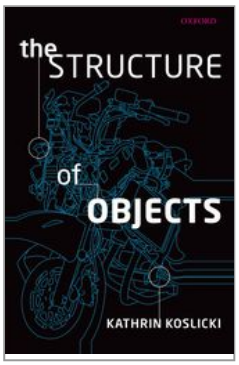

The Structure of Objects
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Print publication date: 2008
Print ISBN-13: 9780199539895
Published to Oxford Scholarship Online: September 2008
DOI: 10.1093/acprof:oso/9780199539895.001.0001

Composition as Non-Identity

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DOI:10.1093/acprof:oso/9780199539895.003.0004

Abstract and Keywords

The positive view adopted later in this book defends a conception of parthood and composition which carries genuine ontological commitment: contrary to the Lewisian Composition-as-Identity model, wholes according to this alternative conception are in no way to be identified with their parts; rather, a commitment to wholes is a commitment to entities that are numerically distinct from their parts. A crucial piece of apparatus which supports this ontologically loaded conception of parthood and composition is a certain style of argument which reasons from Leibniz's Law to the numerical distinctness of wholes and their parts: according to this style of argument, wholes and their parts are numerically distinct by Leibniz's Law, because they do not share all of their properties. This present chapter defends this style of argument for the numerical distinctness of wholes and their parts.

Keywords: composition, parthood, identity, Leibniz's Law, contingent identity, temporary identity, indeterminate identity, relative identity, non-existent objects, coincidence

§III.1 Introductory Remarks

In the foregoing remarks, I have aligned myself with a conception of parthood and composition which carries genuine ontological commitment: contrary to the Lewisian Composition-as-Identity model, wholes according to this conception are in no way to be identified with their parts; rather, a commitment to wholes is a commitment to entities that are numerically distinct from their parts. A crucial piece in the apparatus which supports this ontologically loaded conception of parthood and composition is a certain style of argument which I term Leibniz's Law-style argument for the numerical distinctness of wholes and their parts: on

my reading of this style of argument, wholes and their parts are numerically distinct by Leibniz's Law, because they do not share all of their properties (e.g., for one thing, while the parts typically do exist, the whole does not exist prior to the creation of the whole). The purpose of the present chapter is to defend this style of argument for the numerical distinctness of wholes and their parts.[1]

My game plan for this chapter is as follows. I will argue against philosophical positions which oppose the argument from Leibniz's Law to the conclusion that wholes and their parts are numerically distinct on general grounds: such positions are forced to make use of a particular, surprisingly widespread, strategy in metaphysics which I will refer to in what follows as “The Suspect Strategy” (TSS); this strategy is suspect for various reasons, which I will detail below, and hence ought to be abandoned.

In very broad strokes, situations which give rise to TSS contain as one of their ingredients a general metaphysical principle of some form whose truth the proponent of TSS wishes to uphold; the nature of the principle differs from context to context, but examples include the following:

> (LL) Leibniz's Law:
> If x = y, then every property of x is a property of y.[2]
> (RI) Restricted Indiscernibility:
> **(p.46)**
> If a certain relation, R, holds between x and y, then every Φ-property of x is a property of y.
> (EP) Existence Principle:
> For any set of Φ-properties, there exists an object which has all the properties in the set and no other Φ-properties.[3]

The second ingredient which is needed to give rise to TSS is a certain troublesome class of contexts, Σ (e.g., contexts like “___ is essentially a statue”). These contexts appear to satisfy the purely formal syntactic and semantic well-formedness conditions expressions must satisfy in order to play the semantic role of predicates. (For example, they are “unsaturated”, in Frege's sense, i.e., when combined with singular terms, they yield statements that can bear a truth-value; they apparently do not lead to paradox, and so forth.) However, to allow that these contexts straightforwardly determine *properties* and that these properties straightforwardly *fall under the scope of* the general metaphysical principle in question would conflict with certain *other* metaphysical priorities of the proponent of TSS.

To resolve this tension, the philosopher in question invokes TSS, with the intended result that the troublesome contexts in Σ be *excluded* from the reaches of the general principle in question, either because these contexts fail to determine properties at all or because the properties they do determine fail to

fall under the scope of the general principle at issue. What makes the strategy in question *suspect* is that, as we shall see, the different kinds of methods by which the troublesome contexts are excluded from the reaches of the general principles raise serious methodological concerns or are objectionable for other reasons.

We should draw two conclusions from the failure of TSS. First, the need to invoke TSS by itself counts as a strike against a philosophical theory; hence, competing philosophical theories which require no such appeal are preferable in this respect. Secondly, unless other independently motivated considerations are provided, the rejection of TSS presents a good reason to accept that the contexts in Σ determine properties and that these properties fall under the scope of the general principle (provided of course that this principle is taken to be true): **(p. 47)** this second consequence of the failure of TSS further commits us to a universe populated with numerically distinct yet almost indiscernible objects.[4]

§III.2 The Suspect Strategy

I now turn to some representative illustrations of contexts in which TSS is applied with respect to the three general principles mentioned above, LL, RI and EP. For example, we find TSS implemented with respect to LL in the following contexts: (i) Alan Gibbard's defense of *contingent identity* (Gibbard 1975); (ii) George Myro's and André Gallois' defense of *temporary identity* (Myro 1986; Gallois 1990, 1998); as well as (iii) Terence Parsons' defense of *indeterminate identity* (Parsons 2000). Our example of TSS as implemented with respect to EP is (iv) Terence Parsons' defense of *non-existent objects* (Parsons 1979, 1980). Finally, an example of TSS, as implemented with respect to an instance of RI, can be found in (v) the *coincidence-theorist's* analysis of the problem of constitution, as developed, for example, in Baker (1999, 2000), Fine (1982, 1999), and Yablo (1987); as well as in (vi) a recent development of Geach's *relative-identity* view (Geach 1962, 1967) in Deutsch (1998) (see also Deutsch 2002).

§III.2.1 The Suspect Strategy and Leibniz's Law

§III.2.1.1 Contingent Identity

In his classic paper “Contingent Identity” (1975), Alan Gibbard argues that certain identities are best interpreted as contingent, despite Kripke's powerful arguments to the contrary (cf. Kripke 1971). As an example of such a contingent identity, Gibbard offers the case of a statue, Goliath, and the piece of clay, Lumpl, of which it is made, which are stipulated to have exactly the same temporal extent; their relation, in Gibbard's view, is best described as in (1):

(1) Goliath = Lumpl &♦(Goliath ≠ Lumpl)

Of course, as Gibbard points out in Section V of his paper, one's immediate reaction is that (1) cannot possibly be the correct interpretation of the relation between Lumpl and Goliath, on the grounds of the following style of argument:[5]

(2) □(Lumpl = Lumpl)
Lumpl = Goliath

□(Goliath = Lumpl)

(p.48) The argument in (2) states that because Lumpl is necessarily self-identical, so anything that is identical with Lumpl, viz., Goliath, also must be necessarily identical to Lumpl. This argument depends on taking the context in (3),

(3) □(_____ = Lumpl)

in conjunction with LL, to generate the conclusion in (2), which contradicts Gibbard's central thesis in (1). (Gibbard 1975 is specifically addressed to an argument of this sort that is given in Kripke 1971; Kripke uses this argument to conclude that such pairs of objects as Lumpl and Goliath must be numerically distinct.) In other words, if the argument in (2) is correct, then the context in (3) points us to a property with respect to which the objects in question are not indiscernible (viz., necessary identity with Lumpl); LL would then seem to lead us to conclude that Lumpl and Goliath are numerically distinct and hence not contingently identical, contra (1).

