Non-relational Embedding Verbs: Quotes and Reports

José María García Núñez; Aroa Orrequia-Barea

Abstract. Some verbs cannot have their clausal complements replaced by referential expressions salva congruitate and/or veritate. This makes it difficult to analyse them as denoting relations of the type expressed by run-of-the-mill transitive verbs. The main goal in this work is to find an explanation for why some English embedding verbs are relational while others fail to be so. The question is, why can the latter, but not the former verbs have their embedded clauses replaced by direct speech complements? A comparison in the relevant contexts of the related categories of direct and indirect quotation reveals an important degree of coincidence that calls for (a) an overlapping semantic treatment, and (b) an interpretation of their often invoked differences as due to the contrasting semantic requirements of the class of verbs that fails to express a relation, non-relational ones. For us, the key distinguishing factor is utterance denotation, the differences between the two main classes of verbs identified in the work deriving from reliance on either the form or the content of the utterances involved. In order to account for these facts, we propose a substantial revision of the Davidsonian approach to clausal complementation.

Keywords: complement subordination, non-relational verbs, (il)locutionary verbs, (in)direct quotation, same saying.

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1. Introduction

Embedding verbs are an object of interest for numerous reasons. One of is the well-known fact that some of them can have their clausal complements replaced and/or paraphrased by referential expressions, while others cannot. This fact poses an essential theoretical problem since the latter cannot be analysed as denoting relations of the type expressed by transitive verbs (Prior 1971: 14-30, Asher 1993: 128–135, Bach 1997: 227-231, Moltmann 2003: 82-85, Pietroski 2005: 217–232, Rosefeldt 2008: 302)². Let us illustrate the problem with the following adaptations of attested examples¹:

¹ Department of French and English Philology, University of Cádiz, jmaria.garcia@uca.es / Department of English Studies, University of Jaén, orrequia@ujaen.es, ORCID: 0000-0003-1478-7847.
² This generalisation applies to other referential expressions, including nominalisations, gerunds clauses, etc.
(i) John [accepted/regretted] [having committed the mistake/the destruction of the documents].
(ii) *John [suspected/shouted] [having committed the mistake/the destruction of the documents].
³ Data cited in this work have been extracted from the British National Corpus, distributed by the University of Oxford on behalf of the BNC Consortium. All rights in the texts cited are reserved.
(1) Afterwards the Cardinal accepted (the \{argument/claim\}) that he had not appreciated the strong feelings of Jews in this issue (A2W 172).
(2) He regretted (the fact) that many major Scottish companies shifted their headquarters to London (AL6 960).
(3) She now suspected (\{the \{proposition/idea\}\}) that they had known long before (A7J 1193).
(4) My conscience shouted (\{the \{proposition/idea\}\}) that I had to inform (FRH 2275)\(^4\).

As shown by the examples above, the verbs in (1)-(2) can have their clausal complements replaced by a complex nominal. The result is not only grammatical but also identical in meaning to the clausal complement configuration we started out with. Contrariwise, the verbs in examples (3)-(4) sound odd in the company of complex nominals, which furthermore fail to prove synonymous with their clausal complement counterparts. There is though a difference between the verbs in (3) and (4) that must be noted at this point. While both suspect and shout rule out propositional nominals as complements, the latter selects certain non-propositional nominals, specifically, some that are related not to the propositional content, but utterance or speech act import\(^6\).

(5) #She now suspected \{that warning/those words\}.
(6) My conscience shouted \{that warning/those words\}.

Of course, (4) is not synonymous with (6), among other things because the nominal complement of the latter cannot take a sentential complement. However, it must be noted, (4) entails (6), in the standard sense that the latter is true every time the former is (and of course assuming in cases like warning that the clausal complement was intended as the speech act conveyed by these nominals).

Adapting terminology from Rosefeldt (2008: 304-306), we can say that verbs like suspect cannot have their clausal complements substituted by referential expressions salva congruitate, i.e., without yielding ungrammaticality. On the other hand, the clausal complements to verbs like shout cannot be replaced by referential expressions salva veritate\(^5\), i.e., without a change or loss in meaning\(^7\).

As pointed out, relational verbs can take that-clauses as well as a variety of other categories as complements: gerund clauses, which are known to be related to the expression of events or facts (Zucchi 1993: 20–23, and references therein), facts (Kiparsky & Kiparsky 1970: 145-146), definite (Hegarty 1992: 28-48) or referential (de Cuba 2007; Haegeman & Ürögdi 2010) events. Following the rationale of this terminology, Moltmann (2003, 2013) calls verbs that cannot have their clausal complements replaced by referential expressions salva veritate and congruitate non-relational verbs. We will adopt this terminology here. To account for the above noted differences between non-relational verbs, and for reasons that will become clear in Section 2 below, we will refer to verbs patterning with suspect as illocutionary, and to those behaving like shout as locutionary.

From an empirical point of view, the pattern in (1)-(6) requires an analysis of embedding verbs accounting for the fact that they license different complementation patterns. In a theoretical perspective, the non-referentiality of some clausal complements is problematic in at least one important respect. In current formal semantics, transitivity is standardly understood as denoting set-theoretic relations between the entities denoted by the subject and object arguments. It is surprising that, as Moltmann (2013: 129) sums up, an entity that is the argument of a true relation cannot be described or quantified over by an ordinary noun phrase. In short, the non-referentiality of clausal complements casts doubt on the relationality of the relevant verbs and therefore calls for a revision of the associated default semantic analysis. In this work, we will present a new one based on so far unnoticed data concerning possible alternative complementation patterns for the verbs in (3) and (4) above.

