

Copredication and Meaning Transfer

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[Draft of November 2022, forthcoming in *Journal of Semantics*]

Abstract

Copredication occurs when a sentence receives a true reading despite *prima facie* ascribing categorically incompatible properties to a single entity. For example, ‘The red book is by Tolstoy’ can have a true reading even though it seems that *being red* is only a property of physical copies, while *being by Tolstoy* is only a property of informational texts.

A tempting strategy for resolving this tension is to claim that at least one of the predicates has a non-standard interpretation, with the salient proposal involving reinterpretation via *meaning transfer*. For example, in ‘The red book is by Tolstoy’, one could hold that the predicate ‘by Tolstoy’ is reinterpreted (or on the more specific proposal, transferred) to ascribe a property that physical copies can uncontroversially instantiate, such as *expresses an informational text by Tolstoy*. On this view, the truth of the copredicational sentence is no longer mysterious. Furthermore, such a reinterpretation view can give a straightforward account of a range of puzzling copredicational sentences involving counting an individuation.

Despite these substantial virtues, we will argue that reinterpretation approaches to copredication are untenable. In §1 we introduce reinterpretation views of copredication and contrast them with key alternatives. In §2 we argue against a general reinterpretation theory of copredication on which every copredicational sentence contains at least one reinterpreted predicate. We also raise additional problems for the more specific proposal of implementing reinterpretation via meaning transfer. In §3 we argue against more limited appeals to reinterpretation on which only some copredicational sentences contain reinterpretation. In §4 we criticize a series of arguments in favour of reinterpretation theories. The upshot is that reinterpretation theories of copredication, and in particular, meaning transfer-based accounts, should be rejected.

§1. Introduction

Consider a bookshelf with three copies of *War and Peace*. The following sentences have both a true and a false reading:¹

- (1) Three books are on the shelf.
- (2) (Exactly) one book is on the shelf.

On the true reading of (1), which is salient, we count each of the individual copies on the shelf. However, (1) has an additional false reading. For example, if you are asked to write a book report on each of the books on the shelf, you might be reassured by the fact that there is just one book on the shelf (the novel *War and Peace*), even if there are three copies of it. And in the book-report scenario, (2) has a natural true reading, while when

¹ Throughout this paper we use the word ‘reading’ in a theoretically neutral manner such that different readings might be the output of a semantic or a pragmatic process, and might be the result of ambiguity, context-sensitivity, or some other mechanism altogether.

we are counting copies, (2) is intuitively false. To fix terminology, we'll use 'p-book' for the (physical) things that witness the true reading of (1) and 'i-book' for the (informational) things that witness the true reading of (2).

An initially plausible hypothesis is that the multiple readings of (1) and (2) arise from multiple readings of the noun 'book': on one reading it picks out p-books and on the other it picks out i-books. While this hypothesis easily accounts for the aforementioned readings of (1) and (2), it seems to run into trouble in cases of *copredication*, where, *prima facie*, an entity is ascribed categorically incompatible properties. Consider, for example, (3), which has true readings in some scenarios:

(3) The red book is by Tolstoy.

Prima facie, neither of the proposed readings of 'book' can account for such true readings, because p-books can be red but not by Tolstoy, whereas i-books can be by Tolstoy but not red. Indeed, *prima facie*, there is no entity that can be both red and by Tolstoy.

Copredication is common. Consider the following:

(4) Lunch was delicious but took hours.

(5) The bank was vandalized after collecting Bob's debt.

Being delicious seems to be a property of food, while *taking hours* seems to be a property of events; *being vandalised* seems a property of buildings while *collecting a debt* seems to be a property of institutions. On the face of it, no single reading of the relevant nouns can account for true readings of sentences such as (4) and (5).

In fact, even the case we began with gives rise to an instance of copredication. Consider the true reading of (2) in the scenario where three copies of *War and Peace* are on the shelf. By counting the books on the shelf as one, it seems that 'book' is read as meaning i-book. But if *being on the shelf* is only a property of p-books and not i-books, it is hard to account for this reading. A key challenge in accounting for copredication is providing an adequate semantics for true copredicational sentences that is compatible with counting and individuation data of the sort exemplified by (2)—and, as the literature attests, this data gets quite complex and intricate once we examine a wide variety of contexts and copredicational sentences.

There have been several prominent approaches to the problem of copredication. A skeptical reaction is to hold that copredication, along with other challenging phenomena, show us that there is something deeply misguided with truth-conditional semantics (Chomsky 2000). We'll set aside such skepticism in this discussion, though we discuss it in detail elsewhere (Liebesman and Magidor ms.).

Among non-sceptics, the most common way of addressing the problem of copredication is a collection of views that we will label 'Dual Nature' approaches.² While the approaches that fall under this heading differ substantially from one another, they share a core idea: nouns supporting copredication have a single reading, on which they denote a special kind of hybrid or 'dual nature' object. For example, 'book' denotes a type of object that has both informational and physical components; 'lunch' denotes a type of object that has both a food and an event component, and so on.³ Dual Nature approaches then account for the true interpretation of copredicational sentences like (3) either by holding that dual nature objects inherit properties from their

² Some key works that fall under this category are Asher and Pustejovsky (2006), Asher (2011), Chatzikyriakidis and Luo (2020), Cooper (2011), and Gotham (2017), (2022).

³ We are leaving it intentionally vague what being a 'component' amounts to, as different dual nature approaches take different views on this question.

components, or providing a non-standard interpretation such that, e.g., predication targets components rather than the designated objects themselves.

Even assuming Dual Nature approaches can account for the truth of copredicational sentences like (3)-(5), such approaches face systematic challenges with counting and individuation. We'll return to this in more detail in §3, but for now note that it is already difficult for a Dual Nature approach to account for the fact that (1) and (2) have multiple readings. After all, on Dual Nature approaches, 'book' only has a single reading as designating dual-nature objects. In response to this problem, proponents of dual nature approaches complicate their metaphysics and/or semantics in various ways, e.g. taking predicates to encode individuation conditions to which quantifiers are sensitive.

Another approach to copredication is our own Property Versatility approach.⁴ Consider the following instance of copredication:

(6) The book on the shelf is by Tolstoy.

Sentences such as (6) are considered puzzling, because it is assumed that neither initially plausible reading of 'book' could account for its truth: p-books cannot be by Tolstoy and i-books cannot be on shelves. On the Property Versatility approach, in each case of copredication at least one such background assumption is false. As it turns out, in the case of (6), we maintain that both assumptions are false: p-books can be by Tolstoy and i-books can be on shelves. Both of these claims might seem initially surprising, perhaps especially so the claim that i-books can be on shelves. However, they become less surprising once we recognise that properties are in general *highly versatile*: the same property can apply to different objects in very different ways. For example, consider two objects, one which is bright red and one which is dark red. Both objects instantiate the same property of *being red*, even if they are otherwise very different from each other, and though they exhibit their redness in different ways. Similarly, we argue, the properties of *being on the shelf* or of *being by Tolstoy* are sufficiently versatile, so that each can be instantiated by both p-books and i-books, even if they are objects of a very different kind and instantiate the property in a very different way. This view allows for a straightforward account of the truth of copredicational sentences: sentences such as (6) have the same semantic analysis as non-copredicational sentences like 'The dog in the yard is barking'. In each case a single entity instantiates both ascribed properties. The Property Versatility approach can also straightforwardly accommodate the multiple readings of counting sentences like (1) and (2): in the scenario where there are three copies of *War and Peace* on the shelf, one i-book and three p-books are on the shelf. When 'book' is read as meaning *p-book*, (1) is true and (2) is false; *vice-versa* when 'book' is read as meaning *i-book*.

