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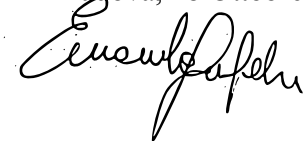
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DICHIARO

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From comparative to causal relations: the case of *siccome* ‘because’ in the history of Italian

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Abstract: This article investigates how adverbial causal clauses come into being by tracking the diachronic development of the lexical item *siccome* ‘because’ from Old to Contemporary Italian. We show that adverbial causal clauses introduced by *siccome* in Contemporary Italian originate from comparative-simulative clauses. By describing the steps of this diachronic change, we demonstrate that in specific contexts the comparative-simulative marker has paved the way for a comparison between two events entailing a causal relation. The change is formalized by adopting a free relative clause analysis (Cinque 2020a. On the double-headed analysis of “headless” relative clauses. In Ludovico Franco & Paolo Lorusso (eds.), *Linguistic variation: Structure and interpretation*, 169–196. Berlin: Mouton de Gruyter) to comparative and causal clauses.

Keywords: comparative; causal; syntax; diachrony; Italian

1 Introduction

Typological studies have demonstrated that adverbial causal clauses usually emerge out of purpose and temporal clauses as the result of diachronic reanalysis (Cristofaro 1998, 2003: Ch. 6; Heine and Kuteva 2002: 246, 291; Thompson et al. 1985). This article adds a new path in the development of causal clauses by uncovering a diachronic link between comparative and causal clauses (see Jędrzejowski 2024b). While the previous literature has reported that various languages extend comparative-simulative markers to introduce subordinate clauses of temporal simultaneity (‘when’) or immediate anteriority (‘as soon as’; Deutscher 2000: 38; Eggs 2006: 428–473; Schulze 2017: 48; Taine-Cheikh 2004; Treis 2017: 91, 133), we provide new evidence for the overlap between comparative-simulative and causal subordinators through the history of Italian.¹

The empirical domain is restricted to the diachrony of *siccome* ‘because’, an unverbated form morphologically composed of two items: the comparative-simulative wh-pronoun *come* ‘how’ and the demonstrative adverbial pronoun *si* (< Latin *sic*) ‘so’. The development of *siccome* is studied together with that of its graphically non-unverbated variant *si come*. We show that the exclusively causal reading of *siccome* in Contemporary Italian, seen in (1a), arises from an original comparative-simulative meaning, as in (1b), following a three-step diachronic path.²

¹ We refer to the standard language spoken in Italy nowadays as Contemporary Italian. We follow the traditional philological literature in labeling Medieval Florentine and Tuscan “Old Italian” (Salvi and Renzi 2010), and the *Grammatica dell’italiano antico* in contrasting Old and Contemporary Italian and considering them two stages of Italian (Renzi 2004; Salvi and Renzi 2010). As for the other stages of Italian, we refer to the MIDIA periodization. Data on Contemporary Italian are taken from our introspection as native speakers.

² Examples follow the Leipzig Glossing Rules. Abbreviations used: 1/2/3 first/second/third person; ACC accusative; CMP comparative; DAT dative; GER gerund; IMP imperative; IND indicative; INF infinitive; M masculine; PL plural; PRS present; PST past; REFL reflexive; SBJV subjunctive; SG singular.

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- (1) a. Contemporary Italian
Si-ccome fuori piov-e prend-i l' ombrello
 so-as outside rain-IND.PRS.3SG take-IMP.2SG the umbrella
 'Take the umbrella because it is raining outside.'
- b. Old Italian
Si-ccome lo vermine consum-a il legno
 so-as the worm consume-IND.PRS.3SG the wood
e le tarm-e le vestiment-a cosi
 and the moth-PL the cloth-PL similarly
consum-a la invidia il corpo de-ll' uomo
 consume-IND.PRS.3SG the envy the body of-the man
 'As the worm consumes wood and moths consume cloth, likewise envy consumes the human body.'
 (Anonimo, first half of 14th century, *Fiore di virtù*, III)

We demonstrate that, while in the first stage *siccome/si come* almost exclusively introduces comparative-simulative clauses, in the second stage the lexical item is extended to also express causal relations (Section 2). The possibility for the item to encode causal relations was restricted to specific contexts (Section 3). In these contexts, *siccome/si come* introduces a comparison between the dependent and the main event which could be inferred to be causally related. In the third stage, the pragmatic inference of causality becomes syntactically encoded and two distinct structures are available: *siccome* exclusively introduces causal CPs and the non-univerbated form (*si come*) is restricted to comparative-simulative CPs. We formalize this change by adopting a free relative clause analysis (Cinque 2020a) to comparative and causal clauses (Section 4). In so doing, we extend to causal clauses the proposal formulated in Haegeman (2010) for temporal clauses and in Donati (1997) for comparative clauses.

