

# 11

## Questions of Ontology

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### 11.1 Introductory Remarks

Aristotle begins Book  $\Gamma$  of the *Metaphysics* in this way: “There is a science [*epistēmē*] which investigates being [*to on*] as being and the attributes which belong to this in virtue of its own nature”.<sup>1</sup> How exactly Aristotle conceives of the subject matter of this discipline, which we may call “ontology”, is of course a difficult question. We are given some further instructions in *Met.*  $\Gamma$ .2, when Aristotle tells us that it belongs to the study of being qua being to investigate not only being, but also its privation, non-being, as well as unity and plurality (including sameness and difference), substance and its attributes, priority and posteriority, genus and species, whole and part, and other things of this sort. But the remainder of *Met.*  $\Gamma$  is all about first principles (i.e., axioms), especially the principle of non-contradiction and how to defend it against Protagorean relativism, as well as truth.

How Aristotle conceives of the subject matter of metaphysics, in relation to ontology, is also a tricky matter, especially because the decision to collect together the fourteen books of what we now know as Aristotle’s *Metaphysics* under the heading “*ta meta ta physika*” (literally “those after the *Physics*”) reflects only a later editor’s judgment about where this material belongs within the Aristotelian corpus relative to the *Physics*, Aristotle’s treatise on nature (*physis*). Aristotle himself describes what he is pursuing in these fourteen books in various ways, in addition to “the study of being qua being”, e.g., the discipline which aims at “wisdom” (*sophia*), “philosophy”, “first philosophy”, and “theology”. There is a real question, debated by scholars, as to whether the fourteen books of Aristotle’s *Metaphysics* in fact delineate a single unified discipline and, if so, what its subject matter is. But we can safely say that all of the topics and distinctions cited above figure among the issues debated there and among them very prominently the study of substance.

Against this Aristotelian backdrop, it certainly comes as a surprise when we fast forward to the middle of the twentieth century and hear W.V. Quine confidently

<sup>1</sup> *Met.*  $\Gamma$ .1, 1003a21-22, W. D. Ross’ translation. The Greek term, “...” which Ross translates here with “as” is also sometimes rendered with the Latin, “qua”.

declaring that ontology is concerned exclusively with questions of *existence*, viz., questions of the form, “What is there?”, understood as asking about a certain range of disputed phenomena (e.g., numbers, propositions, classes, or properties) whether they in fact exist.<sup>2,3</sup> In his seminal essay, “Empiricism, Semantics, and Ontology”, Rudolf Carnap adopts a similarly existential conception of ontology and argues further that the existential questions with which ontologists appear to be occupied can be classified as either “*internal*” or “*external*” to a given framework:

Are there properties, classes, numbers, propositions? In order to understand more clearly the nature of these and related problems, it is above all necessary to recognize a fundamental distinction between two kinds of questions concerning the existence or reality of entities. If someone wishes to speak in his language about a new kind of entities, he has to introduce a system of new ways of speaking, subject to new rules; we shall call this procedure the construction of a *framework* for the new entities in question. And now we must distinguish two kinds of questions of existence: first, questions of the existence of certain entities of the new kind *within the framework*; we call them *internal questions*; and second, questions concerning the existence or reality of the framework itself, called *external questions*. Internal questions and possible answers to them are formulated with the help of the new forms of expressions. The answers may be found either by purely logical methods or by empirical methods, depending upon whether the framework is a logical or a factual one. An external question is of a problematic character which is in need of closer examination. (Carnap 1950, 21–2)

When the existential questions with which ontologists appear to be concerned (e.g., “Are there properties, classes, numbers, propositions?”) are construed as questions that are internal to a given framework, then, in Carnap’s view, they are not especially problematic and can be answered either through empirical or through logical methods. For example, once we are committed to the “system of natural numbers”, then it follows logically from the commitments of the framework that the question, “Are there natural numbers?”, when construed internally, is to be answered in the affirmative: for the statement, “There are natural numbers”, is logically entailed by the statement, “Five is a natural number”, which is itself an analytic truth within this framework (Carnap 1950, 25). But when the existential questions apparently asked by ontologists are construed as external questions which concern the reality of an entire framework,

<sup>2</sup> Quine (1948); for a more recent expression of the Quinean approach to ontology, see also “Thesis 2” of van Inwagen (2009): “Being is the same as existence” (p. 480).

<sup>3</sup> The Greek verb, “*einai*” (“to be”), from which the participle, “*to on*” (“that which is”), derives can certainly sometimes be felicitously rendered in English as “to exist”; but there is no reason to think that Aristotle conceived of the study of being qua being as exclusively, or even primarily, concerned with the existence or nonexistence of some disputed range of phenomena. Even in those cases in which Aristotle is engaged in a dispute with other philosophers (e.g., when he disagrees with the Platonists over their treatment of universals, forms, or mathematical entities), the contentious question is not whether these entities exist at all, but rather whether they are independent or separate (*chōriston*) from the sensible realm. As far as Aristotle is concerned, then, one should not conflate the study of being with the study of existence. And, given his broad construal of the study of being, I do not see much damage done by using the labels, “metaphysics” and “ontology”, interchangeably in reference to the Aristotelian enterprise, as it is set out in the fourteen books of the *Metaphysics*.

then Carnap would regard such questions either as pseudo-questions or as involving “a matter of practical decision”, as to whether “to accept a certain form of language”. A statement like “There are natural numbers”, if it were to be construed in the external fashion as concerning the reality of the “system of natural numbers”, in Carnap’s view, cannot be regarded as an assertion that is either true or false. Rather, according to Carnap, such a statement, when construed externally, can only be taken to signify the acceptance of the framework in question as one that is expedient, fruitful and conducive to the purposes for which it was intended:

An alleged statement of the reality of the framework of entities is a pseudo-statement without cognitive content. To be sure, we have to face at this point an important question; but it is a practical not a theoretical question; it is the question of whether or not to accept the new linguistic forms. The acceptance cannot be judged as being either true or false because it is not an assertion. It can only be judged as being more or less expedient, fruitful, conducive to the aim for which the language is intended. Judgments of this kind supply the motivation for the decision of accepting or rejecting the framework. (Carnap 1950, 31–2)

But one may justifiably wonder whether the Quinean and Carnapian perspective on ontology really does justice to many of the most central concerns of this discipline. Perhaps we do not need to quarrel over the label, “ontology”, as long as we can all agree that, beyond the explicitly existential questions pursued by ontology according to the Quinean and Carnapian conception, there is still room for a substantive and distinctively philosophical form of inquiry which we may call “metaphysics” and whose job it is to settle questions about being, more broadly construed, even when these questions are not obviously reducible to questions of existence. But Quine and Carnap have left in their wake a powerful and influential skepticism, still propagated by some of their contemporary followers today, as to whether such a discipline of metaphysics, more broadly construed and not to be equated with the study of existence, would be able to accomplish much substantive and distinctively philosophical work. Quine, after all, sees philosophy as continuous with science, and many of the metaphysical disputes that have populated the history of philosophy would be stripped of much of their importance by his pragmatism.<sup>4</sup> Carnap, as we saw above, already views even the existential disputes of ontology as not particularly deep, since they are either trivially resolvable (under the internal reading) or they amount to nothing more than choosing a language form that is expedient, fruitful, and conducive to the purposes at hand (under the external reading).<sup>5</sup>

<sup>4</sup> For a defense of this reading of Quine, see for example Price (2009).

