The grammar of $once^{1}$

On the syntactic representation of aspect and logophoricity

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1 Introduction

The idea that grammatical aspect encodes the speaker's view point of the eventualities reported has become quite influential in the literature on aspect and has inspired further inquiry into the correlation between the aspectual system and the modal system (e.g. Smith 1991, Abraham 2002, Leiss 2008). This paper intends to pursue such a line of thought and addresses the question of a direct correlation between grammatical aspect and logophoricity. In particular, this paper is concerned with the grammar of a restricted number of elements, namely those in bold in (1): English *once*, French *une fois*, Italian *una volta*, and Swedish *väl*.

- (1) a. Eng. **Once** you have started, you can't stop.
 - b. Fr. **Une fois** que tu as commencé, tu ne peux pas finir.
 - c. It. Una volta che inizi, non puoi più smettere.
 - d. Sw. När du **väl** har börjat kan du inte sluta. when you well have started can you not stop

The Swedish adverbial $v\ddot{a}l$ lit. 'well', is semantically equivalent to the elements in the other three languages, although, as can be seen from (1), Swedish $v\ddot{a}l$ is attested in a lower position in the clause. On the other hand, in a nonfinite environment, as shown in (2), no such difference in distribution is found; the adverbials occupy initial position in the clause in all of the languages.

- (2) a. Eng. **Once** at school, he went to talk to the headmaster.
 - b. Fr. **Une fois** à l'école, il est allé parler avec le proviseur.
 - c. It. **Una volta** a scuola, è andato a parlare col preside.
 - d. Sw. **Väl** i skolan gick han för att tala med rektorn.

 well in school-the went he to speak with headmaster-the

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Henceforth, the adverbials in bold in (1)-(2) will be collectively referred to as ONCEadverbials, and they will be glossed as ONCE.

ONCE-adverbials are interestingly polysemic: first and foremost, they introduce an aspectual interpretation of immediacy. In ONCE-constructions, it is understood that the eventuality expressed by the main clause took place immediately after the eventuality expressed by the subordinate clause. Therefore, an expression incompatible with the immediacy-reading, such as after two hours, cannot felicitously be added to such a sentence. This restriction holds for finite clauses (3a-d), as well as non-finite clauses (4a-d).²

- (3) *?Once he entered school, he went to talk to the headmaster after two hours. a. Eng.
 - *?Une fois qu'il était entré à l'école, il est allé parler avec le proviseur après b. Fr. deux heures.
 - c. It. *?Una volta che è entrato a scuola, è andato a parlare col preside dopo due ore.
 - d. Sw. *?När han väl hade kommit fram till skolan gick han för att tala med rektorn efter två timmar.
- *?Once at school, he went to talk to the headmaster after two hours. (4) a. Eng.
 - b. Fr. *?Une fois à l'école, il est allé parler avec le proviseur après deux heures.
 - *?Una volta a scuola, è andato a parlare col preside *dopo due ore*. c. It.
 - d. Sw. *?Väl i skolan gick han för att tala med rektorn efter två timmar.

The oddity of (3a-d) and (4a-d) stems from the fact that after two hours clashes with the interpretation of immediacy induced by ONCE.³

Secondly, ONCE-adverbials add a feature of subjectivity or sentience to the interpretation of the construction. Even if, admittedly, this reading can be very subtle, ONCEadverbials generally express a certain attitude in relation to the proposition. The precise interpretation of this attitude is highly context-dependent: thus, once I got on the train may be understood as roughly equivalent to when at last I got on the train, when I finally managed to get on the train or something of the like. In some cases, the implication is that the event was eventually brought about after some effort and perhaps by the overcoming some hindrance. An utterance such as *once I can, I'll let you know*, implies not only that I cannot let you know

² To some of my Italian consultants, the expression *una volta* in an example such as (3c) can be interpreted in its literal meaning: One day when he had entered school ... Such a reading seems to be available in some of the examples, and is sometimes even salient. However, the Italian consultants can also access the aspectual reading relevant for the following discussion.

³ Henceforth, this interpretation will be referred to as the immediacy-reading. There are alternatives: for instance, we could define the interpretation of ONCE as the "contingency-reading", building on the intuition that the matrix eventuality needs to be contingent on the subordinate eventuality. In other words, nothing can intervene between them. I will not discuss this possibility further.

at this moment, but that there is also the expectation that I hope to be able to as soon as possible.⁴

The third basic property of ONCE-adverbials is only detectable in non-finite environments, or small clauses, not in finite subordination. In non-finite clauses, ONCE comes with an aspectual restriction ensuring that the predication expressed by its complement is a state. Out of this state, ONCE creates a resultant state, hence it implies the result of a culminated event. In non-finite environments, finally, ONCE licenses predicative interpretations where such readings are otherwise not available.

There are cross-linguistic differences as to the distribution of ONCE, but the reading of the examples (1)-(2) above is the same in all four languages. Because of the striking similarities between ONCE-adverbials in these languages, a unified hypothesis should be attempted in the sense that basically the same derivation should be assumed for all four languages. The comparative perspective is justified by the fact that different sorts of evidence are available in the four languages in question, all of which contribute to a general understanding of such constructions.

The main topic of this paper is limited to the grammar of ONCE-adverbials rather than their semantics or the pragmatics. In particular, the purpose is to shed some light on how the interpretational features listed above are grammatically expressed and how they correlate within the clause.

In section 2, the properties of ONCE-adverbials in finite subordinates will be discussed, with some particular attention to Swedish data for reasons that will become obvious as we proceed. In section 3, we will turn to ONCE-adverbials in non-finite clauses.

2 ONCE in finite subordination

To begin with, I assume that ONCE-clauses are extended when-clauses of sorts. The basic reading of ONCE-clauses is a temporal one, and it is licit to assume the semantic analysis of a when-clause essentially carries over to the ONCE-clause (cf. Kratzer 1995, Bonomi 1997). Given this assumption, it is natural that the relevant usage of ONCE-adverbials is restricted to subordinate clauses. The aspectual reading of immediacy associated with ONCE is excluded from main clause environments. Compare the examples in (5a-d) with those in (6a-d).

