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An analysis of King's problems with belief individuation

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Introduction:

The term “proposition” has had a great impact and use in the history of analytic philosophy. Some of the founding figures of this philosophical current such as Frege, Russell and Moore, at least at some point in their careers, believed in the existence of some version of it. The importance that this term has gained derives to a large extent from the large amount of work that it can apparently play as an explanatory element. The basic explanatory roles[1] of propositions are usually understood to be; being the primary bearers of truth-value; being the objects of propositional attitudes; being the semantic content of utterances; and being the referent of that-clauses (McGrath and Frank 2024), although there is disagreement as to what the basic roles of propositions are. This multipurpose role that has been attributed to propositions has the consequence that it is a term that is considerably difficult to characterise in such a way that it can perform all, or at least a significant part of, these basic explanatory roles. Indeed, some doubt that capturing a definition that consistently fulfils all of these desiderata is possible (Lewis 1986). It is for this reason that there are widely differing approaches and proposals as to what propositions consist of, whether as abstract and independent entities (Frege 2021; Bealer 1998; Schiffer 2003) or as entities dependent in some sense on cognitive agents (Soames 1999; Hanks 2019).

In this paper I will take the proposal of Jeffry C. King in his book The nature and Structure of Content (King 2007) and raise the objection that his proposal has some problems in individuating some beliefs in an accurate way. In doing so we will see that there seems to be a tension between fulfilling this role and at the same time the role of being what different vehicles with the same content have in common. In this book King's main purpose is to provide an account of propositions playing basic explanatory roles, among which is that propositions are the content or object of beliefs and other propositional attitudes (King 2019, 2). This entails that if the critique of this paper is correct, it would show a partial failure of King's purposes and therefore the critique, if accurate, would be entirely relevant. For this purpose, I will present King’s proposal in the first section. In the second section I will present the objection that his propositions can fully perform the task of being the content of propositional attitudes. In the third section we will explore

[1] This expression was taken from (García Carpintero and Palmira 2022)

ILFs as a possible way out of the problem and consider their shortcomings and in the fourth section we will consider an alternative solution that avoids the problems of ILFs but, as we shall see, has its own difficulties.

1. King's propositions account

King's account understands propositions as structured entities with constituents. Frege and Russell are usually understood as those who gave popularity to the idea of propositions as structured entities as opposed to as simple entities (King 2019). More recently these proposals are understood as an alternative to propositions as sets of possible worlds, in that it prevents clearly distinct but true propositions in the same possible worlds from being categorized as the same proposition, such as "Bachelors are unmarried" and "Brothers are male siblings". The appeal of structured propositions is that, since constituents have a given semantic value, that they have distinct constituents implies that they are distinct propositions, regardless of whether they are true in the same possible worlds (King 2019). Consequently, structured propositions are usually understood as finer grained than propositions as simple entities. King himself notes that "I find the idea of 'simple fine-grained propositions', fine grained propositions without constituents or parts, mysterious. What would make such a simple proposition be about, say, Paris as opposed to Santa Monica?" (King 2007, 6).

The problem that these proposals have to face, however, is that they must give an explanation of what it is that unifies the constituents of propositions and makes them something other than a simple collection of components, they must explain what it is that structures them. To a large extent the answer to this problem is the answer to what we understand by propositions. King's contribution in this context is that, very roughly, what structures propositions is the very structure of natural languages, although, as we shall see, it is somewhat more complicated. King starts from the syntactic representations of sentences, particularly LF representations, as syntactic representations at the input to semantics level in the Chomskian theoretical framework. These representations represent the syntactic structure of sentences, but contrary to a superficial syntax, they also specify the scope of quantifiers, so that there is no ambiguity regarding the scope of these operators in LF representations (King 2007, 27). For example, the sentence:

1. Every bird likes some tree

is assigned two LF representations, one for each possible interpretation of the quantifier scope:

1a. [[every bird: x][[some tree: y][x likes y]]]

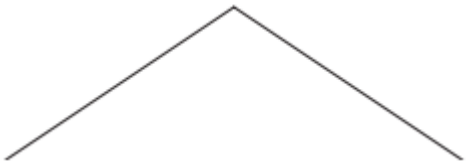
1b. [[some tree: y][[every bird: x][x likes y]]]

Thus, each LF representation has a unique interpretation of the quantifier scope. This example serves also to show that LF representations structure the lexical items of the sentence they represent into relations indicated by the brackets. King calls this relationship that lexical items maintain with each other in the LF representation "sentential relation". In addition to brackets, LF representations can be represented in tree form, which helps to understand their structure. Thus, the sentence

2. Julia sings

has an LF representation that we can express as follows:

2a.

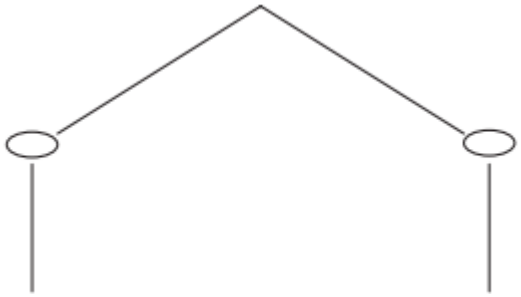


Julia sings

In this representation, the sentential relation that links the word "Julia" with the word "sings" —which for convenience we will call R— is represented through the secant lines that end respectively in these two words, placing 'Julia' in the left terminal node and 'sings' in the right terminal node. At this point, we can spell out King's proposal somewhat more precisely. If his research orbits around the question of what holds the components of propositions together, his answer is that the sentential relations of utterances are a part of it —specifically the part that provides the whole structure (King 2007, 32). Consequently, the structure of utterances maps the structure of the propositions that those utterances express. In this case, the sentential relation R of the LF representation of the sentence "Julia sings" would provide structure and unite the elements of the proposition that Julia sings, which we refer to for now as Julia* and sings*. It would also be the