2 The relations encoded by *siccome/si come* in diachrony

The diachronic development of *siccome/si come* was investigated through a survey of the MIDIA corpus, which contains about 800 Italian texts from 1200 to 1947 (D'Achille and Grossmann 2017). The corpus includes five time periods:

- First period: 1200–1375
- Second period: 1376–1532
- Third period: 1533–1691
- Fourth period: 1692–1840
- Fifth period: 1841–1947

The survey revealed that throughout the history of Italian the subordinator expresses various relations. In (1b), it introduces a comparison in which two events or propositions are compared with respect to some manner or degrees of some properties. *Siccome/si come* also introduces a complement clause (Cristofaro 2003), as in (2):

- (2) *narr-a si-ccome am-ando senza fortuna un*
 narrate-IND.PRS.3SG so-as love-GER without fortune the
tale si uccid-a per una
 such REFL kill-SBJV.PRS.3SG for one
 '(That book) narrates that, loving without fortune, a man killed himself for one [woman].'
 (Gozzano, 1911, *I colloqui*, II, IV)

The subordinator can also introduce a temporal clause marking simultaneity or immediate anteriority: the dependent event takes place simultaneously or immediately before the main event:

- (3) *E siccome si scontrar-o con gli occh-i*
 and so-as REFL meet-IND.PST-3PL with the eye-PL
si pun-s-ono il cuore d' amoroso disire
 REFL sting-IND.PST-3PL the heart of loving desire
 'And as their eyes met, they stung their hearts with a loving desire [...].'
 (Alberti, 15th century, *Istorietta amorosa fra Leonora de' Bardi e Ippolito Bondelmonti*)

Finally, *siccome/si come* also expresses a causal relation, as in (4), where the dependent event provides a motivation for the main event to occur:

- (4) *E siccome io non sap-ev-a dove and-ar=mi*
 and so-as I not know-IND.PST-1SG where go-INF=DAT.1SG
a raccapezz-are il seguito de-l fatto
 to find-INF the continuation of-the story
fin-iv-a co-l lasci-ar=lo st-are
 end-IND.PST-1SG with-the leave-INF=ACC.3SG stay-INF
 'And since I didn't know where to find the continuation of the story, I ended up leaving it.'
 (Alfieri, 1804, *Vita*, II, IV)

The adverbial *siccome/si come*-clauses can also be resumed by a correlative adverb in the host clause (see Appendix A in the Supplementary materials).

The functions we have mentioned are not uniformly distributed diachronically, as clearly illustrated in Figure 1:

- In the first period (1200–1375), the subordinator exhibited almost exclusively a comparative-simulative meaning, which remained the main value till the fourth period (1692–1840).
- In Period 4, we witness an increase of the occurrences with a causal interpretation and a concomitant decrease of the occurrences with a comparative reading.
- In a very few occurrences, the items expressed complement and temporal relations. The item disappeared as a marker introducing temporal clauses from Period 3, while only one instance of *siccome* introducing a complement clause was found in Period 5.³

We conclude that *siccome/si come*, originally introducing a comparison between the dependent and the main events, has slowly acquired a causal reading.

The relations plotted in Figure 1 are expressed by different subordinators in Contemporary Italian. Complement clauses and temporal clauses of simultaneity or immediate anteriority can be introduced by the simple

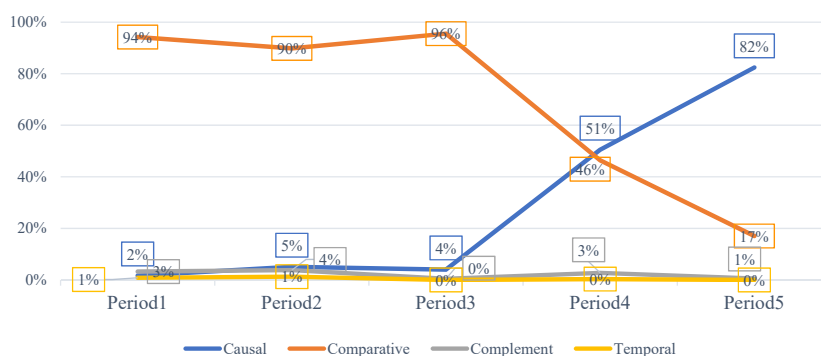


Figure 1: The diachrony of the meanings of *siccome/si come* across the five MIDIA periods.

