

The structure of propositions and cross-linguistic syntactic variability*

Abstract: In Jeffrey King's theory of structured propositions, propositional structure mirrors the syntactic structure of natural language sentences that express it. I provide cases where this claim individuates propositions too finely across languages. Crucially, King's paradigmatic proposition-fact [^]that Dara swims[^] cannot be believed by a monolingual Greek speaker, due to Greek syntax requiring an obligatory article in front of proper names. King's two possible replies are: (i) to try to streamline the syntax of Greek and English; or (ii) to insist that English speakers can believe propositions inexpressible in Greek. I argue that the former option entails giving up a neo-Russelian framework, and the latter makes King's account arbitrary or trivial. I conclude that the mirroring claim is untenable.

Keywords: propositional structure, DP hypothesis, philosophy of language, Modern Greek, direct reference, proper names

Jeffrey King identifies propositions with certain facts about items in the world and our linguistic representations of them (King 2007; King 2009; King 2013a; King 2013b). One of his main claims is that a proposition's structure mirrors the syntactic structure of natural language sentences that express it. I argue that when we use this claim to individuate propositions cross-linguistically, we end up with a theory that individuates propositions too finely, with very important negative consequences for the theory's explanatory aims.

Here is the paper's structure: I begin in section 1 by explaining how King's theory relies on syntactic structure to explain propositional structure, and his motivations for this claim. Following (King 2009), I illustrate the theory with the simplest, according to him, English language sentence (D) 'Dara swims'. Section 2 presents the only possible translation of (D) in Modern Greek: (NT) 'Η Ντάρα κολυμπάει', and explains how King's theory predicts that (D) and (NT) express different propositions,

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despite their seeming to express the same piece of information, and very plausibly being associated with the same semantic content, truth value and compositional profile.

In section 3 I examine whether my counterexample could be defused by streamlining the syntactic structure of (D) and (NT), using the claim that proper names in ‘referring uses’ are accompanied in English by a null determiner (I call this the *DP hypothesis*). I argue that he cannot. On the linguistics side, the claim is still controversial and has problems accounting for Modern Greek in general. On the philosophical side, we cannot both posit this sort of covert syntactic structure, and expect syntax to play the role in a theory of propositions King wants it to. More importantly, using the claim necessitates changing the syntactic analysis of (D) to such an extent that it would now be impossible to support the neo-Russellian account of propositions that King favors.

Section 4 ratchets up the pressure on King’s view by presenting several additional DP hypothesis-resistant counterexamples. Finally, section 5 replies directly to (King 2007) and (King 2013a), where he insists that individuating propositions too finely across languages is not a particularly strong problem. My response here is that biting the bullet gives rise to a genuine and deep problem, since it means that King’s propositions cannot do all the jobs that propositions are traditionally meant to do, it is extremely implausible on its own, and it would make King’s neo-Russellian framework an arbitrary matter.

1. Syntactic structure mirrors propositional structure

In a series of publications, J. King argues for a fine-grained neo-Russellian account of structured propositions. The account identifies propositions with certain facts connecting items in the world, such as objects and properties, to our linguistic representations of them. As a paradigmatic example, (King 2009) suggests that the proposition that Dara swims, expressed in English by the sentence

(D) ‘Dara swims’

just *is*

p_D: the fact that the object Dara and the property *being a habitual swimmer* stand in the relation *being an x and a y such that there is a language L with lexical items α and β where* (i) x is the semantic value of α in L, (ii) y is the semantic value of β in L, (iii) α stands in **sentential relation R** to β , & (iv) R encodes instantiation in L.¹

King proposes that we can discover facts such as p by considering different ‘witness facts’ that are specific to one language, and then abstracting to get the general case that does not include a reference to that language. To illustrate the theory, here is a witness fact for p, specific to English:

p_E: the fact that the object Dara and the property *being a habitual swimmer* stand in the following relation: (i) Dara is the semantic value of ‘Dara’, (ii) the property *being a habitual swimmer* is the semantic value of ‘swims’, (iii) ‘Dara’ stands in **sentential relation R** to ‘swims’, & (iv) R encodes instantiation.

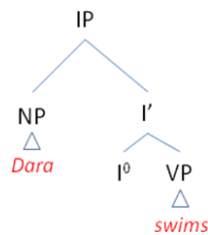
Fact p_E is not identical to fact p above (that *really is* the proposition p), as it is focused on a specific language. But it is a ‘witness fact’ in that it is a language-specific instance of p.

The first proposition-fact p_D enables King to support a neo-Russellian framework by keeping an object, here Dara, and a property, here *being a habitual swimmer*, as the basic components of the structured proposition expressed. The components, however, need to be appropriately bound together. In p_D this is achieved through the sentential relation R encoding the appropriate instantiation of the property *being a habitual swimmer* by the object Dara. The radical suggestion in (King 2009) is that R is exactly the syntactic structure of the English sentence (D) at the level of logical form (henceforth LF): something like the syntactic tree that remains when one removes the words in red italics from the following picture²:

¹ I sidestep here some of (King 2007; 2009)’s amendments for expositional simplicity; but none of them makes a significant difference for the present paper’s argument. (King 2013a) follows the same strategy.

² Alternatively, in the Chomsky -style framework that (King 2007) favors, R_D could be defined in the following manner: ‘Dara’ stands in R_D to ‘swims’ IFF ‘Dara’ and ‘swims’ are constituents of MERGE(‘Dara’, ‘swims’) and ‘swims’ is the head of MERGE(‘Dara’, ‘swims’).