Gibbard calls this the “most prominent objection” to the contingent-identity view; his response is an instance of TSS:

> The usual answer will serve my purpose here. Leibniz’ Law settles very little by itself: put as a general law of substitutivity of identicals, it is just false; in its correct version, it is a law about properties and relations: *If x=y, then for any property, if x has it, then y has it, and for any relation and any given things, if x stands in that relation to those things, then y stands in that relation to those things.* The law so stated yields substitutivity of identicals only for those contexts that attribute properties and relations. [The conclusion in (2)] follows from [the two premises] by Leibniz’ Law, then, only if [the context in (3)] attributes a property. We can block the inference to [the conclusion in (2)] by denying that [the context in (3)] attributes a property.[6]

In case someone should worry about the possible “arbitrariness” of this response, Gibbard remarks that whether the context in (3) denotes a property is precisely what is at issue in the dispute between the essentialist and the anti-essentialist. A context denotes a property, so Gibbard argues (plausibly, of course), only if it applies to an object *independently of the way in which it is designated*; and whether *de re* modal contexts apply to objects in this fashion is precisely the point over which anti-essentialists like Gibbard and Quine disagree with essentialists like Kripke. The battle between them must therefore be fought on other grounds.

§III.2.1.2 Temporary Identity

According to the temporary-identity view developed, in different ways, in Myro (1986) and Gallois (1990, 1998), statements of identity in general must be viewed as being relativized to times. As a result, one can sometimes run into situations in which statements of the following sort are true (for some objects, A and B, and some times, t and t′): **(p.49)**

(4) [at t: A = B] & [at t′: A ≠ B]

The benefits of this view are that it can be used to solve many of the traditional puzzles concerning identity, e.g., change over time, constitution, fission, fusion, and the like. Again, perhaps the most prominent objection to a view of this sort comes from an analogue of the argument from LL in (2) above:

(5) For all times t′: [at t′: A = A]
At t: A = B

For all times t′: [at t′: A = B]

The argument in (5) states that, since object A is always self-identical, any object (viz., B) which is at any time identical to A must be so at all times. Again, this argument depends on taking a context like (6),

(6) At all times t′: [at t′: A = _____]

and conjoining it with LL, which itself must be relativized to time on this view,

(LLTemp) For all times t′: If x = y at t′, then every property of x at t′ is a property of y at t′.

to yield the conclusion in (5), which contradicts the main tenet of the temporary-identity view as expressed in (4).[7]

Myro and Gallois respond to the challenge posed by the argument from (LL_{Temp}) by endorsing slightly different versions of TSS. Myro's response is in fact quite close to Gibbard's:

> So the general way of dealing with the complication is to divide properties into those which are "*time-free*"—like being on the mantelpiece—which are represented by open sentences **(p.50)** *not* containing temporal qualifications, and those which are "*time-bound*"—like being on the mantelpiece on Tuesday—which are represented by open sentences which do contain temporal qualifications. And what must be done is that "Leibniz's Law subject (like other statements) to temporal qualification" is to be, in addition, *restricted* to properties which are "*time-free*"—properly represented by open sentences (or "predicates") which do not (relevantly) contain temporal qualifications.
>
> (Myro 1986, pp. 392–3; his italics)

Unlike Gibbard, Myro allows that the “time-bound” contexts in question denote properties, but proposes to restrict (LL_{Temp}) to exclude such properties. The result, however, is the same: contexts which, when conjoined with (LL_{Temp}), seem to yield the conclusion that the objects under consideration are numerically distinct are removed somehow from the field of contexts governed by (LL_{Temp}).

Gallois blocks the inference in (5), not by overtly restricting (LL_{Temp}) or by openly declaring that contexts of a certain kind fail to denote properties, but rather by opposing a certain pre-theoretically plausible principle concerning the transmission of properties through times:

(TP) (∀F)(∀x)(∀t)(∀t′) [at t′: Ex → [at t : F(x) ↔ [at t′: F(x) at t]]]]

The “Transmission Principle” (TP) states that an object has a property, F, at some time, t, just in case, at any other time, t′, at which the object exists, it has at those times, t′, the property of having the property of being F at t; in other words, having the property of being F at t “transmits” to other times. For example, if I have the property of wearing yellow socks on Monday, then, by TP, it is still true of me on Tuesday (even if I am now wearing pink socks) that it was true of me on Monday that I wore yellow socks then.[8]

Although Gallois' careful treatment of the issues in question deserves separate discussion, his position nevertheless strikes me in the end as a slightly more elaborate version of the view that there is no automatic passage from contexts of a certain purportedly questionable kind to properties of the corresponding kind, where the contexts in question are now those involving *nested* temporal qualifications. Given our present purposes, I will thus classify Gallois' opposition to the “Transmission Principle” as a version of the same general strategy as that found in Gibbard (1975) and Myro (1986).[9]

(p.51) §III.2.1.3 Indeterminate Identity

Parsons (2000) defends the view that, under certain circumstances, identities can be indeterminate, i.e., that statements of the following kind can be true (where the operator “∇” is taken to mean “it is indeterminate that”):

(7) ∇(B = A)

Once again, the defender of indeterminate identities faces an objection from LL, structurally analogous to those reviewed above, except for the fact that the argument in question this time makes use of LL in its *contrapositive* form (cf., Evans 1978, for the original statement of this argument):

(LLContra) Contrapositive Leibniz's Law:
If some property, F, is a property of x but not of y, then x ≠ y.

The identity sign, “=”, is read by the defender of indeterminate identity as applying to objects which are *determinately* identical; correspondingly, “≠” applies to objects which are *determinately* distinct. Normally, the equivalence between LL and LL_{Contra} is of course taken for granted. In the context of disputes over the determinacy of identity, however, this equivalence is no longer uncontroversial; Parsons, for example, accepts LL but denies that inferences using LL_{Contra} are always valid.

Now assume, for reductio, that objects A and B are indeterminately identical, i.e., that (7) is true. Then, the argument from LL_{Contra} can be stated as follows:

(8) $\nabla[B = A]$
$\neg\nabla[A = A]$

$B \neq A$

The argument in (8), again, proceeds by way of taking contexts like (9),

(9) $\nabla[$ _____ $= A]$

in conjunction with LL_{Contra}, to lead to the conclusion in (8), according to which A and B are determinately distinct, which contradicts the assumption in (7). This argument is used by the opponent of indeterminate identity to show that objects can never be merely indeterminately identical; i.e., that identity is always determinate.