2. Locutionary and Illocutionary Non-Relational Verbs

The distinction made between non-relational verbs has a number of grammatical consequences, an important one being the difference in behaviour each of the two classes identified has regarding a grammatical phenomenon, i.e., parenthetical constructions.

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\(^4\) Certainly, the fact that an example is not found in the corpus does not necessarily mean that it is ungrammatical. However, we will here safely take the corpus examples to provide indirect evidence for the phenomena discussed.

\(^5\) It should be noted that the reviewed co-occurrence constraints are not due to syntactic subcategorisation. Propositional verbs like suspect or think can, for example, co-occur with what Moltmann (2003, 2013) calls special quantifiers.

(i) John thought/suspected something.
   Other nominals are also possible, though on a different interpretation of the verb (thanks to an anonymous CJES reviewer for pointing this out to us).

(ii) John suspected him.

\(^6\) Of course, this does not mean that shout and similar verbs can always have their complements replaced by referential expressions. As pointed out, they cannot be followed by gerund clauses or nominalisations. It only means that the nominal arguments they take do not have the same semantic import as their clausal complements.

\(^7\) Moltmann (2003, 2013) alternatively refers to substitution salva congruitate as substitution problem, and substitution salva veritate as objectivisation.
According to Reinhart (1983: 169), parenthetical constructions split into two different classes: speaker-oriented and subject-oriented parentheticals. Reinhart considers the latter class of parentheticals as an aside comment which identifies the source of the speech act. The former conveys a speaker’s comment about her attitude or stance regarding what has been said in the main clause. It works as an evidential construction in terms of Rooryck (2001: 125). Compare the two constructions:

(7) He is ill, John shouted (subject-oriented parenthetical).
(8) Susan was ill, she believed (speaker-oriented parenthetical).

This division between parentheticals is important because the nature of the parenthetical construction determines which type of verbs can appear in them. On the one hand, non-relational verbs like shout occur naturally in subject-oriented parentheticals, as can be seen in example (9). Clearly, in this case the parenthetical does not convey the speaker’s stance on the sentential but simply indicates its source. As (9) shows, this is true of all the verbs that Zwicky calls manner-of-speaking verbs (1971: 223).

(9) She was ill, Susan shouted/whispered/mumbled.

On the other hand, non-relational verbs like suspect occur in speaker-oriented parentheticals, as example (10) shows. They coincide with Hooper & Thompson’s (1973: 473-481) assertive verbs.

(10) Susan was ill, (or so) she explained/claimed/argued.

However, some verbs in Hooper & Thompson’s assertives, such as say or think, can accept both types of parenthetical constructions in their environment. In the latter case, the ambiguity between these two constructions is due to a difference in the lexical meaning of the verb. Focusing on the former case, the relevant ambiguity is relatable to what Davis defines as the locutionary and the opaque illocutionary dimensions of the verb in combination with direct speech reports (2016: 313-314). Locutionary saying reports need not involve the speaker intending, or otherwise even known, the content of the report. This is, for example, the case when a speaker says something in a different language (Davis 2016: 313-314). Conversely, what Davis calls an act of opaque illocutionary saying occurs when the following conditions hold:

(i) the speaker wants to convey what an expression $e$ means in a language,
(ii) that expression $e$ means the same in a language and
(iii) there is no other expression that conveys the content of $e$ more closely in the language (2016: 313-314).

Davis’s definition of locutionary and illocutionary saying reports fits perfectly with the two groups of verbs identified within the class of non-relational verbs. On the one hand, to shout/whisper/mumble that $p$ does not require (i)-(iii) from the definition of illocutionary saying to be true (Davis 2016: 313-314), as they can focus on the form rather than the content of the reported utterance (Lahiri 2002: 276-278). On the other, to explain/argue/claim that $p$ does necessarily fulfill these conditions since it focuses on the content of the reported utterance. It should finally be noted that the verbs that usually go in subject-oriented parentheticals are more than the ones contained in Zwicky’s manner-of-speaking verbs (1971: 223). Verbs such as write, add, repeat, reply or email behave like shout, whisper or mumble in parenthetical constructions.

(11) She was ill, Susan wrote/added/repeated/replied/emailed.

Based on these facts, we will in what follows refer to the two identified classes of non-relational verbs as locutionary and illocutionary verbs.

3. Embedded and Direct Discourse Complements

The ability of relational verbs to have their clausal complements replaced by complex nominals seems to be based on making these contents explicit. No such indirect inquiry seems possible in the case of non-relational verbs, that is, locutionary and illocutionary verbs, as these predicates lack a categorial counterpart which could be used as a basis for comparison. In this section, we will argue that such an inquiry is indeed possible, for there is a linguistic category that can replace the that-clause complements of locutionary and illocutionary verbs.

The point can be stated in the following generalisation:

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8 Subject-oriented parentheticals are syntactically derived from a movement of the complement to the left periphery of the matrix clause called sentence-lifting by Ross (1973), as can be seen in example (i): $\{He was ill, \{John said \}$]
(12) (a) Complement verbs that can have their clausal complements replaced by a referential expression *salva congruitate* and/or *veritate* cannot take a direct discourse complement.