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⁴ This is not to say that the attitude in question always is a positive one. Of course, *once I got off the train I was robbed* can express surprise or indignation, in addition to the immediacy interpretation. There is, however, some variation among consultants for the four languages concerning to what extent ONCE-clauses can be felicitously used in negative contexts.

- (5) a. Eng. Once he was inside the living room, he heard the phone ringing.
 - b. Fr. Une fois qu'il était entré dans le séjour, ...
 - c. It. Una volta che era entrato in soggiorno, ...
 - d. Sw. När han väl var inne i vardagsrummet, ...
- (6) a. Eng. Once he was inside the living room.
 - b. Fr. Une fois il était entré dans le séjour.
 - c. It. Una volta era entrato in soggiorno.
 - d. Sw. ?Han hade väl kommit in i vardagsrummet. he had well entered living room-the

In the main clauses in (6), the adverbials in question take on their lexical reading. In English, French and Italian, they are roughly interpreted as 'one day', 'once upon a time', or something of the like. The Swedish example (6d) is not perfectly grammatical but is understood to mean, more or less, 'he was happily/safely inside the living room'. From this, the conclusion can be drawn that ONCE-adverbials are dependent on a subordinate Comp. In the following section (2.1), it will be shown that ONCE, despite some appearances, is not to be understood as a subordinate conjunction. Then, in section 2.2, some conclusions about the derivation of the ONCE-construction will be drawn on the basis of Swedish data. The surface distribution of ONCE-adverbials in Swedish, namely, shows properties that are interesting when compared with those of the other languages under examination. Finally, in section 2.3, I will make an attempt at defining the sentence-initial position of ONCE in the languages under discussion.

2.1 ONCE is not a subordinate conjunction

It may seem tempting to suggest that ONCE in (5a-d) has the status of a subordinate conjunction. However, such a hypothesis is hardly tenable for any of the languages under

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⁵ ONCE-adverbials share the immediacy feature with another group of adverbial elements namely the so called correlative ones, roughly equivalent to English *barely*: Fr. à *peine*, It. *appena*, Sw. *knappt* (as for Italian *appena*, see Giorgi & Pianesi 1997: 126-133). The crucial difference, however, lies in the fact that *barely*-adverbials can appear in main clauses. In (i), the *barely*-adverbials introduce the main clause, followed by a temporal subordinate.

⁽i) a. Eng. Barely had he come into the living room, when the telephone rang.

b. Fr. À peine était-il entré dans le séjour quand le téléphone a sonné.

c. It. Appena era entrato in soggiorno che ha squillato il telefono.

d. Sw. Knappt hade han kommit in i vardagsrummet förrän telefonen ringde.

The *barely*-construction in (i) and the ONCE-construction in (5) are in a sense the mirror reflex of each other. They describe, by and large, a situation in which the subject enters the room and the telephone immediately rings. However, in (5) this restriction is expressed in the subordinate clause whereas in (i) it is expressed in the main clause. The *barely*-construction is set aside here, but our discussion elaborates on some crucial insights from Giorgi & Pianesi's treatment of Italian *appena*.

⁶ Such an analysis is indeed suggested by Togeby (1982: 481), where French *une fois que* is described as "a sort of" complex conjunction.

consideration, and we will immediately see how it is ruled out by the cross-linguistic evidence, before proceeding with the analysis.

In finite subordinates, English ONCE can co-occur, at least marginally, with the overt complementizer that, unlike conjunctions such as *when*.⁷

- (7) Eng. Once (that) he was inside the living room, ...
- (8) Eng. When (*that) he was inside the living room, ...

In Romance, the overt complementizer, French *que* and Italian *che*, is mandatory with ONCE but equally excluded with the subordinate conjunctions: Fr. *quand*, It. *quando*.

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(9) a. Fr. Une fois *(qu') il était entré dans le séjour, ...
b. It. Una volta *(che) era entrato in soggiorno, ...
'ONCE *(that) he had entered...'
(10) a. Fr. Quand (*qu') il était entré dans le séjour, ...
b. It. Quando (*che) era entrato in soggiorno, ...
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'when (*that) he had entered...'

Hence, ONCE does not have the distribution of a subordinate conjunction. A hypothesis that comes to mind, but which must be abandoned as well, is that expressions such as *une fois que / una volta che* are complex subordinate conjunctions on a par with, for instance, Fr. *bien que* and It. *benché* 'despite' '(al)though'. This idea is falsified in view of the distribution of these elements in non-finite clauses, as shown in (11a-b) and (12a-b). In fact, *bien que / benché* appear in this form when they introduce a non-finite predicative phrase as in (11a-b). The complementizer cannot be omitted.

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(11) a. Fr. Bien *(que) entré dans le séjour, ...b. It. Ben *(ché) entrato in soggiorno, ...'though entered in the living room...'
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In the same sort of environment, *une fois / una volta* on the other hand cannot be followed by the complementizer as shown in (12).

Still, not all speakers are inclined to accept it in a case such as (7), and among those who do, some find the version without the complementizer preferable.

⁷ Admittedly, the grammatical status of (7) is slightly unclear to me. The explicit complementizer in the ONCE-construction is attested, as in (i).

⁽i) I knew my firm would promote me, once that it became clear how hard I worked (http://www.usingenglish.com/forum/ask-teacher)

- (12) a. Fr. Une fois (*que) entré dans le séjour, ...
 - b. It. Una volta (*che) entrato in soggiorno, ... 'ONCE (*that) entered in the living room ...'

Arguably, then, *bien que / benché* are lexemes, formed out of the incorporation of the complementizer, whereas ONCE and the complementizer are separate lexical items.