³ Information regarding the relative frequencies of the various readings encoded by *siccome/si come* is provided in Appendix B of the Supplementary materials.

form *come*, which never appears preceded by the adverb *si*. Comparative relations are introduced by the subordinator *come*, which can be preceded by the adverb *si*. The unverbated form *siccome* can only introduce adverbial causal clauses. As in the older stages of Italian, *siccome* CPs can also be resumed by an adverb in Contemporary Italian. The presence of a correlative element in the matrix clause resuming the adverbial CP suggests that *siccome* CPs in all stages of Italian are integrated in the matrix clause: they are central adverbial clauses in Haegeman's (2010) terms. We now ask how the causal meaning *come* into being, investigating which conditions triggered the semantic shift from a comparative to a causal interpretation.

3 From a comparative to a causal interpretation of *siccome*

This section demonstrates that the meanings discussed in Section 2 are tied to specific contexts. Specifically, in Section 3.1 we illustrate the conditions in which the causal interpretation of *siccome/sì come* emerged and their diachronic development. Next, in Section 3.2 we zoom in on the morphological form of the subordinators and their meaning in diachrony. In Section 3.3 our findings are summarized and discussed in light of previous results on other syntactic changes affecting the complementizer domain through the history of Italian.

3.1 Specific contexts and the interpretation of *siccome/sì come*

While *siccome/sì come* introduces a complement clause when the clause is in argument position and selected by verbs of saying, the subordinator has a comparative-simulative, temporal, or causal interpretation when the clause is merged in an adjunct position. We focus on the readings available in adjunct position.

Siccome/sì come is exclusively a comparison marker (i) with TP ellipsis, (ii) when it is combined with a DP, (iii) with a nonfinite predicate, (iv) with a predicate inflected in the subjunctive mood, and (v) when the comparison operates at the epistemic and speech act domain in the sense of Sweetser (1990). For reasons of space, we exemplify context (iii) only, with the unverbated form:

- (5) *E intra-ssono a Cicerone si-ccome a*
 and enter-SBJV.PST.3PL to Cicero so-as to
salut-ar=lo
 greet-INF=ACC.3SG.M
 '[They ordered that ...] and [that] they should approach Cicero as they were greeting him.'
 (Bartolomeo da San Concordio, 13th–14th century, *Il catilinario*, XX)

Temporal and causal interpretations arise in the early stages in specific contexts. When the dependent event is factual and temporally simultaneous to or immediately preceding the main event, in addition to a comparative, *siccome/sì come* may also express a temporal and a causal reading.

An additional condition for the causal interpretation to arise in the early stages is the sharing of event participants between the dependent and main events. This condition does not robustly hold for temporal *siccome/sì come*. Sharing of event participants in causal clauses especially targets the agent/theme and patient of the two events. Syntactically, the subject or the direct object are co-referential to the subject/direct object of the matrix clause, as in (6):

- (6) *E si-ccome ha già tre figli,*
 and so-as have.IND.PRS.3SG already three children
così abbisogn-av-a di un maggior soldo
 so need-IND.PST-3SG of the big.CMP money
 'And since he has already three children, so he needed more money.'
 (Mamiani della Rovere, 1817–1847, *Lettere al fratello Terenzio*)

When these conditions are met, we find a reading ambiguity of *siccome/si come* between a comparative and a causal interpretation, as in (7a), or between a causal and a temporal reading (7b).

- (7) a. *si-ccome av-ete guarito lui de-l male*
 so-as have-IND.PRS.2PL cured him of-the illness
de-lla lonzeria, così dov-ete ora guar-ire me
 of-the lonzeria so must-IND.PRS.2PL now cure-INF me
 ‘So as you cured him from the illness of the *lonzeria*, so you must now cure me [...].’
 (Vincenzo da Filicaia, 17th–18th century, *Lettere inedite a Lorenzo Magalotti*)
- b. *e si-ccome io av-eva decretato di scriv-ere*
 and so-as I have-IND.PST.1SG decided of write-INF
il mio itinerario, mi cav-ai
 the my itinerary DAT.1SG extract-IND.PST.1SG
di tasca il calamaio e la penna,
 of pocket the inkpot and the pen
e scri-ss-i il proemio ne-lla désobligeante
 and write-IND.PST-1SG the preface in-the désobligeante
 ‘And as I had decided to write my itinerary, I took out of my pocket the inkpot and the pen and I wrote the preface in the *désobligeante*.’
 (Foscolo, 19th century, *Viaggio sentimentale di Yorick*, VI).

In conclusion, the conditions in which the causal value of *siccome/si come* arises are the following:

- (8) a. The dependent event is factual.
 b. The dependent event is temporally simultaneous to or immediately precedes the main event.
 c. The event participants, usually agent/theme/patients, are shared between the dependent and main events.

Up to the beginning of Period 4, a causal reading of *siccome/si come* was possible only when all these conditions were met. Conversely, from Period 4, the licensing conditions are not necessarily met and eventually disappear. In detail, both conditions (8b) and (8c) are subject to a diachronic change.