Dual Nature approaches and the Property Versatility approach each have their costs and benefits. Dual Nature approaches vindicate our initial judgments that p-books can't be by Tolstoy and i-books can't be on shelves, but at the cost of having no easy way to explain the multiple readings of (1) and other similar counting data. The Property Versatility approach retains a straightforward account of the multiple readings of (1) at the cost of rejecting our initial judgments about which properties i-books and p-books can instantiate. It is natural to seek a view that has the benefits of each view without the associated costs. A Reinterpretation approach to copredication may seem to do just this.

According to Reinterpretation approaches, at least one of the predicates in each copredicational sentence receives a non-standard interpretation. For instance, in (3) 'red' may express the property of *being an i-book with a red copy*. So, reinterpreted, there is no *prima facie* barrier to a single i-book instantiating both ascribed properties.

⁴ Liebesman and Magidor (2017), (2019) and (ms.).

Of course, for a Reinterpretation approach to be plausible, it must be combined with a plausible theory about how the purported reinterpretation comes about. One such mechanism is *meaning transfer* (Nunberg 1995). Imagine that a waiter doesn't know the name of the angry customer who ordered a ham sandwich. They may utter 'The ham sandwich left without paying' in order to express that the ham sandwich orderer left without paying. In this example, the waiter uses meaning transfer to reinterpret 'ham sandwich' to mean *ham sandwich orderer*. The most prominent Reinterpretation approach (indeed, the only one that has been defended in extant literature) is that copredication is interpreted *via* Nunberg-style meaning transfer.

Reinterpretation approaches have several attractive features. Return to our counting data. When three copies of *War and Peace* are on the shelf, there is both a true and a false reading of (2) ('(Exactly) one book is on the shelf'.) Reinterpretation approaches have a simple account for how we generate those two readings: 'book' can be read as either meaning i-book or p-book. If 'book' is read as p-book, (2) is false because there are three rather than one p-books in this scenario. If 'book' is read as i-book, (2) can be read as true, *as long as the predicate is reinterpreted*. Thus, in contrast to Dual Nature approaches, there is no need to resort to revisionary semantic assumptions. And in contrast to the Property Versatility approach, the view does not require us to reject the commonly held assumption that i-books cannot be on shelves. Furthermore, if reinterpretation comes about via meaning transfer, then all of this is achieved by utilising independently motivated machinery.

Thus far, we've been considering reinterpretation as a fully general approach to copredication. However, reinterpretation may be used in more limited ways as well. For instance, we stressed above that Dual Nature approaches have difficulty in accounting for counting data exemplified by (1) and (2). A proponent of a Dual Nature approach may advocate utilizing reinterpretation solely to aid in accounting for such cases. In fact, Gotham (2022) has advocated such an approach, which combines his favoured Dual Nature approach with a more limited appeal to reinterpretation.

Despite their substantial attractions, we'll argue against Reinterpretation approaches both in their general and more limited forms. In §2 we argue that fully general reinterpretation approaches fail. In §3 we consider more limited appeals to reinterpretation by proponents of Dual Nature approaches, and argue that they too fail, for similar reasons. In §4 we consider a series of arguments in favour of Reinterpretation approaches and argue that they that are not compelling. The upshot is that Reinterpretation approaches to copredication fail.

§2. Against Reinterpretation Approaches to Copredication

§2.1 Reinterpretation Approaches

According to general Reinterpretation approaches, in each copredicational sentence at least one predicate is reinterpreted.⁵ To see how this could work, Consider, again, the following classic examples:

- (3) The red book is by Tolstoy
- (4) Lunch was delicious but took hours.

Suppose that 'book' in (3) is interpreted to mean p-book, 'red' receives its ordinary meaning, but 'is by Tolstoy' is reinterpreted to mean *instantiates an i-book by Tolstoy*. Similarly, suppose that 'lunch' in (4) denotes an event, 'took hours' receives its ordinary meaning, but 'was delicious' is reinterpreted in context to mean *involved consuming delicious food*. These reinterpretations would allow (3) and (4) to express the following:

⁵ Nunberg (1995: 122-3) appears to make this hypothesis, though he uses the term 'sortal crossing' rather than 'copredication' and it is not immediately obvious from his gloss of the term whether his sortal crossings exactly correspond to our copredicational sentences.

- (7) The red p-book instantiates an i-book by Tolstoy
- (8) The lunch event involved consuming delicious food but took hours.

There is nothing puzzling about how (7) and (8) can be true.

Reinterpretation approaches and the Property Versatility approach are similar in some key ways. When it comes to copredicational sentences like (3), both approaches take the subject term to designate a single familiar object that instantiates both properties. When it comes to counting sentences like (1), both approaches take the multiple readings to be sourced in the multiple readings of ‘book’: as either designating i-books or p-books. Of course, there are also some key differences between the views. Reinterpretation approaches differ from the Property Versatility view both in which properties they take to be expressed in the relevant copredicational sentences, and in how these properties get to be expressed. For instance, on the Property Versatility approach, ‘on the shelf’ in (2) ascribes a versatile property that can be true of both p-books and i-books and this property gets to be expressed *via* the perfectly standard semantics of predication. By contrast, on Reinterpretation approaches it ascribes a property that is true just of i-books (e.g. *being expressed by a p-book on the shelf*) and this property gets to be expressed by some special linguistic mechanism that gives rise to a non-standard or ad-hoc interpretation of the predicate.

§2.2 Against Reinterpretation Approaches

Consider again the scenario where three copies of *War and Peace* are on the shelf, and consider (2) (‘(Exactly) one book is on the shelf’) and its correlate (9) which explicitly uses the book-name.

- (9) *War and Peace* is on the shelf.

On the most natural way to develop Reinterpretation approaches, ‘book’ in (2) picks out the property of being an i-book (this allows a conservative account of why the books are counted as one in this scenario), and ‘*War and Peace*’ in (9) denotes a particular i-book. On Reinterpretation approaches, i-books are not (on its standard interpretation) on shelves. But as long as ‘on the shelf’ is reinterpreted to pick out a different property that the i-book in this scenario does instantiate then the sentences receive true readings.⁶

A natural reinterpretation proposal for (2) and (9) is to take ‘on the shelf’ to express *is instantiated by a volume that is on the shelf*. This proposal is in fact suggested by Gotham (2022: 15). While this proposal generates the correct predictions for (2) and (9), we argue that it runs into trouble when we attempt to generalise it to a range of variants of these sentences.

The problem of multiple types

Sometimes, a single occurrence of ‘on the shelf’ is predicated of both i-books and other types of objects. To see this, consider a pen shop. If there are several qualitatively identical pens of the same type (e.g. Lamy Safari pens) on the display shelf there is a true reading of ‘One pen is on the shelf’. Next, consider a book-and-pen shop. If

⁶ Other approaches are, of course, possible. For instance, one could hypothesize that it is ‘book’ in (2) and ‘*War and Peace*’ in (9) which undergo reinterpretation. This approach is not pursued in the literature for good reason. One of the key motivations for a Reinterpretation approach is to avoid claiming that a single entity can instantiate properties like being informative and on the shelf (or being delicious and lasting hours)—but reinterpreting ‘book’ would do nothing to help with this aim, as illustrated by sentences like ‘One informative book is on the shelf’. No way of reinterpreting ‘book’ avoids claiming that a single entity is both informative and on the shelf—at least as long as these other predicates receive their standard interpretations.

the display shelf contains several copies of *War and Peace* and several Lamy Safari pens, there is a true reading of the following:

(10) One book and one pen are on the shelf.

The problem is that if we interpret 'on the shelf' as expressing *being instantiated by a volume that is on the shelf*, then (10) is false. After all, pen types are not instantiated by volumes.

