which composes a set from its members).

Let us agree to call any nonstructural method of composition a method of fusion. There is a particular such method, I call it aggregation, which has been very

prominent in the literature on part-whole. It may be characterized as a method of composition which conforms to the identity conditions above and which also conforms to the following existence conditions: the aggregate of objects which exist in time exists at exactly those times at which one of the objects exists; and an aggregate of objects which are located in space occupies, at any given time at which it exists, exactly those places which are occupied by one of the objects. It has often been supposed that aggregation is a legitimate method of composition, that objects may be composed from others in conformity with the conditions set forth above. What has made aggregation so attractive, apart from any intuitive appeal it may have, are two main factors (which will be discussed in more detail later in the paper). The first, and most important, is the identification of a thing with the content of its spatio-temporal extension. The second is the identification require that the objects fuse in the manner of aggregation.

It has also often been supposed that aggregation is the only legitimate method of fusion. Part of the appeal of this further position may arise from a general hostility to different methods of composition, whether they be methods of fusion or not. Under the form of nominalism championed by Goodman, for example, there can be no difference in objects without a difference in their parts; and this implies that the same parts cannot, through different methods of composition, yield different wholes

However, I suspect that many of those who would be open to structural methods of composition would still not be open to distinct nonstructural methods of composition. For it is hard to see, especially given the identification of a thing with its spatio-temporal content, what other methods of fusion there might be; and it is hard to see how there could be alternative conceptions of a fusion, of a whole at the same level as its elements and formed without regard to their order or repetition. Let us call the extreme position, that there is only one method of composition, mereological monism; let us call the less extreme position, that there is only one method of fusion, fusion monism; and let us call that particular version of fusion monism according to which aggregation is the sole method of fusion aggregation monism.

The main purpose of this paper is to show that the last of these three positions is mistaken. I want to show that there is a method of fusion which is not aggregative, i.e. which does not conform to the characteristic existence conditions for aggregates. However, my attack on this position may be relevant to the two other positions as well. For granted that aggregation is itself a legitimate method of fusion, it follows that fusion monism should be dropped in favour of a pluralist position. And to the extent that the adoption of monism depended upon a general hostility to structural considerations, the way is then open to the admission of structural methods of composition.

It is also my intention to attack two related forms of monistic doctrine. For just as we can single out the aggregative method of nonstructural composition, so we can single out the aggregative way of being a nonstructural part and the aggregative kind of nonstructural whole. One might then maintain that not only does aggregation constitute the only nonstructural method of composition, but that it also constitutes the only nonstructural way of being a part and the only nonstructural way of being a whole. We therefore have three forms of monism, one with respect to composition, another with respect to part, and a third with respect to whole. As will later become clear, the two further forms of monism aresuccessively weaker than the original; and so their denials might be taken, in mimicry of Quine, to comprise three grades of mereological involvement.

From the discussion of monism will emerge objections to two other prominent doctrines: extensionalism and mereological atomism. According to the first of these, things are the same when their extensions (spatial, spatio-temporal, or modal-spatio-temporal) are the same; and according to the second, parts are prior to their wholes.

For the purposes of attacking the aggregation monist, I have assumed that aggregation is a legitimate method of fusion. Towards the end of the paper, I suggest that there is no such method and propose a form of fusion monism in which some other method of fusion takes the place of aggregation. However, my tentative endorsement of fusion monism is not meant in any way to lend support to a general monist position."

- 24. ——. 1994. "Senses of Essence." In *Modality, Morality and Belief. Essays in Honor of Ruth Barcan Marcus*, edited by Sinnott-Armstrong, Walter, 53-73. Cambridge: Cambridge University Press.
 - "One may distinguish between the essential and accidental properties of an object. A property of an object is essential if it must have the property to be what it is; otherwise the property is accidental.

But what exactly is meant by this account? It has been common to give a further explanation in modal terms. A property is taken to be essential when it is necessary that the object have the property or, alternatively, when it is necessary that it have the property if it exist. For reasons that I have already given in my paper "Essence and Modality," I doubt whether this or any other modal explanation of the notion can succeed. Indeed, I doubt whether there exists any explanation of the notion in fundamentally different terms. But this is not to deny the possibility of further clarification; and it is the aim of the present paper to provide it.