<sup>5</sup> The neo-Carnapian approach to ontology and metaphysics is particularly well represented in Chalmers, Manley and Wasserman (2009); see for example the contributions by Chalmers, Hirsch, Hofweber, and Thomasson; also in this vein is Chalmers (2012). Quine’s conception of ontology as concerning questions of existence is so mainstream that it is usually just taken for granted as a presupposition which does not stand in need of justification. Quine’s take on metaphysics at large, however, is considerably more controversial and assumes additional machinery such as his rejection of the analytic/synthetic distinction, holism, pragmatism, ontological relativity, and so forth, on which there is much less consensus among contemporary philosophers.

In what follows, I will argue that some of the most interesting and important debates which properly belong to the study of being, whether we call it “metaphysics” or “ontology”, do not concern existential questions at all; rather, such disputes may in some cases focus on non-existential disagreements over questions of fundamentality. Fundamentality can be construed in either a relative or an absolute way. Relative fundamentality is a comparative notion and one that comes in degrees: it allows us to assess an entity’s status as fundamental (non-derivative) or non-fundamental (derivative) relative to that of another. When we encounter a pair of entities, such that one is allegedly more or less fundamental or derivative than the other, we should not immediately assume that we are also dealing with a phenomenon that can be correctly described as absolutely fundamental. For example, one might take moral facts to be less fundamental than mental facts, without taking either realm to be fundamental absolutely. Thus, we should take care, in what follows, to separate questions of relative fundamentality from those which concern absolute fundamentality.

We will discover below that at least some substantive non-existential disputes over questions of fundamentality do not comfortably fit into Carnap’s internal/external dichotomy: they are neither plausibly viewed as concerning internal questions, whose answers can be determined through logical or empirical methods that are available within a given framework; nor do they lend themselves to an external reading, as involving a practical decision as to how fruitful, expedient, or conducive to our purposes it is to adopt a new way of speaking. Rather, the proper classification of such substantive non-existential disputes over questions of fundamentality really requires us to adopt a very different conception of the study of being from that put forth by Quine and Carnap or their more recent followers. In what follows, I will argue for such an alternative conception of the study of being by considering a dispute between proponents of different versions of trope theory. If my remarks below are on the right track, then understanding the dispute in question properly has far-reaching consequences for how we should conceive of the nature and business of the study of being as a discipline. Given this broader conception of the study of being, it is no longer significant whether we refer to this discipline as “metaphysics” or “ontology”, and we may as well use these labels interchangeably.<sup>6,7</sup>

<sup>6</sup> Of course, not all neo-Carnapians accept Carnap’s internal/external distinction and, even among those who do, not everyone interprets this distinction in the same way. I invite those neo-Carnapians who are unhappy with my application of Carnap’s internal/external distinction in what follows to offer their own construal of what, in their eyes, makes the dispute between the pure and impure trope theorist, as they say, “merely verbal” (assuming of course that they do take it to be merely verbal). I hope, however, that I will have made their job at least that much more difficult by arguing that the dispute in question is not properly diagnosed as an existential one; for in that case, if my assessment is correct, the popular strategy of invoking quantifier variance will turn out to be simply irrelevant. (See for example Hirsch (2002) and (2009).)

<sup>7</sup> For further discussion in this volume concerning the relation between metaphysics and ontology and the allegedly purely existential focus of the discipline of ontology, see also the essays contributed by Thomas Hofweber (especially Section 1.5) and Alan Sidelle (especially Section 3.2).

## 11.2 Pure vs. Impure Trope Theory

Tropes, also sometimes referred to as “moments” or “modes”, are construed by their proponents as particularized properties or individual qualities, e.g., the particular redness that inheres in a rose.<sup>8</sup> The bearers of tropes, e.g., the rose with which the redness in question is associated, are taken to be concrete particular objects. Different versions of trope theory have been defended in the literature. Two such versions are what I will call below “pure trope theory” and “impure trope theory”. According to my reading of the dispute between the pure trope theorist and the impure trope theorist, those engaged in this dispute should be understood as agreeing with one another on the relevant existential questions, “Are there tropes?” and “Are there concrete particular objects?”. If, on the one hand, we understand their affirmation of the statements, “There are tropes” and “There are concrete particular objects”, as responses to a Carnap-style external question, we can take them to signify the acceptance of a certain trope-theoretic framework as fruitful, expedient, and conducive to the purposes at hand. When understood internally, on the other hand, the truth of these statements follows logically from certain other empirically verifiable truths which both the pure and the impure trope theorist accept. For example, once the truth of a statement like “This rose is red” is confirmed via empirical methods, then, for both the pure and the impure trope theorist, the truth of the existential statement, “There are tropes”, logically follows (since the rose’s redness trope is one of them); and so does the truth of “There are concrete particular objects” (from the assumption that the rose exists and is a concrete particular object).

Despite their agreement on the relevant existential questions, however, the pure and the impure trope theorist nevertheless disagree on one very crucial point: whether they take tropes to be fundamental entities, relatively or absolutely, within their respective ontologies or whether they assign this role instead to the concrete particular objects which are the bearers of these tropes. And while they may not both explicitly use the language of fundamentality when they state their respective positions concerning the relation between a concrete particular object and a trope that inheres in it, I will offer a particular way below in which this notion may be understood in this context (namely in terms of a certain definition of ontological dependence) which allows us to see that the pure trope theorist affirms precisely what the impure trope theorist denies, and vice versa. Since their respective positions can be aptly characterized in terms of this single notion of fundamentality, the dispute between the pure and impure trope theorist should not strike us as one in which the engaged parties are simply talking past each other. If the characterization of the dispute in question I offer below is correct, then it seems that we are here dealing with an example of a dispute which has precisely the character of a substantive non-existential disagreement over a particular question

<sup>8</sup> I intentionally did not include “accident” in the above list of ways in which particularized properties or individual qualities may be referred to, since I want to allow for the possibility that some tropes are essential to their bearers.

of fundamentality. Since it is not at all obvious how the Quinean or Carnapian conceptions of the study of being could accommodate the possibility and intelligibility of substantive non-existential disagreements in ontology over questions of fundamentality, the recognition of such disputes therefore bolsters the overall case for an alternative conception of the study of being, different from those put forth by Quine and Carnap or their more recent followers.

### 11.2.1 *Pure trope theory*

Keith Campbell, in *Abstract Particulars*, is a representative of what I call “pure trope theory” (Campbell 1990). For Campbell, basic tropes (i.e., tropes which are not complexes of other tropes) are particulars with a simple nature. For example, suppose the redness which inheres in a particular rose is a basic trope; then this redness trope, in Campbell’s view, is not a complex consisting of a general qualitative nature (i.e., redness construed as a universal) and a particularizing principle of some sort (e.g., a substratum). Rather, the redness trope, for Campbell, is simply a particularized nature, a single item which has both its intrinsic qualitative nature and its particularity in a primitive underived manner. The rose, in contrast, and more generally the familiar concrete particular objects we encounter in ordinary experience, according to Campbell, are nothing more than bundles of compresent tropes, i.e., tropes that are present together with other tropes within a single region of space-time. Since, in Campbell’s view, we can forego commitment to universals altogether, the framework he is offering is a *one-category ontology*, consisting of nothing but tropes and complexes of tropes.<sup>9</sup>

Campbell cites both negative and positive motivations for adopting trope theory. On the negative side, he argues that the alternatives to trope theory run into trouble of one sort or another. The primary contenders he considers are views according to which concrete particular objects are substances (and not mere bundles of properties) as well as views according to which properties are universals (and not particulars). I will not rehearse Campbell’s arguments against these opposing views here, though we will have occasion to consider one such opposing view in more detail below when we turn to what I call “impure trope theory”.

