

## Remarks on the typology of noun-modifying clause constructions

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### 1. Introduction

According to Matsumoto & al. (2017b), languages can be characterized as having or not a *general noun-modifying clause construction* (GNMCC), i.e. a construction available for relative clauses (or at least some subtypes thereof) and also used for some other functional types of adnominal clauses, with Japanese and SAE languages as typical representatives of these two options. In this presentation, I discuss some problematic aspects of this proposal.

### 2. The functional classification of adnominal clauses

Adnominal clauses (aka noun modifying clauses) are clauses that form a constituent in combination with a head noun they modify. According to the semantic nature of the modification they express, they can be classified into three broad functional types:

- the *participational* adnominal clauses characterize the referent of their head as involved in the situation described by the adnominal clause; they include (but are not limited to) the clauses traditionally analyzed as adnominal ‘relative clauses’, as in *the student who bought the book, the day when we met, the man whose car was stolen*;
- the *equative* adnominal clauses express the content of a head noun referring to a state-of-affairs, as in *the news that he won the price or the rumor that he was killed by poisoning*;
- the *relational* adnominal clauses characterize the referent of their head as related to the situation they describe without fulfilling a participant role in it, as in *the proof that he is still alive*.

This functional classification of adnominal clauses differs from the classification of noun-modifying clause constructions (NMCC) proposed by Matsumoto & al. (2017b), for whom the basic types are *argument* NMCCs (in which the head-noun is coreferential with an argument of the adnominal clause), *adjunct* NMCCs (in which the head-noun is coreferential with an adjunct of the adnominal clause), and *extended* NMCCs (which involve “some other relationship between the head-noun and the clause”). The correspondence between the two classifications is summarized in (1).

- (1) Matsumoto & al.’s (2017b) functional classification of NMCCs compared to the functional classification proposed in this presentation

Matsumoto & al.		this presentation
argument NMCCs		participational adnominal clauses
adjunct NMCCs		
extended NMCCs	frame NMCCs	equative adnominal clauses
	content noun NMCCs	
	relational noun NMCCs	relational adnominal clauses

The crucial difference between the two classifications is that Matsumoto & al. consider that the adnominal clauses they call ‘frame NMCCs’, illustrated in (2), are a subtype of ‘extended NMCCs’, whereas I propose to group them with the adnominal clauses traditionally analyzed as relative clauses into a category for which I provisionally use the term of *participational adnominal clauses*:<sup>1</sup>

- (2) Mandarin Chinese (Zhang 2008: 1004)

- (2a) **[Lulu tan gangqin] de shengyin**

Lulu play piano LK sound

‘the sound which (is produced by) Lulu’s playing piano’

- (2b) **Wo wendao-le [[mama chao cai] de weidao].**

I smell-PRF Mom fry vegetable LK smell

‘I smelled the smell from Mom’s vegetable-frying.’

- (2c) **Wo jisuan-chu-le [[qiche zhengzai xingshi] de sudu].**

I calculate-out-PRF car PROG run LK speed

‘I calculated the current speed of the car’s running.’

Matsumoto & al. define frame NMCCs as NMCCs in which “the head noun instantiates some other frame element within the clause (not covered by argument or adjunct NMCC)”. In the literature, such adnominal clauses are sometimes designated as *gapless relative clauses*, which emphasizes the fact that, semantically, they have more affinities with the clauses traditionally analyzed as relative clauses than with equative or relational adnominal clauses: like relative clauses (and in contrast to equative or relational adnominal clauses), they characterize their head as involved in the situation they describe.

In the following section, I argue that a serious shortcoming of Matsumoto & al.’s classification of adnominal clauses is that the distinction between argument/adjunct NMCCs and frame NMCCs is problematic, which is in fact not very surprising, given their semantic affinity.

<sup>1</sup> In the remainder of this paper, I will argue that this term is not really necessary, since Matsumoto & al.’s ‘frame NMCCs’ can be viewed as a subtype of relative clauses that no clearcut boundary separates from ‘adjunct NMCCs’

### 3. The problematicness of the distinction between argument/adjunct NMCCs and frame NMCCs

As already mentioned, argument/adjunct NMCCs in Matsumoto & al.'s terminology correspond to the adnominal clauses traditionally analyzed as relative clauses in grammars of European languages. A first interesting observation is that some of the general definitions of relative clauses found in the literature are formulated in such a way that, in fact, they are compatible with recognizing Matsumoto & al.'s frame NMCCs as a subtype of relative clauses.