What I shall do is to distinguish some of the closely related ways in which the notion may be understood. This will be important for getting clearer both on which claims can be made with its help and on which concepts can be defined with its help. In particular, we shall see that several different senses of ontological dependence correspond to the different senses of essence. The task is also important for the purpose of developing a logic of essentialist reasoning; for most of the different senses of essence that we distinguish will make a difference to the resulting logic. My main concern in this paper has been with making the distinctions, and not with drawing out their implications; but I hope it is clear from the examples what some of these implications are." (p. 53)

- 25. ——. 1994. "Ontological Dependence." *Proceedings of the Aristotelian Society* no. 95:269-290.
 - "The usual account of ontological dependence in terms of necessity is criticized; and an alternative account of terms of essence is proposed. Different notions of dependence are seen to correspond to different notions of essence."
- 26. —. 1995. "The Logic of Essence." *Journal of Philosophical Logic* no. 24:241-273.
- 27. ——. 1999. "Things and Their Parts." *Midwest Studies in Philosophy* no. 23:61-

"I wish to sketch a theory of the general nature of material things. It is a theory on which I have been working for some time; and what I present here is the merest sketch. Details are slid over, significant questions not raised, and controversial assumptions left undefended. But I hope, all the same, that enough is said to indicate the relevance of the theory to questions concerning the nature of material things and the plausibility of its answers.

One way into the theory is through consideration of part-whole. Things have parts; and so we are led to consider how they are capable of having the parts that they do. What in their nature accounts for their division into parts? It has often been supposed that we may give an adequate answer to this question by conceiving of a material thing as the material content of a space-time region or as a successive stream of matter. But I believe that there are enormous difficulties with these positions and that, once they are taken into account, we are led to adopt a very different conception of a material thing and of its relationship to its parts. Central to the paper is a distinction between two different ways in which one thing can be part of another. It can, in the first place, be apart in a way that is relative to a time. It is in this way, for example, that a newly installed carburetor is now apart of

my car, whereas earlier it was not, or that certain molecules are now parts of my body though later, through the exercise of natural bodily functions, they no longer will be.

In the second place, one object can be a part of another in a way that is not relative to a time. For something that is a part in this way, it is not appropriate to ask when, or for how long, it is a part; it just is a part. It is in such a way that the pants and the jacket, for example, are parts of a suit or various atoms are parts of a water molecule, or two particular pints of milk are parts of a quart of milk, or various time-slices, if there are such things, are parts of a persisting individual." p. 61

- 28. ——. 2000. "Semantics for the Logic of Essence." *Journal of Philosophical Logic* no. 29:543-584.
 - "This paper provides a possible worlds semantics for the system of the author's previous paper *The Logic of Essence*. The basic idea behind the semantics is that a statement should be taken to be true in virtue of the nature of certain objects just in case it is true in any possible world compatible with the nature of those objects. It is shown that a slight variant of the original system is sound and complete under the proposed semantics."
- 29. ——. 2003. "The Non-Identity of a Material Thing and Its Matter." *Mind* no. 112:195-234.

"Many philosophers have thought that a material thing is, or may be, one and the same as its matter - that a statue, for example, may be the same as the clay from which it is made or a river the same as the water which flows through it. There appears to be a powerful argument against such views, for the thing in each of these cases would appear to have properties not possessed by its matter.

Thus the clay of a statue may exist even though the statue itself has ceased to exist and the river may be composed of different water at different times even though this cannot be true of the water that composes it at any given time. However, these philosophers have responded to this argument by claiming that the apparent difference in properties represents, not a difference in the objects themselves, but a difference in the descriptions under which they may be conceived. We may conceive of a given thing as a statue or some clay or as a river or a body of water, for example, and, depending upon how the object is conceived, we will say one thing about it rather than another.

It is the aim of this paper to show that this counter-response cannot be sustained and that the original argument against identity should therefore be allowed to stand. This is no easy task since there would appear to be nothing in the immediate linguistic data to settle the question one way or the other.

