

A cross-linguistic comparison of clausal embedding with causatives

Paolo Lorusso
Università degli Studi di Udine
paolo.lorusso@uniud.it

Linda Badan
Università degli Studi di Trento
linda.badan@unitn.it



Received: 11-04-2023
Accepted: 04-11-2023
Published: 01-03-2024

How to cite: Lorusso, Paolo, & Linda Badan. 2024. A cross-linguistic comparison of clausal embedding with causatives. In *New perspectives on the syntax of causative and restructuring verbs in Romance*, eds. Jan Casalicchio & Peter Herbeck. Special issue of *Isogloss. Open Journal of Romance Linguistics* 10(4)/3, 1–32.
DOI: <https://doi.org/10.5565/rev/isogloss.326>

Abstract

In Italian, causatives are expressed through a periphrasis *make* + infinitival V. When the embedded verb is transitive, the embedded subject is generally introduced by a *to/by* preposition. For this reason, some scholars have analyzed causatives as a verbal complex with a single argument structure, involving a complex functional layer. In this paper, we offer a cross-linguistic comparison of causative clausal embedding. First, we compare Italian causatives with perception verbs, where no prepositions introduce the embedded subject. Then, we compare Italian causatives to those in Balkan languages and Southern Italian varieties which allow finite embedding. We account for the variation in terms of differences in the (+/-) defective status of the embedded clause and in the availability of AGREE operation (inspired by Manzini 2022). We conclude the comparison with Chinese, where no AGREE operation is

available and a θ -feature checking operation is at work: embedded subjects check the θ -feature of both verbs as in the control construction (*à la* Manzini & Roussou 2000). We argue that language variation in clausal embeddings relates to the phasal/non phasal status of embedded clauses and to the available syntactic operations.

Keywords: Causative, Italian, defective phase, ergative alignment, Chinese.

1. Introduction

As well known in the typological literature (Comrie 1976, Dixon and Aikhenvald 2000, Hopper and Thompson 1980, Talmy 1976), there are two major strategies across languages to express causatives: morphological (synthetic) and periphrastic (analytic). Morphological causatives are derived through a causative morpheme combined with the verbal root, as in Tuvan (1a); while periphrastic causatives consist in a causative predicate *make* and a verbal complement, as in the English example in (1b), where the embedded verb is infinitival.

- (1) Tuvan (Kulikov 1994: 260 apud Haspelmath 2008:5)
- a. Bajyr asak-ka ool-d ette-t-ken
 Bajyr old.man-DAT boy-ACC hit-CAUS-PST
 ‘Bajyr made the old man hit the boy’
- b. I made John read the book

Causatives in Romance have often been analyzed as occupying an intermediate position between the morphological and the periphrastic type, since they consist in a periphrastic construction involving an inflected *make* and an infinitival embedded verb (in the spirit of Zubizarreta 1985). Due to the strong cohesion between matrix and embedded predicates, Romance causatives can form a clause union. In this configuration, they show some syntactic behaviors that resemble morphological causatives (Ledgeway 2019). For instance, as illustrated in (2) for Italian, they display¹ obligatory clitic climbing (2a), no intervening elements between the matrix and the embedded verb (2b), unavailability of the negation within the embedded clause (2c), and a preposition introducing the *causee* (the subject of the embedded clause) with embedded transitive verbs (2d).

- (2) a. Giovanni lo fece cadere (*lo)
 Giovanni it.CL made fall.INF it.CL
 ‘Giovanni made it fall’
- b. *Giovanni fece il bicchiere cadere
 Giovanni made the glass fall.INF
 ‘Giovanni made the glass fall’

¹ Romance languages may differ from this general pattern. In this paper, we will not address the issues related to the variations among Romance varieties and the ECM causative constructions (for a discussion see Treviño 1994, Hernanz 1999, Guasti 2005, Sheehan 2020, Ledgeway 2019 among others). We focus mainly on the Italian infinitival embedding of transitive verbs with embedded subjects introduced by a *to/by* preposition.

- c. *Giovanni fece non cadere il bicchiere
 Giovanni made not fall.INF the glass
- d. Giovanni fece lavare il bicchiere a/da Michele
 Giovanni made wash.INF the glass to by Michele
 ‘Giovanni made Michele wash the glass’

The phenomena illustrated in (2) may be explained through the claim that the causative verbal complex in Romance is derived by the movement of the embedded VP to a higher position within the sentence (Rouveret and Vergnaud 1980, Guasti 2017, Belletti 2020). Other scholars (Folli & Harley 2007, Tubino Blanco 2010, among others) adopt a monoclausal analysis in which the matrix verb is a functional *v* and the embedded verb is a non-autonomous clausal complement of *v*. Generally, both accounts consider matrix causative verbs as functional.

A different analysis is the one pursued in Manzini (2022), where the causative matrix verb is not functional but lexical, and selects a defective complement clause (non-phasal in the sense of Chomsky 1999). In her approach, the defective status of the clausal complement can account for the synthetic-like behaviors in (2). Namely, the phasal or non-phasal status of the embedded *v* (*v**P/*v*P) may imply a reduced embedded clausal spine with no room for negation, embedded subject or clitic. Furthermore Manzini (2022), relying on the notion of ‘ergative’ alignment (Postal 1977), proposes that the preposition introducing the *causee* is not a special case alignment but a simple ergative alignment.

In this paper, we test Manzini’s (2022) prediction comparing Italian causatives with (i) verbs that have different types of clausal embedding, namely Italian perception verbs; (ii) languages such as Albanian and some Southern Italian varieties which show a finite clausal embedding with causatives, therefore hosting a full-fledged inflectional layer; (iii) languages, such as Chinese, with no inflection at all, where the complementation has to rely on the thematic selection or theta roles.

Following Manzini (2022), we propose an analysis of analytic causatives involving an impoverished embedded clausal complement: the +/- defective status of the clausal complement has an effect on the AGREE operation required to introduce the embedded subject (accusative or introduced by a preposition). This analysis offers a unified account of the variation in the expression of the *causee* and relies only on syntactic operations, without the need to enrich the clausal spine with *ad hoc* functional categories providing abstract semantic specifications (Folli & Harley 2007). The different strategies of embedding across and within languages rely on the phasal status of the embedded clause: the AGREE operation necessary for case assignment to the arguments of the embedded clause and the absence of positions to host the embedded subject or the negation can be due to the defective (non-phasal) status of the embedded *v*. This type of analysis has the advantage of taking into account the different semantic effects of clausal embedding, where syntax feeds semantics in a few-to-many fashion. In a language like Chinese, where no inflectional layer is available, verbs also differ on the selection of +/-defective clausal complements. However, arguments in Chinese are not linked to AGREE (or to ergative alignment) but to a θ -feature checking operation: arguments can check the θ -features of both verbs as in the control construction (*à la* Hornstein 1999) or *attract* the embedded predicate (as in the theory of control in terms of Manzini & Roussou 2000).

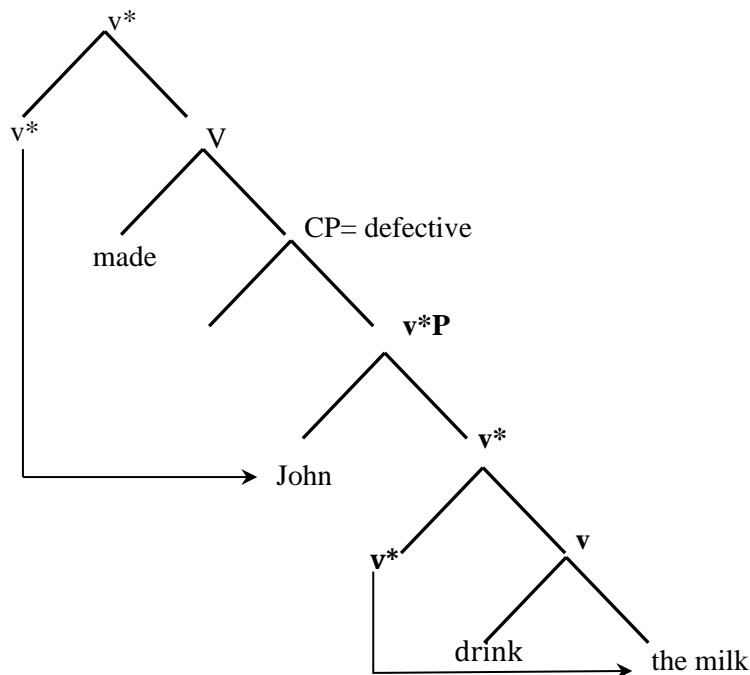
The paper is organized as follows: in section 2 we illustrate the background analysis of causatives in English and Italian; in section 3 we compare Italian causatives with other cases of clausal embedding in Italian, such as perception verbs which also allow non-prepositional embedded subjects, and in Balkan languages, where finite embedding is available. In section 4, we introduce the Chinese data showing that when no inflectional layer is overtly realized, a phasal account of clausal embedding is still available and the arguments are linked to a θ -feature checking operation. In section 5 and 6, we offer a syntactic account of the data illustrated in the previous sections, and we address some concluding remarks and issues for future studies.

2. Background analysis of causatives

In English, causative clauses constructed with *make* + infinitival complement (3), are analyzed by Chomsky (2008) as involving Exceptional Case Marking (ECM)/raising to object of the *causee* (embedded subject). Following the AGREE construal of Chomsky (2001) in (4), the embedded v^* phase head licenses accusative case on the embedded object (*the milk*), while the matrix v^* licenses accusative on the embedded subject (*John*). The embedded v^* phase head agrees with the embedded object and checks the accusative case. The CP introducing the embedded verb is defective since it allows the ECM of the embedded subject.

(3) He made John drink the milk

(4) [v^* [VP made [... [v^* P John [v^* [VP drink the milk]]]]]]



Differently from English, it is well attested that there are two possible realizations of the embedded subject in Italian (as in the majority of Romance languages²): When the embedded verb is intransitive, the *causee* is accusative (both for unergatives and unaccusatives, as in (5) and (6) respectively); when the embedded subject is transitive, the *causee* is introduced by a preposition (7):³

- (5) Maria fece cadere Giovanni
 Maria made fall.INF Giovanni
 ‘Maria made Giovanni fall’
- (6) Maria fece piangere Giovanni
 Maria made cry.INF Giovanni
 ‘Maria made Giovanni cry’
- (7) Maria fa lavare i piatti **a/da** Giovanni
 Mara makes wash.INF the dishes to/by Giovanni
 ‘Maria makes Giovanni wash the dishes’

Although the data in (5) and (6) apparently do not differ from English since the *causee* is accusative, the obliquization of the *causee* with transitive predicates (7) cannot be derived with an ECM analysis. As a consequence, also (5) and (6) are not derived with the ECM analysis. Many scholars have proposed an extended VP/IP layer to derive Romance/Italian causatives in order to account for these facts. We will briefly review the different accounts in the following section.