semantics of this proposal itself which provides the necessary rules for the mapping of the structure of utterances to the structure of propositions. That is, the semantics assigns to the utterance ‘Julia sings’ the proposition that Julia sings, assigning to each component of the utterance —the lexical item ‘Julia’ and the lexical item ‘sings’— a specific semantic value. It is thanks to these two elements, the semantic value assigned by the proposition and the structure provided by R, that we can see that it encodes a relation between Julia and the property of singing. Consequently, the proposition that Julia sings will be such that it will take the structure of R and add a connection between the lexical items and their corresponding semantic value, so that ‘Julia’ refers to Julia* and ‘sings refers to sings*. We can represent this as follows:

2b.



This is the basic structure of what King understands to hold the components of propositions together and structured, what he proposes to call propositional relation (King 2007, 32). We can see that there are two additions with respect to 2a, the ovals at the end of each terminal node and the vertical lines leading from the ovals to Julia* and sings* —which are the components of the proposition that Julia sings. The latter represents the semantic relation that mediates respectively between the word “Julia” and Julia* and between “sings” and sings*, i.e., it represents that the lexical items represent in the sentence the corresponding components of the proposition. On the other hand, the ovals between the vertical lines and R represent the relationship of joint instantiation properties. That is, the oval in the left node represents that the property of the word “Julia” of being positioned in the left terminal node is jointly instantiated with the property of having Julia* as its semantic value. Consequently, it signals that “Julia” has both properties jointly (King 2007, 30-31). As I mentioned earlier, neither of these two new additions to 2b represent any structural additions with respect to 2a. Consequently, the entire structure

of 2b is provided by R, by the sentential relation of the sentence corresponding to the proposition that Julia sings. Moreover, it is now easier to understand in what sense I mentioned before that R is a part of what holds together the components of a proposition (the propositional relation) and that it was precisely the part that gave them structure, since, as we can see in the arborescent representation 2b, R is literally a part of the propositional relation and is precisely the part that determines the nodes that structure the proposition (King 2007, 32). To these we add only the semantic relations between words and components of the proposition, —which simply extend the terminal nodes without adding structural complexity— since the ovals corresponding to the join instantiation do not add any properties, they only point out that the words instantiate the structural properties derived from belonging to R and its semantic properties.

This, broadly speaking, is the idea that underlies King's proposal. However, there are three particular points that I have left to the end because they will be of central importance for the argument of this paper and should be kept in mind. First, what exactly are the constituents of propositions and how their lexical correlates are related to them. Second, how the truth conditions of propositions are determined. Third, how context affects the relationship between lexical item and propositional component and truth conditions. Let us begin with the first point. In my exposition so far I have left open what exactly are the components of the propositions that in 2b we have represented as Julia* and sings*. In this text King adopts a position inaugurated by the work of Saul Kripke (Kripke 1980) and several other authors[2] according to which, certain linguistic expressions contribute to the proposition the individuals to which they refer. “In the wake of this work, it is widely held that proper names, indexical ('I', 'here', 'now', etc.) and demonstrative pronouns (taken relative to contexts) contribute the individuals they designate (in those contexts) to the propositions expressed (in those contexts) by the sentences in which they occur.” (King 2007, 6). These are what have been called *devices of direct reference*[3], insofar as their contribution to the proposition is the individuals themselves. Consequently, when we said that in the provisional schema of the proposition that Julia sings 2b there was a semantic relation between the lexical item “Julia” and the component of the proposition Julia* what we were saying is that Julia, the flesh and blood person, is the semantic value of “Julia” (King 2007, 30-31). On the other hand, King takes a somewhat similar position

[2] (Salmon 1986; Soames 1987; Kaplan 1989)
[3] This term was coined by Kaplan (Kaplan 1989)

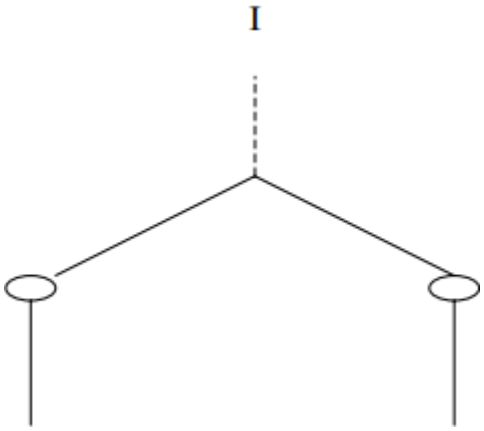
with respect to predicates. He proposes that "(syntactically simple) n-place predicates contribute n-place relations to propositions (where 1-place relations are properties)" (King 2007, 7). Thus, in "Julia sings," the semantic content of "sings" is properly the property of singing. Consequently, propositions are structured entities composed of individuals, properties, and relations. The proposition that Julia sings is an entity structured by the relation R of the FL representation of the sentence "Julia sings" and which has as its components the semantic values of the lexical items of the latter, that is, Julia —the person— and the property of singing[4].