In what follows I will use trees such as those of Picture 1, but my arguments would go through with MERGE operations as well (see for example footnote 4 below).



Picture 1: R_D

King's then is a **Mirroring** claim: (D)'s syntactic structure (at LF) mirrors the structure of the proposition that (D) expresses.

The advantage of such a step is that it is a very elegant way to individuate propositions correctly. For example, it gives us a sharp theoretical tool to explain why the proposition expressed by the English sentence 'Dara swims' will be different than a proposition (say q) expressed by the sentence 'swims Dara', if such a sentence were possible: only the R of p_D can properly encode the instantiation of the property *being a habitual swimmer* by Dara. The same world items do occur in 'proposition' q , but they are not bound in the same way.

(Mirroring) also elegantly supports a neo-Russellian framework by revealing that the English sentence (I) below, when uttered by Dara, has the same syntactic structure, and so involves the same relation R_D , as (D) (see again Picture 1 above).

(I) 'I swim'

Sentence (D) and sentence (I), when said by Dara, encode instantiation of the same property by the same object in the exact same manner. Hence they can, and do, express the same proposition p_D .

2. A counter-example from Modern Greek

However attractive this reliance on syntax to individuate propositions might appear at first glance, I will argue that it does not correctly individuate propositions across languages. Consider the following case:

My mother, a Modern Greek monolingual speaker, utters

(NT) Η Ντάρα κολυμπάει
DEF.ART-FEM Dara swim-3S
Dara swims

Sentence (NT) is the only possible translation in Modern Greek of sentence (D), as in that language proper names have to be accompanied by the definite article for the sentence containing them to be grammatical. In Modern Greek (NTU) below would be ungrammatical.

(NTU) *Ντάρα κολυμπάει³

Intuitively, then, what my mother expresses by uttering sentence (NT) is what an English speaker would express by uttering sentence (D). If asked to **translate** in English what my mother said with (NT), I would translate it with (D). If I trust that she is not lying, I would report in English that she **believes that** Dara swims. Certainly it seems that the ascription ‘my mother believes that Dara swims’ is **true** in this context. Being a bilingual speaker who trusts his mother, I might even come to have the **same belief** that she has, one I would express in English by uttering (D). Finally, if I asked her who swims, she would reply with (1) below; and if I ask her when Dara swims, she might reply with (2).

(1) Η Ντάρα ‘Dara’ .
(2) (Η Ντάρα κολυμπάει) τη νύχτα ‘(Dara swims) at night’

Based on these initial considerations, it seems that (D) in English and (NT) in Greek express the same piece of information, have the same semantic content, and contribute the same semantic content to larger sentences including them. These considerations point towards taking me and my mother to believe the same proposition p_D : that Dara swims.

King shares these intuitions for different languages. In King (2013b) he states the following about the proposition that Michael swims:

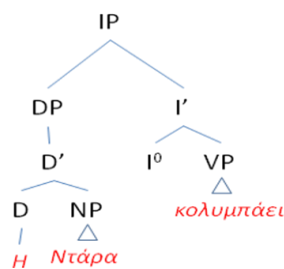
³ Surprisingly, this is not the case in Classical Greek. The sentence ‘Θουκυδίδης συνέγραψε’ is perfectly grammatical in Classical Greek, but ungrammatical in Modern Greek, even if the words belong to the lexicon of both languages. (Sara Garcia Pelaez, p.c.)

‘Since we want speakers of different languages to in some cases grasp the same proposition, we must be able to make sense of speakers of different languages interpreting the propositional relation of the same proposition/fact.’ (King 2013b: 3)

However, his (Mirroring) claim does not allow him to consistently hold the claim above, since the fact p_{NT} corresponding to the proposition believed by my mother is the following:

p_{NT} : the fact that the object Dara and the property *being a habitual swimmer* stand in the relation *being an x and a y such that there is a language L with lexical items α , β , and γ where* (i) x is the semantic value of α in L, (ii) y is the semantic value of β in L, (iii) the semantic content of α is definiteness, (iv) α and β stand in **sentential relation RG** to γ , & (v) RG encodes instantiation in L.

As fact p_{NT} contains three lexical items instead of two, and (NT)’s sentential relation R, pictured below, is very different than (D)’s, p_D and p_{NT} will be two different propositions⁴.



Picture 2: R_{NT}

Now my mother and me cannot be said to believe the same proposition: strictly speaking, I believe p_D and she believes p_{NT} . Moreover, the report ‘my mother believes that Dara swims’ should come out as false, and (King 2013b)’s view that the proposition that Michael swims can be grasped by speakers of different languages cannot, *prima facie*, be held in the case of Modern Greek speakers.

⁴ Casting the difference in terms of MERGE operations gives the same result, as R_{NT} will be defined as:

In (NT) ‘H’, ‘Ντάρα’ and ‘κολυμπάει’ stand in R_{NT} IFF ‘H’, ‘Ντάρα’ and ‘κολυμπάει’ are constituents of MERGE(‘H’, ‘Ντάρα’, ‘κολυμπάει’) and ‘κολυμπάει’ is the head of MERGE(‘H’, ‘Ντάρα’, ‘κολυμπάει’). This is considerably different than R_D ’s definition from footnote 2 just mentioning operation [MERGE(‘Dara’, ‘swims’)].

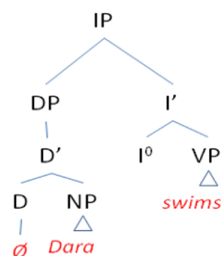
To alleviate these results, King needs to make one of two moves: he could give up the sameness of propositions in the case presented; or he might attempt to streamline the syntactic analysis of (D) and (NT), so that the proposition facts p_D and p_{NT} turn out to be the same after all. I turn to the more plausible second option below, and investigate the first in section 5.