2.1. Functional categories in the derivation of causatives

To account for the *a/da* preposition in Italian (and French) causatives, many authors proposed a derivation involving a functional causative head for the matrix verb *fare* ‘make’. Excluding minor differences, the functional head accounts can be divided in two main groups: for the first group, the embedded VP moves to the extended functional projection of the matrix VP; for the second group, the matrix causative verb merges in a functional position selecting the embedded predicate.

The first group includes Belletti (2020), who argues that the embedded verb of the causative construction is smuggled to a position on the top of a *causative voice* activating the dedicated functional projection. The presence of causative voice has the effect (after the smuggling of the embedded event) of activating the preposition *a* to introduce the external argument of the embedded VP. This type of derivation is in line with the proposal for passives developed by Collins (2005): the lower VP is smuggled on the top of a passive voice position, activating the *by* preposition to introduce the

² For reasons of space, we discuss mainly Italian (Burzio 1986, Guasti 2017) as representative of other Romance languages that show similar patterns (embedded verb with a reduced structure, namely an infinitive with an oblique subject), as for instance French (Rouveret and Vergnaud 1980, Sheehan 2020) and Spanish causatives (Tubino Blanco 2010).

³ In the present paper, we do not address the issue about the different prepositions *da* ‘by’ or *a* ‘to’, which was first identified by Kayne (1975) (see also Sheehan 2020) and described as *faire infinitive* (with the preposition *a* ‘to’) and *faire-par* (with the preposition *da* ‘by’).

external argument of the embedded VP. Therefore, causatives that display the *da* ‘by’ preposition (not *a* ‘to’) imply a *becoming/change of state* interpretation typical of passives. While Belletti’s (2020) account makes the correct predictions for the semantics linked to the different prepositions introducing the *causee*, it is not clear why unergatives should behave differently, since no *a/da* prepositions introduce the embedded subject. Why are the external arguments of unergatives not introduced by any preposition? An account of the phenomena should use the same mechanism for all the classes of verbs.

The analyses within the second group argue for the activation of a causative functional head in the spine of the clause which selects the embedded predicate as a v/VP. The approaches within the Cartographic framework (Rizzi 1997, Cinque 1999 and subsequent work) propose that the matrix verb *make* in Romance “..may occupy distinct positions in a gradient from lexical to functional elements (the fact that *faire* assigns a thematic role of causer is presumably crucial in order to differentiate it from auxiliaries)” (Rizzi & Cinque, 2016:157). The functional head responsible for causativity may be not very high in the functional spine, but it implies a monoclausal structure derived from a lexical (embedded) verb: “...these are verbs that, though merged as heads of the extended projection of the lexical verb (like causative, perception, and [certain] motion verbs), still contribute an external argument or a participant PP to the complex predicate, differently from purely functional ones” (Cinque 2006: 63, fn. 69). The approaches that use a functional head for causativity (see also Folli & Harley 2007, Tubino Blanco 2010, Guasti 2017, Sheehan 2020, Sheehan & Cyrino 2023, Casalicchio and Sheehan 2022) can account for phenomena such as clitic climbing and the reduced presence of other material, such as adverbs, between the two verbs. These monocausal accounts rely on the assumption that clitic climbing is a diagnostic of restructuring and consequently of monoclausality. However, they cannot account for languages where embedded verbs are not infinitival complements but show a full-fledged inflectional layer (see Section 3), thus they would need to create some complex mechanism for agreeing verbs. We will briefly review the data on clitics crucial to these types of analyses in the following section.

2.2. Clitic climbing

Italian shows obligatory clitic climbing on the matrix verb: (8) and (9) display transitive and intransitive verbs respectively.

- (8) a. Gianni lo fece pulire (a/da Michele)
Gianni it.CL made clean.INF to/by Michele
‘Gianni made it clean by/to Michele’
- b. *Gianni fece pulirlo (a/da Michele)
Gianni made clean.INF-it.CL to/by Michele
Lit. ‘Gianni made clean it by/to Michele’
- (9) a. Gianni lo fece cadere/piangere
Gianni it.CL made fall/cry.INF
‘Gianni made him fall/cry’
- b. Gianni fece *caderlo / *piangerlo
Gianni made fall.INF-him.CL cry-him.CL
Lit. ‘Gianni made fall/cry him’

As proposed in Rizzi's (1982) seminal work, clitic climbing is the result of a complex-predicate-formation operation (restructuring) yielding a single clause with complex semantic and syntactic characteristics: whenever clitic climbing arises, we are dealing with restructuring.

However, Romance languages have different degrees of variation for clitic climbing. Pineda and Sheehan (2022) show data from Catalan varieties, where clitic climbing is not obligatory and clitics can be produced either before the inflected matrix verb or with the embedded nonfinite verb (as in (10) for Catalan and (11) for Spanish), showing a clear contrast with the Italian data in (8).

(10) (Pineda and Sheehan 2022:16)

En Joan el farà llegir / farà llegir=lo a la Maria
 the John it.CL make.FUT read / make.FUT read it.CL to the Maria
 'John will make Maria read it.'

(11) (Ordoñez 2012:438)

- a. Pedro [lo] hizo leer[lo] a Juan
 Pedro it.CL made read.INF=it.CL to Juan
 'Pedro made Juan read it.'
- b. Pedro hizo a Juan leer[lo]
 Pedro made to Juan read.INF=it.CL
 'Pedro made Juan read it.'

If we follow a Cartographic account, the optionality of clitic climbing in the Romance varieties may be linked to the alternance between monoclausal/biclausal causative structures or to restructuring/non-restructuring verbs. We may account for such a variation either introducing two different mechanisms of clausal embedding or referring to the properties (for instance defectiveness) of the embedded verb.

In the next section, we will illustrate the analyses accounting for the variation across languages and within clausal embedding depending on the 'size' of clausal elements, without relying on any functional semantic head to determine syntactic operations.

2.3. The role of the syntax-semantics interface in causative clausal embedding

The semantics of a causative matrix predicate, which introduces an external argument (the *causer*) and an embedded result state, has often been analyzed as tightly linked to a morphosyntactic complex predicate in a mapping between semantics and syntax, through an enriched functional clausal spine. However, another option is to maintain the autonomy of syntax: languages, in fact, show variation in the structure of complement clauses with the same meaning and *vice versa*.

Lohninger & Wurmbrand (2020) use a *synthesis model* of complementation where syntactic computation is free and "the semantic output is determined jointly by the specifications imposed by the matrix complement and the predicate" (Lohninger & Wurmbrand 2020:38). These authors reformulate the semantic classification provided by Givón (1980) which was built on the semantic interaction between the matrix and the embedded agent. When the influence of the matrix agent on the embedded agent is high, the complement tends to be mapped to a defective syntactic

configuration. Wurmbrand & Lohninger (in press) isolate three semantic types of clauses relevant for embedding: *proposition*, *situation* and *event*. The three clause types are in a hierarchical order from the most independent, the *proposition*, to the least independent, the *event*. So, in the syntax-semantics mapping, for the case of *proposition* and *situation*, it is possible to have partial control by the matrix clause, while for the *event*, there is exhaustive control of the matrix verb. The difference between *proposition* and *situation* lies in the fact that only *propositions* provide a proper reference time, while *situations* (and also *events*) show a reference time crucially linked to the matrix verb. Therefore, independent time reference is for *proposition*, embedded future or irrealis orientation is for *situation*, and no tense is for *event*.

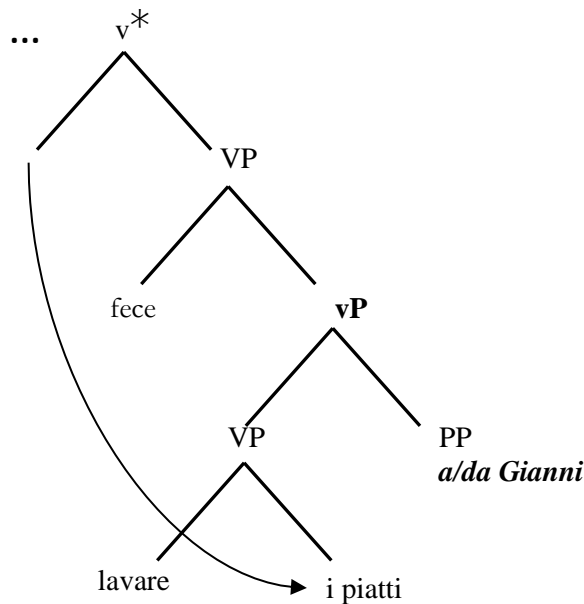
This classification implies only few restrictions on the morphosyntactic realization of clausal complements: although *event* may show the tendency to be realized as non-finite complement (since no reference time is given for this semantic class), there is no universal linking rule between *event* and non-finite form. Languages vary as for the cut-off point in the hierarchy proposed by Wurmbrand & Lohninger (in press), relevant for the different morpho-syntactic realizations: clause reduction is optional and languages allow clausal complements bigger than needed, following a syntax-semantics mapping. Nevertheless, if a language realizes *event* with finite elements, it is unlikely that the same language would use non-finite form for a class higher in the hierarchy, such as propositions or events.

2.3.1. The defective status of causatives

In this section, we illustrate Manzini's (2022) proposal for Romance causatives, according to which the autonomy of syntax is stable: syntactic computation, in fact, is partially or totally blind to semantics. As in Wurmbrand & Lohninger (in press) the role of the 'size' of the clausal element in causatives is crucial not in the syntax-semantics mapping but in the morphosyntactic variation across and within languages. Manzini accounts for the difference between English and Romance referring to a difference in defectiveness of clausal complements: English causatives (3) imply a defective CP that allows the ECM of the *causee*; Romance languages display both a reduced clausal complement and a defective embedded vP, which is not a phase and does not assign case to the external argument of the embedded clause. This analysis derives the prepositional status of the *causee*: in the structure in (7) (repeated here below in (12)), *make* selects a defective vP complement. This means that the embedded object cannot be assigned accusative case by the embedded v, but it is transparent to AGREE from the matrix v*.

