



King Saud University
**Journal of King Saud University –
Languages and Translation**

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FULL LENGTH ARTICLE

The syntax of relative and appositive clauses

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Received 21 June 2011; accepted 23 April 2012

Available online 27 May 2012

KEYWORDS

AC;
RC;
Head noun;
Extraposition;
Relative pronoun;
Premodification;
Postmodification;
Complementizer

Abstract The surface syntactic similarities between sentences containing defining relative clauses and appositive clauses make them candidates for confusion by Arab students of English. This paper's main claim is that, in spite of the seemingly surface similarities between these clauses, both structures can be shown to belong in completely different areas of nominalization. Some of these differences will be accounted for via syntactic argumentation at three levels of analysis: the head noun, the complementizer, and the clause. To do so, the paper will focus and make use of well-known syntactic argumentation, which consists in deleting, moving, and shifting round the various parts of the sentences object of this study. The objective of such syntactic testing is to assist Arab students of English in indulging into syntactic argumentation to discriminate between these types of sentences in their linguistics-related courses especially syntax courses.

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1. Introduction

NP-that sequences found both in relative clauses (henceforth RC) and appositive clauses (henceforth, AC) will be investigated for the confusion they may occur among Arab students of English. Indeed, this surface syntactic similarity may have induced these students and non-specialists to believe that both constructions are the same. However, the bulk of the paper is to show how syntactic argumentation can be made use of to cast light on the actual differences between RC and AC, and demonstrate that they are essentially distinct. Such a study is thought to be useful for drawing Arab students' attention to the importance of syntactic argumentation in linguistic analysis.

Treatments of RC are more abundant than those of AC. Concern with investigating RC has initially been motivated by linguists' interest in nominalization as a universal language (e.g. Chomsky, 1970; McCawley, 1970; Hawkins, 1989, to name only a few). Other accounts, on the other hand, have focused on RC as sources for NPs (Bach, 1968), on relativization as obligatory only with restrictive RC (Huddleston, 1971), and on relativization as a case of "promotion analysis" but neither as "matching analysis" nor as "underlying structure conjunction analysis" (Declerck, 1978). Furthermore, there exist analyses of RC whose major concern is not essentially theoretical, but practical in offering typologies and criteria of RC (e.g. Quirk et al., 1972; Pulman, 1989; Fabb, 1990).

Writings about AC, however, have been comparatively scantier. The reason behind this neglect is the apparent amalgam that occurs in treating as embedded sentences all of RC, AC and nominal clauses (nominals, for short). Jacobs and Rosenbaum (1968, p. 199), for instance, group RC, AC, and nominals under the umbrella appellation of "embedded sentences" relatively within an NP, a noun, and a VP. In the same line of thought, Radford (1981, p. 218) considers both RC and

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“noun complements” (our AC) as cases of complex NPs, which are very similar to nominals in that they complement rather than postmodify. Though there is some truth in Radford’s claim, yet he fails to distinguish AC and nominals. Quirk et al. (1972), however, consider RC and AC as complex noun phrases headed by a noun which they postmodify. If Quirk et al. offered the most impressively documented account of the distinction between RC and AC, their treatment has focused both on minor syntactic differences and more on phrasal rather than clausal apposition.

So far, the first full-length account of apposition in English is to be found in *Apposition in Contemporary English* (1992), where Meyer, relying on three Anglo-American corpora, provides detailed syntactico-semantic-pragmatic characteristics of the major types of apposition. The main tenet of the argument of the book is that apposition should be treated as a distinct class like complementation and modification. The other important thing about this treatment of apposition is that, apart from isolating that-AC as the major type with regard to frequency of occurrence, it gives us an insight into the usage of apposition. On the hand, a fairly recent study by Stowell (2005, p. 608) considers as “appositive relative clauses” clauses such as “The prince, who was wounded, withdrew from the battle.” We will adopt such terminology since it brings in much more confusion of the sort that this article seeks to avoid for students. As used in this article, ACs are exemplified by (1b) below.