3. Attempting to streamline the syntactic structure of the two sentences

If King wishes to hold both (Mirroring) and his (2013b) requirement, he has to recover the sameness of p_D and p_{NT} by streamlining the syntactic analysis of (D) and (NT). The obvious way to do that would be to adopt what in Linguistics is called the DP hypothesis:

DP hypothesis: an apparent noun phrase (NP) is a determiner phrase (DP) in LF.

The hypothesis analyzes the syntax of (D), and every English sentence with a proper name in the argument position, as covertly containing a zero (null) determiner at the position where other languages like Greek have an overt determiner⁵. If it is correct, it would mean that R_D is a relation between *three* lexical items after all: a ‘null determiner’ (\emptyset), ‘Dara’ and ‘swims’:



Picture 3: R_D^* .

Now the syntactic tree for English (where one removes the words in red) turns out to be the same as the syntactic tree for Greek shown in Picture 2, and p_D can be the same as p_{NT} , as our intuitions and (King 2013b) demand.

In what follows I will argue that resorting to the DP hypothesis to defuse my counter-example is not available to King. This is because (i) adopting the hypothesis is still controversial in Linguistics,

⁵ See (Abney 1987); (Longobardi 1994); (Matushansky 2008); (Fara forthcoming).

with incomplete arguments motivating it and plausible objections having been raised; (ii) the most plausible argument motivating the hypothesis is not available to King on pain of begging the question; (iii) the hypothesis runs into problems with Modern Greek; and, more importantly, (iv) the hypothesis would cause serious damage to King's motivation for his theory and its connection to a neo-Russelian account of propositions.

3.1. Motivations for the hypothesis

I begin by discussing the best argument strategies that have been claimed to show support for the DP hypothesis. The discussion will regrettably be brief since the subject literature is vast, but I hope that it will suffice to show the difficulties that arise in trying to reconcile King's motivations with those of the proponents of the DP hypothesis.

First, proponents of the DP hypothesis often use evidence cited by (Burge 1973) that even proper names for people sometimes function as phrases in English. Here is one such case:

(3) Tyler is tall

(4) *Philosopher is tall

(5) Some philosopher is tall

For Burge, a good explanation of the fact that (4) is ungrammatical in English is the fact that bare singular nouns do not combine with predicates. But D + singular nouns do, as shown by (5). So, *if a proper name is similar to a singular noun*, then it seems that there *should* be an unpronounced element in front of 'Tyler' in (3), exactly like the DP hypothesis proposes.

My reply is that this argument explains the grammaticality of (3), but leaves inexplicable the ungrammaticality of (4). If proper names are nouns (the italicized assumption above), why isn't there a covert determiner in (4) as well? Moreover, it is probably not the simplest explanation for the case presented. In some regards, it would be simpler to deny that proper names are exactly similar to singular nouns; or to revise the view that bare singular nouns cannot combine with predicates. Hence, the strategy is at best inconclusive in establishing the general truth of the DP hypothesis.

(What is worse for King, Burge and his commentators use their evidence to argue that proper names have a semantic content over and above the object or person they denote. But King cannot accept such views, as I will show in section 3.3 below.)

A better⁶ argument for the DP hypothesis starts from the premise of the universality of language. Here the DP hypothesis is justified merely because it explains the sameness, in LF, of cross-linguistically variable sentences⁷. This methodology however is unavailable to King at this stage, as it would be question-begging: it is exactly this cross-linguistic variation that King needs to explain. For generative grammarians, it is because Greeks and English speakers seem to ‘say the same thing’ with (NT) and (D) that the sentences have to be the same in LF. But as far as the present dialectic is concerned, this is the exact issue that we are trying to settle.

This circularity is a problem because, if King uses the motivation above to argue for the truth of the DP hypothesis, he would not really have explained what a proposition is or what it does. The explanatory crux of using sentential syntax as the structure that we can read off sentences to identify and individualize propositions would not be available, and he would be left with something either equally mysterious, or connected by definition, to a proposition. Finally, and regardless of circularity concerns, there is also the fact that King has recently denied that intuitions about ‘saying the same thing’ should be considered when individuating propositions (King 2013a: 45). If this denial is taken at face value, it means that he cannot make use of the argument from universality to support the DP hypothesis.

⁶ The often cited (Santorini & Kroch 2007) argue that in cases of DPs such as ‘the Ukraine’, ‘Lake Superior’, or ‘the Titanic’ “it seems more straightforward to treat the proper nouns as nouns both before and after the change and instead to consider the change as affecting the determiner, which goes from being pronounced to being silent”. I think that it is more plausible that these cases are either compound names, or exhibit syntactic peculiarities only because of the historic circumstance of their naming. Lake Superior, for example, was named thusly by speakers of French, a language that has a different noun-adjective surface order. In any case, since an argument concluding from these limited examples of country and river names that *proper names* for people constitute DPs is sorely missing, this strategy does not suffice to establish that (D) contains a null determiner in front of ‘Dara’.

⁷ See (Borer 2005: 81): ‘We have now derived a theoretically desirable result: the syntactic differences between English and Italian have been greatly reduced, leaving overt vs. covert copy merger in D the sole difference’. (Longobardi 1994) and (Alexiadou *et al.*, 2007) are more texts whose main impetus seems to be to minimize cross-linguistic variation of LF syntax.