- (12) Maria fece lavare i piatti **a/da** Gianni
 Maria made wash the dishes to/by Gianni

... [v* [VP fece [vP [VP lavare i piatti] [PP a/da Gianni]]]]



As for the prepositional status of the *causee* introduced by *a/da* ‘to/by’ in Romance, Manzini (2022) proposes a ‘forced’ ergative alignment:⁴ “..since the causative verb selects not just a reduced vP structure, but also a defective one, the embedded object is transparent to probing by the matrix v* and can be assigned (the v case) via AGREE ...the external argument is forced to follow the fate of external arguments in ergative-like/passive like alignment, namely it is turned into an oblique, hence in Italian into a PP” (Manzini 2022:5). We can easily derive the fact that with embedded intransitive verbs no preposition is found to introduce the *causee*. The matrix v* probe enters AGREE with the embedded internal or external argument, checking accusative case (the fate of the direct object).

Manzini’s (2022) proposal, relying only on the syntactic computation, allows to derive Romance causatives without movement or additional functional heads: the syntactic properties are derived through AGREE and the phasal/ non-phasal status of the embedded vP. There is no need to postulate any semantic mapping of the embedded clause depending on the semantic class of verbs. In the following sections, we will show that relying on the minimal machinery adopted by Manzini (2022), we can account for the variation in the realization of morphosyntactic features (case assignment and finiteness) in clausal embedding with other verb classes (perception verbs) and across different Romance varieties.

3. Different clausal embedding

In this section we will show how Manzini’s (2022) approach can capture the differences between causative constructions and perception verbs in Italian, and the

⁴ For an exhaustive discussion on ergative alignment see Manzini (2022) and references cited there.

finite embedding found in some Southern Italian varieties that show a pattern similar to Balkan languages. The overt differences linked to case marking of the *causee* and to finite inflectional morphology of the verb are derived through the interaction of the defectiveness of the embedded vP and CP and the consequent availability of the AGREE operation. Perception verbs only optionally have a defective vP (hence v*P) but a defective CP complement, while in varieties showing a finite embedding the presence of an IP interacts with the defectiveness of CP and vP.

3.1. Perception verbs and ECM

Both causative constructions and structures with perception verbs in Italian involve a finite+infinitival embedding⁵. However, while in causative constructions the embedded subject of a transitive predicate is a PP/oblique introduced either by *a* ‘to’ or by *da* ‘by’ (13), with perception verbs (14) the embedded subject can also be raised to object (ECM) (Chomsky 2008).

(13) Ho fatto buttare i rifiuti a/da Michele
Have.1SG made throw.INF the garbage to/by Michele
‘I have made Michele throw the garbage.’

(14) Ho visto Michele buttare i rifiuti.
Have.1SG seen Michele throw.INF the garbage
‘I have seen John throwing the garbage.’

Furthermore, perception verbs show a contrast with causative verbs in allowing (i) the accusative cliticization of the *causee*⁶ with transitive verbs; (ii) the passivization of the *causee* (with transitive verbs and for some unergative verbs as shown by Casalicchio & Sheehan 2022); (iii) the wh-fronting of the *causee*.

(15) Cliticisation

a.	*Lo	feci	buttare	i	rifiuti	<i>causative V</i>
	him.ACC.CL	made	throw.away.INF	the	garbage	
b.	Lo	vidi	buttare	i	rifiuti	<i>perception V</i>
	him.ACC.CL	saw	throw.away.INF	the	garbage	

(16) Passivisation

a.	*Fui	fatto	buttare	i	rifiuti	<i>causative V</i>
	was.1SG	made	throw.away.INF	the	garbage	
b.	Fui	visto	buttare	i	rifiuti	<i>perception V</i>
	was.1SG	seen	throw.away.INF	the	garbage	

⁵ Italian perception verbs like *vedere* and *sentire* allow, in addition to an ECM construction, ergative alignment similar to what is found with causative verbs. In this paper, we focus only on ECM-constructions, to highlight the difference in the case assignment of the embedded subject.

⁶ Some Romance varieties (mainly Spanish and Catalan) allow accusative cliticization also with causatives (see Pineda and Sheehan 2022 and references cited there).

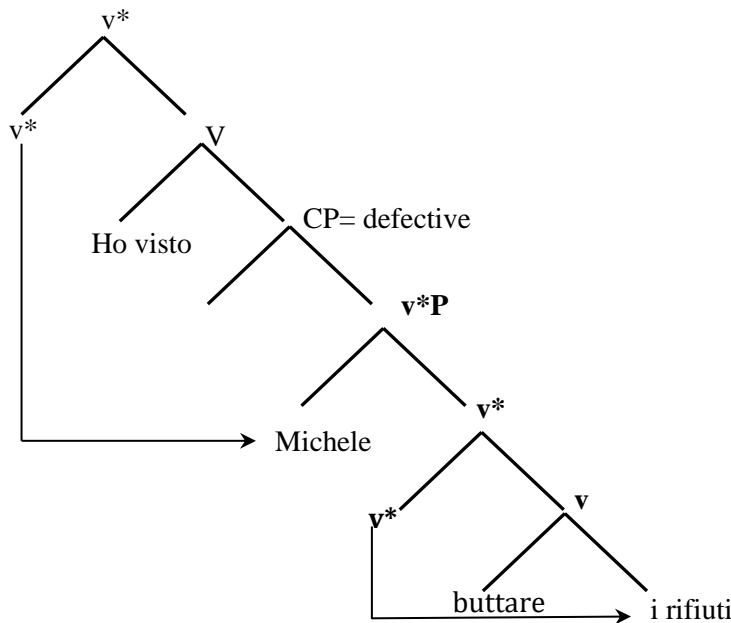
(17) wh-movement

- a. *Il ragazzo che feci buttare i rifiuti *causative V*
 the boy that made.1SG throw.away.INF the garbage
- b. Il ragazzo che vidi buttare i rifiuti *perception V*
 the boy that saw.1SG throw.away.INF the garbage

The main differences between causative and perception verbs is linked to the phasal nature of the embedded clause. While with perception verbs the defective embedded CP implies a phasal v^* (as in (14) repeated below in (18)) (see Manzini 2022), causatives imply a non-phasal embedded v that cannot assign case to the embedded object. The embedded object agrees with the matrix v^* and the embedded subject needs to deactivate the case feature via obliquization (PP) (as in (12)).

- (18) Ho visto Michele buttare i rifiuti
 Have.1SG seen Michele throw.away.INF the garbage

[v^* [VP ho visto [...[v^* P Michele [v^* [VP buttare i rifiuti]]]]]]



In perception verbs (18), as for English causatives in (3), the embedded v^* phase head agrees with the embedded object and checks accusative case; the matrix v^* phase head agrees with the embedded subject and checks accusative case. As a consequence, the cliticization, passivization and wh-fronting of the embedded subject are derived. The element that is probed by the matrix v^* through ECM is cliticized (15), is probed by the matrix I (16), and can be fronted in wh-questions (17).

As predicted by Manzini's (2022) account for causative constructions, cliticization, passivization and wh-fronting are restricted to the argument probed by the matrix v^*P , which is the internal argument of the defective (non-phasal) embedded vP (19)-(21). The external argument is preceded by the *a/da* preposition.

- | | | | | | | |
|------|-------------|---------|----------|----------------|-------|--------|
| (19) | (I rifiuti) | li | feci | buttare | a/da | Gianni |
| | the garbage | them.CL | made | throw.away.INF | to/by | Gianni |
| (20) | I rifiuti | furono | fatti | buttare | a/da | Gianni |
| | the garbage | were | made | throw.away.INF | to/by | Gianni |
| (21) | I rifiuti | che | feci | buttare | a/da | Gianni |
| | the garbage | that | made.1SG | throw.away.INF | to/by | Gianni |

Therefore, causatives and perception verbs allow cliticization, passivization and wh-fronting of the argument that agrees with the matrix v*P. The difference is linked to the fact that the defectivity of the embedded vP with causatives implies a difference in the element probed by the matrix v*P: the embedded internal argument for causatives and embedded external argument for perception verbs.

Perception verbs and causatives both imply an operation of AGREE but the accusative / oblique case of the embedded subject is strictly related to the minimal domain where AGREE applies: (i) with perception verbs, the lack of Inflection (no nominative case) and the phasal status of the embedded v*P (which agrees with the embedded object) imply the accusative case assignment to the external argument of the embedded v*P via AGREE with the matrix verb; (ii) with causative verbs, the minimal domain of AGREE is the entire embedded clause since no v*P is present, the matrix v agrees with the embedded object and, most importantly, the embedded subject needs to undergo obliquization to deactivate case.

Cartographic approaches may account for this alternation choosing different functional heads in the extended vP layer. However, within these approaches the cross-linguistic differences (Italian perception verbs and English causatives) cannot be systematically derived and the semantic differences have to be mapped into syntax. Differently, the *synthesis model* of Lohninger & Wurmbrand (2020) accounts for the variation across and within languages in terms of different cut points across the semantic classes of clausal embedding. Manzini's analysis does not include any semantic classifications due to the autonomy of syntax, where pure syntactic operations can be mapped to different semantic classes of clausal embedding across and within languages.

But what happens when the embedded clause is *finite*? In the Cartographic views, the extended vP layer must be modified in a way to host two inflected verbs; in the synthesis approach by Lohninger & Wurmbrand (2020), a full-fledged IP may be more suitable for *propositions* or *situations* and not for *events*, which are commonly argued to be the preferential mapping for causative clausal complements. In this respect, the authors are clear about syntactic autonomy: the mapping between the semantic hierarchy of clausal complements may simply not apply in a robust way. The account of Manzini through the use of defective clausal embedding and with no semantic role seems to fit with the data of some Southern Italian varieties, which allow finite embedding in causatives.

3.2. Finite embedding

Balkan languages such as Albanian (22) and Greek (23) do not allow non-finite forms, so with causatives the finite embedding involves a CP: in both languages an explicit

C particle introduces the embedded clause. The embedded clause is defective since the embedded subject (*causee*) is assigned accusative case by the matrix v*P. No nominative marking is available: it would be the only available option with a full-fledged CP (where the phasal C* would stop the matrix v*probe of the embedded subject).