(b) Complement verbs that can take a direct discourse complement cannot have their clausal complements replaced by a referential expression *salva congruitate* and/or *veritate*.

In order to test the empirical validity of (12) in as inclusive a way as possible, we will consider embedded clausal complements from a semantic perspective. Given that semantic and syntactic types are not in a one-to-one correspondence (Grimshaw 1979: 280), we will check whether (12) is true not only of complements that are syntactically clausal but, more generally, of those whose semantic type can be argued to be sentential whatever their syntactic realisation. Of course, as long as the (non-canonical) realisation of the relevant sentential type involves nominal features (12) will immediately predict exclusion from the set of verbs taking direct discourse complements. For the purposes at hand, the classification in Table 1 can be established.

Table 1. Distribution of complement verbs according to the complements they take.

| (I) | Verbs that only subcategorise for finite clausal complements; |
|-----|---------------------------------------------------------------|
| (II) | Verbs that subcategorise for nominal and finite clausal complements: |
| (III) | That cannot replace one another *salva veritate*. |
| (IV) | That can replace one another *salva veritate*. |
| (V) | Verbs that only subcategorise for nominal complements. |

For expository reasons, we will first check the validity of (12) on unambiguous verbs and later focus on ambiguous ones.

3.1. Unambiguous verbs

Group I verbs include predicates expressing mental states (*suspect, hope, decide*) and speech acts (*claim, argue, boast, decide*). Most of these verbs coincide with assertive verbs in Hooper & Thompson’s (1973: 473-481) classification. These verbs are non-relational, i.e., they only subcategorise for clausal complements when they select a sentential type.

(13) *John suspected {the situation/the destruction of the documents}.
(14) *John hoped {that possibility/Meg’s success in the marathon}.

Principle (12) predicts that these verbs can have their embedded clausal complements replaced by direct discourse, which is borne out by facts.

(15) a. She now suspected that they had known long before (A7J 1193).
    b. He suspected, “they will repackage their agenda through the FATF”

(16) a. His Majesty hoped that the Prime Minister, with the colleagues who remained faithful to him, would help in the formation of a National Government (A6G 223).
    b. In designing The Civic Centre, Mr. Wright hoped, “Maybe we can show government how to operate better as a result of better architecture”.

Notice that direct discourse is less constrained when the embedding verbs are in parenthetical position (Rooryck 2001: 128, Schneider 2007: 54).

(i) “The soup is too hot”, Meg accepted.
   However, this configuration can host embedding as well as non-embedding verbs, which suggests a syntactic origin (see Rooryck 2001 for proposals along these lines).
(ii) “The soup is too hot”, Meg smiled/shivered.
(iii) *Meg smiled/shivered that the soup was too hot.

Some verbs resist co-occurrence with nominal objects but freely allow them as oblique complements. *Know* is a paradigmatic example.

(i) Mary knows (*the {argument/idea}) that John has been promoted.
(ii) Did you know ({about/of} the {fact}) that they’d been captured?
(iii) Mary knows {about/of} John having been promoted.
    In any case, the important point here is that no structural configuration can enable genuine non-relational verbs to license nominal complementation.
(iv) Mary thinks/says (*the {argument/idea}) that John has been promoted.
(v) Mary thinks/says (*{about/of} the {argument/idea}) that John has been promoted.
(vi) Mary {?thinks*says} {about/of} John having been promoted.

Examples (15b) and (16b) have been extracted from the English Web Corpus 2015 (enTenTen15), since no hits were found in the BNC.
Verbs that unambiguously belong in Group II include some predicates whose denotation has to do with conversational regulation (repeat, add, answer, reply, retort), writing verbs (write, email, scribble) and manner-of-speaking verbs (shout, whisper, lisp, grunt, moan). All of them allow for both nominal and clausal complements that cannot paraphrase one another. That is, they are locutionary by the terminology introduced above.

(17) Lord Chatwin had added some words of his own at the end (ACK 2275).
(18) *John shouted/emailad-added the expression/words that he was in danger.
(19) So Miss Calagarri added the words “on 18 April 86” (FD2 117).

The correct generalisation, as (12a) predicts, is that all the verbs in Group II license nominal and direct speech complements.

Group III comprises the set of thoroughly studied embedding verbs whose clausal complements can be replaced and paraphrased by complex nominals expressing factivity (factive verbs from Kiparsky and Kiparsky 1970: 143), discourse-oldness (roughly Cattell’s (1978) and Hegarty’s (1992) response-stance verbs) and non-assertion (Hooper’s (1975) non-asertive predicates).

(20) All the political parties have accepted the fact that social security has got to change (K1V 3144).
(21) She resented the fact that I had children of my own (ECT 3454).

Principle (12a) clearly predicts that these verbs will fail to take direct discourse complements, which is borne out by the unacceptability of (22)-(23).

(22) *All the political parties have accepted: “Social security has got to change”.
(23) *She resented: “You have children of your own”.

The classification of verbs closes with an interesting group of verbs whose sentential arguments can only be expressed by nominal categories (Grimshaw 1982, Alrenga 2005).