The structure of the current paper is as follows. In the first section, emphasis will be laid on the head introducing RC and AC, which will be investigated for its mobility, function and relation with other syntactic constructions. The second section will address the RC and AC clauses in question from the perspective of their internal structure and affinity with other syntactic structures and transformations. The third section will be concerned with the complementizer “that” in RC and AC clauses with particular reference to its omission, function and nature.

2. The head noun

In this first section, the study will revolve around the head noun in both RC and AC. Let us then begin this argumentation by noting that although these types of clauses have always been classified as one class (in spite of the different terminology used: embedded sentences, complex NPs, or cases of postmodification), major differences should become clear to an attentive investigator. Consider, for instance, the following sentences:

- (1) a. The possibility that worries him was discarded.
b. The idea that the earth revolves around the sun was quite revolutionary.

Sentence (a) above is what we recognise as a relative whereas (b) is an appositive. Judging them by their surface structures, both sentences appear perfectly similar: both start with an abstract factive NP, both use “that”, and both include an interrupting clausal following “that” inserted to the right of “that”. However, a closer look will reveal sentences (1a–b) to be substantially different. If, for example, a slight syntactic

reordering is applied to the structures of both sentences, the result will be an ungrammatical sentence as a counterpart to (1a) but an acceptable one in relation to (1b) as in what follows:

- (2) a.* That worries him was the discarded possibility.
b. That the earth revolves around the sun was quite a revolutionary idea.

Another type of reordering has drawn my attention when Quirk et al. (1972, p. 874) offered the following linkage between appositive and nominal clauses:

- (3) a. The feeling that it would not happen ...
b. The feeling is that it would not happen.

What happened here is that the head noun, “the feeling”, in (3a) has been detached from the AC and made subject of the sentence, with the rest of the appositive clause in (3a) being a that-nominal clause Cs of “the feeling” entertaining a predicative relation with the subject when the copula “be” has been inserted in between. Thus, ACs seem to have affinities with nominal clauses. Let us now check whether the same holds for RC. Consider the following pair of sentences:

- (4) a. The feeling that overwhelmed them was unknown to them.
b* The feeling is that overwhelmed them was unknown to them.

Clearly, the head noun in (4a) is not detachable as it cannot occur in a syntactic environment other than the one in which it is head, since it does not entertain the same relation with “that” as the head noun in AC. This relation will hopefully become clearer later in this paper.

Though Radford (1981, p. 218) considers that “no rule can move any element out of a Complex Noun Phrase Clause,” yet it is clear from (2a–b) above that while elements cannot actually be extracted out of relative constructions, changes could be operated on AC. It has to be noticed, however, that extracting the head noun out of the appositive clause resulted in a nominal clause. If then it has been possible to extract elements out of an appositive clause but not out of a relative clause, so both clauses do not have the same kind of Complex NP structures.

It is then safe to consider (1b) and (2b) syntactically linked or related. Intuitively, it is more sensible to assume that the direction of relatedness is from (2b) to (1b). The steps from (2b) to (1b) could be described as follows: the abstract factive NP, “an idea,” as an indefinite head noun in “quite a revolutionary idea,” entertains a predicative relation with the that-clause within a sentence of the form SVCs (Quirk et al.’s terminology in *A Grammar of Contemporary English*, 1972), where S is a subject and Cs a subject complement. What may have happened next is what might be called an NP Preposing Transformation, which will move the NP, “an idea,” to the left of that-clause, turn it into a definite NP as it is now considered to be known to the reader/hearer, thus juxtaposing it to the clause it is intended to dominate. We hope it has now become clearer that with regard to extracting elements out of clause structure, ACs do allow partial mobility for head nouns, thus

turning them into nominal clauses whereas RCs disallow movement for head nouns and yield ungrammatical structures.