- (22) Albanian (Gjirokastër) (Manzini & Savoia 2007:351)
 ε bən cən-in tə pɨn cumʃt-in
 it I.make dog-the.ACC PRT drink milk-the.ACC
 ‘I make the dog drink the milk’

- (23) Modern Greek (Iatridou 1993: 176)
 vazɔ tɔn Kɔstɑ nɑ tɨɣɑnɨzɨ psɑrɨɑ
 I.put DET Kɔstɑ.ACC that fries fish
 ‘I am making Kostas fry the fish’

Following the machinery of Manzini (2022), in these varieties (i) the embedded CP is a defective phase (as in English causatives); (ii) the embedded I agrees with the subject; (iii) the embedded I does not deactivate case, hence the DP remains active; (iv) the embedded subject is probed by the matrix v* that checks accusative case. Thus, causatives in these languages are similar to English causatives and Italian perception verbs, the only difference is in the overt agreement morphology of the embedded verbs: I agrees in phi-features with the embedded subject but it does not assign nominative case.

Some Southern Italian varieties have developed a system where the Balkan pattern is found. These are mainly Arbëreshë or Griko varieties where the embedded subject is accusative and agrees with the finite embedded verb as in (24).

- (24) Gallicianò (Griko) (Ledgeway, Schifano & Silvestri 2018:122)
 Écɑmɑ nɑ trɑɣudɦɨu tɔs ɑndɦru.
 I.made that sing.3PL the.ACC.PL men
 ‘I made the men sing’

The contact between Italian and some Arbëreshë and Griko varieties had an interesting pattern for the embedded subject. Some varieties show finite embedding, as Greek and Albanian, and oblique embedded subjects, as Italian causatives. Following Manzini’s (2022) proposal, we can derive these structures referring to defective v* and ergative alignment. In the example from Vena di Maida (25), the embedded v is defective as in Italian (12), the Inflection in the embedded clause does not assign case. The matrix v* assigns accusative case to the embedded internal argument and the *causee* is obliquisized following the ergative alignment found in Italian (Manzini & Savoia 2007).

- (25) Vena di Maida (Arbëreshë) (Manzini & Savoia 2007:345)
 u bərə tə piəə krumiʃt-inə buʃtr-itə
 I made PRT drank.3SG milk.ACC dog.DAT
 ‘I made the dog drink the milk’

Another group of Southern Italian varieties, geographically related to Griko⁷ and Arbëreshë varieties, shows a different pattern: the embedded clause is presented with a full-fledged C*P finite verb, and nominative embedded subject. Wurmbrand & Lohninger (in press) in their synthesis model would predict that, for the embedded element which represents the semantic class of *event*, the morphosyntactic counterpart presents a very reduced structure. These varieties embed *event* type predicates under causative matrix verbs, showing a full-fledged CP that is more suitable for *propositions* or *situations*.⁸ An example of these varieties is given in (26), where the clitics do not climb onto the matrix verb since the embedded CP is non defective.

- (26) Sant’Agata del Bianco (Manzini & Savoia 2005(1): 655)
 'hattsu m u 'hatʃi 'iʎʎu
 I do PRT it.CL does he
 ‘I make him do it’

If we adopt Manzini’s machinery for a sentence like (26), where a full C*P is embedded, no semantic implications arise, since syntax is not isomorphic with semantics. The different realization of the embedded complement undergoes syntactic variation in expressing causativity and is not forced by a clausal functional projection or a semantic hierarchy. These micro-variation patterns in the realization of causative clausal embedding can be reduced to an effect of the interaction between the defectiveness of the functional layer of the embedded predicates and the availability of AGREE between the matrix *v** and the embedded subject.

If we are on the right track, in languages where no AGREE operation is available (neither Case or phi-features AGREE), we expect a central role of the ‘size’ of clausal embedding (with no effect of higher functional projections) and eventually some effects linked to the lexical argument selection in control configuration between the *causee* and the embedded event. For this purpose, in the next section, we will offer an analysis of causatives in Chinese, where no AGREE I of higher functional projections has a role in causative embedding.

4. Causative embedding in Chinese

When no agreement option is available in a language, neither movement nor operations linked to the case assignment or to phi feature checking are available. As for clausal embedding, it would rely directly on the phasal/non phasal properties of the embedded

⁷ In these Apulian, Calabrian and Sicilian varieties the embedded clause is introduced by the so-called subjunctive particle: an element of the *k*- complementizer series, namely *ku* (Calabrese 1993; Manzini and Savoia 2005; Ledgeway 2005). A similar particle characterizes also many Calabrian and Sicilian varieties, where the embedded finite verb is introduced by *mi/mu* (Trumper and Rizzi 1985; Manzini and Savoia 2005). The discussion on the finite embedding and complementary distribution of the *k*-/*m*- particle is beyond the scope of the present work. For a discussion of the distribution of finite embedding, see Manzini & Savoia (2005), Manzini, Lorusso & Savoia (2017), or Ledgeway, Schifano & Silvestri (2018).

⁸ However, recall that for Lohninger & Wurmbrand (2020), syntax is autonomous and languages differ in how they map semantic class of embedded clause to syntax: in these varieties the synthesis model simply cannot be applied.

elements and eventually on the lexical selection of the verbal head. Chinese is a language where no AGREE operation is available between *v* and nominal arguments, so no nominative/accusative/oblique cases are found in clausal embedding, the nominals then are selected through an operation of ATTRACT (Manzini & Roussou 2000) by the verbs following their theta grid. The data illustrated below with the verb *rang* ‘allow/let’, found in causative-like periphrases, will allow us to understand whether embedding can be accounted for in the terms of pure syntactic mechanisms or of a semantic classification (*à la* Lohninger & Wurmbrand (2020)) or through the presence of a functional head.

The data of this section, where no explicit reference is made, are original and checked with native Mandarin speakers for the purpose of the present study.

4.1. The data

In the traditional Chinese linguistics literature (Wang 1954, Yan R. 1998 among many others), Chinese causatives are defined “pivot” constructions, as schematized in (27) where, the argument NP2 is “shared” between the main verb VP1 and the embedded predicate VP2:

(27) NP1+VP1+NP2+VP2+ NP3

Different causative verbs can be used in this syntactic construction, such as *shi* ‘cause’, *rang* ‘make/let’ and *zhuzhi* ‘prevent, hinder’, to list the three representative types of causal relations CAUSE, ENABLE and PREVENT (Wolff & Song, 2003). In this paper we focus only on the structures with *rang*, as in the following:

(28) (Hu 2017: 298)

Zhangsan rang Lisi na zou le liang ben shu
 Zhangsan let Lisi take away ASP two CLS book

(i) ‘Zhangsan made Lisi take away two books’

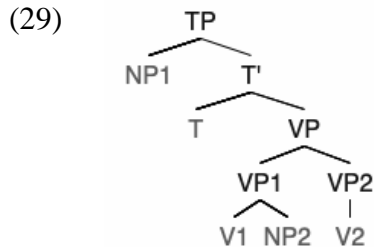
(ii) ‘Zhangsan let Lisi take away two books’

(iii) ‘Zhangsan got two of his books stolen by Lisi’

Causative constructions with *rang* as the one in (28) may yield at least three distinct interpretations (Weng 2007, Hu 2017, Donazzan & Badan 2022): (i) the strong interpretation where *rang* corresponds to the English *make*; (ii) the weak interpretation, where *rang* can be translated with ‘let’; (iii) the interpretation that expresses affectedness, equivalent to the *get* reading in English. In this paper, we focus only on (i) and (ii).

The number of studies that analyze the structures with *rang* can be divided into two main groups: those that propose a mono-clausal analysis (Fan X. 1991, 1996, 2002, Yang Daran 2003, Hu 2017, 2020) and those that suggest a bi-clausal structure (Xing X. 1984, 1995, Cheng Z. 2003). These proposals deal with different issues in the linguistic literature on Chinese about the existence or not of Inflection (see for instance Huang 1982; Li A.H. 1985, 1990, Sun 2014 versus Xu 1994), of the ECM structures, and small clauses (Huang 1982, Paul 2021).

As for the mono-clausal analysis, Fan X. (1991, 1996, 2002) argues that structures with *rang* must be analyzed as one main clause where the second predication is an adjunct, as in the following structure (29):



However, the idea of considering the VP2 as an adjunct is highly problematic because the VP2 is mandatory for the interpretation of *rang*. In terms of Lohninger & Wurmbrand (2020) *rang* would select an *event*. On the other hand, Yang Daran (2003) analyzes the *rang* constructions as cases of ECM, where the second predication is a small clause. In the example below (30), Yang considers *shi* an ECM verb that selects a small clause *ren jinbu* ‘people advance’:

- (30) (slightly modified from Yang 2003:368-369)
 Xuxin_i [_{VP} t_i [_V shi/*rang* [_{SC} ren jinbu]]]
 Modesty make people advance
 ‘Modesty makes people advance’

However, Yang’s analysis is problematic for different reasons. Firstly, as Paul (2021) points out, *ren jinbu* ‘people advance’ cannot be considered a small clause, because taken in isolation it is a perfectly well-formed independent sentence; secondly, we will show below that the VP2 in causative constructions is endowed with a rich functional structure that excludes the small clause analysis.⁹ This is in line with Paul (2021) who argues against the existence of small clauses and in particular ECM in Chinese (Huang 1982, Paul 2021, section 5), due to the controversial status of finiteness and tense in this language (Paul 2018, Zhang 2019, Sun 2014, among many others).

Hu (2017, 2020) also defends the mono-clausal analysis due to an adjacency effect between VP1 and VP2 as in (31). The example in (31) illustrates the impossibility to insert the adjunct headed by *wei* marking clause boundary. In canonical sentences, complements with *wei* can be attached at the sentential level.