On the positive side, Campbell argues that all the work that needs to be done by an ontology can be done by trope theory. In particular, he puts tropes to work in the following ways. First, in Campbell’s view, trope theory provides the best overall account of the objective similarities between concrete particulars objects. Since tropes resemble

<sup>9</sup> Given Campbell’s conception of concrete particular objects as complexes of tropes, his ontology also has to include some category (e.g., mereological sums) to which these bundles of compresent tropes are assigned. But I suspect that he would view the complexes of tropes which correspond to the concrete particular objects we encounter in ordinary experience in an ontologically lightweight way as not resulting in a genuine addition to his one-category ontology. It is certainly a legitimate question whether such an ontologically lightweight conception of trope bundles is in fact feasible; but I will not pursue this issue further in the present context.

each other in virtue of their intrinsic nature, intrinsically similar tropes (e.g., the redness tropes that are present in a red rose, a red fire truck, a red tomato and a red sunset) form resemblance classes. Second, Campbell utilizes tropes to provide an analysis of events: an event, in Campbell's view, consists in a change with respect to a property in one or more objects, i.e., a succession of tropes which are compresent with other tropes in a particular trope bundle. For example, the event which we might refer to as "the ripening of the tomato" consists in a succession of different color tropes that are present in the tomato, one after the other, beginning with a greenness trope and ending with a redness trope. Thirdly, Campbell takes tropes to be the relata of the causal relation. Thus, a certain process which we might normally describe as "the sun causing the tomato to ripen", for Campbell, really consists in the sun's heat trope, temperature trope, brightness trope, etc., causing the tomato's greenness trope to be replaced by other color-tropes in a succession of such replacements ending with a redness trope. Fourth, perception, in Campbell's view, is of particulars, i.e., tropes or bundles of tropes. When we perceive a rose for example, we are, for Campbell, perceiving a certain bundle of compresent tropes, e.g., the rose's redness, smell, shape, texture, etc. Fifth, ordinary predications (e.g., "The rose is red"), in Campbell's view, are to be analyzed as affirming that a trope of the kind referred to by the predicate term is compresent with or belongs to the complex of tropes referred to by the subject term.

Concerning the question of how tropes are to be individuated, Campbell has the following to say:

To preserve the simplicity of tropes, one must then affirm that their *individuation is basic and unanalysable*. That is, to the question: what is it about one F trope that makes it the F trope it is and not some other F trope? there can be only the uninformative, but true, answer: (not any feature, aspect or constituent of that F trope but) just being that F trope rather than any other. (Campbell 1990, 69)

In particular, tropes are not, for Campbell, individuated by the places they occupy; rather, places themselves, in his view, should be conceived of as tropes, so that the relation of compresence itself becomes the grouping together of some other tropes with a place trope. Campbell's conception of tropes as primitively self-individuating has the following interesting consequences which will become important below when we consider the central disagreement between pure and impure trope theory: for Campbell, tropes can migrate from one bearer to another (i.e., tropes are transferable); and, even more strongly, tropes can exist without any bearers at all (i.e., there can be free-floating tropes). For it is merely a contingent matter, in Campbell's view, not a matter of metaphysical necessity, that tropes occur in the compresent groups we recognize as the familiar concrete particular objects of ordinary experience.

### 11.2.2 *Impure trope theory*

Jonathan Lowe, in *The Four-Category Ontology*, is a proponent of what I call "impure trope theory" (Lowe 2006). Although Lowe, among other things, is committed to both



tropes and concrete particular objects as the bearers of these tropes, he does not take either category to be reducible to the other. In particular, concrete particular objects, in his view, are not to be thought of as mere complexes or bundles of compresent tropes.<sup>10</sup>

With respect to the roles occupied by tropes in this ontology, however, we observe large areas of agreement between Lowe and Campbell. First, tropes are needed, in Lowe's view, in order to give an adequate account of what it is that we experience through perception. When we perceive the tomato's redness, say, we are, in Lowe's view, perceiving a non-substantial particular, not a universal. Secondly, Lowe takes the entities that enter into causal relations or to which causal powers can be attributed to be particulars, and not universals. Thus, if the sun causes the tomato to ripen, the entities in question to which we are attributing causal powers and which appear as the relata of the causal relation (*viz.*, the sun, the sun's heat, the tomato, the tomato's color, etc.) must be construed as particulars, rather than universals (e.g., heat as that which is shared by all and only hot particulars). Thirdly, Lowe appeals to tropes in his account of change: when we perceive that an individual substance (*i.e.*, a substantial particular) undergoes change, the change in question concerns the non-substantial particulars by which the individual substance is characterized. Thus, when the tomato goes from being green to being red, for example, this change, in Lowe's view, consists in the tomato's first being characterized by a greenness trope and later by a redness trope. Fourth, according to Lowe, when we speak of properties being located, we can only have in mind the presence of non-substantial particulars (*i.e.*, tropes) in substantial particulars; for to assume that universals are literally spatially located in particulars, Lowe argues, leads to incoherent results. Thus, if we take the tomato's redness for example to be present in the tomato, we must, in Lowe's view, be referring to the presence of a non-substantial particular (*i.e.*, a trope) in a substantial particular (*i.e.*, a concrete particular object). Fifth, tropes also play a role in Lowe's account of predication and the truth of propositions: when we say of a particular apple for example that it is round, what makes this predication true, according to Lowe, is that the apple in question is characterized by a roundness trope.

Nevertheless, despite the sizeable area of agreement which exists between Lowe and Campbell concerning the work that is to be done by tropes in their respective ontologies, the two could not be further apart when it comes to the question of how tropes

<sup>10</sup> Lowe prefers to call tropes "non-substantial particulars", "property-instances", or "modes". He refers to what I have been calling "concrete particular objects" as "substantial particulars" or "individual substances". The relation, "being the bearer of", which obtains between concrete particular objects and tropes, in Lowe's system, is called "characterization". In addition to the two categories just mentioned (tropes and concrete particular objects), Lowe's four-category ontology also includes substantial universals ("kinds") and non-substantial universals (e.g., redness when conceived of as what is shared by the many red concrete particular objects). None of these categories, in Lowe's view, is reducible to the others. In what follows, I will not have much to say about the two universal categories, substantial kinds and non-substantial universals, since Lowe's conception of substantial and non-substantial particulars is most pertinent to the issues with which we are presently concerned.



and the concrete particular objects that are the bearers of these tropes are to be individuated:

Property-instances are ontologically dependent entities, depending for their existence and identity upon the individual substances which they characterise, or to which they “belong”. A particular redness or squareness can, ultimately, be identified as the particular property-instance that it is only by reference to the individual substance which it characterises. This is not an epistemic point but a metaphysical one: it concerns individuation in the metaphysical rather than in the cognitive sense –that is, individuation as a determination relation between entities rather than individuation as a kind of cognitive achievement. And this is the reason why it makes no sense to suppose that particular property-instances could exist free-floating and unattached to any individual substance or migrate from one individual substance to another. (Lowe 2006, 27)

As comes out very clearly in this passage, Lowe denies precisely what Campbell affirms: that tropes are primitively self-individuating. For Lowe, tropes can only be individuated by way of the concrete particular objects that are their bearers. As a direct consequence of this central disagreement between these two theorists, Lowe also denies further claims which are affirmed by Campbell: in particular, that tropes can migrate from one bearer to another (i.e., that tropes are transferable); as well as the even stronger claim that there could be such things as free-floating tropes capable of existing without any association with a concrete particular object that is their bearer. In Lowe’s view, it is not merely a contingent matter, but rather a matter of metaphysical necessity, that tropes must be compresent with other tropes in regions of space-time that are also occupied by concrete particular objects which are the bearers of these tropes.