If the head noun in AC could be moved out of clausal structure, yielding grammatical constructions, there is a sort of NP constraint in ACs, which does not exist with RC. Consider the following pairs of sentences:

- (5) a* The occurrence that he did it annoyed her.
 a' The occurrence that annoyed her was his doing it.
 b* The happening that he did it still bothers her.
 b' The happening that impressed them most was their attending Prince's wedding.
 c* The result that they got married satisfied their parents.
 c' The results that their parents were expecting were too high.
 d The announcement that it was bust angered his parents.
 d' The announcement that was made angered the workers.

Notice that the fact that 3 out of the 4 initial sentences in the pairs fail as AC whereas all of the (') sentences do work as RC, suggests that there is a restriction on the use of head nouns with AC while relative clauses can take any NP and relativize it. Matthews (1981, p. 231) explains that this restriction "rests on evidence of valency", i.e. the possibility offered to verbs in English to combine with other verbs. To illustrate his claim, Matthews appeals to nominal clause structures and the combination of different verbs can (or cannot) enter into, and suggests that as long as we cannot say "It occurred that he did it", we cannot say, "The occurrence that he did it", and vice versa.

This is an invaluable test since it tells us that so long as a verb of a main clause can coexist with a verb of a dependent nominal clause, the verb of the main clause can be turned into a head noun as part of an appositive structure as in the following sentences:

- (6) a. We felt that it would not happen.
 b. The feeling that it would not happen ...

We are, however, aware of the limited scope of this test since some head nouns in AC are not derived from verbs as with factive abstract nouns such as fact, idea, possibility, etc. Nevertheless, the test constitutes further confirmation for the thesis that ACs are more akin to nominals than RC are.

Another difference between RC and AC could be sought in the relation the head noun may (or may not) entertain with other nouns and the verb of the clause itself. To reach this, let us concentrate on the sentences below:

- (7) a. The house that burned down belonged to Dr. Torrance.
 b. The house that Mary burned down belonged to Dr. Torrance.
 c. Columbus made the claim that the world revolves around the sun.

Sentences (7a–b) are RC while (7c) is an appositive. In (7a) the head noun, "the house", is in a close functional relation with the verb; it is its subject. In (7b), however, the head noun entertains a relation both with the verb of the clause "burned

down" and the subject "she"; to the verb it is Od affected by the action perpetrated by the subject. To see this more clearly, we can resort to kernel simple sentences:

- (8) a. The house burned down/The house belonged to Dr. Torrance.
 b. She burned down the house/The house belonged to Dr. Torrance.

To use a cleft construction, in (7a) it is the house that belonged to Dr. Torrance that burned down; in (7b), it is Mary that burned down the house that belonged to Dr. Torrance.

Concerning (7c), however, the head noun, "the claim," enters in no functional relation with the verb of the AC; it is neither its subject, nor a direct object to it. Thus, we cannot make sense of the following sentences derived from (7c) even if we try to assign them metaphorical readings:

- (9) a* The claim revolves around the sun.
 b* The world revolves the claim around the sun.

While (9a) presents a flouting of a selection restriction which is that "the claim" is [+abstract] but has been assigned a verb, "revolves" [+concrete], in (9b) "the claim" cannot function as a Od because the class type of verb "to revolve" has been modified into a [V NP], i.e. changed from an intransitive to a transitive verb. It appears then clearly that, at least in the direction we investigated the syntactic relations head nouns can have with other structural elements, head nouns in AC are substantially different from heads of relative clauses, in that they have turned out to be less constrained by movement within the complex NP structure than their relative counterparts, more selective in their occurrence with types of verbs, and free from functional bounds vis-à-vis the elements the clause in which they occur.

One further piece of evidence in favour of a distinction between RC and AC through their head nouns, could be found in the pseudo-cleft construction. Let us take the following two pairs of sentences:

- (10) a. The loaf that I sold him was stale.
 a'. what I sold him was stale.
 b. The report that tuition was going up in the fall was untrue.
 *b'. What tuition was going up in the fall was untrue.