Secondly, it remains to address the question of how under this semantics the truth conditions of a proposition are determined. Probably one of the most important basic explanatory roles of propositions is that of being the primary bearers of truth. Therefore, it is of central importance that there is an explanation of what mechanisms determine what truth conditions propositions have. We know that the sentence "Julia sings" is true only in the case that Julia instantiates the property of singing, but it is not immediately evident why this is the case and what determines that these are the truth conditions of the sentence. King, in this context, turns again to syntax to resolve this problem. He proposes that it appears that in English predicates of type 2/2a in which a noun and a one-place predicate are syntactically concatenated are evaluated as true if the semantic value of the noun instantiates the semantic value of the predicate. Consequently, syntax gives us instructions on how to evaluate sentences, and therefore on how to evaluate the propositions they express (King 2007, 34). These instructions, he proposes, have two functions. A first, which is "the function that maps an object and a property to true (at a world) iff the object instantiates the property (at the world)" (King 2007, 34). This is what he calls the *instantiation function*. The second function is that "the instruction instructs that f is to be applied to the semantic values of the expressions at the left and right terminal nodes (and a world) to determine the truth value of the sentence (at the world)" (King 2007, 34). This instantiation function is not something that the sentence "has", it is not the semantic content of the sentence, but it is something that it encodes, it is the instructions that, given its structure and the semantic content of its components, allow us to evaluate the sentence for truth or falsity (King 2007, 34). Since the instantiation

[4] It is important to emphasize that King devotes only one page to deal with this question and does not give any argument in favour of adopting this perspective in favour of the semantic value of this type of expressions. He simply refers to the existing literature on this discussion and emphasizes that it is not a central point of his proposal (King 2007, 7).

function is part of the proposition, insofar as it is what determines its truth conditions, it is something that we must add to the provisional representation 2b to progress in our explanation of what propositions are according to King. Consequently, this addition to 2b would result as follows:

2c.

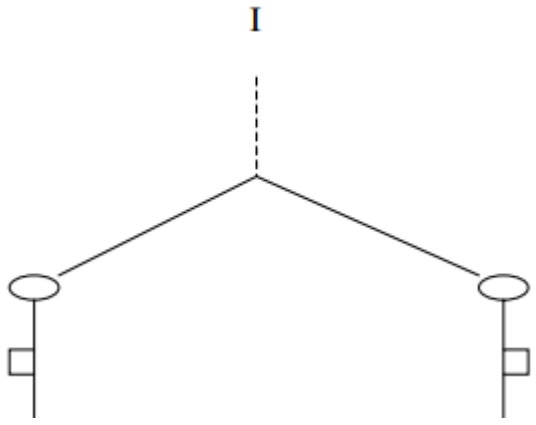


Here the instantiation function is represented by I and is linked to R by a dashed line to symbolize that it is an encoding relation distinct from the semantic relation that mediates between "Julia" and Julia*, that is, between lexical items and components of propositions (King 2007, 35). Moreover, this tells us that the instantiation function (I) is properly a part, a constituent, of what the proposition that Julia sings consist of. This has the great advantage that then the truth conditions of this proposition, or of any other proposition following this scheme, would be intrinsic to it, the propositions would have the truth conditions they have by virtue of their structure and their instantiation function, that is, of a part of what they are. In other words, "It is intrinsic, because the proposition has it simply in virtue of the way it is in itself. That is, this fact, just in virtue of the way it is, has the truth conditions it has. Any duplicate of it has the same truth conditions." (King 2007, 61)

Third, it is necessary to talk about context and how this affects the semantic value of context sensitive expressions. So far we have simply assumed that words refer to individuals, properties and relations independently of any context, but this is not always the case. Many expressions are context sensitive, that is, depending on the context they refer to one individual or another or to one property or another. For example, "I" in the sentence "I write" refers to me in a context in which I am the speaker making the utterance

but refers in any other context to whoever is uttering the utterance. King therefore introduces this element into his proposal about what propositions are. However, as he rightly points out (King 2007, 40), particular contexts cannot themselves be part of propositions. This would mean that two sentences taking place in different contexts could not express the same proposition. For example, let us take the utterance “Julia sings” in two different contexts —let us call them c and c'. Suppose that in both “Julia” refers to Julia* and “sings” refers to the property of singing, but that they differ on some other point, for example, to whom a possible expression of “I” would refer in each of them. If we want the propositions to be the semantic content of the utterances, we want in c and c' “Julia sings” to express the same proposition —the proposition that Julia sings. However, if the particular contexts are part of the proposition, then the proposition expressed by “Julia sings” in c is different from the one expressed by “Julia sings” in c' because since the particular context is part of the proposition, the propositions differ in that one is relative to context c and the other to context c'. To avoid this, he proposes to existentially generalize over contexts, that is, that the particular contexts are not part of the proposition, but that it is part of the proposition that the expressions have a given semantic value in at least some context (King 2007, 39). Thus, the proposition “Adriano writes” exists in part because there is at least one context in which the expressions that make up a sentence have as semantic value Adriano and the property of writing and R structures them in such a way that the latter is predicated of the former. This happens for example when someone says “I write” in a context in which the utterer is Adriano. This addition to propositions manifests itself in the arborescent representations we are making use of as follows:

2d.



As we see the difference between 2c and 2d is the addition of small squares attached to the vertical lines that represent the semantic relation between the components of the proposition and the expressions that have them as semantic value. These squares represent the property of properties of having an instance, which King refer to as “H” (King 2007, 40). That is, it shows that the semantic relation has at least one instance, there is at least one context in which the expression “Julia” refers to Julia* and “sings” refers to the property of singing, without specifying what such context(s) is/are - to avoid the problem mentioned above. Accordingly, “What H (box) does here is turn the three-place relation of x having y as its semantic value in context z into the two-place relation of x having y as its semantic value in some context.” (King 2007, 40).