3.2. Against the hypothesis

I believe that the aforementioned argument strategies are either inconclusive, or unavailable to King; but is more damaging that there are significant arguments against the DP hypothesis itself. (Bruening 2009) argues against the DP hypothesis even from a Chomskyan perspective; and (Segal 2001) cites considerable evidence that there are significant differences between D+noun constructs and D+name constructs that seem to negate any positive argument for the DP hypothesis⁸. The latter is particularly evident when one notices that the null morpheme, posited by the DP hypothesis in English sentences to account for the overt article in Greek sentences, is not really the same as the null article generally accepted to appear in other common noun constructs in the (LF) of English sentences. The former will always be definite, since it is definite in Greek, but the latter is usually seen as indefinite (cf Matushansky 2008).

But let us grant the DP hypothesis to King, despite its controversial status and maybe even against King's own wishes. I think that it would still not do the job that is needed, as it is not enough to explain all the syntactic peculiarities of Modern Greek sentences involving proper names.

First, it cannot explain why Greek proper names have an overt determiner when appearing in a predicative position. (Longobardi 1994) has given considerable evidence for the DP hypothesis being true in Italian and French constructs; but even in these languages the proper name exclusively appears in N position for *predicative* constructs:

(8) It was John.

(9) Fu Giovanni.

(10) Clark Kent turned out to be Superman.

(11) Clark Kent s'est avéré être Superman.

⁸ For example, it seems that when a determiner explicitly 'shows up' in English Burge-type sentences (6) and (7) below, the determiner is obligatory and has semantic significance over and above a simple article. This would be a strange result if it is just the covert determiner becoming overt. (Note here also that (6) sounds very odd in every interpretation).

(6) I live in the/that London (pointing outside the window to the city that is London, Ontario)

(7) This is the John I mentioned yesterday

So even in those languages, NPs in predicative positions are *not* embedded in DPs – and no version of the DP hypothesis that I am aware of allows DPs in these kinds of predicative positions. In Greek predicative constructs, however, the proper name is again obligatorily preceded by a D:

- (12) Ήταν ο Γιάννης
 was-3s DEF:ART-MASC:NOM Giannis:NOM
 It was John
- (13) Ο Κλαρκ Κεντ ήταν ο Σούπερμαν
 DEF:ART-MASC:NOM Clark Kent was-3s DEF:ART-MASC:NOM Superman
 Clark Kent turned out to be Superman

Modern Greek also enables other common uses of proper names that diverge too much from the English or Italian paradigms. For example, when proper names appear *without a determiner*, as in (14) and (16) below, their preferred semantic interpretation is very different from (15) and (17), which are the corresponding English sentences with the same surface form.

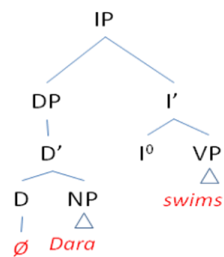
- (14) Είχα Γιάννη, πήρα Γιάννη
 had-1s Giannis:ACC, got-1s Giannis:ACC
 I had (been married to) a Giannis, then I got another Giannis
- (15) I had Giannis, I got Giannis
- (16) Ντάρα είναι αυτή
 Became-3s George Papandreou
 She is Dara-like
- (17) Dara is this one

Examples (14-17) show that bare proper names in Modern Greek simply do not work the same way as bare nouns in English, Italian or French. Hence, even assuming the DP hypothesis as a methodological starting point will not be strong enough to explain all the syntactical differences between English and Modern Greek that King needs. For example, the proposition that an English speaker believes and expresses with (8) will not be the same proposition my mother believes and would express with (12), and King faces the same problem as with (D) and (NT).

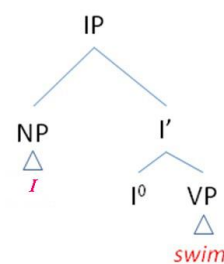
I conclude that the DP hypothesis will not help King defend his individuation of propositions in terms of syntactic relations, as the syntactic structures (in LF) of Greek sentences (NT), (12), or (13), are just very different than those of the corresponding English sentences (D), (8), or (10)⁹.

3.3. The hypothesis is incompatible with (King 2007)

The problem runs deeper. No matter the eventual outcome of the debate over the DP hypothesis, King cannot endorse it without doing serious damage to his project. The reason is that supporting any theory that posits the existence of null determiners in front of proper names in ‘referring’ uses means that the proposition-fact expressed by the sentence (D) ‘Dara swims’ will refer to one more lexical item, and use a different syntactic relation, than the proposition expressed by the sentence (I) ‘I swim’ when uttered by Dara.



Picture 3: R_{D^*}



Picture 4: R_I

As ‘I’ cannot be accompanied in English by an overt *or a covert* article, R_D and R_I are irretrievably different at LF. Hence, the two sentences will turn out to express different propositions.