Thus, with regard to pseudo-clefting the relative does allow for its head noun to be the focus of a pseudo-cleft "what", whereas the appositive does not. In this particular case, AC seems not to allow partitioning between the head noun and the clause following it, as they appear to be making up a unit. It has to be pointed out that while the head noun here disallows disunity, it could detach itself altogether from the clause as has been demonstrated in (2b) above, and be head noun part of the Cs of the nominal clause subject of the sentence.

Notice, however, that though ACs cannot be the focus of a pseudo-cleft construction, they can together with RC be the focus of a cleft construction:

- (11) a. The loaf that I sold him was stale.
 a'. It is the loaf that I sold him that was stale.
 b. He report that tuition was going up in the fall was untrue.
 b'. It is the report that tuition was going up in the fall that was untrue.

It seems that ACs are more consistent than RC in disallowing any split in the NP structure, thus indicating that with respect to both clefting and pseudo-clefting head nouns in AC make a unit with the clause they precede.

3. The Clause

To pursue the contrast in this second section between RC and AC, we will concern ourselves with the clause level. We will start by noting that Akmajian and Heny (1975, p. 267) have made the observation that that-clauses leave us with a meaningful simple sentence if “that” is subtracted. Consider the following examples:

- (12) a. He denied the claim that the police had arrested him.
 b. (That) The police had arrested him.

However, this is not the case with RC, which, if “that” is omitted together with the head noun, it would yield ungrammatical strings:

- (13) a. The house that burned down belonged to Dr. Torrance.
 *b. Burned down.

To show that (12b) does have the internal structure of a sentence while (13b) does not, appeal could be made to the passive transformation. Hence, whereas (12b) does have a passive counterpart, (13b) does not as illustrated in (14a–b) below:

- (14) a. He had been arrested by the police.
 b. (X) burned down by Mary.

Part of the explanation for this lies in the fact that “that” in ACs does not entertain any relation with NPs, and thus may be done away with as in (12b) above; however, in (13a) “that” is essential to the structure of the relative clause as relativization applies as a result of relative pronoun Left Movement Rule within a clause lacking the NP core-referential with that pronoun. In other words, in the case of RC “that” entertains an anaphoric relation with the head noun, and therefore it can only disappear under special conditions, which are beyond the scope of the present paper.

It seems that the qualitative difference exemplified by their internal structure is not the only feature that sets RC and AC apart. To illustrate this, premodification will be introduced at this point of the argument. Without delving into details which might be irrelevant to our present discussion, premodification will be simply viewed as linguistic material that precedes NPs and modifies them. Often, it is adjectives that premodify

NPs; this should not mean that NPs themselves cannot premodify NPs. Consider the following example where “pretty” premodifies “girls”:

- (15) Some pretty girls.

The adjective “pretty” in (15) above comes before the head noun “girls” to premodify it, i.e. bring a change in meaning. It is possible, however, to interpret premodification, suggest Quirk et al. (1972, p. 860), by postmodification. Thus “some pretty girls” will be explicated as “some girls that are pretty”.

If premodification may be interpreted in terms of postmodification as has been demonstrated, then we could imagine a symmetrical relation between both transformations, therefore making postmodification interpretable in terms of premodification as in the following sentences:

- (16) a. The children that are naughty are our neighbour’s.
 b. The naughty children are our neighbour’s.

We are not, of course, suggesting that premodification obtains for every case of postmodification; there are constraints on the occurrence of premodification. For instance, premodification does not obtain when the adjective denotes temporariness; hence, “timid” allows premodification while “afraid” disallows it:

- (17) a. A man that is timid—A timid man.
 b. A man who is afraid—* An afraid man.

Notice that premodification changes the status of the NP from a complex NP into an NP, and takes premodifying elements and places them to the left of the head noun of the complex NP.

Now, in the light of what we have seen about premodification and postmodification, let us check whether RC and AC behave in the same fashion. Concentrate on the following sentences:

- (18) a. The Chinese that are industrious control the economy of Singapore.
 b. The idea that some Chinese are industrious is not new.