This gives us all the necessary elements to understand what kind of facts King believes propositions are, and using facts in this case is not accidental, since King understands propositions to be a very concrete class of facts. Starting from his proposal about what facts consist of:

“Let's call an object possessing a property or n objects standing in an n-place relation, or n properties standing in an n-place relation or etc. a fact.” (King 2007, 26)

it seems reasonable to understand that propositions are some kind of facts, since, as we have seen so far, they are made up of individuals, properties and relations that are structured following the R of the sentences that express them. Now, taking into account all of the above, King proposes the fact that the proposition that Julia sings consists in the following: there is a context c and there are lexical items a and b of some language L such that a has as its semantic value in c Julia and occurs at the left terminal node of the sentential relation R that in L encodes the instantiation function and b occurs at R's right terminal node and has as its semantic value in c the property of singing (King 2007, 39). This fact, it is important to emphasize, is distinct from the fact that Julia has the property of singing, the latter is only the fact that makes true the proposition that Julia sings, but it is not itself the proposition. These two facts differ in that, although both have Julia and the property of singing as components, the proposition is further composed of Julia being the semantic value of an expression of a language in addition to occurring in the left terminal node of a sentential relation R in addition to there being a context c... That is, what differentiates the two facts is the whole structure that constitutes the proposition that Julia sings and that the fact that Julia sings lacks, which is reduced to Julia having the property of singing.

2. The problem with the individuation of beliefs

Now that we have a relatively precise understanding of the proposal King makes in his book, we are in a position to fully articulate the kind of problem we are going to treat here. This has to do with the approach that King adopts in his understanding of propositional attitudes and the meaning of propositional attitude attribution sentences, the so-called relational conception of propositional attitudes. This conception has been characterized by authors such as Kent Bach (Bach 1997) or Robert Mathews (Matthews 2010) to criticize a series of proposals such as (Fodor 1978; Schiffer 1992) that take propositional attitudes as relations. Particularly, the relational account understands propositional attitudes to have an object and to be relations between the attitude holder and that object: belief, desire, hope, etc. It is generally understood that the object with which one holds this relation is a proposition (which is generally understood as particular and semantically evaluable), such that when I believe, desire, fear, know, etc that x, I am in a relation of belief, desire, fear, knowledge, etc with the proposition that x. However, "There is, to be sure, considerable disagreement as to the nature of the semantically evaluable particulars that are the 'objects' of propositional attitudes, e.g., whether they are complex Fregean senses, Russellian propositions, intensioal isomorphisms, sentences of a natural language, mental representations, or perhaps things considerably more exotic." (Matthews 2010, 99-100). King, as we mentioned, although he does not treat it extensively, adopts a relationist[5] stance with respect to propositional attitudes (King 2007, 106, 141) on the understanding that when someone entertains a propositional attitude, he is in some kind of relation to the fact that on his account constitutes that proposition.

This proposal then implies that beliefs[6] have a content, that this content is their object, that the one who entertains the proposition is in some relation to that object, and that the latter is a proposition —understood as we have so far expounded. This seems appropriate and, especially, aligned with King's purposes. If he wanted his proposal about what propositions are to play all the basic explanatory roles, this seems to fulfil at least one,

[5] I am using Matthews' terminology here to refer to those who adopt the relational view as I find it practical and appropriate.
[6] In what follows I will speak for convenience of beliefs, but the arguments given here should be compatible with any other propositional attitude.

namely, that propositions are the content or object of propositional attitudes[7]. The criticism we will address is that, despite King's attempts, he cannot individuate some beliefs in an accurate way. The problem lies, roughly speaking, in that his proposal fail to assign different propositions to some beliefs that are distinct. Let us take the following pair of beliefs to exemplify how King fails to properly individuate certain propositional attitudes:

i) Superman flies

ii) Clark Kent flies

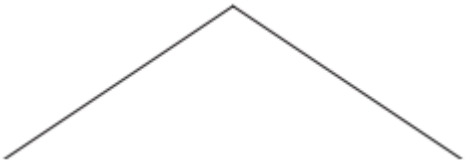
These are intuitively distinct beliefs, i.e., believing that i) does not seem to be identical to believing that ii). We can find theoretical support for this intuition if we follow Wilfrid Sellars (Sellars 1997) and several other philosophers[8] in their proposal that beliefs have some explanatory role in the believer's behaviour. In this sense, one would expect that if beliefs were the same or had the same content then any behaviour explained by the possession of i) should be equally explainable by the possession of ii). However, this does not appear to be the case. If any Daily Planet reporter who held the belief that Superman flies —a most common belief in Metropolis in any case— suddenly saw Clark flying in through the window or levitating instead of taking the stairs he would be extremely surprised. If i) ii) were the same belief then it does not seem that anyone who believed ii) should be surprised to see Clark flying, or at least, not surprised in a different way than when they saw Superman flying. However, it seems that this is not the case and that the reaction of someone who possesses i) would be radically different from the reaction of someone who possesses ii) if they saw Clark flying. In this sense, everything points to i) and ii) being different beliefs.