(24) Parliament in my judgement has assumed and contemplated *(the possibility) that the testator will have already made his will.
(25) This formulation of the rule captures *(the fact) that these nouns behave differently.
(Alrenga 2005: 184)

According to (12a) these verbs are expected to ban direct discourse complements, which seems correct, as the ungrammatical (26)-(27) show.

(26) *Parliament in my judgement has assumed and contemplated, “The testator will have already made his will”.
(27) *This formulation of the rule captures, “These nouns behave differently”.

So far, the conclusion seems to be that the verbs that unambiguously fall in one of the classes in Table 1 bear out principle (12).

3.2. Ambiguous verbs

It is very common for verbs selecting a sentential type to be ambiguous between meanings that fall in more than one of the categories used to classify them (Urmson 1963: 220, Hooper 1975: 93). The classification in Table 1 is not an exception. The recurrent pattern seems to be an alternation between Group I and any of the other three. In what follows, we will review a representative set of cases to check whether (12a) predicts the correct results for each of the relevant meanings.

*Think* and *say* are typical examples of alternation between a Group I and a Group II meaning. According to the Merriam-Webster Dictionary, *think* can mean, among other things, “to believe that something is true and to form or have a particular thought in mind.” One way to disambiguate the relevant readings is to use paraphrases that select for one or the other.

(28) Many economists are inclined to think *(that static welfare losses are outweighed by dynamic welfare gains from technological progress)* *(those words)* (FRN 1669).

12 However, some factive verbs are clearly non-relational, realise posing a paradigmatic example. Though traditionally classified as semifactive (Karttunen 1971), this verb is clearly non-relational in allowing for direct discourse complements.

(i) But suddenly realised, “You got Lubor to ring and say that my car had been delivered here!” (JYF 2814).

The same is true of the factive non-relational reading of regret. We will keep using traditional labels like factive for expository reasons here, but it should be kept in mind that the relational/non-relational division crosscuts most of them.
(29) John shuddered to think {that there was intelligent extraterrestrial life/those three words}.

In (28) *think* is a Group I verb, as shown by the fact that substitution is ungrammatical. Conversely, the “form the thought” meaning belongs in Group II, hence the acceptable substitution in (29). The same applies to *say* (Barbiers 1998, Gómez Torrente 2005). The critical point is that both Group I and Group II readings of *think* and *say* occur freely with direct discourse complementation, as predicted by (12a).

(30) We are inclined to think, “Perhaps it isn’t true after all.” (C8V 1782).

The second set of ambiguous verbs can be classified in Groups I and III. That is, on one reading they only license clausal complements while on the other they alternate synonymous clausal and nominal complementation. *Believe* is a reputed example of this kind of ambiguity (Cattell 1978: 65). On one of them, the verb is roughly synonymous with “accept” or “credit”, and, on the other, it can be paraphrased as “have the opinion” or “think” (on its Group I reading). As usual, nominal complementation does away with the ambiguity in favour of the relational reading.

(31) Also he believed the story that in respect of much general book/library purchasing, the decision is not ‘what is the best book’ in absolute terms, it is much more ‘is this suitable/attractive and justifies my use of whatever funds he was intending to spend (adapted from FSW 748).

As predicted by (12a), direct discourse complementation also manages to remove the ambiguity in favour of the non-relational reading.

(32) Also he believed, “In respect of much general book/library purchasing, the decision is not ‘what is the best book’ in absolute terms, it is much more ‘is this suitable/attractive and justifies my use of whatever funds I was intending to spend” (FSW 748).

There is finally a group of verbs that, as Pietroski (2005: 224) notes, are ambiguous between a reading that arises only with clausal complements and one that requires nominal complementation. That is, they are ambiguous between a Group I and a Group IV instantiation. So, according to Principle (12a), they will not be equally likely to co-occur with direct discourse complementation. To illustrate it, consider (33) and (34). Among other things, the complement of *explain* refers to whatever Nora said as part of her explanation (the *explanans*, in Pietroski’s terms) in (33), but to the thing that became clear after Nora’s explanation (Pietroski’s *explanandum*) in (34).

(33) Nora explained that Fido barked.
(34) Nora explained the fact that Fido barked.

The interesting point is that, on the *explanans* reading, the verb is fully non-relational. So the prediction is then that direct discourse complementation will only work for this reading. In effect, (35) is synonymous with (33), but not with (34).

(35) Nora explained, “Fido barked”.

We find the same pattern with *comment, elaborate, protest, sum up, complain (about)* and *be afraid (of)*, among others. Table 2 sums up the results obtained:

Table 2. Distribution of direct discourse complementation relative to embedding verb types.

|                | Embedded complement | Direct discourse complement |
|----------------|---------------------|----------------------------|
| Group I        | Illocutionary        | Possible                   |
| Group II       | Locutionary          | Possible                   |
| Group III      | Relational           | Impossible                 |
| Group IV       | Relational           | Impossible                 |

The data confirms the generalisation in (12a): only verbs, and readings thereof, whose clausal complements cannot be expressed by a referential expression *salva congruitate* or *salva veritate* can take direct discourse complementation. It seems that the relation between non-relationality and direct quotation is too systematic to be neglected by any account of the former. In what follows we will turn to current theoretical accounts of embedded and direct discourse
complementation to see what light they can shed on the correlation unearthed in this section and on the intimately related question of what makes a verb relational or non-relational.