In response to this Evans-style argument, Parsons proposes the familiar strategy of denying that contexts like that in (9) denote properties. He does, however, introduce a novel consideration in support of his version of TSS. What makes contexts like (9) suspicious, according to Parsons, is that they bear some structural similarity to contexts which are used to generate the paradoxes of naive set theory. Since Parsons also accepts that (determinate) identity can be *defined* as the sharing of properties as in (10), **(p.52)**

(10) $A = B \equiv_{def} \forall P[P(A) \leftrightarrow P(B)]$

contexts like (9), in his view, involve implicit quantification over all properties. Parsons explains the analogy between the Evans-style argument and set-theoretic paradoxes as follows:

> The force behind the reasoning thus comes from the fact that identity is defined in terms of what properties there are, and a problematic property is defined using an abstract that quantifies over *those* properties. The condition in the abstract is cleverly designed to conflict with its yielding one of the properties quantified over (if any objects are indeterminately identical with A). The reasoning thus resembles that of the Russell paradox in set theory. (Identity between sets is defined in terms of what sets they have as members, and a problematic set is defined using a set abstract that quantifies over *those* sets. The condition in the set abstract is cleverly designed to conflict with its yielding one of the sets quantified over.)
>
> (Parsons 2000, p. 51)

Given the analogy with the paradoxes of naive set theory, Parsons takes himself to be justified in adopting his version of TSS, viz., that contexts which have this apparently impredicative character cannot always be expected to determine a property.

§III.2.2 The Suspect Strategy and Existence Principles: Non-Existent Objects

In an unrelated earlier work by Terence Parsons, “Referring to Non-Existent Objects” (1979), we see an application of TSS with respect to EP (cf. also Parsons 1980 for a more detailed elaboration of the view). Parsons' aim in this context is to preserve the plausibility of our pretheoretic intuition to the effect that terms like “Sherlock Holmes” and “Zeus” function in many ways exactly like terms which we view as unproblematically referential; he proposes to solve this quandary by expanding our ontology to include both *existent* and *non-existent* objects. Parsons' defense of non-existent objects relies crucially on a distinction he introduces between *nuclear* and *extra-nuclear* properties. The nuclear properties determine, via the following two principles, which (existent and non-existent) objects there are and how to tell the difference between them (P1 is Parsons' *strengthened* version of the controversial Identity of Indiscernibles (II), the converse of LL; P2 is Parsons' version of EP):[10]

> (P1) Strengthened Identity of Indiscernibles:
> **(p.53)**
> For every (existent or non-existent) object, x and y, if every *nuclear* property of x is a *nuclear* property of y, then x = y.
> (P2) Parsons' Existence Principle:
> For any set of *nuclear* properties, there is an object that has all of the properties in the set and no other *nuclear* properties.

For example, principles P1 and P2 predict that, if the property of being golden and the property of being a mountain are nuclear properties, then there is exactly one (non-existent) object which satisfies the set {goldenness; mountainhood}, i.e., exactly one (non-existent) golden mountain. This non-existent golden mountain is indeterminate with respect to all nuclear properties that are not in the set, but it determinately has the properties of being golden and of being a mountain.

But which are the nuclear properties? P1 and P2 bring out the central role played by the notion of a nuclear property in determining the existence and identity of objects; but not all predicates stand for nuclear properties. How, then, do we tell the difference between predicates which denote nuclear properties and those which denote extra-nuclear properties? In response to this question, Parsons first gives us a list of examples of nuclear predicates (NPs) and extra-nuclear predicates (ENPs):[11]

> (NPs) Nuclear Predicates:
> “is blue”, “is tall”, “kicked Socrates”, “was kicked by Socrates”, “kicked somebody”, “is golden”, “is a mountain”, . . .
> (ENPs) Extra-Nuclear Predicates:
> *Ontological*: “exists”, “is mythical”, “is fictional”, . . .
> *Modal*: “is possible”, “is impossible”, . . .
> *Intentional*: “is thought about by Meinong”, “is worshiped by someone”, . . .
> *Technical*: “is complete”, . . .[12]

When confronted with the question of how this list is to be continued, however, Parsons offers us only rough guidance: the category of ENPs includes mainly predicates which have been traditionally given special status (e.g., some have been thought by Russell and Frege to be higher-order predicates which do not denote properties of individuals) or which are surrounded by a history of philosophical controversy:

> Our historical situation yields a very rough kind of decision procedure for telling whether a predicate is nuclear or extranuclear. It's this: if everyone agrees that the predicate stands **(p.54)** for an ordinary property of individuals, then it's a nuclear predicate, and it stands for a nuclear property. On the other hand, if everyone agrees that it doesn't stand for an ordinary property of individuals (for whatever reason), or if there's a history of controversy about whether it stands for a property of individuals, then it's an extranuclear predicate, and it does not stand for a nuclear property.
>
> (Parsons 1979, p. 102)

Again, the basic procedure here is the same as that observed earlier: certain troublesome contexts are excluded from the reaches of the general metaphysical principle under discussion, by assigning to them a “second-class-citizen” status with respect to the principle at issue; in this case, the general principle under discussion is Parsons' version of EP in P2 and the contexts in question are those which are said to denote *extra-nuclear* properties.

§III.2.3 The Suspect Strategy and Restricted Indiscernibility Principles

§III.2.3.1 Coincident Objects

Whenever an object (e.g., a lump of clay) constitutes, composes or makes up another object (e.g., a statue), the objects in question are both strikingly similar in many respects and also apparently different from one another in other respects. The problem of constitution, according to my own conception of it, consists in the demand for an account of both the striking similarities and the apparent differences between constitutionally related objects. The coincidence theory, as developed, for example, in Baker (1999, 2000), Fine (1982, 1999) and Yablo (1987), is one possible response to the problem of constitution: it holds that the statue and the lump of clay are numerically distinct objects which occupy the same region of space-time. Their numerical distinctness serves to account for the apparent differences between constitutionally related objects; but this still leaves their striking similarities unexplained. To this end, Baker, Fine and Yablo each propose slightly different versions of a restricted indiscernibility principle of the following form:

> (RIConst) Restricted Indiscernibility of Constitutionally Related Objects:
> If x constitutes y, then every Φ-property of x is a property of y.

The differences between the three accounts lie in precisely how "Φ" is to be filled in. According to Fine (1982), the family of properties in question is defined to include all and only those that are *normal*, where a "normal" property is one that is not *formal* and whose application concerns only the *time* and *world* in question. The notion of a "formal" property is not further elucidated by Fine, but I take it to include such purely "logical" properties as the property of being **(p. 55)** self-identical and the property of being either red or not red. (A similar principle is also to be found as "Postulate (V7)" in Fine 1999.) Baker (1999) and (2000) define the family of properties in question in a similar fashion, as those that include all properties *except* those that are ("alethic") *modal* properties, those that concern *identity* and *constitution*, and those that are *rooted outside* the times at which they are had. For Yablo (1987), the family of properties in question includes all and only those that are *categorical*, i.e., roughly those that concern what goes on in the *actual* world; the properties that are *excluded* from the family in question are the *hypothetical* ones, i.e., those that concern what goes on in *other* worlds.

I have developed my criticisms of the coincidence theorist's attempt to account for the similarities between constitutionally related objects in this fashion in detail elsewhere (see especially Koslicki 2004a).[13] For present purposes, the important point is just that the strategy employed by Baker, Fine and Yablo presents us with another instance of TSS. For in order to account for the striking similarities between constitutionally related objects, the coincidence theorist must explain the validity of inferences that are analogous to those considered earlier in the context of our discussion of LL:

(11) Lumpl has the Φ-property F.
Lumpl constitutes Goliath.

Goliath has F.