As for (8b), while until Period 4 the dependent event was simultaneous to or immediately preceded the main event in causal clauses, from Period 4 onwards the dependent event can be temporally independent, as in (9):

- (9) *Si-ccome domani i miei amic-i ven-g-ono a cena,*
 so-as tomorrow the my friend-PL come-IND.PRS-3PL for dinner
dev-o and-are a fare la spesa oggi
 must-IND.PRS-1SG go-INF to do-INF the grocery_shopping today
pomeriggio
 afternoon
 ‘Since my friends are coming for dinner tomorrow, I have to go grocery shopping this afternoon.’

As for condition (8c), from Period 4 the dependent event does not always share its participants with the main event:

- (10) *Si-ccome Francesco non arriv-av-a, Drogo e*
 so-as Francesco not arrive-IND.PST-3SG Drogo and
Maria si salut-ar-ono con esagerata cordialità
 Maria REFL greet-IND.PST-3PL with exaggerated cordiality
 ‘Since Francesco did not arrive, Drogo and Maria greeted each other with exaggerated cordiality [...].’
 (Buzzati, 1945, *Il deserto dei Tartari*, ch.19)

In addition to the conditions in (8), our corpus survey also revealed that causal – as well as temporal – clauses tend to precede the matrix predicate: this order is attested in the majority of the occurrences ranging from 75 % in

Period 1–95 % in Period 5. In this respect, they differ from comparative clauses, which in one-third of their occurrences precede the matrix predicate and in two-thirds follow it. Notice that the left positioning of adverbial causal/temporal clauses should be seen more as a tendency rather than a condition of the type listed in (8). While conditions (8a)–(8c) must be necessarily satisfied for the causal reading to arise, the left positioning of *siccome/si come* causal CPs is not mandatory. As a matter of fact, adverbial causal clauses introduced by *siccome* can both precede and follow the host clause in Contemporary Italian (Dardano 2020; Frenguelli 2002).⁴ Despite both orders being grammatical, some speakers prefer to place the adverbial causal clause to the left of the host clause. We believe that both this preference and the tendency exhibited in our historical data reflect the status of *siccome* CPs at the discourse level. Adverbial causal clauses introduced by *siccome/si come* provide background and not-at-issue information (Sanfelici et al. 2022). In Contemporary Italian, a *siccome/si come* CP cannot be focalized, cannot be fragment answers to ‘why’ questions, and cannot be in the scope of the negation. Likewise, no instances of negated or focalized *siccome/si come* causal CPs were attested in the MIDIA corpus. Hence, the preference for the left positioning of *siccome/si come* CPs may be the result of a discourse tendency to have thematic information preceding rhematic information.

3.2 Diachronic development of the morphological forms introducing causal clauses

To decipher the diachronic development of the causal meaning, we restricted our corpus to only those contexts in which the causal interpretation could arise, that is, cases that follow conditions (8a)–(8c); there are 2095 occurrences of this type. Since in Contemporary Italian, adverbial causal relations can only be expressed by *siccome* and not by *si come*, we consider the diachrony of the two items separately. Figure 2 illustrates the diachronic development of the meanings encoded by the unverbated form from 1200 to 1947, while Figure 3 depicts the same information for *si come*.

Figures 2 and 3 demonstrate that *siccome* and *si come* pattern alike in Period 1 (1200–1375) in expressing a comparative-simulative relation in almost all occurrences. Conversely, from Period 2 (1376–1532), the two forms show different trajectories. While the non-unverbated form almost exclusively encodes comparative meanings up to the end of the third period, the unverbated form introduces causal CPs in one-third of its occurrences in Period 2 (1376–1532) and in one-fourth in Period 3 (1533–1691). In Period 4 (1692–1840), an increase in occurrences with a causal reading is registered for both forms. In Period 5 (1841–1947), *siccome* exhibits a causal meaning in the majority of its instances, while *si come* ceases to express a causal relation and it is only attested with a comparative meaning. Hence, between the fourth and the fifth period, a division of the semantic space covered by the two forms is registered in the editions of the MIDIA corpus. By adding our introspective judgments on Contemporary Italian to both figures, we can conclude that, at the end of the diachronic path, the unverbated

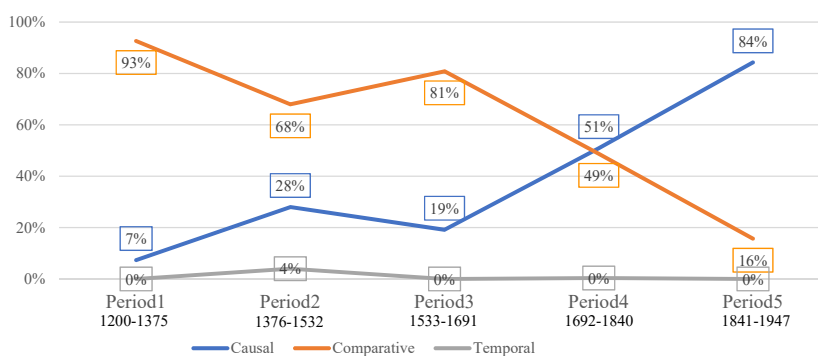


Figure 2: The diachronic development of the meanings of *siccome*.