However, by working through the consequences of the counter-response for the rest of our language, I think it may be shown to be extremely implausible. The paper is in two main parts. The first (§§1-4) is largely concerned with setting up the problem. We characterize the different forms the identity theory can take (§1), explain how the argument in favor of non-identity might in principle break down (§2), present the most plausible versions of such arguments (§3), and then consider the most plausible counter-response to them (§4). The second part (§§5-8) embarks on a detailed investigation of the difficulties with the counter-response. It is shown to be unable to account for a wide variety of different linguistic data, that is loosely classified according as to how reference to a material thing might be achieved. Four main kinds of case will be considered: those in which a sort is explicitly invoked (§5); those in which it is implicitly invoked (§6); those in which the very notion of reference is itself used in securing reference(§7); and those in which there is reference to a plurality of things (§8)." (p. 195)

- 30. Gorman, Michael. 2006. "Independence and Substance." *International Philosophical Quarterly* no. 46 (2):147-159.

- 32. ——. 2012. "On Substantial Independence: A Reply to Patrick Toner." *Philosophical Studies* no. 159:293-297.
- 33. ——. 2014. "Two Types of Features: An Aristotelian Approach." *Ratio* no. 27:140-154.
- 34. Gould, Paul. 2013. "How Does an Aristotelian Substance Have Its Platonic Properties? Issues and Options." *Axiomathes* no. 23:343-364.
- 35. Groff, Ruth, ed. 2007. Revitalizing Causality: Realism About Causality in Philosophy and Social Science. New York: Routledge.
- 36. Gyekye, Kwame. 1973. "An Examination of the Bundle-Theory of Substance." *Philosophy and Phenomenological Research* no. 34:51-61.
- 37. Hacker, P. M. S. 1979. "Substance: The Constitution of Reality." *Midwest Studies in Philosophy* no. 4:239-261.
- 38. ——. 2004. "Substance: Things and Stuffs." *Aristotelian Society Supplementary Volume* no. 78:239-261.
- 39. Healey, Richard. 1995. "Substance, Modality and Spacetime." *Erkenntnis* no. 42:287-316.
- 40. Hennig, Boris. 2008. "Substance, Reality, and Distinctness." *Prolegomena* no. 7:5-20.
 - "Descartes claims that God is a substance, and that mind and body are two different and separable substances. This paper provides some background that renders these claims intelligible. For Descartes, that something is real means it can exist in separation, and something is a substance if it does not depend on other substances for its existence. Further, separable objects are correlates of distinct ideas, for an idea is distinct (in an objective sense) if its object may be easily and clearly separated from everything that is not its object. It follows that if our idea of God is our most distinct idea, as Descartes claims, then God must be a substance in the Cartesian sense of the term. Also, if we can have an idea of a thinking subject which does not in any sense refer to bodily things, and if bodily things are substances, then mind and body must be two different substances."
- 41. Hiller, Avram. 2013. "Object-Dependence." Essays in Philosophy no. 14:33-55.
- 42. Hoeltje, Miguel, Schnieder, Benjamin, and Steinberg, Alex, eds. 2013. *Varieties of Dependence. Ontological Dependence, Grounding, Supervenience, Response-Dependence.* München: Philosophia Verlag.

Contents: Miguel Hoeltje: Introduction 9;

Part 1: Surveys

Kathrin Koslicki: Ontological Dependence: An Opinionated Survey 31; Phil Corkum: Substance and Independence in Aristotle 65; Kelly Trogdon: An Introduction to Grounding 97; Alex Steinberg: Supervenience: A Survey 123; Jussi Haukioja: Different Notions of Response-Dependence 167;

Part II: Research Papers

E.J. Lowe: Some Varieties of Metaphysical Dependence 193; C.S.I. Jenkins: Explanation and Fundamentality 211; Louis de Rosset: No Free Lunch 243; Fabrice Correia: Metaphysical Grounds and Essence 271; Stefano caputo: The Dependence of Truth on Being:

Is There a Problem for Minimalism? 297; Stephan Leuenberger: Supervenience Among Classes of Relations 325; Ralf M. Bader: Multiple-Domain Supervenience for Non-Classical Mereologies 347; Eline Busck Gundersen: Response-Dependence and Conditional Fallacy Problems 369; Don López de Sa: Rigid vs Flexible Response-Dependent Properties 393; Name Index 419; Subject Index 423; List of Contributors 429.