4. Quotation

In the linguistic and philosophical literature direct discourse and embedded complementation sentences are often referred to as direct and indirect quotation, respectively. We will henceforth adopt this terminology, whose intuitive thrust is that there are two alternative ways to report discourse, one based on the reportee’s and the other on the reporter’s viewpoint (Banfield 1982).

In the sections that follow, we will focus on two separate though related questions that are at the centre of much current debate around quotation: are direct and indirect quotation related to speech? What is the nature of such a relation? As the discussion will reveal, the answer to these questions impinges very directly on the non-relationality of complement verbs.

Indirect and direct quotations have traditionally been associated with, respectively, the use and mention of language. On such a view, quotation marks indicate that the form of an expression is being quoted rather than its content reported while the opposite is true of embedded clauses. However, in this section, we will argue that there is reason to doubt that direct and indirect quotations are so restrictive with regard to the form/content distinction.

Negation is often used to test the truth-conditional import of quotation (Cappelen & Lepore 1997a, Predelli 2003, Gómez Torrente 2005). Everything falling within the scope of sentential negation is assumed to be part of the truth-conditional content of the corresponding affirmative sentence. Direct and indirect quotations overlap semantically (Cappelen & Lepore 1997a: 429):

(36) A: Alice said “Life is difficult to understand”.
   B: She did not; she said that death is difficult to understand.

But we need to check whether the overlap derives from both varieties allowing reference to the form and content of the expressions in their scope. If so, we should find instances of form-quoting with indirect quotation and of content report with direct quotation. We consider them in turn below.

One way to isolate cases of form quoting is making the negation test operate on synonymous clauses. The contrast will only work if form is being quoted rather than content reported.

(37) Gerald didn’t say that he would consider running for president, he said that he would think about competing for the highest office (Saka 2005: 201).

The negation test works in (37) because form, rather than content, is being quoted. This shows that the semantics of indirect quotation can involve reference to the form of utterances. If both reporting and quoting are possible meanings of indirect quotation, the question arises whether they are generally available in this variety of quotation or whether they are subject to some further constraint. The point becomes clear as soon as we disambiguate say as a Group I or a Group II verb, or replace it for predicates that unambiguously fall in one of these classes.

(38) Gerald didn’t {shout/repeat/shudder to say} that he would consider running for president, he {shouted/repeated/shuddered to say} that he would think about competing for the highest office.

(39) Gerald {didn’t explain/didn’t argue/wasn’t inclined to say} that he would consider running for president, he explained/argued/was inclined to say that he would think about competing for the highest office.

The different acceptability of (38) and (39) suggests that indirect quotation quotes on the form of utterances when complementing Group II verbs but reports on their content when following Group I verbs.

Unfortunately, the negation test cannot work to help test content report in direct quotation: the two senses of an ambiguous clause cannot stand in contrast to one another when there is but a single form to express them. There are nonetheless alternative ways to monitor the extent to which direct quotation expresses content. Lahiri (2002: 276-278) notices that direct quotations need not be sentential or propositional, or even linguistic. However, verbs that occur freely with direct quotation sound awkward in sentences like (40) and (41).

(40) # The demonstrators at Gramajo’s commencement {explained/argued}, “Assassin!”
(41) # John {explained/argued}, “Whoosh!”

The ability to co-occur with this kind of quotations extends to all Group II verbs, including non-speech-related ones like think.

An anonymous reviewer interestingly suggests that interjections may be part of the problem, since they are not denotational (therefore non-propositional too). Be it as it may, the question remains that, for reasons that will be clear in section 5, illocutionary verbs are selective of propositional complements in both their direct and indirect complements.
As expected, the non-relational reading of think is like its Group I-mates in disallowing these complements. Once again, therefore, the relevant contrast is between Group I and Group II verbs.

So far, the discussion reveals that direct and indirect quotation are alike in giving access to the form and the content of the utterances they denote. The data is also conclusive as to the responsibility of matrix verbs in the form-quoting or content-reporting reading of their direct speech and embedded complements. To highlight these points further, we will close by checking them in relation to explicit grammatical markers of form quoting and content report.

As Cappelen & Lepore (1997b: 287) argue, literally or strictly speaking can be rightly characterised as verbatim adverbs since they invite the inference that something was said exactly in the way mentioned in the clausal complement in their scope14. Interestingly, these adverbs sound better with Group II, no matter the kind of complement they take.

We find the reverse pattern when turning to expressions forcing a content report of their sentences. Cappelen & Lepore (1997b: 289) notice that indirect quotation manages to report on radically content-related aspects of utterances like implicatures, irony or general thrust. Interestingly, explicit markers like the adverbs in sum or in short sound more acceptable with Group I than with Group II verbs, and again regardless of the variety of quotation involved.

All in all, the phenomena discussed in this section reveal that complement verbs are attuned to the form or the content of the utterances denoted by their clausal complements.

5. The Davidsonian Approach and its Problem

Davidsonian semantics offers a promising analytical framework for addressing the issues raised by non-relational verbs. Regarding quotation, Davidson’s program is admittedly sententialist in refusing to resort to abstract entities and positing actual sentences/utterances instead as the value of other sentences/utterances. In so doing, Davidsonians commit themselves to a non-relational conception of quotation that seems prima facie appealing in the context of non-relational complement verbs. On the other hand, and relatedly, Davidson and his followers advocate a fully semantic treatment of quotation, which seems correct at least as regards the varieties of quotation that interest us here.