One response is to consider a different reinterpretation of 'on the shelf' to a more general property such as *is instantiated by an object that is on the shelf*. The problem is that this new hypothesis will overgenerate. Assume that one of the objects on the shelf is red. In that case, the property of *redness* will be instantiated by an object that is on the shelf. So, on the modified hypothesis, we make the incorrect prediction that (11) has a true reading.

(11) One book, one pen, and redness are on the shelf.

Another proposal that would generate the correct truth-conditions would be to take 'on the shelf' to express some highly disjunctive property: for example, *is a pen-type that is instantiated by a physical pen that is on the shelf or is an informational book that is instantiated by a volume that is on the shelf*.⁷ But it seems far less linguistically plausible reinterpretation would result in such a convoluted interpretation.

More Complex Predicates

Our second objection is that when we look at a wider range of predicates, including relational ones, we see that reinterpretation becomes implausibly unsystematic. Consider a bookstore that has multiple copies of *War and Peace*, *Crime and Punishment*, and *Anna Karenina* and is arranged such that the copies of *War and Peace* are between copies of *Crime and Punishment* and the copies of *Anna Karenina*. (12) has a true reading:

(12) *War and Peace* is next to *Crime and Punishment* and *Anna Karenina*.

Inspired by the aforementioned reinterpretation of 'is on the shelf', one might attempt reinterpret 'is next to' as *is instantiated by a volume that is next to*, resulting in the reinterpretation (13):

(13) *War and Peace* is instantiated by a volume that is next to *Crime and Punishment* and *Anna Karenina*.

However, there is an immediate problem with (13): a Reinterpretation approach should not hold that any object can be next to *Crime and Punishment* or *Anna Karenina*. After all, the approach was motivated by the claim that informational books do not have physical properties or stand in physical relations. (Otherwise, no reinterpretation whatsoever would be required to account for the truth of (9) or (12)!)

So, if a Reinterpretation approach is to give an adequate account of (12), it must be more complex. Here's a second suggestion:

(14) *War and Peace* is instantiated by a volume that is next to a volume that instantiates *Crime and Punishment* and a volume that instantiates *Anna Karenina*.

⁷ Gotham (2022: 48) offers a very similar proposal (see §3 below).

(14), however, is also not truth-conditionally equivalent to (12). Imagine that there is a very long row containing many copies of *War and Peace* sandwiched between copies of *Crime and Punishment* to its left and copies of *Anna Karenina* to its right. The left-most copies of the *War and Peace* copies are thus next to copies of *Crime and Punishment* (but not *Anna Karenina*) and vice-versa for the right-most copies. In this scenario, (12) is true but (14) is false: there is no single copy of *War and Peace* that is next to both a copy of *Crime and Punishment* and a copy of *Anna Karenina*.

Given the problems with (14), we could try an even more complicated reinterpretation:

(15) *War and Peace* is instantiated by a volume that is next to a volume that instantiates *Crime and Punishment* and *War and Peace* is instantiated by volume that is next to a volume that instantiates *Anna Karenina*.

Interpreting (12) as (15) is no straightforward task: there is no simple reinterpretation of 'is next to' that will generate (15). To make matters even worse, even the complicated (15) is not truth-conditionally equivalent to (12). Imagine that the bookstore contains one hundred copies of *War and Peace* and that two have been misplaced: one misplaced copy is next to a copy of *Anna Karenina* and the other is next to a copy of *Crime and Punishment*, while the remaining ninety-eight are on the other side of the store (nowhere near the copies of the other two books). In that case (15) is true but (12) is false.

Of course, we could continue to formulate yet more complicated transferred interpretations of (12), but as the proposals becomes more complicated Reinterpretation approaches become correspondingly less plausible.

Overgeneration

A third problem is that the approach overgenerates. Consider first a case where several copies of *War and Peace* are on the shelf, and several copies of the book are on the counter. In that situation, the following both have true readings:

(9) *War and Peace* is on the shelf.

(16) *War and Peace* is on the shelf. It is also on the front counter.⁸

And indeed, reinterpreting 'on the shelf' as *is instantiated by a volume that is on the shelf* successfully predicts both true readings.

However, suppose that all copies of *War and Peace* that are on the shelf are wrinkled, and all the ones on the counter are pristine. If the 'wrinkled' and 'pristine' can be reinterpreted in an analogous manner to 'on the shelf' (i.e. to mean 'is instantiated by a volume that is wrinkled/pristine'), we would expect the following to have a true reading as well:

(17) **War and Peace* is wrinkled.

(18) **War and Peace* is wrinkled. It is also pristine.

⁸ If a reader cannot hear this true reading, see §4.2 below for contexts that help draw it out.

But this prediction is not borne out: neither sentence has a true reading in this context.⁹

Admittedly, such overgeneration arguments have somewhat limited force: the issue of which reinterpretations are possible in each context is no doubt subject to some messy pragmatic effects. Nonetheless, given how similar the proposed reinterpretations of (9) and (17) are (they involve similarly salient properties, which exhibit precisely the same pattern of instantiation among the volumes, and where the proposed reinterpretation has precisely the same structure), it is at the very least surprising that this reinterpretation would be available in the former but not in the latter case.

Generalising the objections

The three aforementioned objections suffice to undermine our initial proposal for how to reinterpret ‘on the shelf’ and its most natural extensions. Stepping back, though, we can see that the problems are not tied to this particular proposal, but will afflict any Reinterpretation approach. The first objection is that we simultaneously count different types of entities, e.g. i-books and pen-types. This shows that no simple specific reinterpretation will work and, of course, less specific transfers will overgenerate.

The second objection was that there is no straightforward reinterpretation for more complex predicates, and our attempts looked ever more *ad hoc* and implausible. There’s a simple reason for this. There are many cases in which a i-book seems to have a property not in virtue of the individual behaviours of each of its copies, but in virtue of their collective behaviour. Consider for example (19).

(19) *War and Peace* is taking up the whole top shelf.

Obviously, (19) may be true even if there is no single copy taking up the whole top shelf. Furthermore, its truth does not require that all of the salient copies are even on the top shelf. So no simple existentially quantified (a copy of...) or universally quantified (all copies of...) transfer of ‘is taking up’ will succeed. Moving beyond this example, once we consider the diversity of natural language predicates and the complex conditions under which they apply, we see that the proposal is implausible.

The third objection was that the strategy severely overgenerates. The problem is that once a particular reinterpretation is introduced to account for one predicate, it is hard to see why other very similar predicates that are instantiated by precisely the same distribution in context cannot be similarly reinterpreted.

§2.3 Against the Meaning Transfer Implementation

Our objections in §2.2 were neutral on the precise mechanism of reinterpretation, be it metaphor, loose speech, implicature, or something else altogether. It is worthwhile taking a closer look at meaning transfer in particular, though, as it is the most plausible proposal, and indeed the only one developed in the extant literature.

In this section, we raise a further objection to the more specific implementation on which the reinterpretation mechanism is meaning transfer. Meaning transfer standardly exhibits a range of linguistic features that, we argue, are absent in the cases central to Reinterpretation approaches.

⁹ In fact, we think that even if all the copies of *War and Peace* in the scenario were wrinkled, (17) would have been false. But the judgement is even starker when only some of the copies are wrinkled.

A well-noted linguistic feature of meaning transfer (Liebesman and Magidor 2018: §2), is that once meaning transfer occurs, the untransferred meaning is not available for linguistic processes such as ellipses, gapping, subsequent predication, and anaphoric reference.¹⁰ This can be demonstrated by the infelicity of the following (uttered in a context where Bill ordered a ham sandwich, and Carl is sitting next to Bill):

(20) Bill is a ham sandwich. # It is covered with mustard.

(21) Carl is sitting next to the ham sandwich. # It has mustard on it.