Now, if they are different beliefs, it seems that King should associate a different proposition to each of them if he intends his propositions to perform the role of being the semantic content of propositional attitudes. However, looking at the individuation conditions of the propositions we have presented above, this does not seem to be the case. First, both beliefs seem to have the same structure, i.e., they seem to have the same sentential relation, one in which there is a subject referred by a proper name positioned at

[7] Although it seems rather that, as the basic explanatory roles are conceived, the relational account of propositional attitudes seems to be presupposed, insofar as they assume that propositional attitudes have a content or an object.
[8] (Davidson 1970; Dennett 1971; Lewis 1974; Fodor 1975)

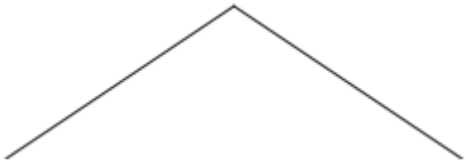
the left terminal node and there is a monadic property at the right terminal node. Moreover, since both Clark Kent and Superman[9] are proper names, both are referential expressions that have as their semantic value the individual to whom they refer, which, in certain contexts, refer to the same individual[10]. The difference, we would generally say, is that one is his name as an ordinary citizen working at the Daily Planet, while the other is his name as a superhero. But these nuances are lost in King's account, and both contribute as content to the same person. Looking at it in tree format, as we said, the R structure of the linguistic expression of this belief is the same. The only thing that changes are the lexical items of the left terminal node.

3.



Superman flies

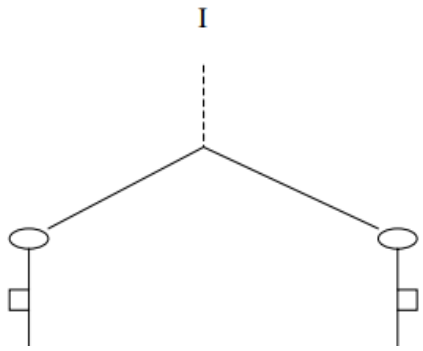
4.



Clark Kent flies

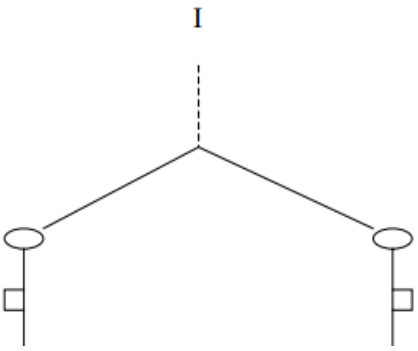
This difference, however, disappears when starting from the R of 3 and 4 we present their respective propositions, while the expressions positioned in the left terminal nodes of 3 and 4 have as semantic content the same person, SuperClark.

3a.



SuperClark* flies*

4a.



SuperClark* flies*

[9] I am treating these names as if they were real people without taking into account that they are fictional characters. If this is a problem, they can simply be replaced by a real person known by two names, such as the classic Tully/Cicero example.

[10] I will use SuperClark to refer to the person directly, that is, to the semantic value of "Clark Kent" and "Superman".

In this case, when we represent the propositions that express beliefs i) and ii), the differences that we saw between 3 and 4 disappear. This is because, although the propositions take the sentential relation of the sentences that express them as a structural element, they do not properly take the lexical items that occupy their terminal nodes. They simply limit themselves to pointing out (by means of the oval) that whatever the lexical item positioned in that node in R represents, the properties of occupying that node and having a specific semantic value are jointly instantiated. The reason King runs into this problem is then that, although he has at his disposal many tools that make his account very fine grained, his semantic proposal regarding direct reference devices makes the semantic value of these lexical items to be nothing more than what they refer to, the semantic content is exhausted in the individual referred to. The content of beliefs, by contrast, seems not to be limited to entities only, but includes particular ways of representing those entities —similar to Fregean modes of presentation. Matthews presents this point in a particularly clear way:

> Think, for example, of the desire shared today by many investors, which we might characterize by saying that they want to recoup their losses in the stock market crash of 2001-2. We think of ourselves as picking out these investors' desire by referring to a particular state of affairs, viz., one in which they recoup their losses in that market crash. More specifically, we conceive of ourselves as picking out these investors' desire by referring to this state of affairs under a particular description, viz., as a recouping of losses rather than, perhaps, as simply the earning of a very substantial return on current investment. (Matthews 2010, 169)

Given that the lexical items in the left node of 3 and 4 have as semantic value the same individual, —SuperClark— the two propositions turn out to be exactly the same as shown in representations 3a and 4a. Given that, as we have already mentioned, i) and ii) seems to be different beliefs we have to conclude that King fails to appropriately individuate beliefs in this kind of cases.

3. ILF as a possible way out of the problem.

This problem seems to point out that the criteria that King proposes as individuating propositions are coarser than those necessary to individuate some beliefs. King uses propositional structure —the sentential structure applied to the proposition— and the semantic values of lexical items to do this work. However, beliefs seem to demand an element that signals how those constituents (the semantic values) are presented. If we were to add such an element to King's propositions, we could then solve this kind of problem. Larson and Ludlow's proposal (Larson and Ludlow 1993) suggests a promising solution of this kind. Larson and Ludlow in *Interpreted Logical Forms* propose that clausal complement-taking verbs, like propositional attitude attribution verbs, express relations between agents and ILFs. An ILF (Interpreted Logical Form) is an LF representation whose terminal and non-terminal nodes are annotated with extensional semantic values. This, as we might notice, is exactly part of what King understands as a proposition. One difference, however, is that, contrary to King's propositions, the terminal and non-terminal nodes of ILFs are annotated not only with semantic values but also with the linguistic items expressing those semantic values. Another difference between ILFs and King's propositions is that ILFs are simply not propositions. The authors do not intend in their paper to propose a way of understanding propositions; on the contrary, they intend to solve semantic problems formed around verbs of propositional attitudes similar to the one we have exposed in the previous section[11]. Their proposal is that an ILF is what one has a relation to when one has a belief. Or rather, an individual believes that S iff she has a belief relation to the ILF of S[12].