In the sections to follow, we review current proposals and assess their strengths and weaknesses in relation to the data presented above.

5.1. The paratactic account

Davidson’s (1968: 133) analysis of indirect quotation is known as the paratactic analysis because it pivots on the idea that embedding constructions consist of two paratactically conjoined clauses. Both clauses, the matrix and the embedded one, denote utterances, the latter lacking illocutionary force and serving as the referent for the complementiser that, which is interpreted as a demonstrative. Semantically, the demonstrated utterance specifies the content of, or samesays, the utterance produced by the individual denoted by the matrix subject. Samesaying is the relation between the utterance produced by the speaker and the one that the individual denoted by the subject of the sentence used in the event reported. The content must be the same, so the samesaying relation can be seen as a “translation” of that content. The samesaying relation can link utterances not only in the same language but also in two different languages, provided, of course, there is a similarity in content between them. (52) shows the truth-conditions of (51).

14 Note that literally sometimes may have an emphatic value, but this is clearly derived by the more literal meaning we are focusing on here. Thanks to an anonymous reviewer for pointing this out to us.
In order to account for mental state verbs, i.e., verbs denoting a propositional attitude that is not expressed by way of an utterance, i.e., traditional *verba sentiendi* like *think* or *believe*, Davidson’s basic schema has been modified into what Hand (1993: 496) dubs the *extended paratactic framework*. In sentences headed by a mental state predicate, the utterance denoted by the embedded clausal complement cannot be understood as *samesaying* an actual utterance produced by the relevant agent. The question is, what other object does the clausal complement *samesay* in these cases? In recent Davidsonian developments (Lepore & Lower 1989, Higginbotham 1991, Lepore & Ludwig 2007) this object is assumed to be the mental state itself. Lepore & Lower (1989) suggest updating the standard paratactic logical form in the way shown below.

(53) Galileo believed that the earth moves.
(54) \(\exists s (\text{Believe}(\text{Galileo}, s) \& \text{SS}(s, \text{that}))\) [the earth moves]

(54) only differs from the traditional Davidsonian formula in the quantified variable and the predication relation in the first conjunct. According to Lepore and Lower, the latter stands for “a relation that holds between an individual \(a\) and a token state, for example, an event of neuron firings, which is a belief state of \(a\)” (1989: 353). Ludwig (2014: 746) offers a finer-grained interpretation of (53). On the assumption that mental states can always be instantiated by utterances, he argues that mental state reports consist of utterances *samesaying* actual or potential utterances produced by the relevant cognitive agents.15

Taken together, the formulas in (52) and (54) provide a comprehensive picture of quotation, or at least one that can be put to work in relation to the phenomena reviewed in this work.

5.2. Assessment

The comprehensive paratactic approach has advantages as well as disadvantages when applied to the problems that concern us here.

Arguably, the greatest advantage of this analysis is its positing of utterances as the only denotation of both direct and indirect quotation. First, it offers a principled explanation for the parallel distribution of direct speech complements and *that*-clauses embedded to locutionary and illocutionary verbs: they both denote utterances. This, in turn, explains why some clausal complements cannot be replaced by singular terms, since utterances cannot be fully paraphrased by referential expressions, and why their embedding verbs fail to be relational. Similarly, while relational verbs stand for set-theoretic relations between entities which may be expressed by embedded clauses, locutionary and illocutionary ones denote eventualities involving utterances whose form or content is indicated by the relevant clausal complements.

However, the data presented above are not compatible with the standard Davidsonian view that all embedded clauses should be analysed paratactically. For the reasons discussed in Section 4, only non-relational verbs justify the semantic apparatus in (52). There is no reason why a relational verb should be analysed in terms of *samesaying*. It seems reasonable to assume that the embedded clause of a relational verb and its nominal counterparts denote the same kind of semantic entity, for example, an event, as argued by Hegarty (1992: 28-44) and Rothstein (2004: 193–197), among others.16

A second and often neglected benefit of the comprehensive paratactic account is the different argument structure that it assigns to mental state and speech act verbs. This concession to the lexico-semantic content of the verbs involved is a step in the right direction, although, we will argue, one that falls short of what is needed. As presented above, the comprehensive paratactic account has at its disposal two different logical forms to take account of indirect quotation sentences, namely, the standard and the extended one. On the latter, the predicate translating the complement verb denotes a relation between an agent and an eventuality. On the former, it picks out a relation between an agent, an eventuality and an utterance. We are here dealing with the foundational difference between locutionary and illocutionary embedding verbs. As expected, the ensuing truth-conditional differences yield contrasting entailment patterns. To see how, consider the acceptability of nominal expressions denoting utterances in (55)–(56).

(55) A: Susan {shouted/added/repeated}, “The house is crumbling”.
   B: No, she didn’t {shout/add/repeat} those words.
(56) A: Susan {shouted/added/repeated} that the house was crumbling.
   B: No, she didn’t {shout/add/repeat} those words.

Arguably, this is because A’s statements in (55) and (56) entail (57).

(57) Susan shouted those words.