⁴ A deeper investigation of the positioning of causal *siccome* CPs relative to the matrix predicate is left for future research.

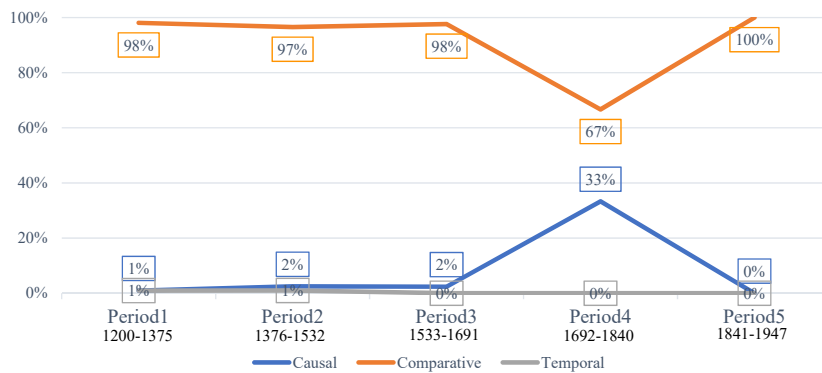


Figure 3: The diachronic development of the meanings of *si come*.

form *siccome* introduces finite CPs encoding a causal relation between the dependent and the main events, while the non-univerbated *si come* is the subordinator of comparative CPs. Since *siccome* is a morphologically complex item formed by the adverb *si* and the wh-item *come* ‘how’, we conclude that the pronoun *si* underwent a change from a free form to a bound morpheme, a process which is clearly signaled by the phono-syntactic gemination of /k/ in /sik.'ko.me/. Interestingly, the univerbation process did not occur when the two items introduce comparative clauses. Hence, the adverb *si* changed its phonological and syntactic status only in adverbial causal clauses. Since in the earlier periods, orthography is an unreliable diagnostic as it usually depends on editorial choices, and since the texts in the MIDIA corpus are based on modern editions, we cannot individuate a precise moment in which the univerbation process happened. Yet, we can state that from the fifth period the two forms are clearly differentiated in the orthography and, plausibly, in the morphology. We can formally capture this distinction adopting Cardinaletti and Starke’s (1999) pronominal system: between the fourth and the fifth period, the adverb *si* changed its status from a weak/clitic pro-form to a bound morpheme in causal CPs, while the weak/clitic pro-form can still be paired with a wh-pronoun in comparative clauses.

3.3 Conclusion ad interim

We have demonstrated that the causal interpretation of *siccome/si come* diachronically developed from a comparative meaning in specific contexts, those provided in (8a)–(8c). When the conditions in (8) are met, the lexical item is compatible with both a comparative and a causal interpretation. This suggests that the rise of the new causal meaning of *siccome/si come* does not only involve a semantic change but it is tightly linked to specific contexts: a conclusion which is in line with various studies on grammaticalization (e.g., Diewald 2002; Giacalone Ramat 2015; Heine 2002).

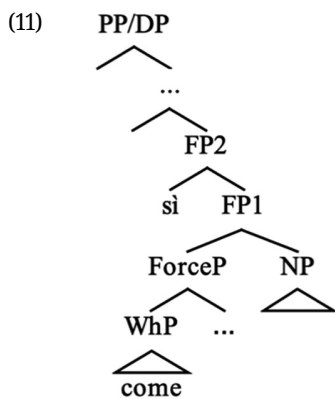
In Period 1, 1200–1375, *siccome/si come* almost exclusively introduced comparative clauses. In Periods 2 and 3, from 1376 to 1691, a causal reading of *siccome/si come* was possible only when the conditions in (8) were met. In Period 4, from 1692 to 1840, half of the occurrences of *siccome/si come* exhibited a causal interpretation and the conditions in (8) were not always met. In Period 5, we see a regularization of these patterns and a loss of the conditions licensing the causal interpretation. Our texts registered a specialization of the original comparative and the new causal meanings which is morphologically reflected: the non-univerbated form is restricted to comparative CPs, while the univerbated one becomes the causal subordinator. Interestingly, the chronology we have set out for the rise and development of causal *siccome/si come* mirrors the chronology reported for other changes affecting subordinators and sentence connectives, specifically *però* ‘but’, *tuttavia* ‘however’, and *mentre* ‘while’ (Giacalone Ramat and Mauri 2008; Mauri and Giacalone Ramat 2012). All these diachronic changes suggest that the complementizer layer underwent a great restructuring, starting in roughly the Renaissance period, which was completed in the fourth period and stabilized in the fifth. We leave for future research the investigation of what exactly triggered the restructuring of the CP layer.