43. Hoffman, Joshua, and Rosenkrantz, Gary. 1994. *Substance among Other Categories*. Cambridge: Cambridge University Press.

- 44. ——. 1997. Substance: Its Nature and Existence. New York: Routledge.
- 45. Hoffman, Joshua, and Rosenkrantz, Gary S. 2007. "How to Analyse Substance: A Reply to Schnieder." *Ratio* no. 20:130-141.
- 46. Hübner, Johannes. 2007. Komplexe Substanzen. Berlin: Walter de Gruyter.
- 47. Jaeger, Andrew J. 2014. "Back to the Primitive: From Substantial Capacities to Prime Matter." *American Catholic Philosophical Quarterly* no. 88 (3i):381-395.
- 48. Kanzian, Christian. 2009. *Ding Substanz Person. Eine Alltagsontologie*. Frankfurt: Ontos Verlag.

Inhalt: Teil 0 Einleitung: Voraussetzungen, thematischer Überblick, Grenzen 7; Teil I Grundzüge einer Alltagsontologie von Dingen 19; 1. Was ist eine Alltagsontologie? 19; 2. Was sind Partikularien? 31; 3. Dinge sind Partikularien 34; 4. Dinge und andere Partikularien 37; 5. Metaontologischer Einschub 73; 6. Probleme einer Ontologie mit Dingen 102;

Teil II Substanzen 125; 2. Substanzkriterien 191; 3. Dinge machen die Kategorie aus, nicht Substanzen 211; 4. Haben wir es hier mit einer Alltagsontologie zu tun? 223:

Teil III Personen 229; 1. Selbstbewusstsein als Bedingung für Personalität 230; 2. Grundzüge einer Ontologie der Personen 260; 3. Personen als selbstbewusste Lebewesen: Problemexposition 296;

Literatur 332; Register 339.

"Im ersten Hauptteil habe ich versucht, Grundzüge einer Alltagsontologie von Dingen zu entwerfen und gegen einige grundlegende Einwände zu verteidigen. In diesem zweiten Teil möchte ich einen Schritt weiter-, wenn man so will, in die Kategorie der Dinge "hineingehen", und untersuchen, ob es nicht innerhalb dieser Kategorie weitere ontologisch signifikante Differenzen gibt, die es rechtfertigen, innerhalb der Dinge eine Gruppe mit genau umschreibbaren Besonderheiten anzugeben.

Dabei wird der Begriff "Substanz" eine wichtige Rolle spielen. Um es vorwegzunehmen, werde ich Substanzen als "Subspezies" oder "Genus" innerhalb der umfassenden Kategorie der Dinge einführen. Das mag vom Gebrauch von "Substanz" bei manchen AutorInnen abweichen. Und zwar insofern, als bei manchen "Ding" und "Substanz" als Synonyme aufgefasst werden. Auch von der klassischen Ontologie unterscheide ich mich, insofern nämlich, als ich "Substanz" eben nicht als Bezeichnung einer Kategorie im ontologisch technischen Sinne verstehe. Ich werde nun im zweiten Hauptteil versuchen, diese Abweichungen möglichst umfassend einzuführen und auch ontologisch zu begründen. Der Weg dazu weist einige Parallelen auf zu jenem im ersten Teil. Dort habe ich Dinge als eine Kategorie im Bereich der Partikularien bestimmt, und zwar so, dass ich zunächst nicht-dingliche Partikularien ins Auge gefasst habe, das sind Ereignisse und Zustände. Dinge aber wurden durch den Verweis auf die Unterschiede zu Ereignissen und Zuständen charakterisiert. Hier werde ich mit Artefakten beginnen, um die nicht-artifiziellen Dinge über Differenzen zu den ersteren ontologisch zu bestimmen. Ich verrate dem/der LeserIn wohl kein großes Geheimnis, dass allein damit, nämlich mit nicht-artifiziellen Dingen

oder Vorkommnissen natürlicher Arten, Substanzen gemeint sein können. Dass Substanzen Lebewesen sind, steht ebenfalls schon hier zu vermuten, muss jedoch begründet werden; v.a. meine These, dass "Substanz" und "Lebewesen", bzw. "Lebewesen" und "Vorkommnis natürlicher Arten" extensionsgleich zu verstehen sind. Es gibt m.a.W. keine nicht-lebendigen Substanzen, natürlich auch keine Lebewesen, die keine Substanzen sind.