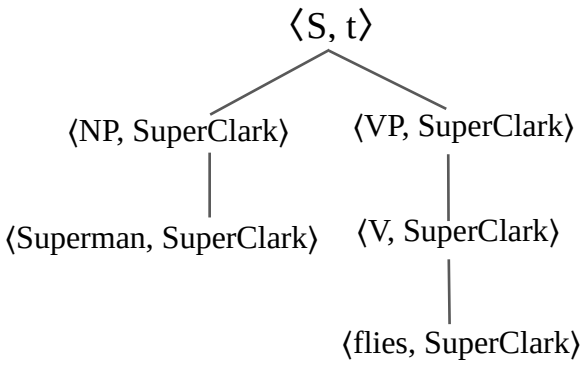
Now, ILFs are not conceived as propositions, however, they have certain similarities with King's proposal. As we said, they start from LF representations and add semantic annotations to them, what is more, their individuation conditions depend precisely on what their structure and components are (Larson and Ludlow 1993, 315). Moreover,

[11] In this paper we have formulated the problem in terms of whether one belief is the same as another or has the same content as another. However, this kind of problem is often formulated by propositional attitude attribution statements such as ‘Lois Lane believes that Clark Kent flies’ and ‘Lois Lane believes that Superman flies’ and it becomes apparent that the truth-values of these appear to be different. I have preferred not to present the problem in these terms because what interests me properly is not the truth value of these statements, but whether, following King's proposal, the content of the beliefs, the proposition that is their object, is the same in each case.

[12] This is guaranteed by the semantic axiom for VP: Val(x, [vp V S], σ) iff for some y, Val(⟨x, y⟩, V, σ) and y = []S[] wrt σ. By the lexical axiom of clause-selecting verbs for the verb ‘to believe’: Val(⟨x, y⟩, [V believes], σ) iff x believes y. And by the recursive definition of ILFs (Larson and Ludlow 1993, 312)

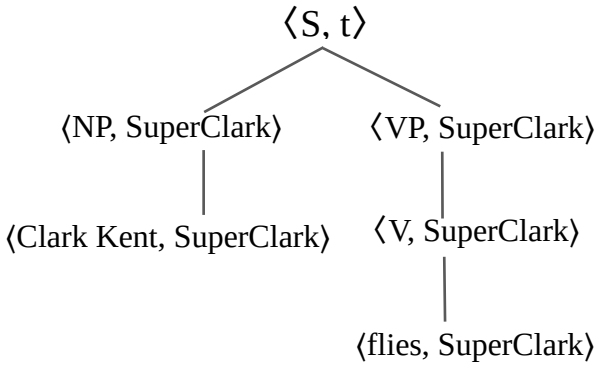
while they play no other basic explanatory role for propositions, they are the content of beliefs —that to which one has a relation when one believes. Thus, if ILFs can properly perform their task of individuating beliefs, we may be able to take some of their elements and apply them to King's already similar propositions. In this context, what we seem to find in ILFs and not in our propositions that might be of use to us are the lexical items being a part of the proposition structure, and not just their semantic content. This ensures that the content of ILFs not only expresses an extension, but also guarantees a linguistic mode of presentation (Larson and Ludlow 1993, 305; Ludlow 2000, 32). In representing the propositions expressed by ii) and ii') we saw that King is not able to offer two distinct propositions. However, in Ludlow and Larson's proposal the ILFs of i) and ii) are different. When someone believes that Superman flies then that person is in a relation to the following ILF:

3c.



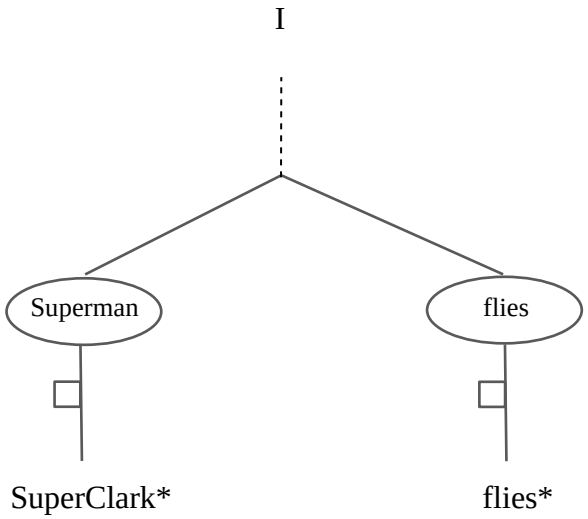
Whereas when someone believes that Clark Kent flies, it is in relation to this other ILF:

4c.



As can be seen, the difference between 3c and 3c lies in the fact that 3c has as one of its components in the left terminal node the sub-ILF ⟨Superman, SuperClark⟩ while 6c has in its left terminal node the sub-ILF ⟨Clark Kent, SuperClark⟩. This difference, however, does not depend on the fact that the semantic content of each sub-ILF is different, since both refer to SuperClark. The difference is precisely the lexical item used in each case to refer to him, being in 3c Superman while in 4c Clark Kent. With a small adjustment to include the lexical items in the propositional structure, we could make this variant of King's proposal yield two different propositions to beliefs i) and ii). We could represent this adjustment in the proposition associated with ii) as follows:

3d



In 3d we represent that lexical items are part of the propositional content by placing them inside the oval representing the relation of properties of joint instantiation. This detail, analogous to ILFs, would make the individuation conditions of propositions finer grained and therefore enough to distinguish between pairs of beliefs such as i) and ii). That is, i) and ii) would be different because i) would have as a part of its structure the lexical item “Superman” while in that same relativised position ii) would have Clark Kent as a component.