For example, an often-quoted definition of relative clauses is Andrews' (2007: 206) definition according to which

“A relative clause (RC) is a subordinate clause which delimits the reference of an NP by specifying the role of the referent of that NP in the situation described by the RC.”

Andrews further states that

“In order to describe a situational role for the referent of NP<sub>mat</sub> [the NP in the matrix clause whose reference is being delimited by the relative clause], S<sub>rel</sub> [the relative clause] needs to have a grammatical function associated with that role.”

but in fact, this is not a logical consequence of the definition, whose interpretation crucially depends on the understanding of ‘specifying the role of the referent’.

If ‘specifying the role of the referent’ is understood in a very restricted sense (i.e., specifying the role of the referent OVERTLY), the only clauses that can be recognized as relative clauses are those including an overt representation of NP<sub>mat</sub> (either in the form of a relative pronoun, a resumptive pronoun, or a full NP), which was certainly not what Andrews intended when he formulated this definition.

But if ‘specifying the role of the referent’ is understood as ‘providing information sufficient for retrieving the role of the referent’, Andrews' definition does not really justify a distinction between the adnominal clauses traditionally analyzed as gapped relative clauses and adnominal clauses such as those illustrated in (2) above.

The criterion commonly used to draw a distinction between gapped relative clauses and the kind of constructions called frame NMCCs by Matsumoto & al. is the possibility vs. impossibility of forming an independent clause specifying the role of the head-noun in the event by simply inserting the head noun – see in particular the distinction between ‘inner relation’ and ‘outer relation’ introduced by Teramura (1975-1978) in the analysis of the adnominal clauses of Japanese.

In fact, this criterion is problematic, because in the case of clauses commonly analyzed as relatives including an adjunct gap, the insertion of the head-noun often necessitates the addition of some flagging. In English, the independent clause corresponding to the adnominal clause in **the day [he came]** is **He came ON that day**. Similarly, many languages (including European ones, at least in their colloquial varieties) have constructions traditionally analyzed

as gapped relative clauses such as (3a) or (4a), which can only be derived from independent clauses as indicated in (3b) and (4b).<sup>2</sup>

(3a) °**the knife that [I cut the bread]**  
‘the knife with which I cut the bread’

(3b) **I cut the bread ~~WITH that knife~~**

(4a) °**the place that [I was born]**  
‘The place where I was born’

(4b) **I was born ~~IN that place~~**

In other words, the current analysis of such adnominal clauses implies accepting a notion of gap not necessarily limited to the relativized NP. But if the gap analysis is accepted in such cases, there is no principled reason to reject it for constructions such as those in (5-8), commonly mentioned in the literature as typical examples of ‘gapless relatives’ (or ‘frame NMCCs’ in Matsumoto & al.’s terminology).<sup>3</sup>

(5a) °**an illness that [many people died]**  
‘an illness which caused the death of many people’

(5b) **Many people died ~~BECAUSE OF that illness~~**

(6a) °**the meat that [we killed an ox]**  
‘the meat of the ox we killed’

(6b) **We killed an ox ~~TO GET that meat~~**

(7a) °**the smoke that [people are grilling fish]**  
‘the smoke from fish grilling’

(7b) **~~JUDGING FROM that smoke~~ people are grilling fish**

(8a) °**the money that [he sold a car]**  
‘the money he got by selling a car’

(8b) **He sold a car ~~WITH THE RESULT THAT HE GOT that money~~**

The point is that, in fact, the only difference between (3-4) and (5-8) lies in the relative complexity of the expression whose deletion may account for the relationship between the adnominal clause and an independent clause specifying the role of the head noun in the event.

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<sup>2</sup> In order to facilitate the understanding of the examples, some of them (those marked with ‘°’) are given in an imaginary variety of English in which *that*-clauses would be the only available type of adnominal clauses, and would have the same functional flexibility as the ‘general noun-modifying clause construction’ of Japanese.