Über all dies soll in diesem zweiten Hauptteil gehandelt werden." (p. 125)

- 49. Kearns, John T. 1970. "Substance and Time." *Journal of Philosophy* no. 67:277-289.
- 50. Kneale, W. 1939. "The Notion of a Substance." *Proceedings of the Aristotelian Society* no. 40:103-134.

- 51. Körner, Stephan. 1964. "Symposium: Substance." *Proceedings of the Aristotelian Society, Supplementary Volumes* no. 38:79-90.
- 52. Langan, Thomas. 1987. "Substance, System, and Structure." *New Scholasticism* no. 61:285-306.
- 53. Latham, Noa. 2001. "Substance Physicalism." In *Physicalism and Its Discontents*, edited by Gillett, Carl and Loewer, Barry M., 152-170. Cambridge: Cambridge University Press.

"How should we define physicalism or minimal physicalism? In my view, this question calls for stipulation because these are theoretical terms without a uniform use. Different views of psychophysical relations are physicalistic in different ways and to different degrees, and there is an obvious interest in clarifying and distinguishing these views and determining which are true. My aim in this chapter will be to do some of the clarifying and distinguishing. Stipulation of a unique thesis as physicalism or minimal physicalism must come with a rationale, and as I have none to offer I shall not pursue this." (p. 152)

"Ontological physicalism for concrete particulars is the view that both substance physicalism and concrete event physicalism hold. I have argued that this is equivalent simply to the view that the world is governed by laws with purely physical antecedents. And from this definition its close ties to the principle of physical closure can be seen.

The basic idea behind physical closure is that the best explanations of physical phenomena are physical. Ontological physicalism can now be seen to entail physical closure, because a world governed by laws with purely physical antecedents will be one in which every physical phenomenon is fully explained by physical laws and prior physical conditions. But the converse is false. Physical closure does not entail ontological physicalism, because it holds in the noninteractive substance dualistic world we considered in which minds can perceive and think but cannot influence the physical world. However, physical closure does entail that the effecting of physical states is governed by purely physical laws, and this can indeed be taken as an equivalent formulation of the principle.

In conclusion, I have argued that ontological physicalism for concrete particulars is best regarded not as some primitive thesis but as the thesis that the world is governed by laws of succession with purely physical antecedents. In coming to understand in what ways the world is physicalistic, we are interested in whether all first-order properties instantiated in the spatiotemporal world are physical (on the various plausible interpretations of this),23 whether there is libertarian choice, and whether there is downward causation. I have argued that these questions absorb the question whether there are nonphysical particulars." (p. 168)

- 54. Loux, Michael J. 1976. "The Concept of a Kind." *Philosophical Studies* no. 29:53-61.
- 55. Lowe, E. J. 1988. "I. Substance, Identity and Time." *Proceedings of the Aristotelian Society, Supplementary Volumes* no. 62:61-78.
- 56. . 1994. "Primitive Substances." *Philosophy and Phenomenological Research* no. 54:531-551.
- 57. ——. 1998. The Possibility of Metaphysics. Substance, Identity, and Time. New York: Oxford University Press.

 Contents: 1. The possibility of metaphysics 1; 2. Objects and identity 28; 3. Identity and unity 58; 4. Time and persistence 84; 5. Persistence and substance 106; 6. Substance and dependence 136; 7. Primitive substances 154; 8. Categories and kinds 174; 9. Matter and form 190; 10. Abstract entities 210; 11. Facts and world 228; 12. The puzzle of existence 248; Bibliography 261; Index 269. From the Preface: "My overall objective in this book is to help to restore metaphysics to a central position in philosophy as the most fundamental form of

rational inquiry, with its own distinctive methods and criteria of validation. In my view, all other forms of inquiry rest upon metaphysical presuppositions thus making metaphysics unavoidable-so that we should at least endeavour to do metaphysics with our eyes open, rather than allowing it to exercise its influence upon us at the level of uncritical assumption. I believe that this is beginning to be acknowledged more widely by philosophers as various research programmes for instance, in the philosophy of mind and in the philosophy of quantum physics-are being seen to flounder through inadequacies in their metaphysical underpinnings. For that reason, I hope that a book like this will prove to be a timely one.