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15 A similar idea can be found in alternative approaches (Dresser 2010: 426-438, Krifka 2014: 59-87).
16 Interestingly, as predicted by the restrictive application of the paratactic analysis advocated here, the non-relational reading of some ambiguous verbs, like *regret*, entails the existence of (an) utterance(s) in the relevant event.

(i) Susan asked whether Mr. Duncan was in the office. The officer regretted (*the fact that*) he was not.
Interestingly, mental state verbs do not follow this pattern.

(58) A: Susan {believed/suspected/hoped}, “The house is crumbling.”
B: No, she didn’t {believe/suspect/hope} those words.

(59) A: Susan {believed/suspected/} that the house was crumbling.
B: No, she didn’t {believe/suspect/hope} those words.

(60) Susan {believed/suspected/hoped} those words.

Suspect and hope are not acceptable in combination with the nominal expression denoting an utterance. In turn, believe is only possible in its relational readings of “give credit to” or “profess as true”, but not on the non-relational interpretation it has in (58), i.e., the one that can be paraphrased by think.

The reviewed contrasts follow naturally from the comprehensive paratactic account’s stipulation that the predicates translating the verbs in (55)-(57) denote a relation between Susan, an eventuality and an utterance, whereas the ones in (58)-(60) do not: they only involve a relation between Susan and the relevant eventuality.

It is certainly a merit of the comprehensive paratactic account that it makes available two logical forms capable of explaining the different subcategorisation of these verbs. However, the class of illocutionary complement verbs is not co-extensional but inclusive of that of mental-state ones. Therefore, if the proposed analytical distinction is to be of any use in relation to the illocutionary/locutionary opposition it should be applicable not only to the latter but also to the former group. This extension is both theoretically and empirically justified.

Empirically, all the verbs in Group I, either referring to a mental state, e.g. believe, or to a speech act, e.g. claim, exclude utterance-denoting noun phrases, as can be seen in examples (61)-(63):

(61) A: Susan {believed/explained/argued/claimed}, “The house is crumbling.”
B: No, she didn’t {believe/explain/argue/claim} those words.

(62) A: Susan {believed/explained/argued/claimed} that the house was crumbling.
B: No, she didn’t {believe/explain/argue/claim} those words.

(63) Susan {believed/explained/argued/claimed} those words.

As with mental state predicates, we find verbs like argue and claim, which cannot occur with referential expressions denoting utterances, as well as verbs like explain, which can only do so on a relational rendering, i.e., in the case at issue, one where those words is the explanandum, rather than the explanans.

In the following section, we suggest revising some aspects of the comprehensive paratactic account to remedy the problems detected and to provide a descriptively and explanatorily adequate account of non-relational complement verbs.

6. Verb-Centred Parataxis

In this final section, we propose revisions of the paratactic framework that can help solve the problems detected and that, in so doing, contribute to a satisfactory account of our object of study.

The core of our proposal is two-fold. On the one hand, we suggest that Group I and Group II verbs select utterances as their complements. Assuming that direct speech complements and the embedded that-clauses that can replace them denote utterances, we conclude that only these can provide suitable complements to locutionary and illocutionary verbs. On the other hand, we posit that locutionary Group II and illocutionary Group I verbs license the different argument structures in the standard and the extended paratactic formulas, respectively. Accordingly, the former verbs contain as part of their lexico-semantic content the requirement that the utterance denoted by their clausal complements saysay their internal utterance arguments, whereas the latter requires their complements to saysay the eventuality that they predicate of. This eventuality is a state in the case of mental state verbs and an event in the case of speech act ones. This amounts to saying that (65) is the logical form corresponding to (64), and (67) and (69) the ones corresponding to (66) and (68), respectively.

(64) Susan shouted {that the house was crumbling/ “The house is crumbling.”}
(65) 3e3u (Shout(Susan,u,e) & SS(u,that)) [the house was crumbling]/[“The house is crumbling”]

(66) Susan believed {that the house was crumbling/ “The house is crumbling.”}
(67) 3s (Believe(Susan,s) & SS(s,that)) [the house was crumbling]/[“The house is crumbling”]

(68) Susan explained {that the house was crumbling/ “The house is crumbling.”}
(69) 3e (Explain(Susan,u,e) & SS(u,that)) [the house was crumbling]/[“The house is crumbling”]

The notation omits reference to aspects like speaker and time variables. The latter is obviously important for the relation in everything between the complement and matrix clauses in what regards to direct and indirect speech. However, as these details do not impinge on the discussion at hand, we leave them aside.
Before assessing its benefits, there are several aspects of the proposed analysis that require further discussion, the distinction between state and event *samesaying* being, by far, the most important one.

For reasons that were made clear in the preceding section, speech act Group I verbs cannot be analysed as their Group II counterparts, i.e., as denoting a relation to an utterance argument. Alternatively, (69) posits as their denotation the kind of transitive relation that the extended paratactic account assigns to the rest of Group I verbs. Of course, that involves accepting the rest of the analysis, i.e., having the *samesaying* relation take the relevant eventuality and the demonstrated utterance as its arguments. This can be done under the assumption that, just as we report on the possibly unexpressed utterance-based content of a mental state, we can do the same with the content of a communicative event. In both cases, the speaker manages to describe the relevant eventuality by giving the content of the utterance that, to her knowledge, best sums it up. On the one hand, it is a well-known fact that indirect quotation can report on a plurality of utterances (Pietroski 2005: 221-222) or the intended pragmatic meaning of a single one (Cappelen & Lepore 1997a: 435). On the other, as reviewed above, indirect quotation can even report on communicative events involving non-linguistic utterances. This case is particularly revealing. (70) sounds odd even in a context where John’s utterance answers Mary’s question about why he is staying at home instead of taking a stroll.