<sup>3</sup> In addition to the articles in Matsumoto & al. (2017a), see for example Yoneka (2014) on a sample of Bantu languages, Lovegren & Voll (2017) on the Bantoid language Mungbam.

The lack of a clear-cut boundary between uncontroversial gapped relative clauses and constructions such as those in (2) suggests that Matsumoto & al.'s frame NMCCs do not constitute a type really distinct from adjunct NMCCs, with which they share the property that an independent clause specifying the role of the head-noun in the event can be formed by simply adding a syntactically optional phrase including the head-noun, without any change in other aspects of the construction of the adnominal clause. The only difference is in the relative complexity of the expression whose deletion accounts for the relationship between the relative clause and an independent clause specifying the situational role of the relativized NP.

An important observation is that, as far as I know, no language has been signaled as having a construction for adnominal clauses semantically similar to those in (2) that would not be also available for clauses commonly analyzed as gapped adjunct relatives.

Another important observation is that, in the languages in which the resumptive pronoun strategy is widely used, such as Tswana (Bantu) or non-standard colloquial French, there is no difficulty in forming constructions that are literally **the meat that we killed an ox to get it** or **an illness that many people died because of it**, which express properties of the head noun that can be formulated by means of the same independent clauses as (5) and (6) above, and are at the same time uncontroversial noun-relative clause constructions, since they include a pronoun resuming the head noun. For example, **une maladie que beaucoup de gens en sont morts**, lit. 'an illness that many people died thereof' is perfectly normal in non-standard colloquial French.

#### 4. Revising the accessibility hierarchy

If one accepts the proposal to analyze the adnominal clauses involved in Matsumoto & al.'s frame NMCCs as a type of adnominal clauses that no clear-cut boundary separates from clauses commonly analyzed as gapped adjunct relatives, a first consequence is that, in the terminology, there is no problem with using 'adnominal relative clause' instead of the term 'participational adnominal clause' introduced in section 2 for the sake of clarity, and there is no need for an equivalent of Matsumoto & al.'s 'frame NMCC'.

It seems hardly disputable that clauses such as those illustrated for Mandarin Chinese in (2) are cross-linguistically less common than the adnominal clauses commonly analyzed as gapped adjunct relatives, and can only be found in languages that also make a wide use of clauses for which there is consensus on an analysis in terms of adjunct gap. Consequently, as an extension of the analysis put forward in this presentation, their relative cross-linguistic scarcity could conveniently be accounted for within the frame of a revised accessibility hierarchy formulated in terms of semantic roles rather than grammatical relations, in which the semantic roles involved in such relative clauses would occupy a position at the bottom of the hierarchy.

#### 5. Disentangling the notion of general noun-modifying clause construction

The notion of general noun-modifying clause construction (GNMCC) as defined and developed in Matsumoto & al. (2017a) conflates two parameters that must be distinguished, since they do not necessarily coincide:

- (a) the possibility of extending a construction available for uncontroversial gapped adjunct relatives to clauses classified as frame NMCCs in Matsumoto & al.'s framework;

- (b) the use of the same construction for (some subtypes of) relative clauses and for other types of adnominal clauses (either equative, relational, or both).

### 5.1. Languages with a NMCC having property (a), but not (b)

Jóola Fóoñi (Atlantic) illustrates the case of a language with relative clauses that would be classified as frame NMCCs according to Matsumoto & al. (2017), as illustrated in (9).

(9) Jóola Fóoñi (pers. doc.)

(9a) **hamaay y-an [ɛ-purumi sindɛɛy]**

project.D CLe-REL sI:CLa-leave.CPL home.D

lit. ‘the project that [he left (his) home]’

analyzable as ‘the project that [he left his home ~~in order to realize this project~~]’

(9b) **botomab b-umbɛɛm b-an [ɪ-jaakalum]**

mouth.D CLb-my CLb-REL sI:1SG-worry.CPL

lit. ‘my mouth that I am worried’

analyzable as ‘my mouth that [I am worried ~~because of my mouth~~]’