Because Chapters 1 and 2 partly serve to introduce themes explored in greater detail later in the book, I have not written an Introduction as such. Doing so would have involved unnecessary repetition. However, it may help the reader if I supply here a brief synopsis of the book's contents. In Chapter 1, I attempt to characterize the distinctive nature of metaphysics as an autonomous intellectual discipline and defend a positive answer to Kant's famous question, 'How is metaphysics possible?', distinguishing my own answer from that of various other schools of thought, including some latter-day heirs of Kantianism. A key ingredient in my defence of metaphysics is the articulation of a distinctive and, in my view, indispensable notion of metaphysical possibility-conceived of as a kind of possibility which is not to be identified with physical, logical, or epistemic possibility. Chapter 2 is devoted to an examination of two of the most fundamental and allpervasive notions in metaphysics-the notion of an*object* and the notion of *identity* and explores their interrelationships. In the course of this exercise a central ontological distinction-that between concrete and abstract objects is brought to the fore, my contention being that this is at bottom a distinction between those objects that do, and those that do not, exist in time." (from the Preface).

- 58. ——. 1999. "Concreta: Substance." In *Metaphysics. Contemporary Readings*, edited by Hales, Steven D., 371-376. Belmont: Wadsworth.
- 60. ——. 2006. The Four-Category Ontology: A Metaphysical Foundation for Natural Science. New York: Oxford Unviersity Press.
- 61. ——. 2008. "A Defence of Non-Cartesian Substance Dualism." In *Psycho-Physical Dualism Today: An Interdisciplinary Approach*, edited by Antonietti, Alessandro, Corradini, Antonella and Lowe, E. Jonathan, 167-183. Lanham: Lexington Books.
- 62. ——. 2010. "Substance Dualism: A Non-Cartesian Approach." In *The Waning of Materialism: New Essays*, edited by Koons, Robert C. and Bealer, George, 439-461. New York: Oxford University Press.
- 63. ——. 2012. "A Neo-Aristotelian Substance Ontology: Neither Relational nor Constituent." In *Contemporary Aristotelian Metaphysics*, edited by Tahko, Tuomas E., 229-248. Cambridge: Cambridge University Press.
- 64. Lowe, E. J., and Noonan, Harold W. 1988. "Substance, Identity and Time." *Proceedings of the Aristotelian Society, Supplementary Volumes* no. 62:61-100.
- 65. Macdonald, Cynthia. 2005. Varieties of Things: Foundations of Contemporary Metaphysics. Malden: Blackwell. Chapter 3: Material Substances, pp. 79-133.
- 66. Martin, C.B. 1980. "Substance Substantiated." *Australasian Journal of Philosophy* no. 58:3-10.
- 67. Maurin, Anna-Sofia. 2002. If Tropes. Dordrecht: Springer.
- 68. McDaniel, Kris. 2010. "A Return to the Analogy of Being." *Philosophy and Phenomenological Research* no. 81:688-717.

- 69. ——. 2013. "Degrees of Being." *Philosophers' Imprint* no. 13:1-18.
- 70. McGrail, Robert. 2008. "Working with Substance." *Techne* no. 12:65-84.
- 71. Millikan, Ruth Garrett. 2000. On Clear and Confused Ideas. An Essay About Substance Concepts. Cambridge: Cambridge University Press.
- 72. Moltmann, Friederike. 2004. "Properties and Kinds of Tropes: New Linguistic Facts and Old Philosophical Insights." *Mind* no. 113:1-41.