This solution however solves one problem but has as a consequence another of perhaps equal magnitude, which is that the propositions thus characterised seem to be too fine-grained to be compatible with another basic explanatory role[13], or at least, one of the

[13] Perhaps adding modes of presentation to King's propositions does not strictly speaking imply that the propositions cannot be what several synonymous sentences have in common, but it does make it very

desiderata that moves King to make his proposal. The role I am referring to is that of being what different synonymous sentences of different languages have in common and what different sentences of the same language with the same semantic content have in common. Playing this role is one of the reasons why one might have an interest in postulating the existence of propositions. King in particular seems to be interested in his proposal having this feature, since he understands that "Sentences express propositions (relative to contexts), different sentences may express the same proposition" (King 2007, 2). He considers that a positive point of his proposal is that sentences such as "Rebecca swims" and "I swim", in contexts where Rebecca refers to Rebecca and where "I" also refers to Rebecca both express the same proposition (King 2007, 41). Precisely for this reason, in addition to H, the square next to the line representing the semantic relation between lexical item and semantic value represents that this relation has at least one instance in a context and not that it occurs in a particular context, which, as we have seen, would entail that two sentences in different contexts could never express the same proposition (King 2007, 39). On the other hand, this could also generate some difficulties in postulating that beliefs are what vehicles of a different nature, but with the same content, would have in common. If we assume a LoT, the belief that Rebecca swims would be encoded in that language, and that language, according to some authors, is not the same as the language with which the speaker ordinarily communicates (Fodor 1975). Consequently, we would expect that, if we follow this proposals, the lexical items that make up the belief that Rebecca swims are different from those that make up the utterance "Rebecca swims", and we would therefore be forced to say that they express different propositions. Something analogous would also occur with synonymous utterances in different languages such as "Rebecca swim" and "Rebecca nada". Introducing linguistic modes of presentation then solves the problem presented here, but it would come at a price that King might not be willing to pay.

This problem becomes more acute if we turn to later texts such as (Larson and Segal 1995) where the observation is made that additional elements may be of relevance for individuating beliefs. For example, they point out that if a New Yorker unfamiliar with

difficult to find two distinct sentences that share the same proposition. Larson and Ludlow propose ways of making two ILFs equivalent by reising in the LF structure the subject of a subordinate by giving it a wider scope, extracting the lexical item from it and leaving a trace that retains semantic value. However, these kinds of mechanisms are very limited and would not allow us to solve the kind of problem at hand. More information in (Larson and Ludlow 1993, 322-324)

the Boston accent, let us call him Harry, were to hear someone say in a strong Boston accent "/hahvahd/ is nice", he might think that his Bostonian interlocutor is talking about a university other than Harvard, which he recognises as /hardverd/. In this case it seems that Harry would have two distinct beliefs. One would be the belief that "/harverd/ is nice" which would predicate the property of being nice of Harvard University, which he already knew, and then a second that "/hahvahd/ is nice" which predicates the property of being nice of a university, probably at Boston, whose existence he has only recently discovered. Following the criteria we have used to differentiate beliefs, these do indeed appear to be different. If Harry were looking for universities to apply to and had the belief that /harverd/ is nice, he might look on Harvard's website or contact someone who worked there to find out about the university. Conversely, if he believed that /hahvahd/ is nice, he would try to find the website of this new Boston university and not Harvard and would be frustrated to find no link to its website or no contact person to ask for information. However, King's propositions, even with the addition of lexical items to the structure we have proposed here, would be unable to account for this difference, since both "/harverd/ is nice" and "/hahvahd/ is nice" would have the same R structure, the same semantic contents and the same lexical items, while "Harvard" is the same word and has the same semantic content regardless of which accent it is pronounced with. Similar considerations can also be made with respect to pragmatic and orthographic factors. This leads Larson and Segal to conclude that ILFs "are tree structures with nodes consisting of clusters of properties. Each terminal node will possess phonological and orthographic properties, as well as semantic ones. And at least the S node will be annotated with pragmatic properties, assigned by the pragmatics module in the specific context of utterance" (Larson and Segal 1995, 454).

If we wanted propositions to play precisely the role of being the content of beliefs we would have to add to them all these factors making them much more fine grained than King proposes and even more fine grained than they would be with the addition of lexical items in the structure we have suggested above. In this sense, the problem that this first modification had would be exponentially increased by all these additions, making it very likely that no two vehicles would be certain to have the same proposition as content[14].

[14] A possible solution might be the one suggested by (Larson and Ludlow 1993, 335-336) who propose to replace the lexical axiom of clause-selecting verbs for the verb 'believe' presented in note 19 of this text by: Val(⟨x, y⟩, [v believes], σ) iff x believes some ILF similar to y. This would make a belief ascription statement true only if the ascribed ILF is similar to the ILF that actually represents the subject's belief.

This suggests that there may be a problem with the same entity, in this case propositions, playing both the basic explanatory role of being the content of beliefs and that of being what different synonymous vehicles have in common. It seems that to perform the former task, as Larson Segal and Ludlow suggest, requires an extremely fine-grained entity that takes into account a multiplicity of factors such that beliefs can be correctly individuated. By contrast, to perform the second task it seems that a somewhat more coarse-grained entity is needed that would allow different propositional vehicles to have the same content. The problem of having the same entity perform both tasks seems to involve asking it to row in two opposite directions. If we want propositions to individuate beliefs, the consequence is that they individuate every other vehicle as well. Since the point of individuating beliefs is that no two have the same proposition, then it follows that no two vehicles of any other kind share a proposition. On the other hand, if we want propositions to be what different vehicles have in common, then there will also be beliefs that have the same proposition in common, and therefore they will not be individuated.