2.2 The floating property of Swedish ONCE

The distribution of ONCE in Swedish requires some attention. As we have already seen in (1d), Swedish ONCE remains in a lower position in the finite clause, and the temporal subordinate conjunction när 'when' is made explicit. Consider the example in (13).

(13) Sw. När han väl var inne i vardagsrummet, ringde telefonen. when he ONCE was inside living room-the rang phone-the 'once he was inside the living room, the phone rang'

Further, it is possible for Swedish ONCE to be raised to a position in the left periphery as shown in (14a), where it precedes the conjunction. ONCE can also appear in a position between the conjunction and the subject, as in (14b). In both cases, the interpretation of the expression is unaltered, hence equal to that of (13). However, ONCE cannot replace the conjunction, as in (15).⁸

- (14) a. Sw. Väl när han var inne i vardagsrummet, ringde telefonen. ONCE when he was inside living room-the rang phone-the han var b. Sw. När väl inne i vardagsrummet, ringde telefonen. when ONCE he was inside living room-the rang phone-the 'once he was inside the living room, the phone rang'
- (15) Sw. *Väl han var inne i vardagsrummet, ringde telefonen.

 ONCE he was inside living room-the rang phone-the

⁸ Not all Swedish speakers accept *väl* in all of the positions discussed in the text. However, the various cases are attested in actual usage, as for instance in (i)-(ii).

⁽i) Väl när vi börjar köra är allt så lugnt ... ONCE when we start to go is all so calm ... (www.flashback.org/t510254p84)

⁽ii) Ska vi tillåta ändringar när väl vi har startat genomförandefasen? Shall we allow changes when ONCE we have started realization-phase-the (www.kamp.se/pdf/Andringshantering.pdf)

Swedish ONCE, hence, is clearly not a subordinate conjunction. Rather, its distribution resembles that of a floating quantifier in the sense of Sportiche (1988).

The positions of ONCE in the Swedish finite subordinate 2.3

I will now propose a unified hypothesis that captures the surface differences between the four languages based on the analysis of the cross-linguistic data discussed here. First, consider the fact that in Swedish, unlike the other three languages, it appears that ONCE can "float". 10 Suppose, then, that the distribution of ONCE in Swedish reveals the underlying derivation of the ONCE-construction generally. In other words, ONCE-adverbials generally originate in a lower position. In Swedish, ONCE is spelled out in this position (ONCE^A in (16)), while in English and Romance, ONCE is overtly raised to a higher position in the left periphery (ONCE^B in (16)).

(16)
$$[ONCE^B \dots [CP COMP [\dots ONCE^A \dots [vP V [VP VP]]]]]$$

In (16), ONCE^A is in the finite midfield. Judging from (1d) above, here repeated as (17), the position of ONCE^A is higher than the auxiliary verb in a Swedish subordinate clause (that is, ONCE is higher than Aux in the structure proposed in Platzack 2010: 82).

Then, consider the position of ONCE in relation to the sequence of adverbs proposed by Cinque (1990). ONCE^A has to appear higher in the structure than aspectual adverbials such as no longer (18) and again (19).

⁹ Also, note that it is not a general property of subordinate conjunctions to be able to introduce non-finite clauses in all of the languages in question. In particular, the temporal conjunction is acceptable as a small clause introducer in English, but not in the three other languages under consideration.

a. Eng. Signal strength is unstable when inside a building.

b. Fr. *... quand dans un édifice.

^{*...} quando dentro un edificio. c. It.

^{*...} när inne i en byggnad. d. Sw.

¹⁰ As shown in Giorgi & Pianesi (1997), Italian appena 'barely' to some extent displays a floating property in main clauses. However, according to their description of the data, different readings are associated with appena in its various surface positions. Such differences are harder to detect in the case of ONCE-floating in Swedish subordinates.

(18) a. Sw. När de väl inte längre hörde några ljud when they ONCE no longer heard any sounds ... trodde de att faran var över.
... they thought that the danger was over.

b. Sw. *När de inte längre väl hörde några ljud when they no longer ONCE heard any sounds

(19) a. Sw. När hon väl återigen vaknade upp
when she ONCE again woke up

... kände hon sig bättre.

... she felt better.

b. Sw. ??När hon återigen väl vaknade upp, ... when she again ONCE woke up

I conclude that the basic position of ONCE^A dominates the projections associated with again and no longer, that is, repetitive and terminative aspect in the theory of Cinque (1999: 106).

The Aspect Phrase occupied by ONCE^A in (20) is the lowest position in the clause where ONCE^A can appear, hence by assumption the starting point of ONCE in the structure. For concreteness, let us assume that this projection is to be identified with an aspectual node associated with immediacy. As for the higher projections in Cinque's sentence structure, the ones mainly associated with temporal and modal readings, it is more difficult to establish a precise ordering between the corresponding adverbs and ONCE. Swedish ONCE can appear before and after a temporal adverbial such as then (21) and a modal adverbial such as surprisingly (22).

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(21) Sw. När han (väl) då (väl) hade läst brevet, when he (ONCE) then (ONCE) had read letter-the ... förstod han allt.
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... he understood everything.

(22) Sw. När han (väl) förvånansvärt nog (väl) dök upp, when he (ONCE) surprisingly (ONCE) showed up ... blev alla upprörda. ... everybody was upset.

Hence, in the higher structure, Swedish ONCE displays its "floating" property, as illustrated in (23).

(23) ... (ONCE) ... [MoodP surprisingly ... (ONCE) ... [TP then ... [AspP (ONCE) [AspP again ... (*ONCE) [AspP no longer ... (*ONCE) ... [VP VP]]]]]]

To summarize, ONCE originates in an aspectual position in the midfield and then raises to the higher position, indicated as ONCE^B in (16). This movement is superficially visible only in Swedish but is assumed to hold for the languages under consideration here.