At this point, however, the problem is aggravated. Instead of individuating propositions too finely across different languages, a position that one might accept on theoretical grounds (though

⁹ A different attempt to argue for the sameness of the two propositions would be to reform p_D in terms of *linguistic expressions* rather than lexical items. Then both facts p_D and p_{NT} could refer to *two* linguistic expressions and a common syntactic relation between them. Such a reply however would be misguided. Linguistically, the Greek article ‘H’ in (NT) is not an unstressed element, so it cannot be a part of the noun: ‘H’ and ‘Ντάρρα’ are separate syntactic units (B. Joseph, p.c.). Philosophically, if King insisted on using the term ‘linguistic expressions’ in his propositions facts, he would encounter problems in his project of individuating proposition-facts correctly in the face of the ‘Benacerraf worry’ (King 2007: 3): we would not know if the unique proposition \wedge that Dara swims at night \wedge is a fact about the three expressions {‘Dara’, ‘swims’, ‘at night’}, the two expressions {‘Dara swims’, ‘at night’}, or even the two expressions {‘Dara’, ‘swims at night’}.

see section 5), we individuate propositions too finely *in English*. Moreover, this particular result is totally undesirable because it blocks King's support for neo-Russelian propositions. If Dara cannot access the same structured proposition by uttering (I) and (D), it means that one of these propositions contains as a component something more than an object and a property. This, in turn, blocks the contextual amendments King offers in his (2007; 2009; 2013b), as the amendments assume that

‘we also wish to talk about the two-place relation that [Dara] stands in to the property of swimming in virtue of the existence of the English sentence “I swim” taken in a context with [Dara] as speaker’ (King 2013b: 5-6).

If the sameness of the propositions expressed by (D) and (I) in the assumed context is removed, there is no principled way to extend the definition of proposition-facts to indexical expressions, and a big part of King's project collapses.

Note here that King cannot adopt one of the complicated semantics of (Burge 1973), (Matushansky 2008), or (Fara forthcoming) that re-instate the connection of (I) and (D) to the *same* proposition, as his 2007 analysis absolutely needs the semantics of (D) to be as simple as an object instantiating a property. I will illustrate this point with Matushansky's conclusion:

‘proper names are two-place predicates: besides the standard individual argument slot, they also have an argument slot for the *naming convention* *R* [...] that is presupposed to be shared by the hearer.’ (Matushansky 2008: 592)

The convention Matushansky mentions makes additional reference to the *phonological string* of the proper name. For Burge, Fara and Matushansky the semantics of proper names are similar to those of definite descriptions. But for King parameters such as the phonological string cannot be part of the propositions expressed by simple sentences such as Dara swims:

‘[When considering the sentence ‘Michael swims’] English speakers interpret the syntactic relation that obtains between ‘Michael’ and ‘swims’ in a certain way: they take *R* to ascribe the semantic value of ‘swims’ to the semantic value of ‘Michael’. This is in part why the English sentence is true iff Michael possesses the property of swimming’. (King, 2013b, 3-4)

If the semantic value of ‘Michael’ is not just the object Michael, as Fara, Matushansky and Burge suggest, then the whole account of how speakers grasp propositions (and how these get their truth values) outlined above collapses or becomes a descriptive affair. I conclude that King’s framework is simply incompatible with the DP hypothesis¹⁰.

4. A diagnosis, and more counter-examples

At this point one might think that the case I describe is a strange exception for a strange language that may not be very significant in the big scheme of things. This would not be correct: a quick cross-linguistic survey shows numerous differences in syntax between languages that could form multiple counter-examples to King’s position.

First, the problem we are having with the proposition *p* that Dara swims is infinitely multiplied when one considers that the same issue will come up for *every* Greek sentence containing a proper name. In Greek the definite article is obligatory: a determiner needs to accompany a proper name in all grammatical contexts that could be taken to express a proposition. This is likely the case due to the fact that Greek syntax is not as rigid in the surface level as English syntax: in Greek the (obligatorily case-inflected) determiner is required to determine if the NP is functioning syntactically as the subject (18) or the object (19) of the sentence, or if the verb is intransitive (18) or transitive (20).

(18) Η Ντάρα έφαγε
DEF.ART-FEM:NOM Dara ate-3s
Dara ate

(19) Την Ντάρα έφαγε
DEF.ART-FEM:ACC Dara ate-3s
It ate Dara

(20) Η Ντάρα έφαγε το μήλο

¹⁰ (Alexiadou *et al* 2007) suggest that even if one dispenses with the DP hypothesis, sentences (D) and (NT) might plausibly be equivalent due to another parameter regulating how proper names for objects behave across languages. I could not conclusively discuss such a general statement in section 3.1, but at this point I can say the following: if there is such a parameter on the syntactic level, King has to somehow make it part of the proposition expressed. The parameter however will be absent in the proposition expressed by (I), as (I) does not contain any proper names. Hence the problem for King will return.

DEF.ART-FEM:NOM Dara ate-3s DEF.ART-NEUT:ACC apple
Dara ate the apple

Not only will all Greek sentences containing proper names constitute counter-examples, so will all such sentences of Brazilian Portuguese, some dialects of Spanish, and at least one Native American Language, that of the Seri people, that have similar obligatory determiners in front of proper names (O'Meara and Bohnermeyer 2008). Here is just one example from Brazilian Portuguese:

(21) A Dara nada
DEF.ART-FEM Dara swim-3S
Dara swims

(22) *Dara nada

Moreover, names of countries and regions *must* be accompanied in French by a determiner:

(23) la Bolivie, le Quebec
Bolivia, [the province of] Quebec

And even though standard proper names in German and northern dialects of Italian stand alone, in the vernacular they are often accompanied by the definite article¹¹.

Each of these languages has different grammar or production rules, so it might be that a syntactic level, ideally LF, in some of them is more similar to English than their Greek counterpart sentences. Until this is shown however, all the examples above serve as *prima facie* counter-examples to King's analysis of sentence (D).

Another thorny issue with (D) is tense. It is probably unfortunate that King has chosen the simple present tense for his paradigm case, as there are languages where that tense is encoded with extra adverbials instead of tense markings on the verb. This is the case in the so-called 'tenseless' Paraguayan Guaraní language (Tonhauser 2011), where the King-style proposition fact p_D would need to incorporate *yet another covert lexical item* to account for the Guaraní adverbial indicating the tense. If not, the Guaraní facts/propositions will again turn out to be very different than the English ones, as they will include one more lexical item, and their R relations will be different.