4. An alternative to ILFs

We have shown the problems that propositional proposals with extensional semantics such as King's have with attributing distinct propositions to beliefs with the same structure and distinct but co-referential proper names. This has led us to the conclusion that complexifying propositions to accomplish this task seems to cause them to neglect their role of being what synonymous vehicles have in common. To solve this problem we could perhaps try an opposite strategy, if we cannot make propositions more complex so that they can individuate beliefs, perhaps we can adopt a strategy of the type “If the hill will not come to Mahomet, Mahomet will go to the hill” and simplify beliefs so that they can be individuated by the propositions we already have. Soames and Salmon in (Soames 1987; Salmon 1986) propose such a solution. The idea is that pairs of beliefs of the type Superman flies and Clark Kent flies or the beliefs that /harverd/ is nice and that /hahvahd/ is nice would not really be pairs of beliefs, but would be a single belief, one predicating the property of flying of SuperClark and the other the property of being nice of Harvard

However, I am not sure that such a solution would work for the issue at hand, since we are not dealing with under what conditions a belief ascription statement is or is not true, but what specifically is the content of the ascribed beliefs and how specific they must be in order to really individuate all beliefs appropriately.

University. If these pairs of beliefs were the same then the problems King would have in individuating beliefs would disappear, since propositions would correctly assign a single proposition to a single belief. However, unifying under a single belief what we have good reason to consider two distinct beliefs requires an explanation.

Their proposal in this regard is that propositional attitudes, like beliefs, are relations between a subject and a proposition that serves as the content of what is believed. "However, often these attitudes arise in connection with attitudes toward sentences — e.g., uttering and accepting. Although propositional attitude ascriptions report relations to particular propositions, they often suggest corresponding relations to certain sentences" (Soames 1987, 57). Salmon proposes something similar, arguing that these apparently distinct beliefs are the same, since they have the same proposition as their content. However, one can apprehend that proposition by different means (Salmon 1986 108-109), for example, by seeing superman fly or through the utterance "Clark can fly". Following Soames then, when we consider that i) and ii) are distinct beliefs because they cannot play the same explanatory role in the explication of the belief possessor behaviour, we are mistaken. This difference would not be because i) and ii) were different beliefs with different propositional content, but because they would be the same belief associated however with different sentential attitudes, which, as John Perry proposes[15], may be more important in explaining behaviour than the propositional attitudes themselves.

Instead of introducing a mode of presentation as part of the content of the proposition, as we proposed before with ILF, Soames and Salmon introduce it as an external element that allows explaining the difference in the cognitive value of beliefs without modifying the propositions. As a consequence, however, beliefs are presented as more couarse grain than we ordinarily think of them —and much more than ILFs seem to indicate. This seems to allow propositions to perform the explanatory roles of being the content of beliefs and of being what synonymous vehicles have in common, since the hiatus that made it difficult for a single entity to do both tasks has been reduced by simplifying propositions and thereby facilitating their individuation. The proposals of Salmon and Soames in this respect are, however, somehow counter-intuitive for many and have not been warmly welcomed as a solution to the problems we are dealing with here by some authors (Crimmins and Perry 1988).

[15] (Perry 1977; 1979)

5. Conclusion

In this paper we have begun by presenting King's proposal by showing that, as he puts it in (King 2007), propositions are too coarse grained to adequately perform the role of being the content or object of some propositional attitudes. We have done so through an example that makes a very similar point to the examples of failures of substitutivity by pointing out that different beliefs are assigned a single proposition in their framework, thereby failing to individuate them appropriately. However, in trying to come up with some solution that King might offer to this problem we have come to see that its difficulty is twofold. All proposals that rely on extensional semantics have to cope with some version of substitution failure. However, the problem becomes more acute in the case where the entity that is to play the role of being the content of beliefs must play other roles such as being what different propositional vehicles have in common. The problem is that what both roles demand of the same entity seems to be almost irreconcilable opposites. Beliefs, following Larson Ludlow and Segal, are extremely fine-grained and any entity that is proposed as their content must be at least of equal fine graininess to individuate them appropriately. However, if we make the propositions more complex by likening them to ILFs, all beliefs are individuated, but so is every other vehicle. As a consequence, such an entity cannot play the role of being what different vehicles with the same content have in common, simply because no two vehicles would have the same content. On the other hand, if we wanted to preserve this role and defend that there are vehicles that have the same content, then these entities would have to be coarser grained. As a consequence, then, among the vehicles that share content we also find some beliefs, with the result that those beliefs would not be individuated. Since propositions are the class of entities that are understood to play, among others, these roles, anyone who wants to give an account of propositions must account for these problems. Proposals similar to King's would have three options then. First, they can give up the claim that propositions are the content or object of propositional attitudes or be content that they play this role poorly. Second, they can give up the claim that propositions are what different vehicles have in common by proposing that there is no such thing as two vehicles with the same propositional content. Third, they may follow Soames and Salmon and propose that both roles can be played by propositions but downgrade the complexity of the content attributed to beliefs and explain the difference in cognitive value by virtue of external

factors, such as differences in propositional vehicles or differences in the mode of apprehension of beliefs.

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