2.4 The projection dominating ONCE-constructions

The position of ONCE^B in (16) is obviously in the left periphery, higher than the subjunction, in all of the languages in question. Considering that our basic assumption is that ONCE-clauses are in fact "extended *when*-clauses", then, this conjecture is supported by the fact that, in Swedish, the subjunction *när* 'when' is made explicit in the finite subordinate.

Furthermore, consider that ONCE-clauses, quite as much as *when*-clauses, can be "restrictive" (e.g. Farkas & Sugioka (1983); (24) = their (1e)).

- (24) Small fish are widespread when big fish are rare.
- (25) Small fish are widespread once big fish are rare.

In fact, in such cases the Swedish subordinate conjunction can be realised as conditional *om* 'if'.

(26) Sw. Småfisk är vanlig om väl större fisk är ovanlig. small fish is common if ONCE bigger fish is rare 'once/whenever big fish are rare, small fish are common'

Since the subordinate conjunction can be realized only in Swedish, as in the examples in (1a-d) here repeated as (27a-d), the surface realization of the elements in the left periphery obviously is subject to some microvariation, separating Swedish, on the one hand, from English and Romance on the other.

- (27) a. Eng. Once he had entered the school, he went to talk to the headmaster.
 - b. Fr. Une fois qu'il est entré à l'école, il est allé parler avec le proviseur.
 - c. It. Una volta che è entrato a scuola, è andato a parlare col preside.
 - d. Sw. När han väl hade kommit till skolan ...
 when he well had arrived at school-the
 ... gick han för att tala med rektorn.

Suppose that, in English and Romance, ONCE moves through the position of the subjunction itself, hence blocking the insertion (or external merge) of *when*.

English, French, and Italian

(28)
$$[ONCE^B ... [CP ONCE COMP [AspP ONCE^A ... [VP VP]]]]$$

In other words, in English and Romance, the intermediate occurrence of ONCE substitutes for the subjunction, checking whatever features are associated to the subjunction. In Swedish (27d), however, ONCE appears in some of its lower positions while the conjunction *när* 'when' is inserted in CP.

Swedish
(29)
$$[CP \text{ n\"{a}r COMP } ... (ONCE) [AspP (ONCE^A) ... [VP VP]] = (27d)$$

In the case of (14a), here repeated as (30), ONCE moves beyond the subordinate conjunction to the higher position ONCE^B that remains to be defined, as illustrated in (31).

(30) Sw. Väl när han var inne i vardagsrummet, ringde telefonen.

ONCE when he was inside living room-the rang phone-the

Swedish
(31) $[ONCE^B \dots [CP \text{ n\"{a}r COMP } [AspP ONCE^A \dots [VP VP]]]] = (30)$

I suggest the reason that such a movement is not blocked by Minimality lies in the fact that the aspectual feature carried by ONCE makes it distinct from the intervening conjunction. Hence, the subjunction in (30)/(31) is not of the same kind as ONCE in the familiar sense (Rizzi 1990).¹¹

However, the topmost projection dominating the structure, the one lexicalized by ONCE^B in (28) and (31), makes the clause qualitatively different from the *when*-clause. Consider that ONCE has a certain similarity with evaluative adverbials. Presumably, this is so because of the meaning of "finally", "at last" which can be associated to the expression, as for instance in (32)-(33).

Given the structure in (31), I assume this restriction follows from (some version of) the doubly-filled Comp filter, as in traditional accounts. The fact that no such restriction is operative in English and Romance is of course compatible with the present view.

¹¹ Also, note that, in Swedish, the complementizer att 'that' cannot be made explicit (i)-(ii).

⁽i) Sw. *När att han väl hade kommit till skolan, ... when that he ONCE had come to school-the

⁽ii) Sw. *Väl när att han hade kommit till skolan, ...
ONCE when that he had come to school-the

[he had been trying for months without succeeding, so ...]

- (32) Once he managed, everybody was relieved.
- (33) He said that, once he managed, everybody would be relieved.

The similarity with evaluative expressions lies in the fact that the perspective can switch in subordinate environments: while, in the salient reading of (32), it is the speaker's attitude that is reflected; (33) rather reflects the attitude of the superordinate subject ("he"). That is to say, in (33) the reading is shifted from the "source" to the "self" in Sells' (1987) terminology. Suppose, then, that ONCE-constructions are indeed associated with a logophoric predication. This means that the position of ONCE^B is not to be identified with any of the projections assumed in the left periphery of Rizzi (1997). For concreteness, suppose the position of ONCE^B is identified with the Sentience Phrase of Tenny & Speas (2003: 333-334). 12

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(34) [S_{entienceP} \text{ ONCE}^B \dots [CP \text{ ONCE} COMP \dots [A_{SpP} \text{ ONCE}^A \dots [VP \text{ VP}]]]] = (27a-c)
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- (35) $[SentienceP ONCE^B ... [CP n "ar COMP ... [AspP ONCE^A ... [VP VP]]]] = (27d)$
- (36) $[SentienceP ONCE^B \dots [CP n\"{a}r COMP \dots [AspP ONCE^A \dots [VP VP]]]] = (30)$

To summarize, in all of the ONCE-constructions, ONCE is associated with the immediate Aspect Phrase and with the logophoric predicate. The difference between these examples lies in the fact that ONCE is spelled out in different positions of the dependency.

The hypothesis that ONCE-clauses are headed by a logophoric predicative phrase has some consequences for the analysis of their distribution. Consider that *when*-clauses can have the distribution of a DP, that is, they can function as arguments (e.g. Hall & Caponigro forthcoming). Here lies perhaps the most evident grammatical difference between ONCE-clauses and *when*-clauses: while *when*-clauses can appear as arguments (37a-b), ONCE-clauses cannot (38a-b).

(37) a. Eng. I hate when you do that.

b. Fr. Je déteste quand tu fais ça.

c. It. Odio quando fai così.

d. Sw. Jag hatar när du gör så.