We cannot interpret 'it' in the second clauses of (20) and (21) as anaphorically referring to the ham sandwich that Bill ordered.¹¹

If a Reinterpretation approach were correct, we would expect sentences such as (2) and (9) ('One book/*War and Peace* is on the shelf') to exhibit similar linguistic features. This prediction, however, is not borne out. Consider the following sentences (in a context where there are multiple copies of *War and Peace*):

(22) One book is on the shelf. It is otherwise empty.

(23) *War and Peace* is in the drawer. It is locked.

Interpreting 'it' as designating the shelf in (22) or the drawer in (23) is entirely straightforward.

Defenders of the view might offer the following rejoinder. Perhaps what accounts for the successful anaphora in (22) and (23) is that the meaning transfer covers only the prepositions ('on' and 'in') and not the entire prepositional phrase ('on the shelf', 'in the drawer'). In that case 'the shelf' and 'the drawer' do not undergo transfer, and can be referred to anaphorically without violating the above generalisations concerning meaning transfer.

This rejoinder will not do, as can be demonstrated by reflecting on a slightly broader range of examples. Consider for example the following sentences, each of which can have felicitous and true readings:

(24) *War and Peace* is taking up the whole of the top shelf.

(25) *War and Peace* is stored in the back room.

¹⁰ Gotham (2022: §5.3) denies that meaning transfer has these features. He introduces the following two examples, suggesting that in each the predicate in the first clause undergoes transfer, and yet its original meaning is still available for reference in the second clause:

(i) I'm a bit worried because I'm parked on a double-yellow line. But then, several other cars are, too.

(ii) Lewis is on the top shelf, as are several old posters I haven't gotten rid of yet.

But neither example is convincing. With respect to (i), as we have argued in Liebesman and Magidor (2018: 34), despite being commonly cited as an instance of meaning transfer, 'parked' is an instance of property versatility (both cars and people can be literally parked, where people are parked in virtue of their cars being parked). And with respect to (ii), we do think this is a case of meaning transfer, but where the meaning transfer is *not* on the predicate ('on the top shelf') but rather on the subject term 'Lewis'. This explains why we can anaphorically refer to the (ordinary) property of being on the top shelf in (ii), as well as explains why the following is infelicitous: 'Lewis is on the top shelf and met me for lunch once'.

¹¹ As we discuss in our (2018: 259), it may be possible to make the ham sandwich salient enough that it is a possible referent for a deictic (not anaphoric) occurrence of 'it' in the second clause. This, however, does not undermine the key point: that the mere occurrence of 'a ham sandwich' in the first clause does not suffice to make the sandwich available for anaphoric reference.

Defenders of meaning transfer would presumably want to say that the verbs in each of these sentences are in the scope of meaning transfer. But in that case we would expect that the verb (on its untransferred meaning) is not itself available for reference via anaphora, ellipses, or gapping. That is, we should predict that the following are infelicitous:¹²

- (26) *War and Peace* is taking up the whole of the top shelf, and your vase collection the entire bottom shelf.
(27) *War and Peace* is stored in the back room, and so are the unused office supplies.

This prediction, however, is incorrect: in fact, both (26) and (27) are felicitous which is evidence that these sentences do not exhibit meaning transfer. There is thus specific reason to reject the meaning-transfer based approach to copredication, in addition to more general reasons to reject any reinterpretation-based view, raised in §2.2.

§3. Against a More Limited Appeal to Reinterpretation

According to Dual Nature approaches, nouns supporting copredication designate a special type of hybrid or ‘dual nature’ entity. On its most straightforward interpretation (call this ‘the naïve Dual Nature approach’), books can be modelled as ordered-pairs of p-books and i-books and individuated accordingly. However, the naïve Dual Nature approach quickly runs into trouble. Consider a scenario consisting of three physical volumes (v_1, v_2, v_3), each binding together two i-books: *War and Peace* (WP) and *Anna Karenina* (AK). Intuitively, in this scenario there is one way of counting books according to which this scenario contains *three* books (the three physical volumes), and another on which it contains *two* books (AK and WP). But according to the naïve Dual Nature approach, this scenario contains *six books* ($\langle v_1, AK \rangle$, $\langle v_2, AK \rangle$, $\langle v_3, AK \rangle$, $\langle v_1, WP \rangle$, $\langle v_2, WP \rangle$, $\langle v_3, WP \rangle$). This is a problem for two reasons: first, because it incorrectly predicts that there should be a way of counting books in this scenario where it contains six books. And second, because given these six books, it is not clear how we can get the interpretations where the books are counted as either two books or three books. And while we won’t belabour the point here, this worry extends to many richer natural language sentences.

Proponents of Dual Nature approaches have been very much aware of the shortcomings of the naïve version of the approach and have developed a variety of more subtle approaches to counting and individuation. Asher (2011), for instance, uses a complex system of types and type adjustments to generate the true reading of ‘Three books are on the shelf’ in the above scenario. Gotham (2014), (2017) by contrast, takes predicates to encode criteria of individuation to which quantifiers are sensitive to achieve that reading. However, neither of these approaches generates the true reading of ‘two books are on the shelf’ in the scenario. This isn’t due to some contingent feature of the views: on each ‘on the shelf’ is somehow tied to physical objects—either by encoding a physical criterion of individuation (Gotham) or by having a fine-grained type restriction to physical entities (Asher)—so it is hard to see how such views could explain the reading on which, at least intuitively, we count

¹² It is hard to find precise analogues of these sentences which involve uncontroversial cases of meaning transfer, as it’s fairly rare to find meaning transfer of verbs (yet another reason to be suspicious of a meaning transfer account of (24)-(25)). Perhaps in a context where the chef of a restaurant is preparing the meals of Bill and Jane, they can say ‘Bill, the guy in the corner, has already been salted but Jane, the woman over there, hasn’t’ – thus transferring ‘x has been salted’ to ‘x’s dish has been salted’. Note that in this case too the transferred meaning is available for elision, but the untransferred isn’t: ‘Bill, the guy in the corner, has already been salted, but the salad hasn’t’ is infelicitous. Similarly, ‘Bill, the guy sitting in the corner, has been salted lightly, but the salad – heavily’ is infelicitous.

informational objects on shelves. Similar remarks apply to our simpler scenario involving three copies of *War and Peace*. On that scenario, the semantics proposed by Dual Nature approaches incorrectly predict that (1) has only a true reading and (2) only a false one.

This worry raises a natural possibility for dual nature theorists: to use reinterpretation in a more limited way to deal with such examples. For instance, they may claim that on the true reading of (2), ‘on the shelf’ is reinterpreted. Reinterpretation, however, still has no role in the dual nature theorists’ approach to other copredicational sentences. In fact, this is just what Gotham (2022) suggests.

To understand Gotham’s particular proposal, consider again (2) and (9):

(2) One book is on the shelf.

(9) *War and Peace* is on the shelf.

Gotham proposes reinterpreting ‘on the shelf’ in (2) and (9) to mean *is instantiated by a volume that is on the shelf*.¹³ This allows a straightforward account of (9): after reinterpretation the sentence ascribes to the i-book *War and Peace* the property of *being instantiated by p-book which is on the shelf*, a property which the i-book does possess. Things are somewhat trickier in the case of (2): counting sentences receive a non-standard semantics in Gotham’s theory, and there is some work to be done to reconcile that semantics with the meaning transfer hypothesis. However, Gotham (2022) suggests the details can be worked out (we question this in §3.2). Setting this issue aside for now, the proposal is that in a range of cases where dual nature approaches seem to fail can nevertheless be accounted for using meaning transfer.