### 11.2.3 *Areas of agreement*

We have noted that the pure and the impure trope theorists largely agree on the roles that are assigned to tropes in their respective ontologies. *Objective Similarity*. Both the pure and the impure trope theorist invoke tropes in their account of the objective similarities between concrete particular objects; both hold that tropes cannot be eliminated from one’s ontology in favor of universals. *Events and Change*. Both take changes undergone by concrete particular objects to be analyzable in terms of the presence of a series of numerically and qualitatively distinct tropes that are associated with a concrete particular object at different times. *Causation*. Both take tropes to figure as the relata of causal relations or as that in virtue of which concrete particular objects can be said to have causal powers. *Perception*. Both hold that we perceive particular property-instances, rather than properties construed as universals. *Location*. Both hold that spatiotemporal location can be attributed coherently only to particulars. *Truth and Predication*. And, finally, both the pure and impure trope theorist employ tropes in their account of what makes true a basic proposition in which a property is attributed to a concrete particular object.

### 11.2.4 Areas of disagreement

At the same time, we have also observed that the pure and impure trope theorists disagree when it comes to the central question of how tropes and concrete particular objects are to be individuated.<sup>11</sup> We can formulate the crucial disagreement between the pure and impure trope theorist over the individuation of tropes and their bearers more precisely as follows. Since the impure trope theorist takes tropes to be individuated through their bearers, he will take on board something like the following:

(CTI) *Criterion of Trope Identity:*

A trope,  $x$ , and a trope,  $y$ , are numerically identical iff  $x$  and  $y$  are tropes of the same maximally specific kind and  $x$  and  $y$  have the same concrete particular object as their bearer.

A few clarificatory remarks concerning (CTI) are in order. First, I intend (CTI) to be read in such a way that only a single trope of each maximally specific kind (e.g., some specific shade of redness) inheres in a single concrete particular object at each time at which the object exemplifies the property in question. Secondly, the pure trope theorist may interpret the reference to concrete particular objects in (CTI) in terms of the compresence of tropes with other tropes in a particular trope bundle. Thirdly, in order to capture the impure trope theorist's conception of trope individuation fully, an asymmetric explanatory connective, such as "because" or "in virtue of", is needed in place of the symmetric "iff" which is currently the main connective of (CTI). I will take this explanatory asymmetry into account below. Fourth, I have in mind with (CTI) a criterion of identity which would apply to individuals across worlds, and not just contingently within a single world. This way of construing (CTI) will also be reflected in the definition of ontological dependence offered below. Fifth, when we add time into the picture, (CTI) can be interpreted either as a synchronic or as a diachronic criterion of trope identity as follows:

(SCTI) *Synchronic Criterion of Trope Identity:*

A trope,  $x$ , and a trope,  $y$ , are numerically identical at a single time  $t$  iff  $x$  and  $y$  are tropes of the same maximally specific kind and  $x$  and  $y$  at  $t$  have the same concrete particular object as their bearer.

(DCTI) *Diachronic Criterion of Trope Identity:*

A trope,  $x$ , which exists at a time  $t_1$ , and a trope,  $y$ , which exists at a distinct time  $t_2$ , are numerically identical iff  $x$  and  $y$  are tropes of the same maximally specific kind and  $x$  at  $t_1$  has the same concrete particular object as its bearer as  $y$  at  $t_2$ .

While I take (CTI), when interpreted as either (SCTI) or (DCTI), to describe the impure trope theorist's commitments concerning the individuation of tropes relative

<sup>11</sup> The question of whether migrating or free-floating tropes are metaphysically possible is also discussed in connection with the doctrine of transubstantiation; see for example Pawl (2012).

to their bearers, the pure trope theorist could instead accept something like the following as a criterion of identity governing concrete particular objects:

(CBI) *Criterion of Bearer Identity:*

A concrete particular object,  $x$ , and a concrete particular object,  $y$ , are numerically identical iff the tropes that are compresent with  $x$  are numerically identical to the tropes that are compresent with  $y$ .

Again, (CBI) is amenable to either a synchronic or a diachronic construal, once it is relativized to time. I take it that Campbell would at least accept the synchronic version of (CBI). How he feels about the diachronic version of (CBI) would depend on whether he wants to allow that the concrete particular objects we encounter in ordinary experience can themselves persist through change strictly and literally speaking or whether each such ordinary concrete particular object in effect corresponds to a series of numerically distinct trope complexes.

With (CTI) and (CBI) in mind, we are now in a position to define the following notion of ontological dependence:

(EID) *Essential Identity Dependence:*

$x$  is essentially identity dependent on  $y \equiv_{\text{def}}$  it is essential to  $x$  that  $x$ 's numerical identity is determined by some relation  $x$  bears to  $y$ .<sup>12</sup>

I intend the phrase “ $x$ 's numerical identity is determined by some relation  $x$  bears to  $y$ ” to be understood, for the particular case of tropes and their bearers, in accordance with (CTI) or (CBI), read synchronically or diachronically. More generally, an entity,  $x$ , is to be classified as essentially identity dependent on a numerically distinct entity,  $y$ , just in case a criterion of identity for entities of the kind to which  $x$  belongs makes reference to some relation they essentially bear to entities of the kind to which  $y$  belongs.

<sup>12</sup> I assume for the purposes at hand that (EID) requires the entities,  $x$  and  $y$ , to be numerically distinct. The occurrence of “is determined by” on the right hand side of (EID) is intended to reflect the explanatory asymmetry referred to above. The requirement that the condition mentioned on the right hand side of (EID) is to hold of  $x$  essentially is intended to rule out a merely contingent construal of the criteria of identity in question as holding only within a given world. (EID) is modeled after a definition of ontological dependence given by Lowe under the same name, “essential identity dependence”. Lowe's definition contains additional technical vocabulary (e.g., he speaks of criteria of identity as functions and of something's being part of the essence of something else), which I have left out here in order to be able to capture the disagreement between the pure and the impure trope theorist in terms that are as neutral as possible. As we will discover below, trope individuation is not the only issue over which the pure and the impure trope theorist disagree: another deep division between them arises from their respective conceptions of essence and modality. This further dispute between the pure and the impure trope theorist has repercussions on how they each interpret the right-hand side of (EID) in a way that is compatible with their other commitments. I hope, however, that the formulation of (EID) I have given here nevertheless captures the spirit behind Lowe's notion of essential identity dependence. For Lowe's most up-to-date views concerning ontological dependence, see Lowe (2006), (2008), (2012), (2013); as well as Tahko and Lowe (2015). For discussions of ontological dependence in his earlier work, see Lowe (1994), (1998). Also relevant are his views concerning criteria of identity which are inspired by Frege (1953); see for example Lowe (1989), (1997), (2009). I have discussed Lowe's notion of essential identity dependence as well as other definitions of ontological dependence in more detail elsewhere (see Koslicki (2012a), (2012b), (2013a), (2013b)).