(70) John explained, “Whoosh!”.

In such a context, (71) sounds like a perfect report on John’s utterance.

(71) John explained that it was windy outside.

As pointed out, there is a serious problem for the standard paratactic account here: we can give the content but not the form of an utterance. And this despite the fact that we can do so elsewhere.

(72) John whispered, “Whoosh!”.

Under the analysis advocated here, (70) is unacceptable because the demonstrated utterance is of the wrong type. That is, the utterance in (70) has no content, so it fails to fulfil the semantic requirements of *explain*, which state that its complement *samesays* or gives the content of something else. Now, crucially for the question that interests us here, the thing reported in (70) cannot be John’s utterance, which, we have seen, lacks the required semantic content. The upshot is that the demonstrated utterance in (70) gives the content not of an utterance but of the possibly unexpressed utterance(s) behind the communicative event picked out by the verb *explain*.

Turning now to the analysis of the proposal in (64)-(72), we want to outline some advantages that it has over competing approaches.

Empirically, the proposed analysis inherits the strengths of the Davidsonian account of complement verbs as non-relational predicates drawing on utterances. It actually improves this approach by offering a finer-grained account where parataxis is circumscribed to the group of complement verbs that can subordinate expressions denoting utterances. This way, an explanation is provided for one of the foundational issues in this work: the mutual replaceability of embedded and direct speech clauses in the complement of some, but not all, embedding verbs.

Another crucial empirical benefit of the account put forward above is that it yields a descriptively and explanatorily adequate account of locutionary Group II and illocutionary Group I verbs. As discussed, these two classes of complement verbs are alike in failing to express relations but are importantly different in their argument structure and semantic import. The formulas in (65), (67) and (69) capture these differences. Furthermore, they allow a better understanding of the correlation between the impoverished argument structure of Group I verbs and their *samesaying* semantics as well as of Group II verbs’ rich argument structure and *samesaying* import. Let us briefly outline how. Group II verbs denote a relation between an agent and an utterance and have their clausal complements *samesay* the form of the latter. Conversely, Group I verbs’ complements give the content of an utterance which is not represented in their argument structure and may remain unexpressed. We think that these correlations are far from accidental. Rather, they plausibly reflect the fact that we can depict the form of explicit utterances while we can only specify unexpressed ones by reference to their content. On this view, *samesaying* depends on the kind of utterance, implicit or explicit, that the relevant verbs make available.

Last but not least, the proposed analysis achieves the important theoretical goal of disentangling the denotational and compositional dimensions of the form-content opposition. First, the fact that complement verbs draw on either the form or the content of their utterance complements should be kept separate from the verbatim import of different forms of quotation. Second, for reasons that have been discussed extensively above, the verbatim content of direct quotation cannot consistently serve as direct quotations’ regular contribution to semantic composition. If at all, it should contribute entirely differently to the semantics and/or pragmatics of the relevant host sentences. In this sense, the analysis that we have presented here is highly compatible with Saka’s (2005: 200) view that the verbatim import of quotation is part of its pragmatic content. It could also match up with an account in terms of conventional implicatures like the one advocated for mixed quotation by Recanati (2000) and Predelli (2003). Be that as it may, direct quotations denote utterances, whose form and content is fully accessible for further compositional processing. As the
formulas in (65), (67) and (69) state, the compositional process triggered by complement verbs only cares about these utterances, form and content included.

7. Concluding Remarks

In this work, we have tried to seriously take what we have argued to be an essential descriptive generalisation about clausal complementation in English, or any other language for that matter; namely, that the verbs that fail to express a relation to their embedded complements are the same ones that admit direct speech complementation. The traditional Davidsonian claim that indirect quotation denotes utterances takes on a new light in view of this parallelism. If, trivially, direct quotations stand for utterances, it seems reasonable to assume that their embedded counterparts, and only them, also do. We have presented independent arguments that this is indeed the case. Conversely, the differences between direct and indirect quotation cannot be as important as paratactic analyses claim. Direct speech and embedded complements replace one another too readily for there to be any substantial difference between them. Furthermore, the alleged differences between direct and indirect quotation fail to provide a complete or satisfactory account of their semantic composition. Putting it graphically, explanations have to do with the content of their clausal complements and shouts with their form, whatever the variety of quotation used to express them. This problem with the paratactic account actually suggests the kind of improvement that it requires: recasting the content, or *samesaying*, as part of the semantics of the verbs involved rather than their clausal complements. We have here advanced a concrete proposal along these lines that predicts the exact extensional boundaries between complement verbs and provides a principled explanation for their *samesaying* import. This requires broadening the coverage of the concept of *samesaying* eventualities to include events as well as states, which pays off in terms of descriptive and explanatory power.

Looking ahead, the verb classes handled in this work are well known to behave differently in relation to a number of linguistic phenomena (parentheticals, clausal anaphora, nominalisation, main clause phenomena in embedded contexts, etc.). It is interesting to know whether a theory like the one put forward above can predict and explain this varied behaviour.

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