Just as numerical identity, via LL, is thought to transmit (apparent) properties like necessary identity with Lumpl (cf. context (3) above), so constitution is thought to transmit properties that number among the Φ-properties, in accordance with the restricted indiscernibility principle in RI_{Const}. What is crucial to the endeavor of accounting for the validity of inferences like (11) is that contexts like the following,

(12) Troublesome Contexts (Constitution):
Modal: "_____ is essentially a piece of clay"
Temporal: "_____ existed before the statue came into existence"
Identity: "_____ is identical to the lump of clay"
Constitution: "_____ constitutes a statue"

be *excluded* from the reaches of the restricted indiscernibility principle in RI_{Const}, since they will *invalidate* inferences like those in (11). The strategy used by Baker, Fine and Yablo to exclude the troublesome contexts in question **(p.56)** from the general metaphysical principle in RI_{Const}, whose truth they wish to uphold, is structurally

analogous to earlier implementations of TSS, especially those encountered in Gibbard (1975) and Myro (1986).

§III.2.3.2 Relative Identity

The final context I want to consider occurs in a subtle and interesting recent development of Geach's relative identity view (Geach 1962, 1967) in Deutsch (1998). According to Deutsch, the relative identity theory can solve many classical metaphysical problems that concern numerical identity in an attractive way; examples he considers include the following:

> (13) Metaphysical Puzzle Cases:
> *Change over Time*: "The young Fido is *the same dog as* the old Fido."
> *Constitution*: "Lumpl is *the same statue as* Goliath."
> *Types and Tokens*: "My copy of *On the Road* is *the same literary work as* that originally written by Kerouac."

In each case, Deutsch proposes that the relation in question, e.g., *being the same dog as*, *being the same statue as*, and *being the same literary work as*, is best analyzed as a relation of *relative identity*. Thus, the relation in question does not dissolve, as the absolute identity theorist would have it, into a predicative component and a component that denotes absolute identity, as in "x is a dog and y is a dog and x = y"; rather, the relation in question is not further analyzable and simply denotes a feature of the world, viz., one of the ways in which objects that are numerically distinct in the absolute sense can be similar to one another. (Unlike Geach, Deutsch does not believe that absolute identity is incoherent or unintelligible and accepts that objects that are merely relatively identical are numerically distinct in the absolute sense.)

As Deutsch acknowledges, any plausible version of the relative identity theory must respond in some manner to David Wiggins' original challenge to Geach: to offer a suitable *restricted* indiscernibility principle which can be said to govern relative identity in place of the unrestricted LL (cf. Wiggins 1980, pp. 18 ff; 2001, pp. 24 ff). For if Lumpl and Goliath are not the same statue in the *absolute* sense, we of course have no right to expect them to be indiscernible in absolutely *every* respect, as LL would have it. But we do have a right to ask how the relative identity theorist will explain the fact that being similar in *this* respect (viz., the respect denoted by "is the same statue as") entails being similar in so many *other* respects, in an entirely predictable and systematic fashion: statues and the objects that constitute them can *always* be expected to have the same weight, shape, color, texture, chemical composition, and so forth. Thus, as in the case of the coincidence theorist considered above, the relative identity theorist bears the responsibility of offering a restricted indiscernibility principle of some kind, as in RI_{Rel}, **(p.57)**

> (RIRel) Restricted Indiscernibility of Relatively Identical Objects:
> If x is relatively identical to y, then every Φ-property of x is a property of y.

which will, among other things, validate inferences like those in (11),

> Lumpl has the Φ-property F.
> Lumpl is the same statue as Goliath.
> ---
> Goliath has F.

Again, as in the case of the coincidence theory, the crucial question is how to fill in "Φ" in such a way as to *exclude* troublesome contexts like those mentioned above in (12) from the reaches of the restricted indiscernibility principle in RI_{Rel}, since they will in general *invalidate* inferences like the one just cited. Only in this case the task faced by the relative identity theorist is especially challenging, since "Φ" must be filled in such a way that it will simultaneously validate inferences in *all* the metaphysical contexts for which relative identity is intended to yield an analysis, e.g., contexts involving the phenomenon of *change over time* as well as those involving *constitution* and *identity among allographic objects*; whereas the coincidence theorist was faced only with the task of offering a version of RI which will validate inferences using the relation of constitution.

As his version of RI_{Rel}, Deutsch proposes the principle he calls "(T4)" which is here reworded in a more informal fashion (for reasons that shall become apparent momentarily, I label this principle Deutsch's "Expansion Principle"):

> (RIRel-Deutsch) Deutsch's Expansion Principle:
> If x is the same F as y, then y has all of those properties of x which satisfy the condition: if *some* F has the property in question, then *all* the Fs do.

The intuitive idea behind $RI_{Rel\text{-}Deutsch}$ is to isolate those properties which "spread through" the entire equivalence class singled out by a particular relative identity relation. For example, consider the equivalence class consisting of all the different objects (numerically distinct, in the absolute sense) which are *the same statue as* Goliath (at a particular time or over time). The Φ-properties with respect to this equivalence class are those which satisfy the condition: if one such "Goliath-object" has the property in question, then they all do. As we shall see below, Deutsch's version of RI_{Rel} compares favorably, from a methodological point of view, to other strategies of excluding the troublesome contexts; but it is nevertheless suspect for other reasons.

(p.58) §III.3 What's Wrong with the Suspect Strategy?

In our illustrations of TSS above, we have encountered basically four different strategies of how to exclude the troublesome contexts from the reaches of the general principle at issue, viz., LL, RI or EP. (i) First, there is what I shall term the "Purely Stipulative Strategy"; this strategy is the most widespread in the literature and is here exemplified by Gibbard, Myro, Gallois, the Parsons of non-existent objects, Baker, Fine and Yablo. (ii) Secondly, we see in Gibbard an extremely condensed suggestion which, if it were elaborated more fully, might seem to point the way towards a non-stipulative response; I shall term this Gibbard's "Appeal to Failures of Substitutivity". (iii) Thirdly, we came across a novel and intriguing suggestion in the Parsons of indeterminate identity, viz., that the troublesome contexts in question are somehow analogous to those that

give rise to the paradoxes of naive set theory and should be excluded from the reaches of the general principle on those grounds; I shall term this response Parsons' “Appeal to the Paradoxes of Naive Set Theory”. (iv) Finally, we considered a creative proposal by Deutsch on behalf of the relative identity theorist, which I shall term Deutsch's “Expansion Principle”. In what follows, it will be my aim to show that none of these strategies of excluding troublesome contexts from the reaches of the general principle is successful.

§III.3.1 The Purely Stipulative Response

I turn, first, to the Purely Stipulative Response, which is to be found in Gibbard, Myro, Gallois, the Parsons of non-existent objects, Baker, Fine and Yablo. In each case, the Purely Stipulative Strategy proceeds by way of excluding, on *purely stipulative grounds*, a set of troublesome contexts from the reaches of a general metaphysical principle, whose truth the philosopher in question wishes to uphold: it is simply legislated either that these contexts *fail to denote properties* altogether or that the properties they do denote *fail to fall under the scope* of the general metaphysical principle in question. The first strategy is taken by Gibbard; the second by everyone else.