(38) a. Eng. *I hate once you do that.

b. Fr. *Je déteste une fois que tu fais ça.

c. It. *Odio una volta che fai così.

b. Sw. *Jag hatar när du väl gör så.

¹² In the structure (34)-(36), as well as in the previous and following ones, space is left open for a more proliferated sentence structure if such a move should prove justified. Nothing crucial hinges on this choice.

Note that it is not obvious how to explain the unacceptability of (38a-b) on purely aspectual grounds. After all, it is possible to imagine a setting where (38) could be appropriate with the relevant aspectual interpretation. Instead, the difference between (37a-b) and (38a-b) may be accounted for on the hypothesis that ONCE-clauses are indeed headed by a logophoric phrase. In fact, logophoric CP:s are selected by a restricted number of predicates, essentially reportive ones, which allow for the perspective shift used associated with logophoricity (e.g. Reuland 2006). Presumably, then, the unacceptability of (38a-b) emerges from a mismatch of the selectional properties of hate and the logophoric predicate heading the ONCE-clause.

I assume that (34)-(36) correctly describe the derivation of a finite ONCE-clause and turn to the analysis of non-finite ONCE-clauses.

3 ONCE in non-finite subordination

When ONCE introduces an adverbial nonfinite clause, it carries the immediacy feature but is otherwise different from ONCE in the finite subordinate clause. First and foremost, in the non-finite clause, ONCE comes with an aspectual restriction ensuring that the predication describes a state. Secondly, ONCE licenses predicative readings. These properties will be shown under the following two sections.

3.1 The aspectual restrictions of ONCE in non-finite subordination

Firstly, consider the case of prepositional predicates. In English and Swedish, only stative PP:s can be selected by ONCE (39a-b), while dynamic PP:s are disallowed (40a-b).

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(39) a. Eng. Once at school, ...
b. Sw. Väl i skolan ...
(40) a. Eng. *Once to school, ...
b. Sw. *Väl till skolan ...
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Romance offers similar evidence. As is well known, prepositions such as $a \neq 0$ en etc. can express both direction (41a-b) and location (42a-b).

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(41) a. Fr. Je vais à l'école
b. It. Vado a scuola
'I go to school'
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(42) a. Fr. Je suis à l'école
b. It. Sono a scuola
'I am at school'
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In the ONCE-construction, however, such prepositions are disambiguated; they can only describe location, hence a state.

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(43) a. Fr. Une fois à l'école, ...b. It. Una volta a scuola, ...'ONCE at school, ...' (only location)
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In all the languages, the dynamic PP is acceptable in the construction only if some expression is added that creates the premise for a state reading: *once on his way to school*, ... / *une fois en route pour l'école*, ... etc.

Furthermore, for a small group of Swedish prepositions and adverbs, a morphological distinction is made between location and direction. Thus, the locative expression hemma '(at) home' (45) is formed out of the directional expression hem '(to) home' (44), through the suffix -a.

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(44) Sw. Hon gick hem. she went to-home (45) Sw. Hon var hemma. she was at-home
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Not surprisingly, only the locative form can be used in the ONCE-construction.

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*Väl hem
(46) Sw.
                              kände
                                      hon sig trött.
             ONCE to-home
                              felt
                                      she
                                              tired
             Väl hemma
                              kände
                                      hon sig trött.
(47) Sw.
             ONCE at-home
                              felt
                                      she
                                              tired
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The aspectual restriction is equally operative when ONCE selects verbal complements. Past participle phrases as in (48a-d) describe resulting states. In (49a-d), ONCE adds the usual interpretation of immediacy but does not alter the aspectual interpretation otherwise.

- (48) a. Eng. Captured and plundered by the barbarians, the town fell into ruins.
 - b. Fr. Prise et saccagée par les barbares, la ville est tombée en ruine.
 - c. It. Presa e saccheggiata dai barbari, la città è caduta in rovina.
 - d. Sw. Intagen och plundrad av barbarerna, föll staden i ruiner.
- (49) a. Eng. Once captured and plundered by the barbarians, the town fell into ruins.
 - b. Fr. Une fois prise et saccagé par les barbares, la ville est tombée en ruine.
 - c. It. Una volta presa e saccheggiata dai barbari, la città è caduta in rovina.
 - d. Sw. Väl intagen och plundrad av barbarerna föll staden i ruiner.

In other words, as before, an adverbial such as *after ten years* can be added to the examples in (48a-d), but not to those in (49a-d), showing that the basic aspectual feature of immediacy is the same in the non-finite as in the finite subordination.

Present participle and gerund clauses, on the other hand, normally describe a process, as in (50a-d). The addition of ONCE to such examples gives rise to very marked or unacceptable results, as in (51a-d).

- (50) a. Eng. Running towards the emergency exit, we cried for help.
 - b. Fr. Courant vers la sortie d'émergence, nous avons crié au secours.
 - c. It. Correndo verso l'uscita di emergenza, abbiamo gridato aiuto.
 - d. Sw. Springande mot nödutgången ropade vi på hjälp.
- (51) a. Eng. ?*Once running towards the emergency exit, ...
 - b. Fr. *Une fois courant vers la sortie d'émergence, ...
 - c. It. *Una volta correndo verso l'uscita di emergenza, ...
 - d. Sw. ??Väl springande mot nödutgången, ...

The sentences in (51a-d) are found to be deviant to various degrees by my consultants. Generally speaking, though, it appears to be less difficult to find acceptable examples of present participles/gerunds in the ONCE-construction in Germanic than in Romance. Examples (52a-b)-(53a-b) are found grammatical by some English speakers and most Swedish ones.

- (52) a. Eng. "Once sitting in his car, he realized he had forgot to lock the front door.
 - b. Sw. Väl sittande i bilen kom han på att han hade glömt att låsa ytterdörren.
- (53) a. Eng. "Once lying on the ground, he was severely beaten."
 - b. Sw. Väl liggande på marken blev han svårt misshandlad. 13

In Romance, the direct equivalents to such examples are straightforwardly excluded.