We focus on Gotham here, as he is the only Dual Nature theorist to explicitly suggest this kind of more limited invocation of reinterpretation. However, it is worth recalling that all extant Dual Nature theories have trouble predicting the true readings of sentences such as (2) and (9) (and other similar examples where allegedly physical properties are attributed to i-books). All such theories must either follow Gotham in accounting for such examples using a limited appeal to reinterpretation, or else must provide some alternative account of these readings. Our criticism of such limited appeals to reinterpretation are thus highly pertinent to all other Dual Nature approaches as well.

§3.1 Against the More Limited Appeal to Reinterpretation

As we have noted, Gotham’s reliance on meaning transfer is much more restricted than that of the more general Reinterpretation approach. Gotham does not wish to account for all instances of copredication using meaning transfer. Rather, he relies on meaning transfer for a restricted range of cases. In the case of ‘book’, these involve cases where we refer to or count books as if they were purely informational books, and yet combine them with predicates that are typically thought to apply to physical objects.

One might hope that this more restricted appeal to meaning transfer can avoid our objections from the previous section. As it turns out, however, every example we appealed to in objecting to Reinterpretation approaches

¹³ Gotham (2022: 22). It should be noted, though, that while this is the informal English gloss that Gotham gives to the transfer, his more formal formulation actually denotes a slightly different property. See §3.2 below for discussion.

involves precisely the sort of case to which Gotham wishes to apply meaning transfer. Recall that in §2.2 we had three types of objections. First, Reinterpretation approaches cannot provide a plausible reinterpretation function that would account for cases where ‘on the shelf’ is applied to two non-physical types at the same time (informational books and pen types). But of course, this is precisely the kind of case where Gotham’s view requires an appeal to reinterpretation.¹⁴ Second, we saw that Reinterpretation approaches have trouble accounting for more complex sentences such as ‘*War and Peace* is next to *Anna Karenina* and *Crime and Punishment*’: but, again, this is an example where we apparently predicate physical relations to purely informational books. Third, we argued that Reinterpretation approaches have an overgeneration problem: if ‘on the shelf’ can be reinterpreted to mean ‘is instantiated by a volume on the shelf’, then in precisely analogous contexts ‘is wrinkled’ should be able to be reinterpreted as ‘is instantiated by a volume which is wrinkled’. But since both the former and the latter contexts are precisely those where the predicates are applied to purely informational books, they are again ones where Gotham assumes meaning transfer takes place. Finally, in §2.3 we noted that sentences such as ‘*War and Peace* is stored in the back room’ do not exhibit the linguistic feature typical of meaning transfer: the allegedly transferred expression is available for anaphoric reference, ellipsis, and gapping. But again, the examples appealed to were precisely ones where a typically physical predicate is applied to an informational book.

The upshot is that this more limited appeal to reinterpretation suffers from precisely the same problems as the more general Reinterpretation approach, and thus Dual Nature approaches cannot hope to account for readings not covered by the theory (such as the true readings of (2) and (9)) by such appeals.

§3.2 Integrating Reinterpretation with Gotham’s Theory

Setting aside our above objections, combining Dual Nature approaches with a limited appeal to reinterpretation in specific problem cases raises an additional question: do such appeals to reinterpretation cohere with the other elements of the Dual Nature theories? In this section, we discuss this question in the context of Gotham’s theory of copredication. (We focus on Gotham’s approach because he is the only Dual Nature theorist to have explicitly defended this solution to the relevant problem cases.) In this subsection, we argue that the limited appeal to reinterpretation does not cohere with the other elements of Gotham’s theory. First, though, we need to sketch the theory.

According to Gotham’s theory, objects such as i-books and p-books exist but are not in the extension of ‘book’.¹⁵ Rather, ‘book’ has a single reading on which is true of mereological sums of i-books and the p-books which instantiate them. For example, in the above scenario consisting of three copies (v_1, v_2, v_3) of *War and Peace* (WP), there are three objects in the extension of ‘book’: v_1+WP, v_2+WP, v_3+WP .

On the theory, each such mereological sum inherits the properties of its components.¹⁶ Thus if v_1 is red, and WP was written by Tolstoy, the book v_1+WP is both red and written by Tolstoy, allowing it to witness sentences such

¹⁴ In fact, Gotham (2022) is explicit that he wants to apply the meaning transfer strategy to this precise example, and to do so in order to respond to our objection from Liebesman and Magidor (2019) that Gotham’s original theory cannot account for the truth of such sentences. The problem, as we argued above, is that his proposed transfer is implausibly convoluted.

¹⁵ Note that Gotham (2022: §3.1) modifies his original by taking i-books to be in the extension of ‘book’. Below we show that this revision gives rise to a new problem.

¹⁶ As we writes: “Every property that holds of p holds of $p+i$. Similarly, every property that holds of i holds of $p+i$ ” (Gotham 2017: 335). In Liebesman and Magidor (2019) we argue that such a general principle is inconsistent and Gotham (2022: §6.2) weakens the principle.

as (3) ('The red book is by Tolstoy'). Things are trickier, however, when it comes to counting. Suppose our bookshelf holds three volumes, each binding together *War and Peace* (WP) and *Anna Karenina* (AK). It seems like the following have true readings:

(28) (Exactly) three books are on the shelf.

(29) (Exactly) two books are on the shelf.

But for all we've said so far, this is a version of the naïve theory: it predicts that the only correct count in this case is one on which there are (exactly) *six* books on the shelf. After all, the scenario contains six objects in the extension of 'book' (v_1+WP , v_2+WP , v_3+WP , v_1+AK , v_2+AK , v_3+AK) and each of these inherits from its physical component the property of being on the shelf.

To address this issue, Gotham proposes a semantics which incorporates two key components: first, terms and phrases encode, in addition to their ordinary truth-conditional content, a 'criterion of individuation' – which is an equivalence (or quasi-equivalence) relation among objects. For example, 'on the shelf' and 'heavy' encode the PHYS criterion of individuation, which two objects stand in iff they share their physical component; By contrast, 'is informative' and 'is by Tolstoy' encode the INFO relation, which two objects stand in iff they share their informational component. Second, numerical (and some other) quantifiers receive a non-standard semantic interpretation, one which makes them sensitive to these criteria of individuation encoded by their arguments.

Gotham offers a sophisticated compositional semantics which incorporates these components across a wide range of constructions. We need not discuss these details in full here – the following two rules suffice for our current purposes:¹⁷

- (i) A sentence 'N Fs are Gs' (with the same form as 'Three books are heavy'), is true just in case there is a plurality of N objects that are F, are G, and where no two objects in the plurality are equivalent to each other under the criterion which is the disjunction the criteria encoded by F and by G.
- (ii) 'heavy' encodes the criterion PHYS; 'informative' encodes the criterion INFO; 'book' encodes the criterion $PHYS \sqcap INFO$ (the conjunction of PHYS and INFO).

To see how these semantics play out, consider the following sentence schemas:

(30) N books are heavy.

(31) N books are by Tolstoy.

The truth-conditions for (30) require a plurality of N books, which are pairwise distinct according to the criteria $(PHYS \sqcap INFO) \sqcup PHYS$ (the disjunction of the criterion contributed by 'book' with that contributed by 'heavy'). This criterion is in turn equivalent to PHYS, resulting in the following truth-conditions:

(30*) There is a plurality of N books which are heavy, and where no two members are PHYS-equivalent.

Similarly, the criterion used for counting in (31) is $(PHYS \sqcap INFO) \sqcup INFO$, which is equivalent to INFO, resulting in the following truth-conditions:

¹⁷ '∩' and '∪' to express generalized conjunction and disjunction, respectively.

(31*) There is a plurality of N books which are informative, and where no two members are INFO-equivalent.