4 Discussion

Temporal and comparative adverbial clauses have been analyzed as free relative clauses (Caponigro 2000, 2004; Cecchetto and Donati 2012; Donati 1997; Haegeman 2010). We extend this proposal to adverbial causal clauses introduced by *siccome/si come* CPs. This extension is motivated by the diachronic development we documented in the previous sections and by the morphological form of the subordinator, which clearly contains the wh-pronoun *come* ‘how’.

We claim that the diachronic extension of the meanings conveyed by *siccome/si come* depends on two properties: (i) the type of null classifier paired with the wh-item; and (ii) the movement of the wh-phrase.

As for (i), we follow the derivation of relative clauses proposed in Cinque (2013) and refined in Poletto and Sanfelici (2018). Relative clauses are CPs embedded under a DP/PP (Kayne 1994) and merged in the specifier of a prenominal functional projection (Cinque 2013: 172, 197). The relative pronoun is a determiner-like element that modifies a null classifier, PERSON, THING, PLACE, TIME, MANNER, DEGREE, and so on, which is the smallest component of a nominal expression (Cinque 2020a, 2020b; Kayne 2005). While the wh-item is paired with the null classifier MANNER/DEGREE in comparative clauses and with the null classifier TIME/MOMENT in temporal clauses, in causal clauses we suggest that the wh-item is paired with the null classifier SITUATION, thereby rephrasing Arsenijević’s (2021) proposal. The relative clause modifies a nominal expression, which in the case here discussed is further modified by *si*. We illustrate the relative clause structure in the simplified tree in (11).⁵

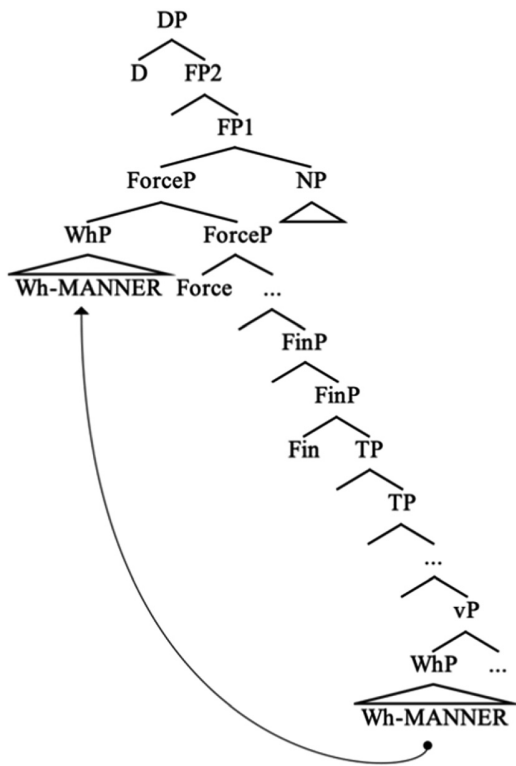


The type of null classifiers determines property (ii), namely whether the wh-item moves to the COMP domain from the vP/TP layer, as in the case of comparative and temporal *siccome/si come*, or whether it is already merged in the CP and moves to a higher CP position, as in the case of the causal *siccome/si come*. The final landing site of the wh-phrases in relative clauses is Spec, ForceP (Rizzi and Bocci 2017). Hence, in comparative clauses, the wh-phrase moves from a specifier position within the vP layer – the position where manner adjuncts are merged (Cinque 1999) – to Spec, ForceP. In temporal clauses, the wh-phrase moves from a specifier position within the TP – the position where temporal adjuncts are merged (Cinque 1999) – to Spec, ForceP. Finally, in causal clauses, the wh-phrase moves from Spec, FinP – the position where situation and speech acts adjuncts are merged (Cinque 1999) – to Spec, ForceP.⁶ We illustrate the different derivations in (12): comparative clause in (12a), temporal in (12b), and causal in (12c).