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¹³ To one Swedish consultant, (53b) is peculiar because of the subjective interpretation we have discussed earlier: In some contexts, in fact, ONCE may come to a reading "at last", expressing a positive evaluation. Such a reading is at odds with the evidently negative scene setting assumed in (53b).

- *Une fois s'asseyant dans sa voiture, ... (54) a. Fr.
 - b. It. *Una volta sedendo nella sua macchina,
- (55) a. Fr. *Une fois s'étendant par terre, ...
 - b. It. *Una volta sdraiandosi per terra, ...

The intended readings, the ones corresponding to (52)-(53), can only be expressed by past participles, as in (56a-b)-(57a-b).

- (56) a. Fr. Une fois assis dans la voiture, ...
 - b. It. Una volta seduto nella sua macchina, ... 'ONCE seated in his car...'
- (57) a. Fr. Une fois étendu par terre, ...
 - b. It. Una volta steso per terra, ... 'ONCE stretched out on the ground ...'

One interpretation that suggests itself is that Germanic and Romance present participles/gerunds are different in a rather radical fashion: Whereas in Germanic, such verb forms can express states, in Romance they always describe processes, at least when used as adverbials.14

The case in which ONCE selects an adjectival predication, finally, is relatively uncomplicated. In (58a-d), the adjectival small clauses express states. The only difference introduced in (59a-d) is the immediacy reading, which entails that a change has occurred from a previous state to the present one.

- (58) a. Eng. Satisfied with the outcome, she left.
 - b. Fr. Contente avec le résultat, elle est partie.
 - c. It. Contenta del risultato, è partita.
 - d. Sw. Nöjd med resultatet åkte hon sin väg.
- (59) a. Eng. Once satisfied with the outcome, she left.
 - b. Fr. Une fois contente avec le résultat, elle est partie.
 - c. It. Una volta contenta del risultato, è partita.
 - Väl nöjd med resultatet åkte hon sin väg. d. Sw.

If a unified account of ONCE-clauses is to be attempted, we should assume that ONCE in nonfinite adverbials lexicalizes an aspectual projection as well as logophoric predication as in

¹⁴ French and Italian present participles describe states when they are used as adjectives (cfr. une fois présent.../ una volta presente... 'once present...').

the case of finite subordination. Hence, the structure of a non-finite ONCE-clause is (at least) as indicated in (60), where X stands for any lexical category.

(60)
$$[PredP ext{ ONCE } [AspP ext{ ONCE } ... [XP ext{ XP}]]]$$

Considering the data, ONCE in (60) comes with a requirement ensuring that its complement denotes a state. In these structures, ONCE is akin to an aspectual operator as assumed in Discourse Representation Theory (see, for example, de Swart 1998). Under such an approach, the verbal aspect (the Aktionsart) of the basic predication and the view point aspect (the grammatical aspect) are taken to be two different levels of representation of the same system. A number of aspectual operators are assumed that transform the aspectual properties of the basic predication, or the "eventuality description" in de Swart's terms, into a new predication, or a new eventuality description, with possibly different aspectual properties. Suppose ONCE lexicalizes an aspectual operation: from what we have seen, ONCE appears to select states and create resultant states, roughly speaking. ¹⁵

Note that no such aspectual restriction is operative in finite subordinates. My consultants accept states (61a-d), processes (62a-d), and events (63a-d) in finite ONCE-clauses. 16

[She didn't go out a lot while she was living in a smaller town, but then she moved and ...]

- (61) a. Eng. Once she lived in London, she started to go out more often.
 - b. Fr. Une fois qu'elle habitait à Londres, elle a commencé à sortir plus souvent.
 - c. It. Una volta che abitava a Londra, ha cominciato a uscire più spesso.
 - d. Sw. När hon väl bodde i London började hon gå ut oftare.[After some time of convalescence, she recovered and went for a run in the park but...]
- (62) a. Eng. Once she was running she began to feel a pain in her side.
 - b. Fr. Une fois qu'elle courait, elle a commencé à sentir une douleur au côté.
 - c. It. Una volta che correva ha cominciato a sentire un dolore al fianco.
 - d. Sw. När hon väl sprang kände hon en smärta i sidan.

¹⁵ On this point, I am elaborating on Giorgi & Pianesi's (1997: 128) account for Italian *appena*.

¹⁶ Some consultants for all the languages under consideration preferred the inceptive version of the process predicates (*once she started running*, ...), but (62a-d) were found to be acceptable as well.

- (63) a. Eng. Once we came out, we immediately found ourselves immersed in the fog.
 - b. Fr. Une fois que nous sommes sortis, nous nous sommes immédiatement retrouvés plongés dans le brouillard.
 - c. It. Una volta che siamo usciti, immediatamente ci siamo trovati immersi nella nebbia.
 - d. Sw. När vi väl kom ut fann vi oss genast omslutna av dimman.

Such a difference between finite clause ONCE and small clause ONCE presumably arises from the fact that these elements are operating on different levels of structure. Non-finite ONCE is quantifying over the verbal aspect. Suppose, as in Discourse Representation Theory, that such an operation induces closure of the aspectual system, after which the aspectual system, and with it the lower part of sentence structure, is opaque to any further operations (de Swart 1998). In finite clauses, ONCE scopes over the finite CP and can no longer access the lower part of sentence structure. Hence, no aspectual restriction is registered.

To summarize so far, ONCE introduces a predication in finite as well as non-finite clauses. Furthermore, in non-finite clauses it acts like an aspectual operator coercing states into resultant states.

3.2 Predication in non-finite ONCE clauses

In non-finite clauses, ONCE has the effect of licensing predicative readings that are otherwise unavailable. First, consider the case of nominal predicates. Nominal expressions appear to be barred from the kind of secondary predication contexts we have been considering so far.