Of course, the mere fact that this strategy is purely stipulative makes it seem ad hoc and hence methodologically suspect. I will, however, try to say more explicitly what it is about this strategy that should worry us, since its proponents might suggest that *some* purely stipulative maneuvers are worth their philosophical price. What makes the Purely Stipulative Strategy especially troubling is that it has the following feature: in each case, there is only a handful of contexts which, when combined with the general metaphysical principle at issue, will generate trouble for the philosopher in question. For example, in the case of the contingent identity theorist, the general principle is LL in its unrestricted, **(p.59)** non-temporalized form, and the contexts in question are only those that would conflict with the thesis that coincident objects with the same spatio-temporal extent are contingently identical, e.g. contexts of the following sort (or whatever else the essentialist wishes to substitute):

(14) Troublesome *De Re* Modal Contexts:
Necessary Identity: □ (_____ = A)
Essential Kind-Membership: □ (____ is a statue)
Essentiality of Origin: □ (_____ was fashioned by artist so-and-so)

In response to the potential threat posed by contexts like those in (14), Gibbard adopts the view that *de re* modal contexts *in general* fail to denote properties. This strategy has momentous consequences, as it leads to a complete reinterpretation of much of our discourse: it requires, among other things, a new theory of proper names, a new notion of rigidity, a new conception of crossworld identity and a new conception of what goes on in contexts in which we seem to attribute *de re* modal properties to concrete objects directly. It does, however, achieve the intended result of effectively

removing the troublesome contexts from the reaches of LL, since, as Gibbard remarks, LL is to be understood as a *metaphysical* principle ranging over objects, properties and relations, and not as a *linguistic* principle of substitutivity ranging over contexts and expressions.

The difficulty for the contingent identity theorist now is that there are plenty of contexts which satisfy the purely formal criteria of being *de re* modal (viz., they involve an occurrence of a name or unbound variable within the scope of a modal operator), and which are completely harmless from the point of view of the contingent identity theorist, in the following sense: if they *were* to be included in the scope of LL, they would *not* conflict with the thesis of contingent identity; I have in mind contexts of the following sort (assuming, with Gibbard, that dispositional, counterfactual and causal contexts involve *de re* modality):

> (15) Harmless *De Re* Modal Contexts:
> *Dispositional*: (_____ is fragile)
> (_____ conducts electricity thus-and-so)
> *Counterfactual*: (if _____ were dropped on my foot, my foot would swell)
> *Causal*: (_____ prevents my hand from passing through it)
> (_____ casts a shadow of length so-and-so when hit by the sun at angle thus-and-so)

If the contingent identity theorist were to exclude from the reaches of LL *only* the contexts in (14), and *not* those in (15), then the arbitrariness of his strategy would presumably be just too blatant: contexts would then be sorted into those **(p.60)** which fall under the scope of LL and those which fail to do so simply by whether the result would conflict with the contingent identity theory.

To avoid this undisputably blatant arbitrariness, Gibbard adopts a more coarse-grained individuation criterion for troublesome contexts, which includes *all* contexts that satisfy the purely formal criteria for being *de re* modal, i.e., the harmless contexts in (15) along with the troublesome contexts in (14). In his very condensed remarks in Section V of his paper (some of which were quoted above), Gibbard seems to suggest that this more coarse-grained individuation criterion can actually be justified on independent grounds, viz., on the grounds that *de re* modal contexts in the eyes of the anti-essentialist fail to satisfy a generally plausible principle governing the relation between linguistic contexts and properties:

> (16) Independently Plausible Principle Concerning Property-Formation:
> A context denotes a property only if it applies to an object *independently of how the object is designated*.

I will comment in more detail below on why I do not believe that (16) succeeds in accomplishing its intended goal. For now, I want only to note that the exclusion procedure Gibbard adopts in the interest of avoiding the undisputably blatant

arbitrariness yields the wrong results by virtue of being *too* coarse-grained. For by excluding the harmless contexts in (15) from the reaches of LL, along with the troublesome contexts in (14), the contingent identity theorist has now done away with contexts with respect to which contingently identical objects can in general be *expected* to be indiscernible. If LL can no longer be used to provide an explanation of this datum, then some *other* explanation must take its place. This, of course, puts the contingent identity theorist in exactly the same boat as the coincidence theorist and the relative identity theorist: for he is now in need of a *restricted* indiscernibility principle like RI (only one that is formulated in terms of contexts rather than properties), which provides a systematic account of the ways in which contingently identical objects are indiscernible. This principle, again, must be formulated in such a way as to *exclude* the troublesome contexts in (14) and *include* the harmless contexts in (15).

But how do we formulate such a principle in a way that is not methodologically or otherwise suspect? The first group of philosophers we considered who attempt to propose a restricted indiscernibility principle of this kind, viz., Baker, Fine and Yablo, do so in terms which suffer from exactly the same weaknesses as Gibbard's own account: their proposal is (i) *purely stipulative* and (ii) *overly coarse-grained*. It is purely stipulative, because it is simply *legislated* that contexts of the troublesome kind are to be excluded from the reaches of RI, without any attempt at giving an independent justification for why *these* properties, and not others, deserve this special status with respect to the **(p.61)** principle at issue. Moreover, the strategy is overly coarse-grained because it legislates again in the wrong way: by using purely formal criteria (e.g., the occurrence of particular operators in certain syntactically defined ways), it fails to distinguish between the harmless contexts in (15) and the troublesome contexts in (14), since both involve *de re* modal attributions. Thus, unless some other method of delineating contexts can be found which is neither (i) purely stipulative nor (ii) overly coarse-grained, we should be skeptical that the strategy adopted by Gibbard, Baker, Fine and Yablo can be made to work.

These conclusions transfer straightforwardly to our other examples of the Purely Stipulative Strategy in Myro, Gallois and the Parsons of non-existent objects, since all three accounts (i) simply *legislate* that certain kinds of contexts are to be excluded from the reaches of the general principle under discussion, without providing any independent motivation for this measure; and (ii) the contexts in question are once again individuated by means of purely formal criteria (viz., the occurrence of certain kinds of operators in certain syntactically defined ways), which, as we have observed, are too coarse-grained to achieve their purpose: they exclude, along with the troublesome contexts, also contexts which are harmless from the point of view of the position to be defended (e.g., temporal contexts like “ _____ has the property today of having occupied a mantelpiece at some time or other” in the case of Myro and Gallois; and modal contexts like those listed above in (15) in the case of Parsons). While the arbitrariness of the

Purely Stipulative Strategy may be slightly less blatant as a result of its more coarse-grained exclusion procedure, it also, as a result, draws the boundaries in the wrong place.

§III.3.2 Gibbard's Appeal to Failures of Substitutivity

With his very condensed remarks in Section V of his paper, Gibbard suggests that the anti-essentialist in fact has independent motivation for removing the troublesome contexts from the reaches of LL, by virtue of the general principle in (16) cited above which is to govern the relation between linguistic contexts and properties. It is not entirely clear how Gibbard imagines that (16) will help the contingent identity theorist with respect to the "most prominent objection" coming from LL; in what follows, I lay out what I take to be his implicit reasoning.