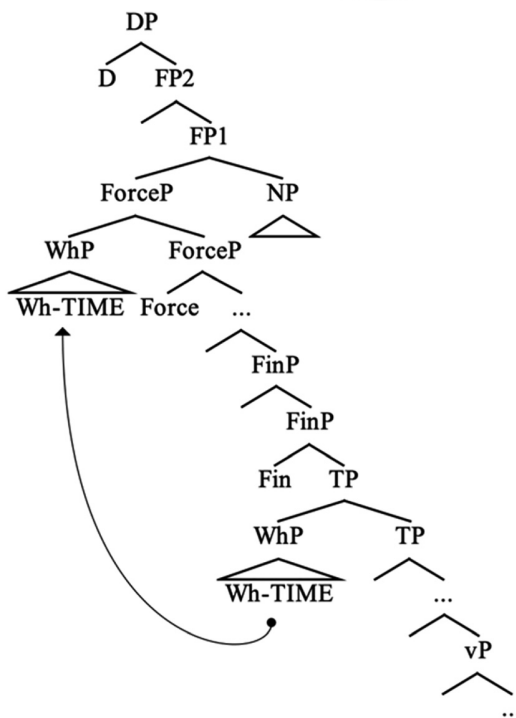
⁵ For the time being, we abstract away from a more precise categorial definition of the *si* element.

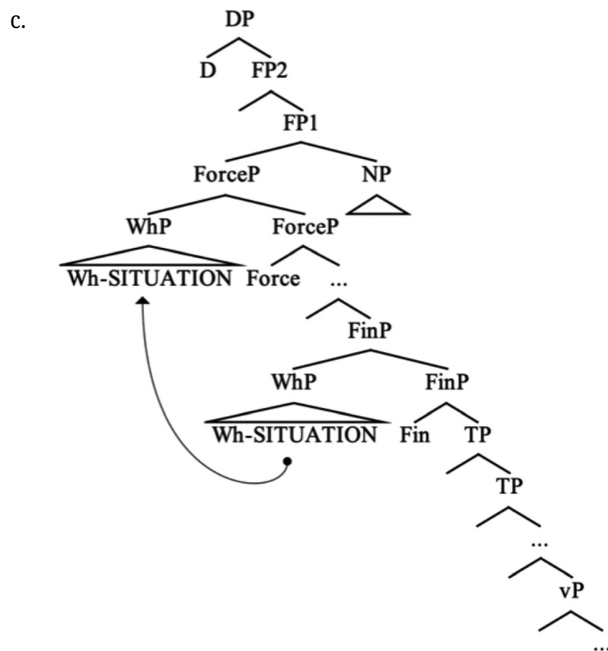
⁶ Note that Rizzi (2001) argues for a dedicated functional projection within the CP domain for ‘why’ words, i.e., IntP. As the proposal was put forward for items with a clear interrogative semantics, we leave open whether Spec, IntP can be the merge position for all causal subordinators. We refer the reader to Jędrzejowski (2024a).

(12) a.



b.





The different merge positions of the *wh*-phrases in the spine of the relative clause have the desired semantic reflex discussed in Cecchetto and Donati (2012) and Arsenijević (2021). The comparative clause in (1b), ‘As the worm consumes wood and moths consume cloth’, has the same interpretation of the explicit relative clause ‘in/to the (same) manner/way/degree in which the worm consumes wood and moths consume cloth’ and defines the set of manner/way/degree that is the intersection of the manner/way/degree in which the worm consumes wood and moths consume cloth and the manner/way/degree in which envy consumes the human body. Likewise, the adverbial temporal clause in (3), ‘as their eyes met’, can be paraphrased as ‘in the (same) moment/time in which their eyes met’ and it defines the time interval which is the intersection between the moment in which their eyes met and the moment in which they fell in love. Finally, example (4), ‘And since I didn’t know where to find the continuation of the story, I ended up leaving it’, with a causal adverbial clause, can be paraphrased as ‘As in those situations in which I did not know where to find the continuation of the story, in the same situations I ended up leaving it’. Causal clauses assert that the antecedent is true in the actual situation in which the antecedent is also asserted to obtain.

As shown in Section 3.1, various occurrences up to Period 4 were ambiguous between manner, temporal, and causal interpretations: the clause introduced by *siccome/si come* provided the manner/time but it also entailed the cause for the realization of the main event. We specified the conditions which could license a causal reading in (8). All occurrences compatible with a causal interpretation of the subordinator met these conditions up to Period 4. Until that period, the occurrences where a causal interpretation was detected and then coded as such were ambiguous between a causal and comparative reading. It was the context that guided our choice for one interpretation over the other. From Period 4, these conditions were not mandatory anymore and were then completely lost in Period 5. Given this picture, we must then account for three aspects: (i) the comparative-simulative meaning of *siccome/si come*, (ii) the possibility of a causal interpretation of the subordinator to arise when the licensing conditions were met and its concomitant ambiguity between a causal, temporal, and comparative interpretation, and (iii) the causal versus comparative distinction and the loss of the licensing conditions.