- (64) a. Eng. *President, he raised his own salary.
 - b. Fr. *Président, il a augmenté son salaire.
 - c. It. *Presidente, ha aumentato il proprio salario.
 - d. Sw. *President höjde han sin egen lön.
- (65) a. Eng. *Grandfather, he learned how to cook.
 - b. Fr. *Grand-père, il a appris à faire la cuisine.
 - c. It. *Nonno, ha imparato a cucinare.
 - d. Sw. *Farfar lärde han sig att laga mat.

- (66) a. Eng. *Italian, she could vote in the parliamentary elections.
 - b. Fr. *Italienne, elle a pu voter dans les élections parlementaires.
 - c. It. *Italiana ha potuto votare nelle elezioni parlamentari.
 - d. Sw. *Italienare kunde hon rösta i parlamentsvalet.

When introduced by ONCE, however, the same nouns can readily appear in non-finite predicative clauses as in (67a-d)-(69a-d).

- (67) a. Eng. Once president, he raised his own salary.
 - b. Fr. Une fois président, il a augmenté son salaire.
 - c. It. Una volta presidente, ha aumentato il proprio salario.
 - d. Sw. Väl president höjde han sin egen lön.
- (68) a. Eng. Once grandfather, he learned how to cook.
 - b. Fr. Une fois grand-père, il a appris à faire la cuisine.
 - c. It. Una volta nonno, ha imparato a cucinare.
 - d. Sw. Väl farfar lärde han sig att laga mat.
- (69) a. Eng. Once Italian, she could vote in the parliamentary elections.
 - b. Fr. Une fois italienne, elle a pu voter dans les élections parlementaires.
 - c. It. Una volta italiana, ha potuto votare nelle elezioni parlamentari.
 - d. Sw. Väl italienare kunde hon rösta i parlamentsvalet.

In (67)-(69), the aspectual contribution of ONCE is crucial: It has the effect of licensing the nouns as stage-level (cf. Kratzer 1995). That is to say, (67)-(69) describe states just as (64)-(66) do, whereas in (67)-(69) a transition is implied from a previous state to the present one. When the nonfinite predicate is participial, it lends itself more easily to such a reading already without the support of ONCE. In such cases, the contrast observed is less sharp. Consider the participial clauses in (70a-d)-(71a-d) and compare with (72a-d)-(73a-d).

- (70) a. Eng. ?Married, they went to India.
 - b. Fr. ?Mariés, ils sont allés à l'Inde.
 - c. It. ?Sposati, sono andati in India.
 - d. Sw. ?Gifta åkte de till Indien.
- (71) a. Eng. ?Employed, she got more important tasks.
 - b. Fr. ?Employée, elle a eu des tâches plus importantes.
 - c. It. ?Impiegata, ha avuto compiti più importanti.
 - d. Sw. ?Anställd fick hon överta allt viktigare sysslor.

- (72) a. Eng. Once married they went to India.
 - b. Fr. Une fois mariés, ils sont allés à l'Inde.
 - c. It. Una volta sposati, sono andati in India.
 - d. Sw. Väl gifta åkte de till Indien.
- (73) a. Eng. Once employed, she got more important tasks.
 - b. Fr. Une fois employée, elle a eu des tâches plus importantes.
 - c. It. Una volta impiegata, ha avuto compiti più importanti.
 - d. Sw. Väl anställd fick hon överta allt viktigare sysslor.

For most consultants, (72)-(73) are clearly better than (70)-(71), though the contrast is less sharp than in the case of nominal predicates as in (64)-(66) vs. (67)-(69). Presumably, this is so because the participles *married* and *employed* lend themselves to a stage-level reading more easily than nouns such as *president* or *grandpa*.¹⁷

This property of ONCE sheds some light on a long standing issue in Italian non-finite syntax. It has been reported in various studies (for example, Belletti 1990, Cinque 1990) that unergative predicates, unlike unaccusatives or passives, cannot be used in Italian past participial small clauses. Consider the contrast between (74)-(75) and (76) ((76) = (56b) in Cinque 1990: 24).

- (74) It. Arrivata in stazione chiamò casa. arrived at station (she) called home
- (75) It. Detenuta da tre anni senza processo detained since three years without trial
 - ... è stata finalmente liberata da ogni sospetto.
 - ... she was finally freed from all suspicions.
- (76) It. *?Parlato con Mario, andò a casa.

 spoken with Mario (he) returned home

However, when introduced by ONCE, the unergative past participial improves, as in (77) (from Cinque 1990: 26 n. 25).

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¹⁷ In Swedish, the support of ONCE is crucial for licensing a stage-level reading. In Romance, however, it appears that nominals, at least marginally, can be licensed as stage-level predicates by purely contextual means:

⁽i) Fr. Il avait promis de changer les lois discriminatoires et, président, il a initié une reforme en respectant l'engagement pris avec les électeurs.

⁽ii) Sw. *Han hade lovat att ändra den diskriminerande lagstiftningen och president påbörjade han genast reformarbetet i enlighet med löftet till väljarna.

^{&#}x27;he had promised to change the discriminating laws and, president, he immediately initiated a reform, honouring his commitment with the voters'

Interestingly, while my French consultants tend to accept (i), the Swedish equivalent (ii) is sharply ungrammatical. This indicates that Swedish nominal syntax is substantially different from that of Romance.

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(77) It. ?Una volta parlato a Piero, Maria ...

ONCE spoken with Piero, Maria ...
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I suggest that this is to be understood in the following way: Italian past participial clauses express a resultant state and this interpretation is not readily available with an unergative predicate, which in itself is typically atelic. In order to express a state resulting from a culminated event, the unergative past participle needs aspectual licensing of some kind. In a finite clause, this is taken care of by the auxiliary avere 'have' which creates the premises for a resultant state reading (following the Discourse Representation Theory as outlined in de Swart 1998). In the absence of the finite auxiliary, as in (77), the unergative participle needs the support of ONCE which induces coercion of the participial event to a resultant state-reading.