Return to the above three volumes each incorporating *War and Peace* and *Anna Karenina* (and assuming each of the volumes is heavy, and each of the i-books is informative). The largest N for which (30*) is true is *three*. (For example, the plurality $\langle v_1+WP, v_2+WP, v_3+AK \rangle$ is a suitable witness, but if we add to it any additional book, it will share a physical component with one member of this plurality.) And the largest N for which (31*) is true is *two*. (For example, the plurality $\langle v_1+WP, v_1+AK \rangle$ is a suitable witness, but if we add to it any other book, it will share an informational component with one member of this plurality.) Even though the objects in the extension of 'book' are not themselves i-books or p-books (but rather mereological sums of the two), the effect for the interpretation of counting sentences is that in (30) we count as many books as there are p-books and in (31) as many as books as there are i-books.

With these details in place, let us return to the proposal of integrating Gotham's theory with a limited meaning transfer approach. Gotham's theory on its own is able to predict the true reading of (1) when there are three copies of *War and Peace* on the shelf, but not the true reading of (2): the fact that 'on the shelf' encodes the PHYS conditions means that (1) and (2) can only be read where we count as many books as we have p-books.

In response to our (2019) paper, Gotham (2022) proposes to handle this problem with a limited appeal to meaning transfer, where 'on the shelf' receives a transferred interpretation. More specifically, the proposal is developed by following a suggestion of Nunberg (1995), that meaning transfer of predicates is often generated in a systematic fashion *via* a salient function between the objects that these predicates apply to.¹⁸ Let P be a property and let *f* be a salient function mapping objects that P applies to onto another domain. Then in the relevant contexts, one can transfer P to the property $P^*: \lambda y. \exists x Px \wedge (f(x) = y)$. For example, let P be the property of *being a ham sandwich*, and *f* be a function that takes each sandwich to its orderer,¹⁹ then (in the right contexts), we can transfer 'is a ham sandwich' to the property $\lambda y. \exists x x \text{ is a ham sandwich} \wedge \text{orderer-of}(x) = y$ or in other words to the property of being the orderer of some ham sandwich. By a similar note, Gotham proposes that in sentences such as (2) and (9) we can let *f* be a function that takes each book (on his view, a composite object made out of a physical and informational component) to its informational component, and thus transfer 'on the shelf' to: $\lambda y. \exists x x \text{ is on the shelf} \wedge \text{informational-component-of}(x) = y$, or in other words to *being the i-component of a book that is on the shelf*.²⁰

Note that this proposal for the transferred property isn't quite truth-conditionally equivalent to Gotham's informal gloss of 'is instantiated by a volume on the shelf'. The crucial difference is that books *qua* composite

¹⁸ See Gotham (2022: fn.16). In fairness, Gotham does note that "this particular implementation... may well not be right in detail. But it is sufficient to show that a plausible way of combing Gotham's theory with meaning transfer exists." We will only discuss the implementation actually proposed and not explore further implementations on Gotham's behalf.

¹⁹ A complication which is often overlooked in the literature is that the relation between sandwiches and their orderers might not be functional, e.g. if three orderers are sharing a single sandwich. We thus prefer to think of the transfer as a direct function from the property of being a ham sandwich to the property of being a ham sandwich orderer, rather than on the above model.

²⁰ Gotham (2022: fn. 16) also suggested the transferred property encodes the individuation condition INFO. We are dubious about the idea that a pragmatic process such as meaning transfer can yield such fine-grained technical semantic information, but at any rate, at least in the case of all the sentences we discuss in this section individuation relation has no impact on the truth conditions, so we can ignore it.

objects can arguably have the property of being instantiated by a volume on the shelf, but the current proposal transfers the predicate to a property that can only be had by i-books.

In fact, this difference is not inconsequential: it requires some amendments in order to be incorporated into Gotham's theory. To see why, return to the case of (2). According to Gotham's theory, a necessary condition for a quantificational claim of the form 'N Fs are G' to be true is for there to be a plurality of N objects that satisfy both F and G (what's distinctive about Gotham's theory is that this condition is not sufficient). But on the theory, 'book' is only true of composites of i-books and p-books, while on the current proposal 'is on the shelf' (on its transferred interpretation) only applies to i-books. Since no object can be both in the extension of 'book' and in the extension of the transferred 'on the shelf', no quantificational claim of the form 'N books are on the shelf' (for N other than zero) can be true.

To address this problem Gotham proposes a revision of his theory: on the amended theory, the extension of 'book' includes not only objects that are composites of p-books and i-books, but also purely informational books. Given this amendment, (2) will be true: the only object in the intersection of 'book' and 'i-book that is an i-component of a book on the shelf' (the transferred meaning of 'on the shelf'), is the i-book *War and Peace*, and hence the smallest and largest plurality of objects satisfying these two predicates will be of size one. Moreover, this amendment is further motivated by another problem with the original theory: if i-books are not books, then we cannot account for the truth of sentences such as '*War and Peace* is a book'.²¹

The problem, however, is that this proposal leads to problems with other predictions. Consider a situation where all copies of *War and Peace* are on the shelf except for three which are on the floor. In this context, there should be a true reading of:

(32) (Exactly) three books are not on the shelf.

And indeed, the original theory predicted this true reading: 'on the shelf' encodes the PHYS criterion of individuation, and the minimum and maximum size of a plurality of books that are not on the shelf and are PHYS distinct from each other of size three. However, on the amended theory currently discussed, (32) is predicted to be false. For consider the three volumes that are on the floor v_1+WP , v_2+WP , v_3+WP , and consider the plurality consisting of four objects: v_1+WP , v_2+WP , v_3+WP , and the i-book WP. On the amended theory, all four objects are in the extension of 'book', in the extension of 'not on the shelf' (on its standard interpretation pure i-books are never on shelves), and none are PHYS equivalent to each other²², so we should maintain that *four* books are not on the shelf.

In sum, not only is the most limited appeal to reinterpretation problematic for all the same reasons as the more general approach, but Gotham's particular proposal doesn't cohere easily with his earlier theory. And, furthermore, the amendment he makes to fit them together gives rise to further problems.

§4 Defanging Arguments in favour of Reinterpretation Approaches

Thus far, we've considered only very general motivations for Reinterpretation approaches. However, there are some more specific arguments in their favour. In this section, we discuss and reject three positive arguments

²¹ The objection is raised in Liebesman & Magidor (2019: §3), Gotham (2022: §3.1) suggests in response to amend his theory so that i-books are in the extension of 'book'.

²² Note that according to Gotham's theory, two objects can only stand in the PHYS relation if they both have a physical component (see Gotham 2017: 338).

that proports to show that all accounts of copredication must, at least in some instances, appeal to meaning transfer.

§4.1 Odd Conjunctions

In §2.3, we noted that one of the linguistic hallmarks of meaning transfer is that when transfer occurs the original untransferred meaning is not accessible for anaphoric reference, ellipsis, or further predication. For example, in contexts where ‘is a ham sandwich’ has been transferred to mean ‘is a ham sandwich orderer’, the following is entirely infelicitous:

(33) #Bill and the food on this plate are both ham sandwiches.

According to the Property Versatility approach, in typical cases where ‘on the shelf’ is applied to i-books, no meaning transfer occurs and the predicate is used in its ordinary sense. However, it should be acknowledged that some attempts to utilize the untransferred meaning of ‘on the shelf’ when discussing i-books do nevertheless result in sentences that might be judged as infelicitous. Imagine that the shelf contains three copies of *War and Peace* and three pots with plants (of the same type) in them. Many would judge the following to be at least somewhat odd:

(34) ?One book and three plants are on the shelf.