¹¹ In Standard German one hears 'Hans', 'Peter', 'Annemarie', but in Vernacular German one hears 'der Hans', 'der Peter', 'die Annemarie' (Santorini & Kroch 2009). In the Milan dialect one hears 'il Gianni' instead of 'Gianni'. (Kostopoulos p.c.)

Finally, King's position becomes extremely implausible when one notices that so far we have only attempted to analyze the (paradigmatic!) proposition that Dara swims in different languages, and have found a remarkable cross-linguistic syntactic variation – but we have not even touched a multitude of other cases, such as (24)-(26) and (27)-(28) below, where seemingly the same propositions are cross-linguistically expressed with structures variable in their lexical item number or the syntactic relation between them.

(24) Snow is white (English)

(25) Schnee ist weiss (German)

(26) **La** nieve es blanca (Spanish)

(27) A Dara le gustan las fresas (Spanish)

(28) Dara likes strawberries

King 2007 and King 2013b explicitly propose (24) as an unproblematic example of cross-linguistic sameness of propositions, as it can be translated in German with (25). But in Romance languages the definite article is obligatory in front of natural kind terms (26), a fact that brings up exactly the same problems for King as proper names do in Modern Greek.

I conclude that *if* some of the propositions expressed by the sentences presented in this section are the same cross-linguistically, King's theory of propositions is wrong, since it predicts their difference.

5. Against super-fine-grained individuation across languages

One should of course be very careful with pre-theoretical conditionals. It might instead be that my assumptions in sections 2 and 4 have been wrong instead, and the propositions expressed by sentences in different languages are indeed different, despite appearances to the contrary, and exactly like King's theory predicts. The present section examines if biting the bullet and taking up the above suggestion can be strongly defended. One can view (King 2007:98-101) and (King 2013a) as taking up this strategy. He notes there that one might just have to accept that translation is 'often

loose', that propositions can be different across languages, and even intra-linguistically, in ways that are not at first obvious.

5.1. Implausibility

Yet, my comments from sections 2 and 3 do not merely attack King's theory for its prediction that the proposition my mother believes and expresses with (NT) and the proposition I believe and express with (D) will be different.

(NT) Η Ντάρα κολυμπάει
(D) Dara swims

They also show that in King's theory a monolingual Greek, Brazilian Portuguese, or Seri speaker will *never* be able to believe the propositions expressed in English by sentences containing proper names in a referring use, since it is impossible to capture the specific English syntax in these languages. Any sentence in them that attempts to utilize the specific relation R of fact p to encode instantiation (that is, the R from the English sentence (D) that contains *exactly two* lexical items) will be ungrammatical, so it will form *no proposition at all*.

I do not wish to claim here (or anywhere) that every person in the world, independent of the language they speak, can believe all of the propositions that can be expressed by English natural language sentences. Translation is indeed often loose. But it is wildly implausible to suggest that a great number of people cannot have the capacity to think some of the simplest propositions – those that have a named person instantiating a property. Such bold bullet-biting requires at least a minimal error theory that King does not provide. How is it that monolingual Greek speakers can never think the propositional thoughts that English speakers often think, while on the other hand German speakers often can?¹²

¹² As mentioned before, King does intend to keep some translations accurate, such as translating (24) into the German (25) (King 2007:98), as well as translating 'Michael swims' into the German 'Michael schwimmt' (King 2013a). From this I conclude that King does not mean to be endorsing anything as radical as Quinean radical untranslatability. (See also 5.3 below)

There is a stronger reason why the claim is so implausible as to need an error theory: it is that the propositions believed by me when I utter the Modern Greek sentences (B) and (E) below will turn out to be different.

(B) 'Ο Βαγγέλης κολυμπάει' (Vangelis swims)
(E) 'Εγώ κολυμπάω' (I swim)

As noted in section 3.3, (E) and (B) have a different number of lexical items, and a different syntax that no DP hypothesis can streamline. According to King then, when I believe the propositions expressed by (E) and (B), I believe different things. This is problematic, as it means that a neo-Russellian framework cannot be supported in Modern Greek. Would all the results of King's project of giving the metaphysics of propositions be different if such languages were the only ones spoken in the world, indeed if King himself spoke such a language? Without a concrete error theory a positive answer to this question is probable. It is also mind-boggling: Theorizing about the structure of propositions should not be contingent to the language one speaks. If my reasoning so far is correct, King's theory is arbitrarily tied to the English language, and might have been entirely wrong if the language wasn't spoken.

5.2. Possible error theories will not be neo-Russellian either

One way to start providing an error theory would be to show some propositional cross-linguistic differences surfacing in an identifiable level by following the paradigm of (Collins 2007). Collins examines intra-linguistic proposition individuation by looking at English sentences that only *appear* to express the same proposition, when careful thinking reveals that in fact they express different ones. His most conclusive case is the pair of sentences (29) and (30).