 "Terms like 'wisdom' are commonly held to refer to abstract objects that are properties. On the basis of a greater range of linguistic data and with the support of some ancient and medieval philosophical views, I argue that such terms do not stand for objects, but rather for kinds of tropes, entities that do not have the status of objects, but only play a role as semantic values of terms and as arguments of predicates. Such 'non-objects' crucially differ from objects in that they are not potential bearers of properties."
- 73. Myers, C. Mason. 1977. "The Concept of Substance." *Southern Journal of Philosophy* no. 15:505-519.
- 74. Needham, Paul. 2006. "Substance and Modality." *Philosophy of Science* no. 73:829-840.
- 75. ——. 2010. "Substance and Time." *British Journal for the Philosophy of Science* no. 61:485-512.
- 76. Noonan, Harold W. 1988. "Ii. Substance, Identity and Time." *Proceedings of the Aristotelian Society, Supplementary Volumes* no. 62:79-100.
- 77. Oaklander, L. Nathan. 1978. "The Bundle Theory of Substance." *New Scholasticism* no. 52:91-96.
- 78. Owens, Joseph. 1982. "Material Substance." New Scholasticism no. 56:442-461.
- 79. Pasnau, Robert. 2004. "Form, Substance, and Mechanism." *Philosophical Review* no. 113:21-88.
- 80. Pelletier, Arnaud. 2006. "Substance, Individu, Monade." *Revue Philosophique De Louvain* no. 104:361-369.
- 81. Pickavance, Timothy. 2014. "Bare Particulars and Exemplification." *American Philosophical Quarterly* no. 51:95-108.
- 82. Quinton, Anthony. 1973. The Nature of Things. London: Routledge & Kegan Paul.
- 83. Rankin, Kenneth. 1982. "The Complete Reality of Substance." *Mind* no. 91:377-397.
- 84. Rea, Michael C. 2011. "Hylomorphism Reconditioned." *Philosophical Perspectives* no. 25.
- 85. Robb, David. 2009. "Substance." In *The Routledge Companion to Metaphysics*, edited by Le Poidevin, Robin, 256-264. New York: Routledge.
- 86. Rosenkrantz, Gary, and Hoffman, Joshua. 1991. "The Independence Criterion of Substance." *Philosophy and Phenomenological Research* no. 51:835-853. Reprinted in Steven D. Hales, *Metaphysics. Contemprary Readings*, Belmont: Wadsworth, 1999, pp. 385-396.
- 87. Russell, Bertrand. 1927. "Substance." *Philosophy* no. 2:20-27.

 "The question of substance in the philosophy of physics has three branches: logical, physical, and epistemological. The first is a problem in pure philosophy: is the notion of "substance" in any sense a "category," i.e. forced upon us by the general nature either of facts or of knowledge? The second is a question of the interpretation of mathematical physics: is it (a) necessary, or (b) convenient to interpret our formulae in terms of permanent entities with changing states and relations? The third concerns the relation of perception to the physical world."

- 88. Schaffer, Jonathan. 2009. "On What Grounds What." In *Metametaphysics: New Essays on the Foundations of Ontology*, edited by Manley, David, Chalmers, David J. and Wasserman, Ryan, 347-383. New York: Oxford University Press.
- 89. ——. 2009. "Spacetime the One Substance." *Philosophical Studies* no. 145:131-148.
- 90. Schneider, Luc. 2009. "On Ties and Copulae within the Ontological Square." In *Gustav Bergmann. Phenomenological Realism and Dialectical Ontology*, edited by Langlet, Bruno and Monnoyer, Jean-Maurice, 193-208. Frankfurt: Ontos Verlag.
- 91. Schnieder, Benjamin. 2004. Substanzen Und (Ihre) Eigenschaften: Ine Studie Zur Analytischen Ontologie. Berlin: Walter de Gruyter.
- 92. ——. 2005. "How Not to Define Substance. A Comment Upon Hoffman and Rosenkrantz." Ratio no. 18:107-117.