(9c) **borəkab b-an ɔmanj’ɔnɛ [nɪɛɛ lookuŋ let ɛ-riiŋ**

job.D CLb-REL you.know.that<sup>4</sup> sometimes week FUT.NEG sI:CLa-arive

**dɛɛ sindɛɛy]**

LOC home.D

lit. ‘a job that [sometimes he will not come home a whole week]

analyzable as ‘a job that [sometimes he will not come home a whole week ~~because of this job~~]’

However, the construction illustrated in (9) is not available for equative or relational adnominal clauses. Relational adnominal clauses are not attested in my corpus of naturalistic texts, and I have not been able to find examples in elicitation either. As regards equative adnominal clauses, as illustrated in (10), they require a linker **-atɪ** also used in the adnominal possession construction, distinct from the linker **-an** introducing relative clauses.

(10) Jóola Fóoñi (pers. doc.)

**kawɔnɔɔrak k-atɪ [pan ɔ-katɛn-ɔm]**

thought.D CLk-GEN FUT sI:2SG-abandon-I:1SG

‘the thought that [you will abandon me]’

### 5.2. Languages with a NMCC having property (b), but not (a)

In many languages, including the standard variety of English and French, the same invariable conjunction (English **that**, French **que**) can be used as a relativizer and as a complementizer

<sup>4</sup> In Jóola Fóoñi, **ɔmanj’ɔnɛ**, lit. ‘you know (that)’ has grammaticalized as a marker of relative clauses expressing an individual-level property of the referent of their head.

with equative and relational adnominal clauses, as illustrated in (10), but the use of this conjunction in relativization does not meet condition (a), since the same conjunction is not found (or only in a very marginal way) in constructions similar to those illustrated in examples (2) or (9).

(10) French (pers. knowl.)

(10a) **le jour que [Jean a eu un accident]**

the day that Jean has had an accident

‘the day (when) Jean had an accident’

(10b) **la rumeur que [Jean a eu un accident]**

the rumor that Jean has had an accident

‘the rumor that Jean had an accident’

(10c) **la preuve que [Jean a eu un accident]**

the proof that Jean has had an accident

‘the proof that Jean had an accident’

One may object that, in French, the constructions in question are only superficially identical, since they behave differently in some respects, depending on the semantic nature of the relationship between the head noun and the adnominal clause. In particular, with French relative *que*-clauses, an independent clause can be formed by inserting the head-noun into the relative clause, whereas such an insertion is impossible with equative or relational *que*-clauses.

(9c) **Jean a eu un accident ce jour-là.**

Jean has had an accident that day-there

‘Jean had an accident on that day.’

This difference in the behavior of relative and equative/relational *que*-clauses in French is the argument most commonly brought forward against the analysis of ‘noun + *que*-clause’ as a single construction with several possible functions. However, the same observation can be made in the languages that have been analysed as having a GNMCC, and consequently:

- either such observations on the behavior of adnominal clauses are considered sufficient for positing distinct although superficially similar constructions, and then the existence of languages with GNMCCs is highly unlikely,
- or formal marking is considered essential in the delimitation of constructions, and then it is unclear why the ‘noun + *que*-clause’ construction of French could not be considered as a GNMCC in the sense of Matsumoto & al. (2017b).

## 6. Conclusion

In this presentation, I have proposed a typology of adnominal clauses that crucially differs from that proposed by Matsumoto & al. (2017b) with respect to the classification of the constructions they designate as frame NMCCs. I have argued that, in fact, such constructions meet commonly accepted definitions of noun-relative clause constructions, and can

conveniently be accounted for within the framework of a revised version of the hierarchy of accessibility to relativization. In section 5, I have shown that the notion of GNMCC as proposed by Matsumoto & al. (2017b) conflates two parameters that must be distinguished, since they are not logically related and do not coincide in the individual languages: the extension of the gapping strategy to the relativization of participant roles at the bottom of the accessibility hierarchy, and the possibility of using the same construction both for (some types of) relativization and for non-relative adnominal clauses.

### Abbreviations

D: definiteness marker, CL: class (gender-number agreement marker), CPL: completive aspect, GEN: genitive, FUT: future, I: index, LK: linker, LOC: locative, NEG: negation, PRF: perfect, PROG: progressive, REL: relative linker, SG: singular, sI: subject index.

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