Knowing that (18a) is a relative clause and (18b) is an appositive, and assuming that both are cases of postmodification, we should expect both to admit an explication in terms of premodification. To check this, we will turn postmodified NPs into premodified NPs, and introduce them in the following sentences:

- (19) a. The industrious Chinese control the economy of Singapore.
 *b. The industrious Chinese idea is not new.

Thus, RC and AC behave differently with regard to premodification, and the clause following “the idea” in (18b) does not seem to postmodify it in the same way the clause following “the Chinese” in (18a) postmodifies it.

There is further evidence that RC and AC do not belong in the same clause-type. For the sake of illustration, we will introduce an optional transformation in English called Extraposition, which moves clauses or clause elements to end position in the structure of the sentence as in the following examples:

- (20) a. To make a fool of yourself is a pity.
b. It is a pity to make a fool of yourself.

It is beyond the scope of this paper to deal with the functions and the different types of extraposition, which are deliberately ignored.

However, it is our concern to see whether extraposition applies in the case of RC and AC. The following examples are illustrative:

- (21) a. The loaf that I sold you was stale.
b. The loaf was stale that I sold you.
c. The report that tuition was going up in the fall was untrue.
d. The report was untrue that tuition was going up in the fall.

Notice that in the case of (21b) and (21d), extraposition operates a sort of discontinuity in the complex NP subject of the sentence, thus inserting the verb and the Cs between the head noun and the that-clause, occasioning no ambiguity or loss of meaning.

Yet, extraposition is inapplicable in the following RC, and it unconditionally applies with AC:

- (22) a. The car that hit the lamp post also ran into the tree.
a'. The car also ran into the tree that hit the lamp post.
b. The man that killed his wife fled to the countryside.
b'. The man fled to the countryside that killed his wife.
c. Evidence that smoking is correlated with incidence of lung cancer was discussed.
c'. Evidence was discussed that smoking is correlated with incidence of lung cancer.
d. The fact that no artefacts could be found there puzzled the archaeologist.
d'. The fact puzzled the archaeologist that no artefacts could be found.

While extraposition smoothly applies with (22c') and (22d'), it fails with the RC in (22a') and (22b'). First, because a change of meaning took place. While in (22a), it is "the car" that "hit" and "ran", in (22a') "the car" "ran" but it is "the tree" that "hit". The same thing holds for (22b'): whereas in (22b) it is "the man" that "killed" and "fled", in (22b') the man "killed" but it is the countryside that is made to kill "his wife". This change of meaning resulting from the application of an optional transformation, namely extraposition, seems to have escaped Akmajian et al.'s attention (1979:161) when they claimed that "given an NP containing a head noun directly followed by a modifying clause, the modifying clause may be shifted out of the noun phrase to the end of the sentence." If ignored, the constraint on the use of extraposition with RC may raise the age-old problem of whether transformations should keep meaning intact.

Second, because the that-clause includes elements at the end of it which are potential candidates for a postmodification, thus making the RC interpreted as modifiers to "the tree" and "the countryside", and not as containing an extraposed relative clause. Hence, the fact that extraposition applies freely in the case of AC, but only under some conditions with RC, is further evidence that AC behaves in the same way as nominals with regard to extraposition. This suggests that ACs seem to be more nominal in behaviour than RC.

There is still further evidence that RC and AC are structurally different. To illustrate this, we will appeal to a statement made by Bach (1968, p. 93) to the effect that "we can derive nouns from relative clauses". We will propose here one of the examples he gave:

- (23) a. We noticed something that was irregular.
b. We noticed an irregularity.

Proceeding from mathematical logic, we will posit that if (23a) equals (23b) then (23b) equals (23a), which in natural language could mean something like: if nouns could arise from RC, then RC could be got from nouns, which, I believe, is correct. Now, if ACs have the same deep structure as RC, then nouns derive from RC, and nouns would yield AC.

Assuming a similarity of structure between RC and AC, let us consider the following sentences and their corresponding noun equivalents:

- (24) a. I saw something that was horrible.
a'. I saw a horrible thing/horror.
b. We are not impressed by the fact that the world is round.
b'. We are not impressed by the roundness of the world.