Given this apparatus, we can now capture the central disagreement between the pure and the impure trope theorist as follows. A pure trope theorist of Campbell's persuasion denies that tropes are essentially identity dependent on their bearers (if they even have bearers); instead, he takes the bearers of these tropes to be essentially identity dependent on the tropes that are associated with them. For, in Campbell's view, for any given concrete particular object, *x*, *x*'s identity at each time at which it exists and possibly also *x*'s identity over time, is fixed by a relation *x* bears essentially to the tropes that are associated with *x* at a particular time or over time (e.g., the being-characterized-by relation). But the identity of the tropes which find themselves in a particular trope bundle, for Campbell, is not similarly fixed by the identity of the concrete particular object which is identified with the trope bundle in question.

In contrast, an impure trope theorist, such as Lowe, arrives at exactly the opposite position concerning trope individuation: he affirms that tropes are essentially identity dependent on their bearers and denies that the concrete particular objects which are the bearers of these tropes are essentially identity dependent on the tropes that are associated with them. For, according to Lowe, for any given trope, *x*, *x*'s identity at each time at which *x* exists, as well as *x*'s identity over time, is fixed by a relation *x* essentially bears to the numerically distinct concrete particular object, *y*, that is *x*'s bearer, namely the characterizing relation. But the reverse is not the case, in Lowe's view: the numerical identity of a concrete particular object is not fixed by some relation it essentially bears to the tropes that are present in it.

It immediately follows from the pure and impure trope theorist's respective commitments concerning the relative fundamentality or derivativeness of tropes compared to their bearers that they must also adopt a certain stance towards two related claims considered earlier: whether it is metaphysically possible for tropes to migrate from one bearer to another (i.e., whether tropes are transferable); and whether it is metaphysically possible for tropes to occur without the accompaniment of any bearers at all (i.e., whether tropes can be free-floating). Since, for Lowe, a given trope is essentially identity dependent on the concrete particular object that is its bearer, it is a direct consequence of his position that a trope can exist only if the concrete particular object that is its bearer exists and hence, more generally, that tropes can exist only if some concrete particular objects or other exist as well. Given his commitments, Lowe must therefore deny that migrating tropes and free-floating tropes are metaphysically possible. In contrast, since Campbell does not take tropes to be essentially identity dependent on their bearers, he is free to allow for the possibility of migrating or free-floating tropes. Given (EID) and the associated criteria of identity for tropes and their bearers stated in (CTI) and (CBI), we can thus see that the pure and the impure trope theorist's position concerning the individuation of tropes relative to their bearers comes as a package deal with their respective attitudes towards the (alleged) metaphysical possibility of migrating or free-floating tropes.

In addition to these diverging judgments concerning the *relative* fundamentality status of tropes and their bearers, the pure and the impure trope theorist also reach opposite conclusions when it comes to the corresponding claims concerning the *absolute* fundamentality of tropes or their bearers.<sup>13</sup> Suppose that an entity,  $x$ , is (EID)-independent just in case there is no other entity,  $y$ , numerically distinct from  $x$ , on which  $x$  is (EID)-dependent. We may then define the following notion of absolute (EID)-fundamentality:

(FUND) *Absolute (EID)-Fundamentality:*

$x$  is absolutely (EID)-fundamental  $\equiv_{\text{def}}$   $x$  is (EID)-independent: there is no entity,  $y$ , numerically distinct from  $x$ , such that  $x$  is (EID)-dependent on  $y$ .

Besides their disagreement over the relative fundamentality judgments stated above, Campbell and Lowe also take opposite sides on whether (FUND) correctly applies to tropes or concrete particular objects. For while Campbell endorses (FUND) for tropes but not for concrete particular objects, Lowe accepts (FUND) for concrete particular objects but not for tropes. Thus, a pure trope theorist of Campbell's persuasion takes tropes not only to be *more fundamental than* their bearers, in the sense specified by (EID); he also takes them to be *absolutely* (EID)-fundamental, since, in his view, tropes are primitively self-individuating. According to Campbell, for any given trope,  $x$ , there is no entity,  $y$ , numerically distinct from  $x$  (e.g., the concrete particular object that is the bearer of the trope in question), such that  $x$  is the very object that it is because of some relation it essentially bears to  $y$  (e.g., the characterizing relation). That tropes are the very entities that they are at each time at which they exist, as well as over time, is simply taken to be a non-derivative fact about them, according to the pure trope theorist. In contrast, Lowe's impure trope theory is one according to which (FUND) is false for tropes but true for concrete particular objects. According to Lowe, for any concrete particular object,  $x$ , there is no entity,  $y$ , numerically distinct from  $x$ , such that  $x$ 's numerical identity is fixed by some relation  $x$  essentially bears to  $y$ . Thus, Lowe takes concrete particular objects to be not only *more fundamental than* the tropes that are present in them, in the sense specified by (EID); he also accepts, unlike Campbell, that concrete particular objects are primitively self-individuating and hence *absolutely* (EID)-fundamental. Campbell and Lowe thus reach opposite conclusions concerning both the relative and the absolute fundamentality status of tropes compared to the

<sup>13</sup> It should be noted, however, that the pure and impure trope theorist's position concerning the absolute fundamentality of tropes or their bearers is separable from the relative fundamentality judgments they each endorse respectively. These absolute fundamentality judgments present additional, optional, commitments on the part of the pure and impure trope theorist which are not immediately required or entailed by their respective positions concerning the relative fundamentality or derivativeness of tropes compared to their bearers. However, the reverse entailment does hold: the pure trope theorist's stance concerning the absolute fundamentality of tropes does of course entail that they are also *more fundamental than* their bearers; and it similarly follows from the impure trope theorist's position concerning the absolute fundamentality of concrete particular objects that these entities are also *more fundamental than* the tropes that are affiliated with them.

concrete particular objects which are the bearers of these tropes. At the same time, since the pure and the impure trope theorist, as we noted above, agree on the relevant existential questions, “Are there tropes?” and “Are there concrete particular objects?”, their dispute cannot be characterized as a purely existential disagreement which would be amenable to a Carnapian or Quinean approach to ontology.

### 11.3 Migrating or Free-Floating Tropes?

We have seen above that the pure and the impure trope theorist disagree precisely on whether or not the individuation of tropes or concrete particular objects is parasitic on the identity of a numerically distinct entity. Depending on where a particular trope theorist stands on this question, it will also then, as a direct consequence, turn out to be either metaphysically possible or metaphysically impossible for a trope to migrate to a different bearer or to exist in a free-floating fashion without any bearer at all. It is instructive to examine more closely how the pure and impure trope theorist approach these alleged metaphysical possibilities or impossibilities, especially with an eye to how the disagreements in question would be characterized through the lens of a Quinean or Carnapian conception of ontology.