According to the objector, this provides an argument for why sentences such as (2) involve meaning transfer. After all, on the hypothesis that ‘on the shelf’ has been transferred, we have a straightforward explanation of the oddity of (34): it attempts to simultaneously utilize both a transferred and untransferred meaning of ‘on the shelf’.

This argument, however, is unconvincing for three reasons.

First, it should be noted that (34) is not nearly as infelicitous as analogous cases which uncontroversially exhibit meaning transfer (e.g. (33)). Moreover, sufficient contextual background can improve (34) significantly. For example, imagine the following exchange between two employees in a book shop:²³

A: that display shelf is so unappealing – it has only one book on it (*War and Peace*).

B: Yes, it only has one book, but in addition to the one book it also has three plants, so should still make for an interesting display.

Second, even assuming that (34) is entirely infelicitous, note that the meaning transfer theory predicts that one should *never* be able to use the untransferred meaning. However, we’ve already shown that this prediction is bad (after all, (22)-(23) and (26)-(27) are felicitous).

Third, there is an independently plausible explanation of the infelicity of (34). Often when we attempt to conjoin terms that designate entities of a very different kind, the resulting conjunction sounds odd.²⁴ Consider the following examples:

²³ Thanks to Quinn Goddard for help constructing this context.

²⁴ Could this observation be utilised to undermine the generalisation regarding meaning transfer, i.e. by explaining away the infelicity in cases like (33)? The answer is no: though in (33) we are applying the predicate

(35) ?My sister and eating lunch are on my mind.

(36) ?*War and Peace* and my last e-mail are well-written.

Each of these sentences sounds bizarre. However, there's little temptation to say that this is due to the fact that we are attempting to use the predicates in different senses at once. Rather, there's a much more straightforward and plausible explanation: it is odd to combine discussion of such disparate entities.

§4.2 Books on shelves and counters

Perhaps the central point in Gotham (2022) is an argument which purports to establish that sentences such as (2) involve meaning transfer. The argument consists of sequences such as the following:

(37) Exactly one book is on the shelf. ?It is also on the counter.

At least when considered in an entirely neutral context, the second sentence in the sequence seems marked or infelicitous. Gotham maintains that the Property Versatility approach has a hard time accounting for this data, while a meaning-transfer based approach is able to do so.

As Gotham acknowledges, given some contextual clues, (37) can be made perfectly felicitous. He suggests the following context:²⁵

You visit the headquarters of a cult, which (as cults tend to be) is unquestioningly devoted to the teachings of its leader. These teachings are contained in a book. The person showing you around enthusiastically lets you know this, pointing to a shelf stacked with books and saying 'There is only one book on the shelf. It is also on the door, on the stairs and in every room.

Less dramatically, there is nothing particularly marked about the following exchange:

Customer in a convenience shop in a remote town: do you sell any books?

Shop Assistant: We only sell one book - a field guide to this town. It's on the shelf back there, and also on the front counter.

However, the crucial question is why do we even need such contextual supplementation to make these sentences unmarked. In other words, why is (37) infelicitous in neutral contexts?

To see why this might pose a problem for the Property Versatility approach, note that according to the approach, there are perfectly mundane situations where both parts of (37) are straightforwardly true. Take a reading where 'book' mean i-book. If there are several copies of *War and Peace* on the shelf, and several copies of it on the counter (and no other i-books in play), then there is a unique i-book which is on the shelf and on the counter.

to entities of a very different kind (people and sandwiches), other cases of meaning transfer do not exhibit this feature. For example, in a parents' evening at school we might use 'first-grader' to mean – 'parent of a first-grader'. But we still can't get a true reading of 'That middle-aged man and this six year old are both first-graders' (where the man is a first-grader in the transferred sense, and the child, in the untransferred sense).

²⁵ Gotham (2022: 16). (We have deleted Gotham's numbering). The example is attributed to Gillian Ramchand.

At a first pass, a Reinterpretation view fares no better: if ‘book’ is read as meaning *i-book*, and ‘on the shelf/counter’ is transferred to mean ‘is instantiated by a volume on the shelf/counter’, there are also perfectly mundane situations in which both parts of (37) would be read as true. However, Gotham argues that a meaning transfer account can nevertheless explain why (37) is infelicitous *in a neutral context*. When the first part (‘One book is on the shelf’) is uttered in such contexts, there is no obvious category mistake and thus no reason to consider a transferred interpretation of the predicate. And if the predicate is not transferred, then the first clause of (37) requires there to be a unique *physical* book on the shelf. But then the pronoun ‘it’ in the second clause refers to this physical book, and – since no physical book can be located in two different places at the same time – the ascription is trivially false. Furthermore, this also accounts why the following variant sounds much better (even in a neutral context):

(38) *War and Peace* is on the shelf. It is also on the counter.

Since in the first phrase we use a book name, it is clear from the outset that we are denoting an *i-book*, and both predicates must be transferred. Finally, Gotham maintains that this also explains why when we provide sufficient contextual background, (37) becomes felicitous. As he puts it: “the fact that such contextual priming is required for (37) not to be judged anomalous is evidence that a pragmatic process is at work.” (2022: 102)

We have no objection (beyond of course, our general objections to Reinterpretation approaches) to this account of the infelicity of (37) and the felicity of (38) in neutral contexts. We do, however, think that this explanation does not depend in any way on adopting a meaning transfer account of copredication, and indeed a very similar explanation of this data is available given Property Versatility. Recall that on our view, ‘book’ can mean either *p-book* or *i-book*. Without further context, it is not clear which of the two meanings the first clause in (37) picks out, and in an entirely neutral context it is more natural to interpret the noun as meaning *p-book*. Why is that? Even though on our view both *p-books* and *i-books* can both be on shelves, we do not deny that it is more common, immediate, or salient to apply the property to *p-books*.²⁶ And of course, once ‘book’ is interpreted as meaning *p-book*, the pronoun is also taken to pick out a *p-book*, one that is then said to be in two different locations, hence the infelicity. By contrast, in (38) the book name can only refer to an *i-book*, and hence even in a neutral context we take the pronoun to refer to an *i-book*.

In other words, we agree with Gotham that the felicity pattern of (37) suggests a pragmatic process. It’s just that we think the pragmatic process in question is the perfectly mundane process of disambiguating a word with multiple readings. Moreover, it is worth highlighting that this type of explanation has nothing in particular to do with either meaning transfer or copredication. Consider, for example the following sequences:

(39) I arrived at the bank on a beautiful sunny day with my fishing rod and bait. ?But the clerk told me they had just closed for the day.

(40) When I entered the palace, I had to bow down in front of the famous ruler. ?It had both imperial and metric marks on it.

²⁶ Although we are not strictly committed to this, one hypothesis is that this is partially due to underlying metaphysical reasons: arguably when *i-books* are on the shelves they are on shelves in virtue of a corresponding *p-book* being on the shelf.

When considered out of context, the second sentence each of (39) and (40) sound marked, and it is not hard to understand why. Absent any additional contextual clues, ‘bank’ in the first clause of (39) is most naturally interpreted as meaning ‘river bank’ (even though it is perfectly possible to take a fishing rod and bait to a money-bank); and ‘ruler’ in the first clause of (40) is most naturally interpreted as meaning ‘leader of a country’ (even though it is perfectly possible to bow down in front of a famous measuring device in a palace); And of course, in each of these cases the infelicity would disappear if we added sufficient contextual priming in order to ensure the readers focused on the correct interpretations of these nouns from the outset.

§4.3 Meaning transfer and copredication combined

Gotham (2022) suggests that we ourselves are committed to the claim that at least some cases of copredication should be accounted for using meaning transfer. To that end, he mentions an example that we discuss in Liebesman and Magidor (2017: 153). Before we turn to discuss the example, some general remarks are in order.