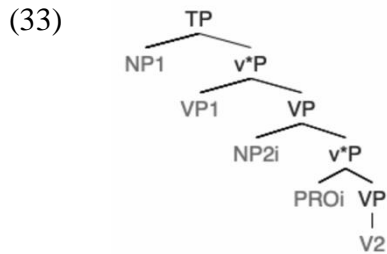
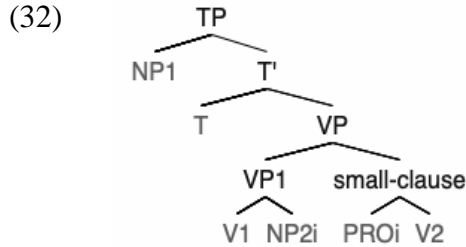
- (31) *Zhangsan rang [wei jia ren] Lisi nuli gongzuo
 Zhangsan let for family Lisi hard work
 ‘Zhangsan let Lisi work hard for the family’

However, notice that if we delete the second predication *nuli gongzuo* ‘work hard’, the position of the adjunct *wei jia ren* ‘for the family’ between the VP and the

⁹ Although the “reduced” size as a property of small clauses is a debated issue in the literature (see for instance Starke 1995, Sportiche 1995), in this paper we adopt the classical analysis of small clauses as two constituents DP and XP that have a predicative relation, but lack a verbal element or/and finite tense.

NP is still ungrammatical regardless of the causative construction. In fact, in Chinese, an adjunct is admitted either in CP or within the IP between the subject and the verb.

As for the biclausal analysis, both Xing (1984, 1995) and Cheng (2003) argue for a control structure. However, while Xing (1984, 1995) argues that the second predication with PRO is a small clause (illustrated in (32)); Cheng (2003) argues that the second predication containing PRO is an embedded v*P (33).



In this work, we refine the analysis proposed by Cheng (2003), going into the detail of the nature of *rang* and the second predication. We propose a solution in minimalist syntactic terms (Chomsky 2001, Manzini 2022), inserting the causative with *rang* within a cross-linguistic perspective with the data presented above. In particular, we develop the analysis advanced by Cheng (2003) and Paul (2021) (see also Li A. 1990). We argue that Chinese causatives are control structures with *rang* that selects three arguments: a *causer* DP, a DP with the *causee* role and a sentential argument (Paul 2021). We will defend the idea that *rang* is a ‘light’ verb (Donazzan & Badan 2022) and that the second predication is an independent sentential argument with a rich functional structure.

4.2. Rang is a ‘light’ verb

In this section, we will show that *rang* is a ‘light’ verb, in the sense that it cannot be considered a fully lexical verb, due to the following properties:

(i) As for modals, *rang* cannot be followed by an aspectual marker:

- (34) Lisi rang (*le) Meiyi na-zou liang ben shu
 Lisi let ASP Meiyi take-away two CLS book
 ‘Zhangsan let Meiyi take away two books’

(ii) *Rang* can be preceded by a negation, but only by *bu* and never by *meiyou*, or *bie* (35). In general, *bu* is used to negate habitual or future/volitional situations; *mei* negates past situations, the completion of an event; *bie* is the negation used in imperatives.

- (35) Mama bu/*mei/*bie rang Lisi qu xuexiao le
 Mum NEG rang Lisi go school FP
 ‘Mum doesn’t/didn’t let Lisi go to school’

(iii) In Chinese, lexical verbs can be reduplicated, while *rang* cannot (cf. (36) with (37)). Generally, verb reduplication mainly denotes tentative or delimitative aspect (Chao 1968, Li and Thompson 1981, Xu 2012, Cheng and Vicente 2013, among many others).

- (36) a. Kan yi kan!
 look one look
 ‘Have a look’
 b. Tamen xihuan chang chang ge
 they like sing sing song
 ‘They like to sing a little bit’
- (37) a. *Rang yi rang
 Let one let
 b. *Rang rang
 let let

(iv) Different from canonical lexical verbs, *rang* cannot be followed by resultatives:

- (38) *Lisi rang wan Lisi nuli gongzuo
 Lisi let RES Lisi hard work

4.3. The second predication within RCs

In this section, we argue against the analysis of VP2 within the structures with *rang* as small clauses, showing instead that the VP2 is a sentential argument with a ‘rich’ functional structure (but with a weak CP phase).

As demonstrated above, the verb *rang* is a ‘light’ verb that cannot be followed by an aspectual marker, which, if present, must be inserted after the VP2:

- (39) Lisi rang (*le) Meiyi na-zou le liang ben shu
 Lisi let ASP Meiyi take-away ASP two CLS book
 ‘Zhangsan lets Meiyi take away two books’

The VP2 can be also preceded by all the possible negations illustrated in (35): the canonical negation *bu*, the aspectual one *mei* or *bie*, that is the negation used in imperative contexts.¹⁰ Recall that *rang* can be negated only by the canonical, unmarked negation *bu* (40).

¹⁰ Notice that the native speakers we have consulted agree on the fact that the preferred negation for VP2 is *bie* as in clauses like in (i), with verb of ordering/expressing judgment, opinion, or *shuo* ‘say’, *zhidao* ‘know’.

- (40) Mama rang Lisi bie/?bu qu xuexiao le
 mum let Lisi NEG go school FP
 ‘Mum didn’t let Lisi go to school’

Further evidence against the analysis of VP2 as a small clause is related to presence *versus* absence of the copula *shi* ‘be’. In Chinese, in certain contexts the presence of the copula *shi* to connect two DPs is optional (41):

- (41) Q: Ta shi shei?
 she is who
 ‘Who is she?’
 A: Ta (shi) wo de laoshi
 she is I DET teacher
 ‘She is my teacher.’

Differently, in *rang* constructions, in order to connect two DPs (DP2 and DP3) the presence of the copula *shi* is mandatory (42). The obligatory presence of the copula is then further evidence against the analysis of the VP2 as a small clause.

- (42) Zhangsan_{DP1} rang ta_{DP2} *(shi) wo de laoshi_{DP3}
 Zhangsan allowed her to be I DET teacher
 ‘Zhangsan allowed her to be my teacher’

The last two pieces of evidence to defend the idea that the second predication within a *rang* construction is an independent clause are related to the indexations of pronouns. Firstly, VP2 does not allow the presence of reciprocals since they cannot take split antecedent:

- (43) *Zhangsan₁ rang Lisi₂ huxiang₁₊₂ gua-huzi
 Zhangsan let Lisi each-other shave

Secondly, the long-distance anaphora *ta ziji* or the personal pronoun *ta* ‘his/her’ (principle B) must be coindexed only with the DP1 (*Zhangsan* in (44)):

- (44) Zhangsan₁ rang Lisi₂ kai ta_{1/*2} / ta ziji_{1/*2} de che
 Zhangsan let Lisi drive his DET car
 ‘Zhangsan let Lisi drive his car’
 Intended: ‘Zhangsan let Lisi drive Zhangsan’s car’

4.4. *Rang* constructions are control structures

In this section, we provide evidence to analyze *rang* constructions as object control structures, as suggested by Paul (2021). As we have shown so far, *rang* selects two arguments: a DP as the *causee* and a ‘rich’ sentential argument.

- (i) Wo zhuzhang Lisi bie chu guo
 I have the opinion Lisi NEG leave country
 ‘I have the opinion that Lisi shouldn’t leave the country’

- (45) Lisi rang [Meiyi₁] [(PRO)₁] na-zou liang ben shu
 Lisi let Meiyi take-away two CLS book
 ‘Lisi lets Meiyi take away two books’

As illustrated below (46), no adjuncts can intervene between *rang* and the *causee*. Such intervention effect may be due to the impossibility to add any complement between the verb and its object in Chinese. But if we consider the *rang* constructions as control structures, the intervention of the adjunct between verb and object may be due to the fact that the causative verb *rang* needs to c-command the *causee*. Compare for instance the difference in grammaticality between the control structure in (46a) with the structure in (46b), where the verb *renwei* ‘believe’ introduces a simple subordinated clause. While in (46b) the temporal adjunct can intervene between the verb of the main clause *renwei* and the subject of the embedded sentence, in (46a) such intervention yields ungrammaticality.

- (46) a. *Zhangsan rang [zuotian] Lisi chengwei yingjia
 Zhangsan allow yesterday Lisi become winner
 b. Zhangsan renwei [zuotian] Lisi chengwei yingjia
 Zhangsan believe yesterday Lisi become winner
 ‘Zhangsan believes that yesterday the winner was Lisi’

Notice that an adjunct is admitted only if it is lower in the structure, within the clausal complement VP₂, between subject PRO¹¹ and verb (V₂). This position of an adjunct does not yield any intervention effect and the sentence is grammatical:

- (47) Zhangsan rang Lisi PRO [wei jiaren] nuli gongzuo
 Zhangsan let Lisi for family hard work
 ‘Zhangsan let Lisi work hard for the family’

Moreover, the c-command relation is observed also when we insert a topicalized object, which yields ungrammaticality:

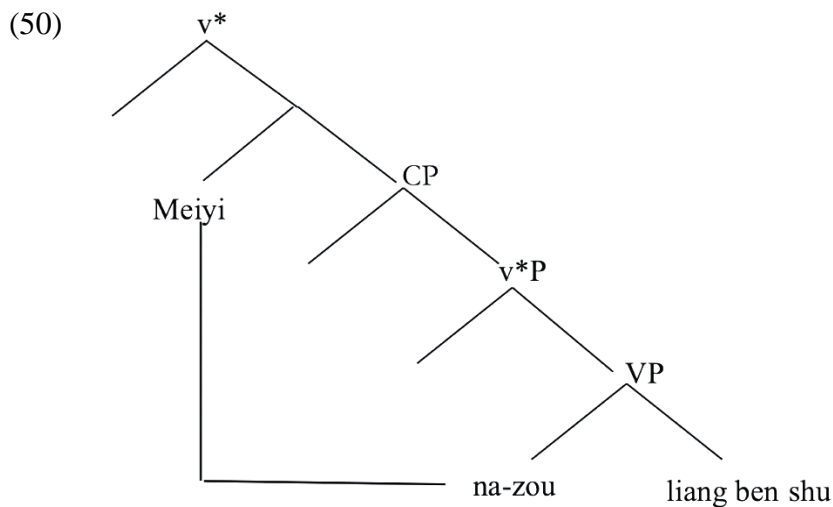
- (48) *Zhangsan rang Lisi [_{topic} zhe ben shu] kan *t* le
 Zhangsan let Lisi this CLS book read FP
 ‘Zhangsan let Lisi [this book] read’

A further piece of evidence of the obligatory c-command relation between the *causee* and PRO is given in (49): the empty category is coindexed with *jiejie* ‘sister’ and not with *Lisi* (not c-commanding PRO):

- (49) Zhangsan rang [Lisi_j de jiejie]_i PRO_{i/*j} kai che le
 Zhangsan let Lisi DET sister drive car FP
 ‘Zhangsan let Lisi's sister to drive the car’

¹¹ We are using PRO just for descriptive purposes, in fact, we are describing control theory in terms of ATTRACT and PRO is not necessary.