(29) Bill appears to be tired

(30) It appears that Bill is tired

Collins argues that from (29) one can infer that Bill exists, but one cannot from (30), as (30) seems consistent with the possibility that Bill does not exist. Hence, a syntactic difference turns out to

create an unforeseen difference in the level of propositions that pre-theoretically seemed equivalent, and (King 2007)'s bullet-biting can be vindicated.¹³

This might well be true for some cases; but I do not see the same strategy being successful in our specific cross-linguistic case. Since the difference between sentences (D) and (NT) is the presence of the Greek determiner 'H' ('the'), any plausible candidate for a propositional difference has to focus on that. But the determiner in (NT) cannot contribute anything identifiable to the semantics of the sentence, or the modal profile of the proposition expressed. It does not even add extra definiteness or emphasis to the noun, simply because there is no Greek 'default structure' without a determiner to add any information to. The only function of the determiner is grammatical and/or syntactical: as I mentioned in section 4, its function is just to indicate if the name is in the object or the subject position. In the English sentence (D) this is indicated by the position of the name to the left or the right of the verb, something impossible in Greek due to the language's relaxed word order. Nothing else is contributed to the modal profile of the sentence, so (D) and (NT) do not differ like (29) and (30) do¹⁴.

A different error theory might focus on the differences between how (NT) embeds or relates to other Greek pieces of language, and how (D) embeds or relates to other English pieces of language. I do not doubt that at all; actually I have already described some of these differences in section 4. But

¹³ Other cases from (Collins 2007) are not so successful; for example, the syntactic difference created by word order inversion through the passive voice does not seem to me to create any identifiable difference in the level of proposition expressed. Note here also that King cannot use a 'diverging propositional attitudes test' to determine differences in propositions, as he does for intra-linguistic cases (King 2009: 96, King 2013a). This is because a monolingual Greek speaker's propositional attitudes cannot of course be tested in the face of a sentence formulated in English.

¹⁴ One might think that the explicit feminine gender marking on the article would carry the semantic content that the person Dara is female. But it does not. The gender there is just grammatical, as seen in the feminine article's use in accompanying soul-less objects in (33) and male/masculine names in (34) .

(33) 'Η καρέκλα' [DEF.ART:FEM:NOM chair] the chair

(34) 'Η Παναγιώτς' [DEF.ART:FEM:NOM Panagiotis:MASC] Panagiotis

I do not doubt that in most cases (NT) creates strong pragmatic implicatures regarding Dara's gender, but (33) and (34) suggests that these are cancelable in the face of evidence to the contrary. (Zubin and Köpcke 1986) do argue that there is often morphological and semantic motivation for folk gender assignment at the basic taxonomic level. But this claim is most plausibly explained by claiming that the operative gender mark is indicated by the *noun* and not the article. (Boroditsky *et al.* 2003) and (Alexiadou *et al.*, 2007: 266) agree: 'In Greek, gender is taken to be inherent to the noun stem and triggers agreement with determiners [...] gender is an abstract feature not represented syntactically'. Hence, at least in sentence (NT), Dara's gender is not part of the semantics of the definite article 'H', or its contribution to the modal profile of the proposition expressed.

these are surface-level differences, not necessarily about the *thought* or *proposition* that Dara swims.

To see why, think of the differences between how the two following sentences behave in English:

- (I) 'I swim' [said by Dara]
- (D) 'Dara swims'

These can be embedded differently in larger sentences containing them and they connect to other sentences in one's speech in a different manner. First, the verb used is inflected differently, which might create problems even in a Chomskyan analysis. Second, Dara can say (33) but not (34) below.

- (33) 'Dara swims, doesn't she?'
- (34) 'I swim, doesn't she?'

Finally, if I am Dara, I cannot infer the existence of Dara (that is, my existence) just from (35) below, but I can just from (36), exactly as happens in the (29)-(30) sentence pair noted by (Collins 2007).

- (35) 'It appears Dara is tired'
- (36) 'It appears that I am tired'

Hence, if King insists that in the case of (D) and (NT) such surface-level differences build up a difference in the level of propositions, he is also committed to the claim that, in English, (I) and (D) express different propositions. As noted in 3.3, this creates severe problems for King's neo-Russellian account. His account needs the claim that (I) and (D) express *the same* proposition *p*, on pains of endangering steps of his argumentation, as well as making his theory entirely implausible.

A neo-Russellian account of propositions is desirable exactly because it analyzes propositions through their informational content and the objects they refer to, and not through the surface-level differences of the sentences expressing them. In fact, I agree with King that the indexical 'I' directly contributes the object Dara, and only the object Dara, to the proposition expressed by (I), exactly like the proper name 'Dara' does to the proposition expressed by (D). My point is that so does the phrase 'Η Ντάρα' in my mother's sentence

- (NT) 'Η Ντάρα κολυμπάει',

no matter the different syntactic structure underlying sentence (NT).¹⁵

In the absence of a concrete error theory showing why this is not the case, King's support for the neo-Russellian framework is ad hoc. The upshot is that King needs to either abandon that support; or his insistence that syntactic structure in LF mirrors some essential propositional structure.

5.3. Not just a pre-theoretic intuition

In this section I examine the responses made by (King 2013a) against objections 'from coarseness of grain', which is also this paper's strategy. 2013a argues that: (i) 'each way of formulating the objection has a fatal flaw' (King 2013a: 19); (ii) any neo-Russellian account of propositions that individuates propositions more coarsely faces severe difficulties; and (iii) there are independent considerations for thinking that propositions should be individuated very finely in English.