#### 11.3.1 *The alleged possibility of migrating tropes*

Smith (1982) takes as his motto a passage from the nineteenth-century novel *I Promessi Sposi* by the Italian writer Alessandro Manzoni, in which (loosely paraphrased) the question is raised of how there can even be such a thing as contagion, since a disease that is spread around through infection apparently cannot be coherently conceived of as either a substance or an attribute; and, so the thought goes, there are no other options. The latter possibility of conceiving of contagion as an attribute is ruled out by appeal to the assumption that attributes, which are here taken to be tropes, are non-transferable and thus contagion, if it were an attribute, could not migrate from one substance to another. (The option that contagion may be a substance is ruled out on other grounds.) But given what we now know about the mechanisms underlying the spread of disease, the impure trope theorist can rest assured that, instead of having to reject all of modern-day medicine as being based on a metaphysical mistake, he may avail himself of a conception of contagion which does not need to lean on the hypothesis that tropes are transferable. For empirical investigation has led to the discovery that, when a disease spreads through infection, it is in fact concrete particular objects after all (e.g., viruses, bacteria, and the like) which migrate from one “host” to another.

We encounter additional apparent support for the thesis that tropes are transferable in cases discussed in Levinson (1980), Lehrer and McGee (1992), and Schnieder (2004). To illustrate, consider an apple which is red on the outside and white on the inside. Suppose that the apple is peeled and is now white on the outside. What has happened to the redness trope which seemed previously to reside in the apple? Has one

and the same redness trope, as a result of the peeling, migrated away from its previous bearer?

Cases of material constitution might also be interpreted as favoring the thesis that tropes are transferable. Suppose that a statue and the clay which constitutes it are numerically distinct spatiotemporally coincident objects, as some hold. Suppose further that the clay, which we may assume to have already existed prior to the creation of the statue, weighed 1 kg before the statue came into existence and that nothing is removed or added from the clay during the process of creating the statue. In that case, of course, the clay will continue to weigh 1 kg, once it has come to constitute the statue, and the statue will now weigh 1 kg as well. Has the clay's weight trope, during the process of creating the statue, somehow migrated to a numerically distinct bearer, viz., the statue it now constitutes?

If the impure trope theorist is willing to entertain the possibility that tropes may be shared between numerically distinct concrete particular objects, as long as these objects are related in a particularly intimate fashion which entails either complete or at least partial spatiotemporal overlap, e.g., by way of parthood or constitution, then he can make sense of what goes on in both of these scenarios without threatening his commitment to the non-transferability of tropes. Following this line of reasoning, it is open to the impure trope theorist to react to the first scenario by taking the redness trope to have resided in the apple's skin all along and to have simply been "borrowed" by the apple for a period of time while the apple had the skin as a part. Similarly, in cases of material constitution, the impure trope theorist may adopt the position that the statue inherits its weight from whatever constitutes it at any given time, assuming of course that he does not already reject the possibility of numerically distinct spatiotemporally coincident objects or finds another dialectical place at which to dig in his heels.

In addition to allowing the impure trope theorist to uphold his commitment to the non-transferability of tropes, the trope-sharing strategy also conveniently affords him with an elegant solution to the problem of "double counting". As we all know, the statue and the clay together only weigh whatever the clay by itself would weigh as well, even if it did not constitute a statue, namely, in the case of our present example, 1 kg. If the statue and the clay each had their very own 1 kg weight trope, then one might indeed wonder why the scale does not indicate 2 kg, when two numerically distinct objects (the statue and the clay) are simultaneously placed on it, each with its very own 1 kg weight trope. The impure trope theorist may sidestep this worry by adopting the trope-sharing strategy and thus cite independent reasons for this move, not directly connected to the question presently at issue of whether migrating tropes are genuinely metaphysically possible.<sup>14</sup>

<sup>14</sup> The trope-sharing proposal just discussed is merely intended to provide the impure trope theorist with a starting point for a strategy he may wish to explore further in order to address scenarios such as those cited in Section 11.3.1 which might be thought to involve trope migration. It is of course not plausible to think that wholes borrow all of the tropes that are associated with their proper parts. Therefore, in order



### 11.3.2 *The alleged possibility of free-floating tropes*

The different attitudes taken by the pure and impure trope theorist towards the individuation of tropes relative to their bearers come out in their starkest form when we consider the question of whether free-floating tropes, i.e., tropes which are capable of existing without any association with a concrete particular object that is their bearer, are genuinely metaphysically possible. In the event that the pure trope theorist could somehow present us with a scenario which can only be adequately interpreted on the assumption that free-floating tropes are metaphysically possible, such a circumstance would of course spell trouble for the impure trope theorist, unless he can find some wiggle-room somewhere. The individuation of such alleged “solo” tropes, after all, could not very well be in any way parasitic on the identity of any concrete particular objects which are their bearers, since, by hypothesis, they have none.<sup>15</sup>

Here is how the possibility of apparently unaccompanied tropes might be motivated from Campbell’s point of view. He takes the actual world to be constructed out of, or analyzed in terms of, an extremely sparse array of basic tropes towards which, for a variety of reasons, he adopts a field-theoretic, as opposed to an atomistic, approach. On this picture, all of space-time turns out to be a single trope, the “biggest” one there is, spread out over the entire cosmos. The other basic tropes, on this account, are themselves regarded as “space-filling fields” which permeate the cosmos by distributing some quantity in varying degrees of intensity across it:

Taking our clue from space-time itself, we now propose that all the basic tropes are partless and edgeless in the ways that space is, and that they change only in space-time’s innocent way. All basic tropes are space-filling fields, each one of them distributes some quantity, in perhaps varying intensities, across all of space-time. What are the plausible candidates for such cosmos-filling basic tropes? The ones that spring to mind first are those we already think of as having field characteristics, the fundamental forces recognised in contemporary physics. So we

for the strategy outlined here to be successful, the impure trope theorist would need to propose a non-ad-hoc method of delineating those tropes which a whole shares with its proper parts from those to which the trope-sharing strategy does not apply (e.g., the temporal or modal tropes). As the voluminous literature on the problem of material constitution attests, much more would need to be said in this connection in order to spell out the strategy at hand more fully. However, some version of the challenge at hand arises for many other approaches to the problem of material constitution as well and is not specific to the trope-theoretic treatment. I will not attempt to develop a more detailed treatment of these issues on behalf of the impure trope theorist in the present context.

<sup>15</sup> Cases which crop up in the literature on events are also of relevance here, especially considering Campbell’s and Lowe’s sympathy towards an analysis of events and change in terms of successions of numerically and qualitatively distinct tropes. For example, Cleland (1991), siding with the pure trope theorist, cites the following as evidence for thinking that the individuation of events does not always require reference to concrete particular objects which are their bearers: shrieks, flashes, desires, fluctuations in gravitational and electromagnetic fields as well as the disembodied melodies, booms, bangs, etc., we encounter in Strawson’s “Auditory World” (Cleland 1991, 230–1; Strawson (1993), especially pp. 75–7). For reasons of space, I concentrate in what follows on the way in which we are confronted with the alleged possibility of free-floating tropes in Campbell’s system.

postulate superimposed fields for gravitation, electromagnetism, the weak and the strong nuclear forces. (Campbell 1990, 146)

But whether these cosmos-filling superimposed basic tropes distribute quantities across space-time in such a way as to give rise to the familiar concrete particular objects we encounter in ordinary experience is, for Campbell, a purely contingent matter. Consequently, he would see no metaphysical obstacles standing in the way of a possible distribution of basic tropes across space-time which does *not* give rise to the familiar concrete particular objects we encounter in ordinary experience. In order to illustrate what such a possible distribution might look like, I will assume, for the sake of specificity, that the basic tropes include charge, mass, and spin. Campbell's commitments now leave room for the possibility of a universe which lacks the familiar concrete particular objects of ordinary experience, but in which nevertheless charge, for example, is present in a particular region of space-time with a non-zero degree of intensity, while the quantities associated with the other basic tropes, e.g., mass and spin, take on a zero degree of intensity in the region of space-time under consideration.