In addition to the *metaphysical* principle, LL, governing objects, properties and relations, there is also a *linguistic* principle concerning the substitutivity of co-referential expressions, which is sometimes called by the same name and occasionally even taken to be the same principle as LL; I shall call this principle "The Substitutivity of Co-Referring Expressions" (SCE):

> (SCE) The Substitutivity of Co-Referring Expressions:
> **(p.62)**
> For all expressions, α and β, *α = β* expresses a true proposition only if substitution of α for β is truth-preserving.[14]

The phrase, "substitution of α for β is truth-preserving", in SCE is to be understood as expressing the following condition:

> (TPS) Truth-Preserving Substitution:
> For all expressions, α and β, substitution of α for β is truth-preserving if and only if, for all sentences, S and S′, if S′ is like S save for containing an occurrence of β where S contains an occurrence of α, then S expresses a true proposition only if S′ does also.[15]

Gibbard remarks that the linguistic principle in SCE, as it stands, is simply false, and we can concur with him in his assessment, as the evidence to this effect is quite massive and convincing. Counterexamples to SCE are drawn primarily from contexts which are considered to be *opaque* in some fashion, e.g., "so-called" constructions such as the following:

> (17) Giorgione is so-called because of his size.
> (18) Barbarelli is so-called because of his size.

However, none of the counterexamples to SCE, as Gibbard correctly notes, are thought to affect the truth of LL: when properly understood, the sorts of considerations that are appealed to in order to reveal the falsity of SCE do not present us with cases in which one and the same object is said both to possess and not to possess a single property. For example, the truth of (17) and the falsity of (18) can hardly be used to

conclude that the context "_____ is so-called because of his size" determines a single property, which one and the same object (i.e., the object variously referred to as either "Giorgione" or "Barbarelli") both has and lacks. In fact, LL is taken by many to be a principle, much like the Principle of Non-Contradiction, whose truth is so obvious and fundamental that nothing of an informative and non-question-begging nature could be said to justify it. Anything that, on the face of it, looks like a counterexample to LL must thus simply involve some sort of misunderstanding.[16]

If my interpretation of Gibbard's reasoning in Section V of his paper is correct, then his thought is that, for the anti-essentialist, troublesome contexts like (3),

(3) □ (_____ = Lumpl)

are, in the relevant respects, just like "so-called" contexts, in that both involve hidden reference to linguistic expressions. For to be so-called because of one's **(p.63)** size is to be called by some *name* or other because of one's size. Similarly, for the anti-essentialist of Gibbard's stripe, an occurrence of a name within the scope of a modal operator as in (3) induces a *non-standard* interpretation of the name, according to which it is taken to refer to a concrete object not directly, but only *via a sortal concept* of some sort, in this case something along the lines of "lump of clay". For objects in and of themselves, according to the anti-essentialist, do not have particular features necessarily or contingently; they do so only *as designated in a certain way*.

On this conception, then, a context like (3) may both apply and fail to apply to one and the same object, depending on whether the single object in question is designated under the name "Lumpl" or under the name "Goliath". And this feature is of course precisely the mark of a context which, according to the independently plausible principle (16), *fails* to determine a property. In this way, so the anti-essentialist reasons, contexts like (3) can at most be used to provide yet another counterexample to the already disproven linguistic principle in SCE, but they have no relevance to metaphysical principle in LL.

With Gibbard's reasoning reconstructed in this way, we can now see why the Appeal to Failures of Substitutivity does not provide independent motivation for TSS. My argument comes from three essays by Richard Cartwright—, "Some Remarks on Essentialism" (1968), "Identity and Substitutivity" (1971) and "Indiscernibility Principles" (1979)—in which he demonstrates that the falsity of the linguistic principle in SCE has in fact no bearing on the debate between the essentialist and the anti-essentialist. Cartwright's argument, very briefly, is as follows.

There is actually an important *disanalogy* between contexts like those in (3) and contexts like those in (17) and (18), which we can all agree provide a counterexample to the linguistic principle in SSE. For suppose we succeed in identifying a "so-called" context which is in fact both true and false of a single object, depending on whether the object is designated as "Giorgione" or as "Barbarelli"; suppose further the context in question is " _____ is so-called because of _____'s size". Then, on pain of *incoherence*, the context in question cannot be said to determine a property, since, in addition to the places marked

by “ _____ ”, it contains another empty place marked by “so” which has yet to be filled in. Thus, there is *no one* property determined by the context “ _____ is so-called because of _____’s size”; rather, there are *lots* of properties, depending on how the place marked by “so” is filled in, which have been misleadingly collected under the same heading: there is the property an object has if it is called “Giorgione” because of its size; the property an object has if it is called “Barbarelli” because of its size; and so on. However, once the hidden place marked by “so” has been explicitly filled in, so that we have in fact succeeded in determining a property, we are no longer dealing with a context which both applies and fails to apply to a single object, depending on how the object is designated. For “ _____ is called ‘Giorgione’ because of _____’s size” truly **(p.64)** applies to the object in question, no matter how it is designated; and “ _____ is called ‘Barbarelli’ because of _____’s size” fails to apply to the object in question, no matter how it is designated. This is the reason why “so-called” constructions only provide a counterexample to SCE but not to LL.

In a similar vein, the anti-essentialist (according to the version of this view currently under consideration) conceives of *de re* modal contexts like (3) as containing a hidden ellipsis which must be filled in, in this case, by a particular sortal concept before the context in question succeeds in determining a property. For example, the context “_____ is necessarily identical to Lumpl”, on this view, again denotes a multiplicity of properties, as in “_____, *when designated as a lump of clay*, is necessarily identical to Lumpl”, “ _____, *when designated as a statue*, is necessarily identical to Lumpl”, etc. Once a context has been filled in in this way, we will again no longer be faced with a property which both applies and fails to apply to a single object; for it is true of the single statue-shaped object in the actual world, independently of whether it is designated as “Lumpl” or as “Goliath”, that, *when designated as a lump of clay*, it is necessarily identical to Lumpl; and it is false of the single statue-shaped object in the actual world that*, when designated as a statue*, it is necessarily identical to Lumpl. In this way, the anti-essentialist avoids any conflict with the metaphysical principle LL.

The essentialist, on the other hand, takes a different view of modal contexts like those in (3). For him, such contexts contain no hidden ellipsis: thus, a context like “_____ is necessarily identical to Lumpl”, all by itself, i.e., without the help of any sortal concept, already succeeds in specifying a property which either applies or fails to apply to an object. And, since Lumpl and Goliath are numerically distinct objects, according to the kind of philosopher we are imagining, there is again no conflict with LL, since the property determined by “ _____ is necessarily identical to Lumpl” does not truly apply and fail to apply to a single object.