Let me mention first that (King 2013a) combines two separate sets of objections from coarseness of grain: those who argue intra-linguistically and those who argue cross-linguistically. This paper does not argue against ultra-fine intra-linguistic individuation, so I would be happy to accept such a result for the sake of argument. I would also be happy to accept his conclusion (ii), that any neo-Russellian account of propositions should individuate propositions very finely in order to respect the principles SSSS (Same Syntax, Same Structure) and DCDP (Distinct Combination, Distinct Propositions) (King 2013a: 31). I can do that because these principles regulate intra-linguistic proposition individuation, and not cross-linguistic individuation. Finally, though I have some reservations¹⁶, I could also agree with his claim iii, that individuating some propositions too finely in English is preferable in order to defeat the dynamic semanticist on certain problems with discourse

¹⁵ A reviewer for a different journal has implored me to state my own 'positive account' of the issue. This would strain the already considerable length of this paper, but the gist would be the following: (D) and (NT) express the same proposition in two different ways. The difference is how a language syntactically represents instantiation. What 'unifies the parts of a proposition' is not how instantiation is represented, but just that instantiation takes place. I think that one does not need to explain things further, especially not in terms of the lexical items used.

¹⁶ For the record, my main reservation with (iii) is that I do not see why we cannot assign discourse updating wholly to pragmatics or explain the problems with a different theory of anaphora and clefts.

updating. This leaves his claim (i), that all objections he presents ‘have a fatal flaw’. Once more I could agree for the sake of argument, as I think that the three objections he presents in (King 2013b) are not as strong as mine.

Let me explain: The first objection King presents claims that propositions should be coarsely individuated on the basis of a pretheoretic intuition that when two sentences, say A and B, ‘seem to say the same thing’, they express the same proposition. Sentences (29) and (30) above are a good case in point. The second objection proposes ‘standard translation’ as a criterion for sameness of propositions across languages. The third relies on a similar pre-theoretical intuition that when someone utters A, and the ascriptions ‘he said B’, ‘he believed B’ and ‘he knows B’ seem true, then A and B express the same proposition. King calls these objections ‘facile’ and provides counterexamples to each pre-theoretical criterion by presenting *different* sentences, say C and D, where the pre-theoretical intuition exists, but it would be wrong to assume that they express the same proposition.

I agree with King that these objections are facile, at least in the way that he presents them. But I do not think that I have presented such an objection here. My argument does not just rely on a pre-theoretical intuition to the effect that when I utter (D) in English and my mother utters (NT) in Greek we ‘seem to say the same thing’. I actually agree with King that sometimes we seem to say the same thing, as in (29) and (30), but this should not be taken as the ultimate guide to individuate propositions. Nor did I argue that ‘standard translation’ should be such an ultimate guide. I have already mentioned that I agree with (King 2007) that translation can often be loose.

Now, it is true that in sections 3 and 5.1 I presented considerations similar to those that King describes as ‘pre-theoretical’ to support my case. But I take it to have presented a large number of different considerations: sentences (D) and (NT) should express the same proposition because of their similarity in semantic content, belief formation, belief ascriptions used, truth-conditions, *as well as* compositionality profile. These criteria go way beyond ‘standard translation’, and I sincerely

doubt that King could find a single counter-example of two *different* sentences that adhere to all of them at once, as (D) and (NT) do, and yet clearly express different propositions. For example, none of his C/D pairs mentioned in (2013b) does the trick.

Moreover, section 5.1 forms a theoretical objection: basic simple propositions that have objects instantiating properties should be available to a normal functioning human subject with normal propositional attitudes, no matter the language she speaks. That same subject should also be able to express the same proposition about herself by substituting ‘I’ for her proper name, or other proper names that designate herself. But, in King’s theory, Greek speakers implausibly and unexplainably cannot do either of the two.

I am pretty certain that this objection is not facile, because King agrees with me. Let me once again repeat his comments about the proposition that Michael swims:

‘Since we want speakers of different languages to in some cases grasp the same proposition, we must be able to make sense of speakers of different languages interpreting the propositional relation of the same proposition/fact.’ (King: 2013b, 3)

I hope to have shown that, as King states, we want speakers of Greek and English to grasp the proposition that Michael swims, and make sense of them interpreting the underlying propositional relation. But in King’s theory they do not, and we cannot make sense of why.

6. Conclusions

King’s strict reliance on syntactic relations to individuate propositions faces an apparent difficulty on the face of sentences from languages like Modern Greek that have an overt determiner in front of every proper name in an argument position. I argued in section 3 that King cannot claim that proper names in such uses are accompanied in English by a null determiner, either because the details of the DP hypothesis are not quite correct (3.1, 3.2), or because the rest of his theory is incompatible with the hypothesis (3.1, 3.3). Crucially, King would have to change his syntactic analysis of his paradigmatic propositions to such an extent that he would lose any support for a neo-Russellian

framework, as well as his contextual amendments (3.3). I concluded that King has to say that sentences of Modern Greek and English that contain proper names in referring uses express different propositions. The previous section 5 has pressed the point that once King bites this specific bullet, he is saddled with either an implausible theory (5.1), or an ad hoc position (5.2). Pace (King 2013a), this is an important theoretical objection, and not a resort to one or two pre-theoretical intuitions (5.3).

I think that the arguments in this paper could be used to make a slightly more interesting point than I have made so far. Syntactic structure exists to help in expressing a proposition, forming it in language and facilitating communication. Whatever propositions metaphysically 'are', they should at least play the role of *Gedanken* – entities that reside in the realm of thought and not just language-variable syntax. On the other hand, if one wishes to do *metaphysics* of propositions, she should do it through their subject matter content, what they are about, what they claim is true, or exists, or gets instantiated. Metaphysics cannot be relevant to the various ways people represent (that is, 'think about' or 'talk about') world facts, but *just those facts that they represent*. In short, syntax is not the appropriate level to individuate propositions; it belongs to the *vehicle* of our *Gedanken*, and not their content.

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