Does the scenario just described, assuming for a moment that it is metaphysically possible, present us with evidence in favor of a free-floating charge trope? The impure trope theorist may, with some justification, harbor doubts as to whether it in fact does. Due to the peculiarities of Campbell's field-theoretic approach, neither the charge, which we imagined above as being exemplified in the region of space-time in question in an apparently unaccompanied fashion, nor the region of space-time itself can be regarded as a full-fledged particular, since, for Campbell, cosmos-permeating fields lack genuine parts:

And space-time has no true parts. For simplicity's sake, let us consider space alone. The subdivisions of space are not parts from which it is built. They cannot exist independently of the whole and then be assembled into more and more inclusive structures. They cannot, of course, be moved about to join in forming wholes, nor can they be selectively abolished. If there cannot be a hole in space, there cannot be a true part where the hole cannot be. Space has merely quasi-parts. They belong to space as vortices and eddies belong to a flowing river; the quasi-parts of space, unlike real parts, depend on the whole for their existence, and not vice versa. (Campbell 1990, 145)

As this passage brings out, Campbell adopts a truly monistic attitude towards his cosmos-permeating basic tropes, according to which regions of space-time are thought of as belonging to the one and only space-time trope only as "vortices and eddies belong to a flowing river", as "quasi-parts", but not as "true parts". Similarly for the charge exemplified in a certain region of space-time, which would, on his view, have to be regarded not as a genuine part, but only as a "quasi-part", of the one and only cosmos-filling charge trope.

If regions of space-time and the charges that are exemplified within them do not qualify as fully individuated entities, by Campbell's lights, they also pose no real threat

to the impure trope theorist's commitment to the impossibility of free-floating tropes. Given Campbell's field-theoretic monism, the only genuine particulars he would acknowledge in the scenario described above are the cosmos-permeating basic tropes themselves, and these of course cannot be considered free-floating, since they are compresent with each other and together form the cosmos. This opens the door for the impure trope theorist to recognize at least one gigantic concrete particular object in the scenario just outlined, which may act as the bearer and potential individuator of Campbell's limited array of basic tropes: the cosmos itself. And, hard as we may try, there is of course no thought-experiment we can design in which the cosmos is somehow separated from the basic tropes that are exemplified within it.

So far, the impure trope theorist may thus avail himself of various maneuvers in his attempt to avert the threat of having to entertain seriously the alleged possibility of free-floating tropes. But he is not completely out of the danger zone yet. For perhaps the most serious challenge to the impure trope theorist's prohibition against free-floating tropes comes from an atomistic version of the scenario described above. Thus, putting Campbell's field-theoretic monism aside for a moment, we may reconceptualize the alleged possibility in question as involving at least one basic atomic charge trope, or a multitude thereof, occurring in a region of space-time apparently unaccompanied by other basic atomic tropes, such as spin or mass, or by any concrete particular object, such as an elementary particle, which could act as the bearer and candidate principle of individuation for these basic atomic charge tropes. If such a scenario is in fact metaphysically possible, it is difficult to see how one could make sense of it without invoking free-floating charge tropes.

When faced with the atomistic version of the alleged free-floating trope scenario, I finally see no other choice for the impure trope theorist but to insist that the words which were used in describing this scenario do not in fact succeed in singling out a genuine metaphysical possibility. At this point, we may appear to have reached a dialectical dead end in the disagreement between the pure and the impure trope theorist. But really their head-on collision over the possibility of free-floating tropes, if we were to trace its course further, would now only lead us to another fundamental difference between them, which I have so far done my best to keep in the background: their respective Humean or anti-Humean stance towards modality and the laws of nature. In this vein, Lowe combines his impure trope theory with a hyper-robust anti-skeptical conception of *de re* modality as grounded in essence, together with an anti-reductionist account of the laws of nature as involving relations among universals. Campbell's pure trope theory, in contrast, is Humean through and through, in its preference for regularities, contingent patterns, and constant conjunctions among particulars only.

Once their respective Humeanism and anti-Humeanism is on the table, the discussion between the pure and impure trope theorist will no doubt shift to a whole new set of questions. The impure trope theorist may cite as an apparent consideration in his favor that, unlike his opponent, he has a metaphysical explanation for why, in our past and present experience up to this point, we have apparently not encountered free-floating

charge tropes and why furthermore the idea of a charge which is not the charge *of* anything also runs counter to what our best scientific theories teach us. The pure trope theorist, in contrast, may caution us not to get overly carried away by such findings, since, for him, they may after all only report a cosmic accident on a grand scale. The Humean does not see why such phenomena would ever require a metaphysical explanation; nor would he deem such an alleged metaphysical explanation satisfying, especially when, contrary to Hume's Dictum, it requires appealing to necessary connections between distinct existences: a metaphysical fiction *par excellence*, if ever there was one, in the eyes of the Humean.<sup>16</sup>

## 11.4 Conclusion

In this chapter, I have focused on a central disagreement between the pure and the impure trope theorist over trope individuation, in an attempt to motivate a conception of the study of being which goes beyond the boundaries of what is permissible or sensible from a Quinean or Carnapian perspective. In my view, we fail to do justice to the disagreement between the pure and the impure trope theorist, as long as we confine ourselves to a purely existential understanding of what is at issue between them, as concerning the questions, "Are there tropes?" and "Are there concrete particulars objects?". For whether we read these questions in the Carnapian internal or external style, we will find that both philosophers answer them affirmatively. Both accept a framework which commits them to the existence of tropes as well as concrete particular objects; and both accept that, in ordinary experience, e.g., when faced with a particular red rose, we encounter tropes as well as concrete particular objects in which these tropes are present. The pure and impure trope theorist furthermore largely agree on how to justify the expedience, fruitfulness, and conduciveness of a trope-theoretic framework with respect to the explanatory purposes at hand, since both invoke tropes in their account of the objective similarities between concrete particular objects, events and change, perception, causation, spatiotemporal location, and the truth of propositions.

Nevertheless, on my reading, the pure and impure trope theorist occupy opposing positions when it comes to the question of whether tropes qualify as relatively or absolutely fundamental entities within their respective ontologies or whether instead it is the concrete particular objects that are the bearers of these tropes which are assigned this role. According to the construal I have offered in this chapter, the disagreement between the pure and the impure trope theorist can be adequately captured by focusing on whether or not they take tropes or their bearers to be essentially identity dependent on any other entity numerically distinct from themselves. Since, for the pure trope theorist, tropes are primitively self-individuating, their numerical identity

<sup>16</sup> The connection between Hume's Dictum and the alleged possibility of migrating or free-floating tropes is also discussed in Cameron (2006) and Saenz (2012).

is not parasitic on that of their bearers or any other entity numerically distinct from themselves. The impure trope theorist, in contrast, accepts the numerical identity of concrete particular objects as a basic non-derivative fact about them and instead views the numerical identity of tropes as parasitic on that of their bearers. As a direct consequence of this central difference between them, the pure trope theorist has the option of allowing for the possibility of migrating or free-floating tropes, while the impure trope theorist is required to analyze any scenario which allegedly illustrates such possibilities in a way that is compatible with his commitment to the metaphysical impossibility of migrating or free-floating tropes.