Meaning transfer is a prevalent linguistic phenomenon, and there is nothing to bar a single sentence from exhibiting *both* copredication and meaning transfer. We can see this using some mundane examples: a teacher hands out a different book to each student. The teacher might then use the student names to talk about the relevant books, as follows:

(41) Bill was written by Tolstoy, and Jane was written by Dostoyevsky.

Furthermore, the teacher might ascribe to the books properties that appear in typical copredication sentences. For example, if Bill is holding a red copy of *War and Peace*, the teacher could say:

(42) Bill is red and was written by Tolstoy.

We reason as follows. First, we present the example at the centre of this argument. In our (2017) discussion, we only gestured towards the claim that it involves meaning transfer. Here, we offer a more detailed analysis establishing the existence and nature of the transfer. To anticipate, the upshot is that the example in question meaning transfer and copredication happen to cooccur. But first, we show that in this case we have very specific linguistic evidence of the existence of this transfer. Second, and more importantly, once the precise nature of the transfer is understood, it becomes clear that the transfer is not used to account for copredication at all: even after the transfer occurs the sentence still exhibits copredication. Like (42), it is merely a case on which meaning transfer and copredication occur together.

Moving on to the example. Consider a scenario where Jill walks into a colleague’s office and notices a copy of *War and Peace* with a red cover on the desk. As it happens, last week Jill picked up a different copy of *War and Peace* from the library, one with a blue cover. In this scenario, the following utterance by Jill has a true reading:

(43) I picked up the red book from the library last week!

Taken at face value, the Property Versatility approach has trouble accounting for this case. On our view, both i-books and p-books can be picked up from the library: last week, Jill picked out both a p-book (the particular blue-covered copy of *War and Peace*), as well as an i-book (*War and Peace*). However, neither of these seem to be suitable denotations of the description ‘the red book’: the p-book Jill picked up wasn’t red (it was blue) and

the i-book also wasn't red (on our view, except in special circumstances, i-books do not have colours). Thus, there seems no obvious interpretation of 'book' which would render (43) true.

We maintain that the true reading of (43) involves meaning transfer. It is instructive to consider an analogous case, which uncontroversially exhibits the phenomenon. Suppose, Jane who is a taxi driver, enters a restaurant and notices a person she picked up last week eating a ham sandwich. She could describe the situation by uttering the following:

(44) Hey, I picked up the ham sandwich last week!

In this case, 'the ham sandwich' is interpreted as referring to the person eating a ham sandwich, and the utterance as a whole is interpreted as saying that Jane picked up the person eating a sandwich last week. As in previous cases, this hypothesis is backed by the observation that a number of linguistic processes like anaphora, ellipses, and predication track transferred meaning rather than untransferred meaning. Consider, for instance, the following two elaborations of (43):

(45) Jill picked up the ham sandwich, an annoying guy, and asked him where he wanted to go.

(46) *Jill picked up the ham sandwich, a spicy sandwich with lots of mustard, and asked him where he wanted to go.

The contrast between (45) and (46) is explained by the fact that 'the ham sandwich' undergoes meaning transfer, such that it designates the ham sandwich eater. The transferred designation is then available for further predication (being an annoying guy), but the untransferred designation is not (being spicy with lots of mustard).

This not only provides us with evidence for the existence of meaning transfer, but can also be used to probe for its locus. Consider two hypotheses about (43). According to the first, 'the ham sandwich' straightforwardly denotes a sandwich, and it is the predicate that undergoes meaning transfer (where 'x picked up y' is interpreted as meaning 'x picked up a person eating y'). According to the second, 'pick up' receives its standard interpretation, and it is the definite description that undergoes meaning transfer (so it ends up denoting the person eating the sandwich rather than the sandwich). The acceptability of (45) and the unacceptability of (46) shows that we should accept the second hypothesis. After all, were there no transfer on 'the ham sandwich', then the sandwich itself (but not the person) would be available for subsequent predication.

The same diagnostics can be used to establish the existence and locus of the meaning transfer in (43). Suppose, for instance, that 'the red book' is untransferred, and it designates the red copy of *War and Peace* (assume this red copy is worn-out and wrinkled, while the blue copy that Jill picked up from the library was pristine). We would then predict that (47) is acceptable.

(47) *Jill picked up the red book, a worn-out wrinkled copy of *War and Peace* which is sitting on her colleague's desk, from the library last week.

But in fact (47) has no true reading in this context. Furthermore, the unacceptability of (47) shows that the transfer occurs on the definite description rather than the predicate. If the sentence had involved predicate transfer (e.g. where 'x picked up y' is interpreted as meaning 'x picked a copy instantiating the same i-book as

y'), then 'the red book' would have designated the red copy on the colleague's desk and (47) would have been felicitous in context.

Having settled that the meaning transfer takes place in the description 'the red book', we can next ask *which object* is denoted by the description following meaning transfer? Given that we are searching for a true reading of (43) and that 'pick up' on our hypothesis is not transferred), it ought to denote an object that Jill in fact picked up from the library last week. There are, on our view, two such objects: a p-book (the blue covered volume) and an i-book (*War and Peace*).

Here again, we can utilise standard linguistic features of meaning transfer to adjudicate between these two possibilities. Consider then the following two elaborations of (43):

(48) Jill picked up the red book, a best-seller that was translated to many languages, from the library last week.

(49) *Jill picked up the red book, a blue copy of *War and Peace*, from the library last week.

Ascribing to the (transferred) red book properties of the i-book *War and Peace* results in felicitous true sentences, while ascribing to it properties of the blue covered p-book results in infelicitous and sentence. We conclude, that 'the red book' is transferred to denote the i-book.

Contrary to what is sometimes assumed, appeal to meaning transfer isn't an *ad hoc* move that can be wheeled in to patch up any problematic predictions of one's theory. Meaning transfer is a well-controlled phenomenon, with well-defined linguistic tests for its presence and locus. In the case of (43) these tests show that the expression 'the red book' undergoes meaning transfer and that following transfer, 'the red book' ends up denoting the i-book *War and Peace*. Indeed, it is easy to see what kind of function would generate this interpretation: if 'red book' is interpreted as meaning 'i-book which is instantiated by a (contextually relevant) red p-book', we get precisely the desired reading.

Moreover, with this analysis of (43) in hand, we can see that the meaning transfer is not actually used in order to account for copredication. After transfer occurs, (43) is interpreted as follows:

(43*) Jill picked up the i-book that is instantiated by a red p-book from the library last week.

But note that this transferred interpretation still ascribes the property of being picked up to an i-book, and thus is still an instance of copredication. In our own case, this copredication is accounted for using property versatility: i-books, on our view, can be picked up. Other accounts of copredication (including ones based on meaning transfer), need to propose a different analysis of the sentence.

§5. Conclusion

When initially faced with copredicational sentences, it is tempting to hold that one or more of the predicates is non-standardly interpreted. Furthermore, such a Reinterpretation approach may seem to combine the best features of the Property Versatility approach and Dual Nature approaches. However, upon scrutiny, Reinterpretation approaches fail. When faced with the full range of data, we can see that they become implausibly unsystematic. Furthermore, even more limited appeals to Reinterpretation, such as the one Gotham

appends to his own Dual Nature approach, fail for the same reasons. Finally, several arguments that attempt to demonstrate the centrality of Reinterpretation to copredication do not survive scrutiny. Reinterpretation is not the way to account for copredication.²⁷

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²⁷ Thanks to Jeremy Fantl, Quinn Goddard, Matt McGrath, two referees for *The Journal of Semantics*, audiences at University of Oxford, University of Konstanz, University of Indiana at Bloomington, the Language Workshop, Berlin, and funding from the Leverhulme Trust and the Social Sciences and Humanities Research Council (SSHRC).