That is to say, in all of (67)-(69), (72)-(73), and (77), the predicative readings are licensed by the aspectual feature of ONCE. However, in the following cases, the aspectual value of ONCE is not in itself sufficient to license such predicative readings. Consider the examples in (78a-d)-(79a-d), and compare with those in (80a-d)-(81a-d).

- (78) a. Eng. Inside the living room the telephone rang.
 - b. Fr. Dans le séjour le téléphone a sonné.
 - c. It. In soggiorno, il telefono ha squillato.
 - d. Sw. Inne i vardagsrummet ringde telefonen.
- (79) a. Eng. At the office the atmosphere was gloomy.
 - b. Fr. Dans le bureau l'atmosphère était sombre.
 - c. It. In ufficio l'atmosfera era cupa.
 - d. Sw. På kontoret var stämningen dyster.
- (80) a. Eng. #Once inside the living room, the telephone rang.
 - b. Fr. #Une fois dans le séjour, le téléphone a sonné.
 - c. It. #Una volta in soggiorno, il telefono ha squillato.
 - d. Sw. #Väl inne i vardagsrummet ringde telefonen.
- (81) a. Eng. #Once at the office the atmosphere was gloomy.
 - b. Fr. #Une fois dans le bureau l'atmosphère était sombre.
 - c. It. #Una volta in ufficio l'atmosfera era cupa.
 - d. Sw. #Väl på kontoret var stämningen dyster.

The prepositional phrases in (78) and (79) are place adverbials describing where the telephone is ringing and where there is a gloomy atmosphere. In other words, the implicit argument of the prepositional expressions is bound by the matrix subject. As for (80)-(81), the symbol "#" is intended to mean that the expressions are semantically odd as they stand, but acceptable

in the appropriate context. Suppose then that the implicit subject of (80) is walking from the kitchen into the living room and then hears the phone ringing. The PP acquires a small clausereading controlled by the implicit subject, and nothing is said about the whereabouts of the phone. In (81), likewise, there is a discourse-salient subject who reaches the office and discovers that the atmosphere is gloomy. In other words, an extra argument has been added to the structures in (80)-(81), the reference of which is provided by context. In the absence of an explicit context, the argument is perhaps most naturally understood as the speaker.

It follows from our previous line of thought that ONCE indeed introduces a predication and an additional argument. (82a) is the simplified description of (78), where the PP is bound by the matrix subject. (82b) corresponds to (80), where, by hypothesis, the PP is bound by the "sentient" argument introduced by ONCE.

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(82) a. [CP][PP][X_i] in the living room] ... the telephone<sub>i</sub> ...
       b. [CP [PredP ONCE y_i [PP x_i in the living room]] ... the telephone_i ... ]
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The premise for the predicative interpretation is clearly the aspectual feature, since ONCE entails a change-of-state reading. Still, crucially, the additional argument cannot merely be ascribed to the change-of-state reading. The salient reading of (66) is not when the telephone had entered the living room it rang, but rather when I had entered the living room the telephone rang.¹⁸ The sentient antecedent is provided by the logophoric argument linked to ONCE.

4 **Conclusion**

Our survey of ONCE-adverbials has led us to the following claims and conclusions. To begin with, ONCE-clauses are extended when-clauses. In Swedish, in fact, ONCE co-occurs with the temporal subordinate conjunction while in English and Romance, by hypothesis, ONCE substitutes for the temporal conjunction in the finite subordinate. The differences with respect to when-clauses can be summarized in four points: First and foremost, in all clauses, be they finite or non-finite, ONCE signals immediacy. The eventuality expressed by the main clause is immediately contingent on the eventuality expressed by the subordinate clause. Second, ONCE

¹⁸ In decontextualized examples such as (80) and (81) the salient reading tends to be the one in which the implicit subject is identified with the speaker. In context, however, the implicit subject can be any discourse salient participant (Mary walked into her living room and, once inside the living room etc.). In this sense, the Sentient Phrase assumed here is akin to the aboutness topic of Frascarelli (2007). Moreover, nothing in principle excludes that the PP in (80) is actually bound by the matrix subject in the setting in which the telephone is being moved, or moves itself, into the living room. Instead, consider a case where the matrix subject is more likely to bind the PP, such as once on the balcony my hortensia grew much bigger. It is now understood that the hortensia is on the balcony but, in addition, there is a sentient argument observing the plant or, perhaps, moving it. In such a case, the arguments x and y in the structure (82b) would be disjoint.

introduces an evaluative feature which we have taken as a sign of logophoric predication. Third, in non-finite subordinate clauses, ONCE comes with an aspectual restriction to the effect that the element under its scope must be interpreted as a state. The output of such an aspectual operation is a resulting state reading. Fourth, in nonfinite subordinate clauses, ONCE licenses predicative readings which intuitively arise from the interaction of two sources. The aspectual change-of-state reading creates the premises for the predicative interpretation, but the effects of a logophoric predicate are detectable as well. In the absence of a plausible antecedent in the matrix clause, the content of the PRO argument can be provided by the logophoric argument.

The central feature of ONCE-constructions is with no doubt the one introducing immediacy. The immediacy interpretation is dependent on a point of view. It is, after all, from somebody's subjective view-point that an eventuality is looked upon as being brought about in an immediate or sudden fashion. Therefore, the link between immediacy to aspectual operation, on the one hand, and to logophoric predication, on the other, is an intuitively transparent one. Still, the idea that the sentient feature of such constructions merely arises from implicature can hardly be maintained. Rather, the analysis needs to recur to the assumption of both an Aspect Phrase and a Sentience Phrase, and that ONCE derivationally is linked to both.

Of course, it may be that the present situation in the four languages under consideration actually emerged from implicature historically speaking. After all, ONCE-adverbials are not attested in all languages, and we cannot exclude that the striking similarities between the four languages taken into consideration is partly due to language contact. The diachronic development, however, is beyond the scope of this research.

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