What makes the situation with respect to such modal contexts as (3) different from that of the agreed-upon counterexamples to SCE, however, is that, on pain of begging the question against their opponent, neither the anti-essentialist nor the essentialist can appeal to any sort of *incoherence* in the other's position. For the core of the disagreement between them lies precisely in whether *de re* modal contexts like (3) apply to objects in and of themselves, independently of how they are designated. To show that one of the two sides in this dispute is to be preferred over the other, one must appeal, as Gibbard in fact does, to independent, substantive considerations, e.g., the thesis that the essentialist is committed to an unattractive "ghostly" conception of physical objects or that he relies too heavily on questionable modal intuitions. The falsity of the linguistic principle in SCE and the plausibility of the principle concerning property formation in (16), however, can do nothing to resolve the dispute between the essentialist and the anti-essentialist; for the two parties can perfectly well agree on all of the following points: (i) that the linguistic principle in SCE **(p.65)** is false; (ii) that SCE is shown to be false, among other things, by contexts like the "so-called" constructions; (iii) that none of this affects the truth of LL; and (iv) that the principle in (16) states a correct constraint on property formation. What they disagree on is whether (16) is applicable to *de re* modal contexts like (3); but this disagreement is independent of (i) to (iv). In short, whatever the plausibility of Gibbard's *other* considerations in favor of the contingent identity theory, the falsity of the Substitutivity of Co-Referring Expressions is simply irrelevant to the dispute between the essentialist and the anti-essentialist.[17 , 18]

§III.3.3 Parsons' Appeal to the Paradoxes of Naive Set Theory

Parsons' Appeal to the Paradoxes of Naive Set Theory has the advantage of being methodologically more satisfying than the Purely Stipulative Strategy, since it introduces a systematic, independently motivated consideration by which contexts are to be classified: their apparently vicious impredicative character. It is, however, questionable whether the contexts at issue really are analogous to those that generate the paradoxes of naive set theory. For note, first, that Parsons' suggestion depends crucially on the assumption that identity can be *defined* as indiscernibility in all respects; unless we accept that the questionable contexts in fact do involve quantification over all properties, they would not be of the allegedly problematic form in which an entity is introduced by means of a definition that quantifies over a domain of elements which is already supposed to include the entity to be defined. By most philosophers' lights, a second-order principle in the manner of (10) is unproblematic only if numerical identity is itself included among the properties to be quantified over; if numerical identity is not so included, then the truth of the principle depends on the very controversial assumption that there can be no numerically distinct, qualitatively indiscernible objects. It is therefore open to the opponent of indeterminate **(p.66)** identity to block Parsons' reasoning at this point by resisting the *definition* of identity as indiscernibility in all respects.

Moreover, Parsons' analogy is also questionable in the following further respect. Suppose we were to accept that inferences using LL_{Contra} are valid, that contexts like (9) denote properties, and that identity can be defined in terms of quantification over all properties. Then, the only thing that follows from these assumptions is the conclusion of the Evans-style argument against the possibility of indeterminately identical objects; since the object, A, determinately shares all properties with itself, any object which does not determinately share all properties with A must be *determinately distinct* from A. But no *paradox* ensues from jointly accepting these assumptions. Thus, it seems that Parsons' strategy suffers from the same weakness as Gibbard's Appeal to Failures of Substitutivity, in that it introduces a consideration that is simply irrelevant to the purpose at hand.

Finally, Parsons' strategy, like the Purely Stipulative Strategy above, unsurprisingly also suffers from the weakness of being *overly coarse-grained*, since it too uses purely formal criteria of individuation (viz., the occurrence of a universal quantifier ranging over properties among which the property to be defined is itself included). Even if we were to grant that *some* contexts involving attributions of indeterminate identity lead to paradox, it seems that there are again plenty of *other*, completely harmless, contexts which are defined in the characteristically self-referential manner. For example, suppose an object, A, and an object, B, have exactly the same number of properties; then, presumably, the context "_____ has the same number of properties as A" specifies a property which is itself included among B's properties, and correspondingly for A. But there is nothing paradoxical about this sort of property.[19]

§III.3.4 Deutsch's Expansion Principle

The final proposal I want to consider is Deutsch's *restricted* indiscernibility principle governing objects that are identical merely in the relative sense. Such objects, as we know from $RI_{Rel\text{-}Deutsch}$, must share all those properties which, if instantiated by *any* members of a particular equivalence class, must be instantiated by *all* the members of this class.

Like the Parsons of indeterminate identity, Deutsch's proposal is methodologically less suspect than the Purely Stipulative Strategy, in that it introduces a completely general, systematic constraint on LL; it does, however, suffer from the other weakness we have identified, viz., that of being *overly coarse-grained*. To see why, consider the equivalence class containing all those objects (numerically **(p.67)** distinct, in the absolute sense) that are the same literary work as Jack Kerouac's *On the Road* (at a particular time or over time). This equivalence class will consist of a highly non-uniform collection of objects: yellowed paperback copies with missing pages that smell of cigarette smoke and have torn covers, coffee stains and scribbles in the margins; pristine and beautifully illustrated hardcover, first-edition collectors' items, signed by the author; and so on. The regions of space-time occupied by the books themselves

are also of course inhabited by the various quantities of matter that constitute them: quantities of paper, cardboard, printer's ink, glue, fabric, etc. Since Deutsch invokes the relative identity theory to solve the problem of the identity of allographic objects as well as the problem of change over time and the problem of constitution, the different copies of the book themselves as well as the quantities of matter coincident with them are all assigned to the same equivalence class, viz., the class unified by the *being-the-same-literary-work-as* relation. If we now apply Deutsch's restricted indiscernibility principle $RI_{Rel\text{-}Deutsch}$ to this heterogeneous bunch, we find that the only properties that satisfy it are properties of a rather *general* sort, viz., those that are commonly taken to be *essential* properties of the literary work in question: e.g., kind properties, such as "_____ is a book", "_____ is an artwork", "_____ is an artifact"; origin properties, such as "_____ was authored by Jack Kerouac"; and the like. And while Deutsch's principle perhaps says as much as any principle *of logic can* say about the ways in which relatively identical objects can generally be expected to be indiscernible, it would not, for example, satisfy the philosopher who was looking for a response to Wiggins' challenge. For such a philosopher wants to know, for example, when, in general, inferences like those in (11) can be expected to be valid; but Deutsch's principle doesn't tell us why constitutionally related objects *always* share the same weight, shape, texture, color, and so on, since relatively identical objects are not always indiscernible in these respects. I thus conclude that Deutsch's principle is too coarse-grained for the purposes at hand, in that it fails to yield a satisfying explanation for the striking similarities that are conferred upon objects by the various identity-like relations collected under the heading "relative identity".

§III.4 Concluding Remarks

This chapter examined a variety of contexts in metaphysics which employ a strategy I consider to be suspect. In each of these contexts, "The Suspect Strategy" (TSS) aims at excluding a series of troublesome contexts from a general principle whose truth the philosopher in question wishes to preserve. We saw TSS implemented with respect to Leibniz's Law (LL) in the context of Gibbard's defense of contingent identity, Myro and Gallois' defense of temporary identity, as well as Parsons' defense of indeterminate identity. Our example of TSS as implemented with respect to the Existence Principle (EP) was Terence Parsons' **(p.68)** defense of non-existent objects. Finally, the coincidence theorist's analysis of the problem of constitution as given by Baker, Fine and Yablo, as well as Deutsch's recent defense of the relative identity theory, provided examples of TSS as implemented with respect to restricted indiscernibility principles of the form in RI.

On the basis of these examples, we discerned four different forms TSS can take: (i) the most widespread Purely Stipulative Strategy; (ii) Gibbard's Appeal to Failures of Substitutivity; (iii) Parsons' Appeal to the Paradoxes of Naive Set Theory; and (iv) Deutsch's Expansion Principle. I discussed in detail why I

believe that TSS remains suspect in all four types of approaches considered above.