To sum up, we argue that the Chinese causative constructions with *rang* are object control structures (see Paul 2021) with *rang* as a ‘light’ verb v^* . The *causee* is thematically selected by the matrix v^* with the selection of two arguments (DP and a sentence). In our analysis, control corresponds to a derivation in which one argument DP ATTRACTS two (or more) different predicates (Manzini & Roussou 2000) through a defective C phase: the *causee* is directly merged into complement position of the matrix v^*P and then ATTRACTS the thematic feature of the embedded predicate. Since in Chinese we have no case, ATTRACT works similarly to AGREE in Romance: the difference is on the overt phi-features that are found only with AGREE, while ATTRACT works on predication and theta role assignment.



In our general analysis, since no AGREE mechanism is available, Chinese allows a biclausal structure with a ‘light’ verb *rang* which selects a defective CP phase (in terms of Manzini 2022) to express causatives. However, as the data above show, it is inherently biclausal and selects for an embedded clause with a rich functional layer, as indexations of pronouns, negation and copula show. However, since no AGREE mechanism such as ECM is available for the *causee*, it is thematically selected by *rang* (remind (46a) where no intervener is allowed) showing that where no agreement mechanism is available, thematic selection can substitute it. Data like the one in (46a) and the impossibility to have an adjunct between *rang* and the *causee* (31) confirm that the CP is defective and enters in a control relation with the matrix verb: the *causee* ATTRACTs two thematic roles, the object role from *rang* and the subject role of the embedded predicate.

The next section is devoted to sum up the cross-linguistic data showing that variation in causative embedding can be accounted for mainly through syntactic mechanisms.

5. Syntactic analysis

Languages show variation on the morpho-syntactic characteristics of the clausal embedding under causative verbs. From a semantic point of view, causative verbs are usually analyzed as involving an external *causer* that implies some modifications on a resulting event. This semantic relation implies a control from the *causer* over the

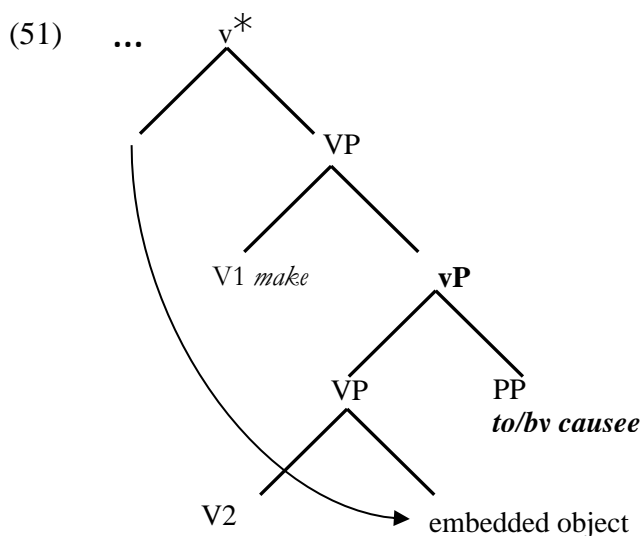
caused event with different participants: “...causal relation between two events, one of which (P2) is believed by the speaker to be caused by another (P1) [...]. In other words, a causative is a verb or verbal construction meaning ‘cause to V0’, ‘make V0’, where V0 stands for the embedded base verb” (Kulikov, 2001:886). In this paper we have shown the degree of variation linked to the analysis of causative periphrases with *make* + V2 (embedded verb) in Italian varieties.

The core properties of Italian causatives is the infinitival embedding of V2: no overt finite morphology is found on the V2, and case assignment and overt argument realization crucially differ from other clausal embeddings, such as the ECM-construction with perception verbs.

Another crucial feature of Italian causatives is the *causee* introduced by a *to/by* preposition in transitive V2 predicates. This aspect is remarkably different from embedding in English causatives, where the embedded subject of transitive V2 is an instance of ECM and is marked as accusative by the matrix V1. The prepositional status of the *causee*, and other syntactic phenomena such as the direct clitic climbing to a preverbal position of V1, have inspired different scholars who propose mainly two different types of derivation (see section 2). They argue either for a monoclausal structure with an extended VP layer where the causative matrix verb is hosted in a functional projection; or for semantic hierarchies which describe the causative embedding as totally underspecified with respect to the matrix verb and mapped into syntax with a reduced structure.

We agree with the proposal that clausal embedding under causative matrix verbs implies a reduced embedded clause. However, following Manzini (2022), we argue that this defectiveness or reduction of the embedded verbal complements cannot be described using semantic functional categories or mapping of semantic properties, but can be explained by making reference to the syntactic operation of AGREE in clausal embedding, in a view according to which syntax is autonomous.

The main syntactic operation used to account for Italian is the agreement mechanism which applies on top of a biclausal structure involving the clausal embedding of reduced structure: the embedded clause presents a defective CP and a defective VP. Along these lines, the standard derivation of causatives in Romance, as proposed by Manzini (2022), works like in (51).



To sum up, the main properties of the derivation in (51) are the following:

- (i) The embedded vP is a defective phase head
- (ii) The embedded object is transparent to AGREE from the matrix v*
- (iii) The embedded subject needs to deactivate the case feature via obliquization (PP). This last operation resembles the ergative alignment of Indo-aryan languages (Postal 1977 and Manzini 2022)

The variation found in Italian and in Southern Italian varieties can be explained referring to the defective/non defective status of the C*/v* phase head and eventually to the presence of an inflectional layer in the embedded clause. We review the data described above here below:

(i) v*1 + defective C¹² + v*2 (no I in the embedded sentence). *Perception verbs and causatives in English*: the non-prepositional status of the embedded subject under perception verbs (which work like causatives in English) suggests that the matrix v* agrees with the embedded subject that deactivates case features and is accusative. Both verbs are v* and, while the embedded object is accessible to AGREE with the embedded v*, the embedded subject is probed by matrix v*;

(ii) v*1 + defective C + v*2 (I in the embedded sentence). *Causatives in Greek, Albanian, some Griko and Arbëreshë varieties*: finite embedding and accusative subject. Matrix v* agrees with the embedded subject. The inflectional projection I is present in the embedded clause but does not assign nominative case to the embedded subject;

(iii) v*1 + defective C + defective v2 (I in the embedded sentence). *Griko and Arbëreshë varieties*: finite embedding with prepositional embedded subject. As in Italian causatives, the embedded subject undergoes ergative realignment and is introduced by a preposition due to a defective v2. The embedded object is in AGREE relation with the matrix v*1. The Inflectional layer is available in the embedded clause but does not assign case;

(iv) v*1 + C* + v*2. *Southern Italian varieties*: finite embedding with nominative. The embedded clause is a full-fledged CP (introduced by an overt C element). The inflectional layer assigns a nominative case to the embedded subject;

(v) v*1 + defective C + v*2 (no inflection and case). *Chinese*: The embedded clause is C defective, as causatives in English and ECM perception verbs in Italian. However, the AGREE mechanism and case are substituted by a mechanism of selection which is strictly related with the θ -grid of the matrix and the embedded verbs (θ -role feature in the terms of Manzini & Roussou 2000, Hornstein 1999). Once the embedded subject is thematically selected as an object by the matrix verb, a mechanism of ATTRACT applies (as the one found in object control sentences as in Manzini and Roussou 2000): the V1 internal object attracts the θ -role of the external argument of the embedded predicate.¹³

¹² As an anonymous reviewer pointed out, due to differences in the defective C in Italian and English on the one side, and Albanian (where a subjunctive particle is realized) on the other side, we might think that in Italian and English (where no overt effect of the defective C is given) there is no need to postulate a defective C. In this way, we could differentiate Albanian and Italian. We leave this issue open for further research due to the potential theoretical implications of the presence/absence of C and I.

¹³ As noticed by an anonymous reviewer, the Chinese data show that the embedded clauses (under *rang*) have a rich clause structure despite the absence of an inflectional layer

Compared to the monoclausal analyses with an extended V layer, or to the movement analysis (see section 2), our proposal has the advantage of reducing the scope of the properties of the derivational component, since no semantic functional causative projection is involved. The syntactic structure of the embedded clause is analyzed as being derivational +/-autonomous: The embedded vP or CP are analyzed as being phasal or not. Depending on the syntactic properties of the embedded clause, then, the operations of AGREE and ATTRACT become available. No stipulation on the size of the higher functional spine (for example involving *voice*) of the extended vP layer is needed, neither movement nor particular AGREE relation (that falls outside the basic AGREE mechanism of Chomsky 2001) are required.

For example, either to account for case assignment in Italian, Greek and Albanian causatives or for the finite embedding of Arbëreshë and Griko monoclausal approaches, a special mechanism of AGREE is required: a system that allows multiple probes (a Cyclic Agree approach by Pineda and Sheehan 2022) or an operation of phi-feature copying for the overt morphology of the verb. The advantage of Manzini's proposal adopted in this paper is that we can derive the different realizations of causatives across languages using few syntactic mechanisms without no further stipulation. This insight is confirmed also by non-inflectional languages such as Chinese: the same phasal organization is at work, the only difference is that where no AGREE operation is available the computation of theta role intervenes.

The data we have described do not show a clear support for the synthesis model of Lohninger & Wurmbrand (2020), since the most dependent semantic class in their hierarchy, *event*, is found in the varieties described in different syntactic clausal embedding, including environments with a full fledged tense specification (such as Southern Italian varieties). The authors, anyway, agree on the autonomy of syntax which sometimes may not represent the semantic classification of clausal embedding they support.