The pure and impure trope theorist's reactions to these alleged possibilities, when followed to their natural conclusion, reveal a further chasm between them: their respective Humeanism or anti-Humeanism concerning modality and the laws of nature. Although I did not try to argue for this further claim here, this additional crucial difference in their outlook also strikes me as a particularly clear and interesting example of a substantive non-existential disagreement over a particular question of fundamentality which deserves to be addressed on its own merits. If the study of being is not exhausted by the study of existence, then we also should not expect any single piece of apparatus which is designed specifically to deal with existential disputes (e.g., a certain treatment of the existential quantifier) to show in one fell swoop that all metaphysical disputes are merely verbal. While some metaphysical disputes may of course turn out to be non-substantive, which of them do and why must be established individually by carefully examining what exactly is at stake between two particular disputants. In the meantime, though, our discussion has brought out that essentialist construals of ontological dependence prove to be a helpful device in approaching particular instances in which we encounter apparently substantive non-existential disagreements in ontology over questions of relative or absolute fundamentality.

## References

- Cameron, Ross (2006). "Tropes, Necessary Connections, and Non-Transferability", *Dialectica* 60 (2): 99–113.
- Campbell, Keith (1990). *Abstract Particulars*. Oxford: Basil Blackwell.
- Carnap, Rudolf (1950). "Empiricism, Semantics, and Ontology", *Revue Internationale de Philosophie* 4: 20–40.
- Chalmers, David (2009). "Ontological Anti-Realism," in Chalmers, Manley and Wasserman (eds.), 77–129.
- Chalmers, David (2012). *Constructing the World*. Oxford: Oxford University Press.
- Chalmers, David, David Manley and Ryan Wasserman, eds. (2009). *Metametaphysics: New Essays on the Foundations of Ontology*. Oxford: Clarendon Press.
- Cleland, Carol (1991). "On the Individuation of Events," *Synthese* 86: 229–54.
- Correia, Fabrice, and Benjamin Schnieder, eds. (2012). *Metaphysical Grounding: Understanding the Structure of Reality*. Cambridge: Cambridge University Press.

- Feser, Edward (ed.) (2013). *Aristotle on Method and Metaphysics*. Basingstoke: Palgrave/Macmillan.
- Frege, Gottlob (1953). *The Foundations of Arithmetic: A Logico-Mathematical Enquiry into the Concept of Number*, translated by J. L. Austin, 2<sup>nd</sup> Edition. Oxford: Blackwell.
- Hale, Bob, and Crispin Wright, eds. (1997). *Companion to the Philosophy of Language*. Malden, MA: Blackwell.
- Hirsch, Eli (2009). "Ontology and Alternative Languages," in Chalmers, Manley and Wasserman (eds.), 231–59.
- Hirsch, Eli (2002). "Quantifier Variance and Realism," *Philosophical Issues* 12: 51–73.
- Hofweber, Thomas (2009). "Ambitious, Yet Modest, Metaphysics," in Chalmers, Manley and Wasserman (eds.), 260–89.
- Kosllicki, Kathrin (2012a). "Varieties of Ontological Dependence," in Correia and Schnieder (eds.), 186–213.
- Kosllicki, Kathrin (2012b). "Essence, Necessity and Explanation," in Tahko (ed.), 187–206.
- Kosllicki, Kathrin (2013a). "Ontological Dependence: An Opinionated Survey," in Schnieder, Hoeltje and Steinberg (eds.), 31–64.
- Kosllicki, Kathrin (2013b). "Substance, Independence and Unity," in Feser (ed.), 169–95.
- Lehrer, Keith and Vann McGee (1992). "Particulars, Individual Qualities, and Universals," in Mulligan (ed.), 37–47.
- Le Poidevin, Robin, ed. (2008). *Being: Developments in Contemporary Metaphysics*. Cambridge: Cambridge University Press.
- Levinson, Jerrold (1980). "The Particularisation of Attributes," *Australasian Journal of Philosophy* 58 (2): 102–15.
- Lowe, E. J. (1989). "What Is a Criterion of Identity?," *The Philosophical Quarterly* 39 (154): 1–21.
- Lowe, E. J. (1994). "Ontological Dependency," *Philosophical Papers* XXIII (1): 31–48.
- Lowe, E. J. (1997). "Objects and Criteria of Identity," in Hale and Wright (eds.), 613–33.
- Lowe, E. J. (1998). *The Possibility of Metaphysics: Substance, Identity, and Time*. Oxford: Oxford University Press.
- Lowe, E. J. (1999). "Form Without Matter," in Oderberg (ed.), 1–21.
- Lowe, E. J. (2006). *The Four-Category Ontology: A Metaphysical Foundation for Natural Science*. Oxford: Clarendon Press.
- Lowe, E. J. (2008). "Two Notions of Being: Entity and Essence," in Le Poidevin (ed.), 23–48.
- Lowe, E. J. (2009). *More Kinds of Being: A Further Study of Individuation, Identity, and the Logic of Sortal Terms*. Malden, MA, and Oxford: Wiley-Blackwell.
- Lowe, E. J. (2012). "Asymmetrical Dependence in Individuation," in Correia and Schnieder (eds.), 214–33.
- Lowe, E. J. (2013). "Some Varieties of Metaphysical Dependence," in Schnieder, Hoeltje and Steinberg (eds.), 214–33.
- Mulligan, Kevin (ed.) (1992). *Language, Truth and Ontology*, Philosophical Studies Series. Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Oderberg, David, ed. (1999). *Form and Matter: Themes in Contemporary Metaphysics*. Oxford: Blackwell.
- Pawl, Timothy (2012). "Transubstantiation, Tropes, and Truthmakers," *American Catholic Philosophical Quarterly* 86 (1): 71–96.
- Price, Huw (2009). "Metaphysics After Carnap: The Ghost Who Walks?," in Chalmers, Manley and Wasserman (eds.), 320–46.

- Quine, W.V. (1948). "On What There Is," *Review of Metaphysics* 5: 21–38, reprinted in his *From a Logical Point of View*, 2nd Edition. Cambridge, MA: Harvard University Press (1980), 1–19.
- Saenz, Noel (2012). "Against Tropes as Truthmakers," unpublished manuscript.
- Schnieder, Benjamin (2004). "A Note on Particularised Qualities and Bearer-Uniqueness," *Ratio* XVII: 218–28.
- Schnieder, Benjamin, Miguel Hoeltje and Alexander Steinberg (eds.) (2013). *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence* (Basic Philosophical Concepts). Munich, Germany: Philosophia Verlag.
- Smith, Barry, ed. (1982). *Parts and Moments: Studies in Logic and Formal Ontology*. Munich, Germany: Philosophia Verlag.
- Strawson, P. F. (1993). *Individuals: An Essay in Descriptive Metaphysics*. New York, NY: Routledge.
- Tahko, Tuomas, ed. (2012). *Contemporary Aristotelian Metaphysics*. Cambridge: Cambridge University Press.
- Tahko, Tuomas and E.J. Lowe (2015). "Ontological Dependence," *Stanford Encyclopedia of Philosophy*, <<http://plato.stanford.edu/entries/dependence-ontological/>>.
- Thomasson, Amie (2009). "Answerable and Unanswerable Questions," in Chalmers, Manley and Wasserman (eds.), 444–71.
- Van Inwagen, Peter (2009). "Being, Existence, and Ontological Commitment," in Chalmers, Manley and Wasserman (eds.), 472–506.