And while of course we cannot conclude from our exposure to extant versions of TSS that *no* exclusion procedure could ever overcome the troubling features we encountered, my remarks here should, I think, at least give us reasons to be skeptical that any strategy which proceeds by means of *purely formal* (e.g., syntactic) individuation criteria could achieve its intended purpose; for we have seen that such strategies are in general *too coarse-grained* to individuate contexts correctly into those that should and those that should not be excluded from the reaches of the general principle under discussion. I suspect, moreover, though I did not argue for this stronger claim, that any strategy which does *not* proceed by means of purely formal criteria would in some way succumb to the charge of *circularity*.

Supposing then that no non-suspect strategy can be found to exclude the troublesome contexts from the reaches of the general principle, where does this leave us? As I see it, we have basically two options: (i) we can either accept that the general principle in question is true, that the relevant contexts denote properties and that these properties fall under the scope of the general principle; or (ii) we can deny the truth of the general principle in question. The second option, I take it, is not one that many philosophers would take seriously in the context of LL or certain instances of RI, but it may be one that is attractive in the case of EP.

If, as in the case of LL, the truth of the general principle is non-negotiable, then option (i), in the absence of further independently motivated considerations, naturally leads to a universe populated with a surprising multitude of numerically distinct yet almost indiscernible objects, such as statues and the lumps of clay that constitute them, as well as wholes and their parts more generally. For, assuming the preceding remarks are correct, TSS can no longer be invoked in order to bracket those contexts, such as "_____ is essentially a statue", by means of which these objects are apparently discernible; and, by Leibniz's Law, objects which are *almost*, but not quite, indiscernible are numerically distinct.

Notes:

(1) This chapter presents an expanded version of the argument defended in Koslicki (2005a).

(2) For the sake of simplicity, I am omitting relations.

(3) RI and EP are *schemata* of which particular restricted indiscernibility principles or existence principles are instances. As it stands, RI contains at least two open places. (i) The place marked by "R" is to be filled in by a relation which is similar to but weaker than numerical identity (e.g., the relation of

constitution); if R is taken to be numerical identity, then "Φ" can be taken to mark no restriction at all, and RI simply collapses into LL. (ii) The family of properties with respect to which the R-related objects are indiscernible must be explicitly specified, i.e., "Φ" must be filled in in some way (e.g., in the case of constitution, one will want to exclude the property of being essentially a statue from the family of Φ-properties; such "ordinary" intrinsic and relational properties as weight and spatiotemporal location, on the other hand, should be included in the family in question). Similarly, with respect to EP, there are different ways of specifying the relevant class of properties in Φ.

(4) See also Fine (2003), for a recent critique of various attempts to block inferences using LL to conclude that coincident objects are numerically distinct.

(5) For simplicity, I omit relativization to existence in this and all following arguments.

(6) Gibbard (1975, p. 201) (his italics; the numbering of examples has been adjusted to my text).

(7) Since the temporal case is slightly more tricky than the modal one, let me lay out the analogy very explicitly. The first premise of (5) states that A always has the property of being identical to A; the second premise of (5) states that A is identical to B at a particular time, t. Now take the following instance of (LL_{Temp}):

$$[\text{at t: } A = B] \rightarrow [[\text{at t: } \forall t' \text{ (at } t' \text{: } A = A)] \leftrightarrow [\text{at t: } \forall t' \text{ (at } t' \text{: } A = B)]].$$

We use this instance to infer:

$$[\text{at t: } \forall t' \text{ (at } t' \text{: } A = A)] \leftrightarrow [\text{at t: } \forall t' \text{ (at } t' \text{: } A = B)]$$

Since A is always identical with itself, I assume that it is also true *at t* that A is always identical with itself; in that case, (LL_{Temp}), in conjunction with the assumption that the context in (6) denotes a property, permits the inference to the conclusion that if A is ever identical to B, then it is so always. The temporalized identity theorist may of course attempt to block this inference in one of the ways laid out in the main text, either by rejecting the following, seemingly innocuous principle,

$$\forall t \text{ (at t: } A = A) \rightarrow \forall t' \text{ [at } t' \text{: } \forall t \text{ [at t: } A = A]]$$

or by questioning the substitution of contexts like (6) into (LL_{Temp}).

(8) Given Gallois' rejection of TP, the following instance of this principle, appealed to in the previous note,

$$\forall t \text{ (at t : } A = A) \rightarrow \forall t' \text{ [at } t' \text{ : } \forall t \text{ [at t : } A = A]]$$

is now no longer available.

(9) For insightful and detailed discussion of Gallois' views, see Sider (2001, ch. 5).

(10) P1 is a *strengthened* version of II because it states that indiscernibility of *nuclear* properties alone is sufficient for numerical identity; II, in its original version, requires indiscernibility of *all* properties *whatsoever* for numerical identity. This brings out one of the two ways in which the nuclear properties are very “powerful stuff”, since they by themselves can induce numerical identity; P2 brings out their forceful nature with respect to the existence of objects.

(11) A *predicate* is nuclear or extra-nuclear depending on whether it denotes a nuclear or extra-nuclear *property*.

(12) “Is complete” is Parsons' technical term for either having a nuclear property or its negation, for any nuclear property.

(13) I should note, however, as discussed in Koslicki (2004a), that Fine, Baker and Yablo are actually quite unusual among coincidence theorists, in that they pay any attention at all to the problem of how to capture the striking similarities among constitutionally related objects.

(14) I take “*” to stand for corner-quotes.

(15) These formulations are taken from Cartwright (1971, p. 136); the page numbers refer to the reprinted version in Cartwright (1987), as in all subsequent quotations from Cartwright.

(16) See, for example, Cartwright (1971) and Richard (1987) for arguments to this effect.

(17) Cartwright (1979) contains a further, powerful objection against Gibbard's particular style of anti-essentialism. Cartwright argues in this essay that the question of whether a context denotes a property is entirely *irrelevant* to the question of whether the corresponding indiscernibility principle is true; for, according to Cartwright, *all* (coherently formulated) indiscernibility principles are true, independently of whether the contexts that occur in them denote properties, and the principle we are accustomed to single out under the name “Leibniz's Law” has no special status among these indiscernibility principles. Gibbard may of course respond to this objection by adopting the more common position of conceding that the contexts in question denote properties, while nevertheless insisting on their exclusion from LL. However, this concession would not only force a drastic reorientation in many of his other commitments; Gibbard would then still be faced with the task of having to explain why this exclusion of properties from LL ought not to be viewed as suspect.

(18) One may worry that my reconstruction of Gibbard's condensed reference to SCE results in a position that is not the most favorable to the anti-essentialist; perhaps the anti-essentialist is better off adopting a position that relativizes *de re* modal contexts in a less overtly *linguistic* manner. In that case, however, one

wonders why it is pertinent at all, in this otherwise thoroughly metaphysical context, to point to the falsity of the linguistic substitution principle as well as the independently plausible constraint concerning property formation.

(19) A similar lesson may be learned from those solutions to the semantic paradoxes which trace their source to the phenomenon of self-reference and proceed by legislating that all such contexts are disallowed. Since not all self-reference is problematic (e.g., “This sentence is true”), an approach which proceeds by way of such purely formal criteria of individuation contexts tends to rule out too much.