5.1. Residual issues on cliticization and preposition

As illustrated above, clitic climbing in Romance causatives is not stable across all the varieties (as also noticed by Pineda and Sheehan 2023). We can then argue that clitic climbing is not a direct diagnostic for monoclausality but is an independent syntactic operation. With this assumption, we rely on the analysis proposed by Manzini, Lorusso & Savoia (2017) and Manzini & Savoia (2005). They showed that Piedmontese varieties have enclisis on the past participle in present perfect forms such as *have + past-participle+enclitic*, whereas in other Romance varieties in present perfect the clitic always climbs over the matrix auxiliary. Relying on those data, they propose that the lack of clitic climbing may be linked to the presence of an intervening CP phase: in the absence of a CP phase, both clitic climbing and embedded cliticization are possible. Intuitively, where no CP phase is available and clitic climbing is obligatory, there could be at work other factors linked to the defective status of the embedded complement. Therefore, clitic climbing is not directly connected to monoclausality, but could be possibly related to the phasal or defective status of the embedded CP. Recall that in Romance languages where clitic climbing is optional, no CP phase is

and the defectiveness of the C, this can be taken as a further proof of the non-isomorphism between syntax and semantics.

available. To analyze all the implications of clitic climbing goes beyond the scope of the present work, but for a recent proposal in the optionality of clitic climbing with causatives, see Manzini (2022) which relies on ‘pair merge’ (Chomsky 2020) to account for clitic distribution.

In the present paper, we have not addressed the issue (see fn. 3) about the difference between *faire infinitive* (with the preposition *a* ‘to’) and *faire par* (with the preposition *da* ‘by’). Many approaches (including Belletti 2020, Sheehan 2020) agree that this distinction is based on different properties of the embedded predicates. Namely, whether it can have a passive interpretation or not, when a passive interpretation is available, the obliquization of the *causee* is given by the preposition *da/by*. We agree with the insights of these approaches, but the present proposal based on ergative alignment is not weakened by different prepositions that allow obliquization. Different prepositions imply a different scope on the event of the cause. The one introduced by the *by* phrase (as in passives) is the proper causer of the event, while the *a* ‘to’ preposition introduces the external argument of the embedded (under *make*) stative predicates, such as *know*. We leave this issue open, since it is not directly linked to the derivation offered in the present paper: the choice of the preposition to obliquize the *causee* is tightly linked to the lexical-semantic characteristics of the embedded predicate, which does not affect the general syntactic machinery we described in this research.

6. Concluding remarks

In this paper we have illustrated the clausal embedding found with causative verbs cross-linguistically. In our description we have adopted the proposal of Manzini (2022) to account for the differences among Italian, Balkan languages, Southern Italian varieties and in typologically non-related languages such as Chinese. One main insight of Manzini’s analysis is that the variation in clausal embedding found with causatives can be described in terms of reduced status of clausal complements and the effect that such defectiveness has on the computation of AGREE for the deactivation of the case of the *causee*. Therefore, in perception verbs in Italian and in causatives in Greek and Arberesh, the accusative case is assigned to the *causee* by the matrix v^*P ; in standard causatives in Italian, the matrix v^* assigns case to the argument of intransitive verbs and to the object of transitive predicates. The object of transitive verbs cannot be assigned case by the embedded vP , which is a defective non-phasal vP . This has consequences for the external argument of the embedded transitive verbs that undergo ergative alignment through an obliquization introduced by a *to/by* preposition.

Our analysis has the advantage to account for different semantic effects of clausal embedding, where syntax feeds semantics in a few-to-many fashion. In a language like Chinese, where no inflectional layer is available, verbs also differ on the selection of +/-defective clausal complements. However, the appearance of arguments in Chinese is not linked to AGREE (or to an ergative alignment) but to an operation of θ -feature checking: the embedded external arguments can check the θ -feature of both verbs as in control constructions (*à la* Hornstein 1999) or *attract* the embedded predicate (as in control in terms of Manzini & Roussou 2000).

Acknowledgments

We would like to thank Adriana Belletti, Marta Donazzan, Adam Ledgeway, and Rita Manzini for their insightful comments and suggestions. We also thank the three anonymous reviewers who provided valuable feedback that helped us to improve the paper. Our acknowledgements also go to Jan Casalicchio and Peter Herbeck for their support and patience in editing this volume.

References

- Belletti, Adriana. 2020. Ways of smuggling in syntactic derivations. In A. Belletti, & C. Collins (eds), *Smuggling in syntax*, 13–37. Oxford: Oxford University Press. <https://doi.org/10.1093/oso/9780197509869.003.0002>
- Burzio, Luigi. 1986. *Italian syntax: A government-binding approach*. Dordrecht: Springer.
- Calabrese, Andrea. 1993. The lack of infinitival clauses in Salentino: A synchronic analysis. *Amsterdam Studies in the Theory and History of Linguistic Science Series 4*: 267–294. <https://doi.org/10.1075/cilt.74.19cal>
- Casalicchio, Jan, & Michelle Sheehan. 2022. More on passives of causatives in Spanish and Italian: data from corpora and an acceptability judgement task. Talk in the workshop *The Syntax of Causative, Perception and Restructuring Verbs in Romance and Latin (SCUP 2022)* held at the University of Palermo on 27/05/2022.
- Chao, Yuen Ren. 1968. *A grammar of spoken Chinese*. Berkeley: University of California Press.
- Cheng Lisa L.-S., & Luis Vicente. 2013. Verb doubling in Mandarin Chinese. *Journal of East Asian Linguistics* 22: 1–37. <https://doi.org/10.1007/s10831-012-9095-6>
- Cheng, Zhenquan. 2003. *Lun Xiandai Hanyu zhong de Jianyushi* [Remarks on Object-Subject constructions in Modern Chinese] MS Guangzhou: South China Normal University.
- Chomsky, Noam. 1999. Derivation by Phase. *MIT Working Papers in Linguistics*, 18. MIT, Department of Linguistics.
- Chomsky, Noam. 2001. Derivation by phase. In M. Kenstowicz (ed.), *Ken Hale: A life in language*, 1–52. Cambridge, MA: The MIT Press. <https://doi.org/10.7551/mitpress/4056.003.0004>
- Chomsky, Noam. 2008. On phases. In R. Freidin, C. P. Otero, & M.-L. Zubizarreta (eds), *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, 133–166. Cambridge, MA: The MIT Press. <https://doi.org/10.7551/mitpress/9780262062787.003.0007>

-
- Chomsky, Noam. 2020. Puzzles about phases. In L. Franco, & P. Lorusso (eds), *Linguistic variation: Structure and interpretation. Studies in Generative Grammar* 132, 163–167. Berlin: De Gruyter. <https://doi.org/10.1515/9781501505201-010>
- Cinque, Guglielmo. 1999. *Adverbs and functional heads. A cross-linguistic perspective*. Oxford, NY: Oxford University Press.
<https://doi.org/10.1093/oso/9780195115260.001.0001>
- Cinque, Guglielmo. 2006. *Restructuring and functional heads: the cartography of syntactic structures, volume 4*. Oxford University Press on Demand.
- Collins, Chris. 2005. A smuggling approach to the passive in English. *Syntax* 8(2): 81–120. <https://doi.org/10.1111/j.1467-9612.2005.00076.x>
- Comrie, Bernard. 1976. The syntax of causative constructions: cross-language similarities and divergences. In M. Shibatani (ed.), *The grammar of causative constructions*, 259–312. Leiden: Brill. https://doi.org/10.1163/9789004368842_011
- Dixon, Robert M. W., & Alexandra Y. Aikhenwald. 2000. *Changing Valency: Case Studies in Transitivity*. Cambridge: Cambridge University Press.
<https://doi.org/10.1017/cbo9780511627750>
- Donazzan, Marta, & Linda Badan. 2022. A start into the landscape of Chinese causative light-verbs: letting and causing with RANG. *SynSem seminars*, 22 November, Département Sciences du Langage, Nantes Université.
- Fan, Xiao. 1991. *Hanyu Duanyu* [Chinese phrases]. Beijing: Commercial Press.
- Fan, Xiao. 1996. *San-ge Pingmian de Yufa Guan* [The perspective of grammar at three levels] Beijing: Beijing Language and Culture University Press.
- Fan, Xiao. 2002. *Lun Mingci zai Yuyi Pingmian shang de Jiange* [Remarks on double Case at semantic level] Beijing: Beijing Language and Culture University Press.
- Folli, Raffaella, & Heidi Harley. 2007. Causation, obligation, and argument structure: On the nature of little v. *Linguistic Inquiry* 38(2): 197–238.
<https://doi.org/10.1162/ling.2007.38.2.197>
- Givón, Talmy. 1980. The Binding Hierarchy and the Typology of Complements. *Studies in Language* 4: 333–377. <https://doi.org/10.1075/sl.4.3.03giv>
- Guasti, Maria Teresa. 2005. Analytic causatives. In M. Everaert, & H. van Riemsdijk (eds), *The Blackwell Companion to Syntax*, 142–172. Oxford: Blackwell.
<https://doi.org/10.1002/9780470996591.ch6>
- Guasti, Maria Teresa. 2017. Analytical causatives. In M. Everaert, & H. van Riemsdijk (eds), *The Wiley Blackwell Companion to Syntax, Second Edition*: 1–36. Oxford: Blackwell. <https://doi.org/10.1002/9781118358733.wbsyncom038>

Haspelmath, Martin. 2008. Causatives and anticausatives. Handout for the *Leipzig Spring School on Linguistic Diversity*, March 2008.

Hernanz, Maria Lluïsa. 1999. El infinitivo. In I. Bosque, & V. Demonte (eds), *Gramática descriptiva de la lengua española*, 2197–2356. Madrid: Espasa.

Hopper, Paul J., & Sandra A. Thompson. 1980. Transitivity in grammar and discourse. *Language*: 251–299. <https://doi.org/10.1353/lan.1980.0017>

Hornstein, Norbert. 1999. Movement and control. *Linguistic Inquiry* 30(1): 69–96. <https://doi.org/10.1162/002438999553968>

Hu, Xiaoshi. 2017. *Les constructions causatives du français et du chinois* [The Causative Constructions in French and in Chinese]. PhD dissertation. Université Paris Diderot.

Hu, Xiaoshi. 2020. Syntax of causative-passive correlation from a cross-linguistic perspective. *International Journal of Chinese Linguistics* 7(1): 90–112. <https://doi.org/10.1075/ijchl.00007.hu>

Huang, C.-T. James. 1982. *Logical Relations in Chinese and the theory of grammar*. Cambridge, MA: MIT dissertation.