We propose that (i) *siccome/si come* is a comparative subordinator paired with a null nominal MANNER, (ii) the ambiguity up to Period 4 results from a pragmatic inference which applies when the event participants are shared and the dependent and main events are contiguous, and (iii) this pragmatic inference undergoes syntacticization in Period 4 and then the new derivation involving causation regularizes in Period 5. The comparative/temporal

wh-phrase moves from vP/TP to the left periphery. When the dependent event is factual, temporally contiguous to the main event, and shares the participants with the main event, a pragmatic inference arises during Periods 2 and 3:⁷ the dependent event can be inferred to be causally related to the main event.⁸ Hence, the wh-phrase could be either interpreted in its original position only, where it expresses a manner or temporal relation, or, in addition, in its derived position, thereby entailing a causal relation as in (7a).

In Period 4, this inference becomes conventionalized. The conventionalization has the syntactic reflex that the wh-determiner is now paired with the classifier *SITUATION*. The conditions licensing the pragmatic inference of causality in (8) are slowly lost. Therefore, two derivations distinguish the comparative/temporal and causal adverbial clauses: in the former the wh-phrase moves from the wh-phrase vP/TP to the left periphery, in the latter the wh-phrase is externally merged in the left periphery. From a derivation in which *siccome/si come* moves to the left periphery and the causal relation results from a pragmatic inference, Italian slowly develops a derivation with *siccome* paired with the null classifier *SITUATION* which is exclusively externally merged and encodes causality. This diachronic change is thus an instance of the Merge-over-Move principle proposed in van Gelderen (2004) illustrated in Table 1.

The syntacticization of the pragmatic inference has a morphological reflex. While in former stages of Italian the unverbated and non-unverbated forms basically had the same distribution and interpretation, from Period 4 the form (*si*) *come* conveys a comparative and temporal meaning, while *siccome* mainly, and nowadays only, means ‘because’.⁹ Until Period 4, the diachrony of *siccome* patterns like that of the French comparative/temporal *comme* (Moline 2006). Italian and French differ in the final step of their diachronic change. In French the causal and comparative/temporal relations are morphologically neutralized, being encoded by *comme*. In Italian, the adverbial distinctions morphologically neutralized in the older stages are then restored and encoded by two different items.

Table 1: Diachronic changes in *siccome* in Italian.

Stage I: Period 1 (1200–1375)	Stage II: Periods 2–3 (1376–1691)	Stage III: Period 4 (1692–1840)
One syntactic derivation: comparative CPs Wh-MANNER Movement from vP/TP to CP	One syntactic derivation: comparative CPs Wh-MANNER Movement from vP/TP to CP Pragmatic inference of cau- sality (in specific licensing contexts)	Two syntactic derivations: comparative and causal CPs Causal: wh-SITUATION External merge in CP Change of <i>si</i> from clitic/weak to bound morpheme

⁷ We acknowledge that further research is needed to better link the rise of the pragmatic inference and the conditions in (8). For the moment we can state that correlation between similar manners/extents implies a causal relation.

⁸ Our analysis suggests that in Period 2, the causal meaning only emerges via a pragmatic inference from a comparative reading in the specific licensing contexts. In all our occurrences from Period 2, indeed, the causal and the comparative interpretations were simultaneously available. This analysis aims to account for the initial step of how from a comparative syntactic derivation we arrived to causal *siccome* CPs. A reviewer noted that, if our pragmatic analysis of the initial step were correct, we should probably find cases in Contemporary Italian where we can drive an additional causal meaning by pragmatic inference of the comparative *si come*. Although further research is needed, we believe that such cases exist. In Contemporary Italian, indeed, *siccome* can select NPs: *siccome figlio* ‘as a son’. A sentence like *Siccome figlio, ha ereditato la nostra casa* can mean ‘He inherited our house, as a son, namely in quality of a son’ but also ‘He inherited our house, because he is our son’.

⁹ Depending on the analysis of the formative *si(c)* one adopts – i.e., as a clitic of *come* in a big DP style (Cecchetto 2000) or as the correlative element of the relative clause as proposed for complement clauses in Axel-Tober (2017) – the unverbation can be formalized as a movement from Spec to head in the spirit of van Gelderen (2004) or as a post-syntactic fusion operation of two terminals (Halle and Marantz 1993).

5 Conclusions

This article has demonstrated that an item undergoes semantic extension in specific contexts as defended in various works on grammaticalization (e.g., Diewald 2002; Giacalone Ramat 2015; Heine 2002; Mauri and Giacalone Ramat 2012). The change from a comparative-similative marker to a subordinator expressing causality was formally captured by adopting a free relative clause analysis along the lines of Cinque (2020a). We have proposed that from a derivation in which the comparative/temporal *wh*-phrase moved to the left periphery and was enriched with a pragmatic inference of causality, Italian grammar developed a derivation in which the causal relation was syntactically encoded. This analysis formalizes the syntacticization of discourse pragmatic features adopting Kayne null elements, thereby opening a new theoretical perspective on how null elements may enter the derivation.

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