 "The article is a critical examination of Joshua Hoffman's and Gary Rosenkrantz' approach to the traditional category of individual substance. On several places they offered an analysis of the concept of a substance in terms of some highly sophisticated notion of generic independence. Though ingenious, and even though it might be extensionally adequate, their account cannot provide an informative analysis of the concept in question, because it exhibits a peculiar kind of circularity. It is shown that one cannot establish, on the basis of their analysis, that a given entity is a substance, if one does not already know that it is one in advance. The circularity of their account is examined in detail, and it is explained how it could have arisen."
- 93. ——. 2006. "A Certain Kind of Trinity: Dependence, Substance, Explanation." *Philosophical Studies* no. 129:393-419.
- 94. Seibt, Johanna. 1995. "Individuen Als Prozesse: Zur Ontologischen Revision Des Substanz-Paradigmas." *Logos. Zeitschrift für systematische Philosophie* no. 2:352-384.
- 95. Sellars, Roy Wood. 1929. "Critical Realism and Substance." *Mind* no. 38:473-488. Reprinted in Ruth Groff (ed.), *Revitalizing Causality. Realism about causality in philosophy and social science*, New York: Routledge, 2008, pp. 13-25.
- 96. ——. 1943. "Causality and Substance." *Philosophical Review* no. 52:1-27. Reprinted in Ruth Groff (ed.), *Revitalizing Causality. Realism about causality in philosophy and social science*, New York: Routledge, 2008, pp. 26-44.
- 97. ——. 1943. "Verification of Categories: Existence and Substance." *Journal of Philosophy* no. 40:197-205.
- 98. Simons, Peter. 1994. "Particulars in Particular Clothing: Three Trope Theories of Substance." *Philosophy and Phenomenological Research* no. 54:553-575. Reprinted in Steven D. Hales, *Metaphysics. Contemprary Readings*, Belmont: Wadsworth, 1999, pp. 397-413.
- 99. Simons, Peter M. 1998. "Farewell to Substance: A Differentiated Leave-Taking." *Ratio* no. 11:235-252.
- 100. Smith, Barry. 1982. Parts and Moments: Studies in Logic and Formal Ontology. München: Philosophia Verlag.
- 101. ——. 1997. "On Substances, Accidents and Universals: In Defence of a Constituent Ontology." *Philosophical Papers* no. 26:105-127.
- 102. Stebbing, L. Susan. 1929. "Concerning Substance." *Proceedings of the Aristotelian Society* no. 30:285-308.
- 103. Szatkowski, Miroslaw, and Rosiak, Marek, eds. 2014. *Substantiality and Causality*. Vol. Walter de Gruyter: Berlin.
- 104. Toner, Patrick. 2008. "Emergent Substance." *Philosophical Studies* no. 141:281-297.

- 105. ——. 2010. "On Substance." *American Catholic Philosophical Quarterly* no. 84:25-48.
- 106. ——. 2011. "Independence Accounts of Substance and Substantial Parts." *Philosophical Studies* no. 155:37-43.
- 107. ——. 2013. "On Aristotelianism and Structures as Parts." *Ratio* no. 26:148-161.
- 108. Trettin, Käthe, ed. 2005. Substanz. Neue Überlegungen Zu Einer Klassischen Kategorie Des Seienden. Frankfurt am Main: Vittorio Klostermann.
- 109. Ujvári, Márta. 2013. *The Trope Bundle Theory of Substance: Change, Individuation and Individual Essence* Frankfurt: Ontos Verlag.
- 110. Unwin, Nicholas. 1984. "Substance, Essence, and Conceptualism." *Ratio* no. 26:41-54.
- 111. Van Cleve, James. 1985. "Three Versions of the Bundle Theory." *Philosophical Studies* no. 47:95-107.

 Reprinted in Steven D. Hales, *Metaphysics. Contemprary Readings*, Belmont: Wadsworth, 1999, pp. 376-384.
- 112. Varzi, Achille C. 2007. "La Natura E L'identità Degli Oggetti Materiali." In *Filosofia Analitica. Temi E Problemi*, edited by Coliva, Annalisa, 17–56. Roma: Carocci.
- 113. Vaught, Carl G. 1968. "The Identity of Indiscernibles and the Concept of Substance." *Southern Journal of Philosophy* no. 6:152-158.
- 114. Wiggins, David. 1980. Sameness and Substance. Cambridge: Harvard University Press.
- 115. ——. 2001. Sameness and Substance Renewed. Cambridge: Cambridge University Press.
 Revised edition of: Sameness and Substance, Cambridge, Harvard University Press, 1980.
- Williams, Donald C. 1953. "On the Elements of Being: I." *Review of Metaphysics* no. 7:3-18.