Iatridou, Sabine. 1993. On the contribution of conditional *then*. *Natural language semantics* 2(3): 171–199. <https://doi.org/10.1007/bf01256742>

Kayne, Richard S. 1975. *French syntax*. Cambridge, MA: The MIT Press.

Kulikov, Leonid. 1994. Causative constructions in Tuvian: towards a typology of transitivity. In L. Johanson (ed.), *The Mainz Meeting: Proceedings of the Seventh International Conference on Turkish Linguistics*, 258–264. Wiesbaden: Harrassowitz.

Kulikov, Leonid I. 2001. Causatives. In M. Haspelmath, E. König, W. Östereicher, & W. Raible (eds), 2. *Halbband Language Typology and Language Universals 2. Teilband*, 886–898. Berlin, Boston: De Gruyter Mouton. <https://doi.org/10.1515/9783110194265-003>

Ledgeway, Adam. 2005. Moving through the left periphery: The dual complementiser system in the dialects of Southern Italy. *Transactions of the philological society* 103(3): 339–396. <https://doi.org/10.1111/j.1467-968x.2005.00157.x>

Ledgeway, Adam. 2019. The causative construction in the dialects of Southern Italy and the phonology-syntax interface. In G. Bellucci, L. Franco, & P. Lorusso (eds), *Linguistic variation: Structure and interpretation*, 371–400. Berlin: de Gruyter. <https://doi.org/10.1515/9781501505201-021>

-
- Ledgeway, Adam, Schifano, Norma, & Giuseppina Silvestri. 2018. Il contatto tra il greco e le varietà romanze nella Calabria meridionale. *Lingue antiche e moderne*: 7, 95–133. <https://doi.org/10.4424/lam72018-5>
- Li, Charles N., & Sandra A. Thompson. 1981. *Mandarin Chinese. A functional reference grammar*. Berkeley: University of California Press.
- Li, Yen-Hui Audrey. 1985. *Abstract case in Chinese*. Los Angeles, CA: University of Southern California dissertation.
- Li, Yen-Hui Audrey. 1990. *Order and Constituency in Mandarin Chinese*. Dordrecht: Kluwer. <https://doi.org/10.1007/978-94-009-1898-6>
- Lohninger, Magdalena, & Susanne Wurmbrand. 2020. Typology of complement clauses. In A. Benz, Frey W., Krifka M., McFadden T., & M. Žygis (eds), *Handbook of clausal embedding*, 1–53. Berlin: Language Science Press.
- Manzini, M. Rita. 2022. Romance causatives and ergativity. In N. Boneh (ed.), *Construire sur les décombres de Babel*, 271–292. Saint-Denis: Presses universitaires de Vincennes. <https://doi.org/10.3917/puv.boneh.2022.01.0271>
- Manzini, M. Rita, & Anna Roussou. 2000. A minimalist theory of A-movement and control. *Lingua* 110(6): 409–447. [https://doi.org/10.1016/s0024-3841\(00\)00006-1](https://doi.org/10.1016/s0024-3841(00)00006-1)
- Manzini, M. Rita, & Leonardo M. Savoia. 2005. *I dialetti italiani e romanci. Morfosintassi generativa*. Alessandria: Edizioni dell'Orso.
- Manzini, M. Rita, & Leonardo M. Savoia. 2007. *A unification of morphology and syntax: Investigations into Romance and Albanian dialects*. Los Angeles: Routledge. <https://doi.org/10.4324/9780203968154>
- Manzini, M. Rita, Lorusso, Paolo, & Leonardo M. Savoia. 2017. *a bare finite complements in Southern Italian varieties: mono-clausal or bi-clausal syntax?* *Quaderni Di Linguistica E Studi Orientali* 3: 11–59. <https://doi.org/10.13128/QULSO-2421-7220-21337>
- Ordóñez, Francisco. 2012. 21 Clitics in Spanish. In José I. Hualde, A. Olarrea, & E. O'Rourke (eds), *The handbook of Hispanic linguistics* 69: 423–451. New Jersey: Wiley-Blackwell. <https://doi.org/10.1002/9781118228098.ch21>
- Paul, Waltraud. 2018. The encoding of finiteness in Chinese. Paper presented at the *Tenth Meeting of the European Association of Chinese Linguistics*, Università degli Studi di Milano & Università degli Studi di Milano-Bicocca, September 28–29.
- Paul, Waltraud. 2021. De-constructing small clauses: The case of Mandarin Chinese. *Glossa: a journal of general linguistics* 6(1). <https://doi.org/10.5334/gjgl.1211>

Pineda, Anna, & Michelle Sheehan. 2022. When restructuring and clause union meet in Catalan and beyond. *Catalan Journal of Linguistics* 21: 109–128.

<https://doi.org/10.5565/rev/catjl.383>

Pineda, Anna, & Michelle Sheehan. 2023. A Cyclic Agree account of the Romance *faire*-infinitive causative: New evidence from Catalan. *Syntax*: 1–40.

<https://doi.org/10.1111/synt.12247>

Postal, Paul M. 1977. About a “nonargument” for raising. *Linguistic Inquiry* 8(1): 141–154. <https://www.jstor.org/stable/4177975>

Rizzi, Luigi. 1982. *Issues in Italian syntax*. Berlin: de Gruyter.

<https://doi.org/10.1515/9783110883718>

Rizzi, Luigi. 1997. The fine structure of the left periphery. In L. Haegeman (ed.), *Elements of grammar: Handbook in generative syntax*, 281–337. Dordrecht: Kluwer.

https://doi.org/10.1007/978-94-011-5420-8_7

Rizzi, Luigi, & Guglielmo Cinque. 2016. Functional categories and syntactic theory. *Annual Review of Linguistics* 2: 139–163. <https://doi.org/10.1146/annurev-linguistics-011415-040827>

Rouveret, Alain, & Jean-Roger Vergnaud. 1980. Specifying reference to the subject: French causative constructions and conditions on representations. *Linguistic Inquiry* 11(1): 97–202. <https://www.jstor.org/stable/4178152>

Sheehan, Michelle. 2020. The development of Exceptional Case Marking in Romance with a particular focus on French. *Probus* 32(2): 367–400.

<https://doi.org/10.1515/probus-2020-0002>

Sheehan, Michelle, & Sonia M.L. Cyrino. 2023. Restrictions on Long Passives in English and Brazilian Portuguese: A Phase-Based Account. *Linguistic Inquiry*, 1–35.

https://doi.org/10.1162/ling_a_00482

Sportiche, Dominique. 1995. French predicate clitics and clause structure. In A. Cardinaletti, & M.T. Guasti (eds), *Small clauses*, 287–324. New York: Academic Press.

https://doi.org/10.1163/9780585492209_013

Starke, Michal. 1995. On the format for small clauses. In A. Cardinaletti, & M.T. Guasti (eds), *Small clauses*, 235–269. New York: Academic Press.

https://doi.org/10.1163/9780585492209_011

Sun, Hongyuan. 2014. *Temporal construals of Bare predicates in Mandarin Chinese*. PhD dissertation. Leiden: Leiden University.

Talmy, Leonard. 1976. Semantic causative types. In M. Shibatani (ed.), *The grammar of causative constructions*, 41–116. Leiden: Brill.

https://doi.org/10.1163/9789004368842_003

- Treviño, Esthela. 1994. *Las causativas del español con complemento infinitivo*. México: El Colegio de México.
- Trumper, John, & Luigi Rizzi. 1985. Il problema di *ca/mu* nei dialetti calabresi mediani. *Quaderni del Dipartimento di Linguistica, Università della Calabria* 1: 63–76.
- Tubino Blanco, Mercedes. 2010. *Contrasting causatives: A minimalist approach*. PhD dissertation. Tucson, AZ: University of Arizona.
- Wang, Li. 1954. *Zhongguo Yufa Lilun* [Theories of Chinese grammar]. Beijing: Zhonghua Books Center Press.
- Weng, Chuan-Hui. 2007. Causative, permissive, and yielding: The Mandarin Chinese verb of rang. *Nanzan Linguistics* 1(2): 69–90.
- Wolff, Phillip, & Grace Song. 2003. Models of causation and the semantics of causal verbs. *Cognitive psychology* 47(3): 276–332. [https://doi.org/10.1016/S0010-0285\(03\)00036-7](https://doi.org/10.1016/S0010-0285(03)00036-7)
- Wurmbrand, Susi, & Magdalena Lohninger. In press. An implicational universal in complementation — Theoretical insights and empirical progress. In J. M. Hartmann, & A. Wöllstein (eds), *Propositional arguments in cross-linguistic research: Theoretical and empirical issues*. Berlin: Mouton de Gruyter.
- Xing, Xin. 1984. Lun Jianyu Ju de Shenceng Jiegou [Remarks on the basic structure of pivot constructions]. *Xinjiang Daxue Xuebao* [Journal of Xinjiang University] 1: 105–113.
- Xing, Xin. 1995. Zhishi Dongci de Peijia [Valence of causative verbs]. In Y. Shen, & D. Ou (eds), *Xiandai Hanyu Peijia Yufa Yanjiu* [Studies on the grammar of the valence in Modern Chinese], 6–28. Beijing: Beijing University Press.
- Xu, Dan. 2012. Reduplication in languages: A case study of languages of China. In D. Xu (ed.), *Plurality and classifiers across languages in China*, 43–66. Berlin: Mouton de Gruyter. <https://doi.org/10.1515/9783110293982.43>
- Xu, Liejiong. 1994. Phenomena in Chinese grammar related to empty categories. *Zhongguo Yuwen* [Chinese Language] 5: 321–329.
- Yan, Ronggeng. 1998. Lun Shiling Guanxi he Jianyuju [Remarks on the causative relation and the pivot sentences]. *Xinjiang Daxue Xuebao* [Journal of Xinjiang University] 26: 76–80.
- Yang, Daran. 2003. On the ECM phenomenon in Mandarin Chinese Causative Constructions. *Modern Foreign Languages* 26: 365–372.

Zhang, Niina Ning. 2019. Sentence-final aspect particles as finite markers in Mandarin Chinese. *Linguistics* 57(5): 967–1023. <https://doi.org/10.1515/ling-2019-0020>

Zubizarreta, Maria Luisa. 1985. The relation between morphophonology and morphosyntax: The case of Romance causatives. *Linguistic Inquiry* 16(2): 247–289. <https://www.jstor.org/stable/4178431>