While (24a) is easily recoverable from (24a'), (24b) is impossible to recover as an appositive including the factive abstract noun "the fact", which simply vaporises in the process of transforming the clause complex NP into NP. For this, we may infer that whereas both RC and AC may yield nominal structures, still ACs are losers if an attempt is made at reconstructing them from NPs. This is not, however, the case with RC.

4. That

In this last section, structural differences relating to "that" will be elucidated. The differences will focus on the nature, function and deletion of "that". Consider the following sentences, we repeat for convenience, from which "that" is extracted:

- (25) *a. The car (that) hit the lamp post also ran into the tree.
b. The loaf (that) you sold me was stale.
*c. The claim (that) the world was round was made by Columbus.

Out of (25a-c), only (24b) is acceptable. This clearly suggests that there is a constraint on the omission of "that" in RC, and an impossibility of deleting it in AC. The constraint relating to the omission of "that" from RC forbids it if it is head noun S as in (24a).

The problem of the omission of “that” in both RC and AC seems to be linked with the grammatical function it might (or might not) play in the structure of the clause. In RC, for instance, “that” is in an anaphoric relation with the head noun preceding it, and plays accordingly the same function the head nouns play. Therefore, it is inside clause structure. However, in AC “that” is outside clause structure, therefore playing no function within clause structure (Quirk et al., 1972, p. 874).

Again, deriving from what has been said about its deletion and function, “that” in RC will be maintained as a relative pronoun since it stands for the head noun next to it while “that” in AC will be called “a particle” after Quirk et al. (1972, p. 874). The reason why we have opted for this appellation is motivated by the fact that, unlike the relative pronoun in RC and the complementizer “that” in nominals, it cannot be deleted.

5. Concluding remarks

Though RC and AC have always been thought of as complex NPs, our conclusions suggest that they are different in many respects. To show this, the same pattern followed in the course of the paper will be maintained to allow for more reliability and avoid hasty overgeneralizations. Because head nouns in RC necessarily play an essential function within clause structure, they are sensitive to NP movement, therefore resisting it and yielding ungrammatical constructions if any attempt is made at shifting them. ACs are, however, insensitive to NP movement in that they readily change into nominals. Accordingly, NPs in AC can be extracted out of their original structure while RC can be said to make up a unit with the head noun more than AC. Thus, contrary to the claim that both “Relative clauses are islands” and “Noun Complement clauses are islands” (Radford, 1981, p. 215–218), we conclude that ACs are not “islands” as they allow NP extraction. With regard to pseudo-clefting, however, relative head nouns can be the focus of a pseudo-cleft construction while appositive heads cannot.

Regarding clause structure, ACs are not cases of noun postmodification since they cannot be interpreted in terms of premodification. We are tempted to follow Meyer (1992) when he offers to consider apposition as a major grammatical function like subordination and modification, but we feel it tautological to claim that ACs are cases of apposition. Rather, AC could be considered as tending more toward complementation than toward postmodification while RC definitely tend toward postmodification. With regard to extraposition, ACs behave like nominals in that they freely extrapose whereas RC may be constrained by NPs which could receive postmodifiers if extraposition is applied. If RC can be derived from NPs, ACs cannot, indicating that they do not arise from the same deep structure.

As to “that”, because in RC it entertains an anaphoric relation with the head noun it is meant to stand for, “that” logically has the same function as that NP, and therefore can only be omitted under certain conditions. In AC, however, it plays no grammatical function such as S or Od and stands in no anaphoric relation to another structure, but can never be omitted. Though it is outside clause structure, “that” signals NP complementation.

A syntax of RC and AC needs to be complemented by a similar contrastive study of their semantics. It is interesting also to suggest a contrastive pragmatics of RC and AC, which will take in charge defining the conditions of appropriateness of their use in contexts by language users. Such contrastive studies may consolidate the syntactic part.

Acknowledgements

I am grateful to the research centre at the College of Languages and Translation, King Saud University, for their support and funding. I am also grateful to the Scientific Research Deanship for their support.

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