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# Imperfect in Italian irrealis conditionals\*

Fabio Del Prete, Silvia Federzoni CLLE (CNRS & Université de Toulouse 2)

**Abstract.** Italian *irrealis* conditionals with a double imperfect (*Imperfetto Irrealis*) have puzzling temporal and aspectual properties: unlike well-known core uses (continuative, progressive, habitual/generic) of Romance imperfects to describe an eventuality as past, they allow for the whole range of temporal interpretations, namely, the events described by the protasis and the apodosis can be past, present or future; in addition, the ongoingness condition characteristic of those core uses is not relevant anymore, since the events described by the protasis and the apodosis are seen as culminated. *Imperfetto Irrealis* are also puzzling for their modal properties: unlike the other indicative conditionals, which are generally interpreted as epistemic, they express counterfactual meaning. By relying on data of mixed CFs (in which an Imperfetto combines with a past Subjunctive or a past Conditional), we show that *Imperfetto* Irrealis are closer to two pasts CFs than to one past CFs. The data suggest that, in spite of the latitude of their temporal interpretations, *Imperfetto Irrealis* preserve the true past tense active in core uses of Romance imperfects. Building on a previous analysis of imperfective sentences in Del Prete (2013), combined with crucial insights on CF semantics from Ippolito (2004, 2006), Arregui (2005) and Anand and Hacquard (2010), we propose a formal account of Imperfetto Irrealis which allows a partially unified view of the semantics of the Imperfetto across conditional and non-conditional uses. The main insight making this partial unification possible bears on the morphosyntactic structure of *Imperfetto Irrealis* and is inspired by previous formal analyses of CFs (Iatridou 2000, Ippolito 2006, Ferreira 2016): the two realizations of the Imperfetto found in this type of conditional are the morphosyntactic reflexes of a single higher PAST+IPFV, therefore the true semantically active Imperfetto is not situated where one can see/hear the Imperfetto morphology but higher in the syntactic structure.

## 1. Introduction

*Irrealis* conditionals in Italian can have a surprising form: although syntactically full-fledged conditional structures, consisting of an 'if'-complementizer ("se"), a subordinate clause (protasis), and a matrix clause (apodosis), they can have a flat tense/mood morphology, with both their clauses in the imperfect tense of indicative (*Imperfetto*; Gherardini 1840, Fornaciari 1881, Rohlfs 1969, Bertinetto 1986, Bazzanella 1990, Mazzoleni 2001, Ippolito 2004). This structure is exemplified by (1):<sup>1</sup>

(1) Se <u>venivi</u> alla festa ti <u>divertivi</u> un sacco. if come-2sg.IMPERF to-the party 2sg.CL amuse-2sg.IMPERF a lot 'If you *came / had come* to the party, you *would have / would have had* a lot of fun.'

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<sup>&</sup>lt;sup>1</sup> The glosses make use of the abbreviation "IMPERF" to refer specifically to the *Imperfetto* (and, occasionally, to other Romance indicative imperfects), instead of the more analytical expression "PST.IPFV.IND" (for "past imperfective indicative"). They conform in all other respects to the Leipzig Glossing Rules.

In this paper we will use the term "Imperfetto Irrealis" to refer to conditionals such as (1) (in the reading expressed by the English translation above). Imperfetto Irrealis are puzzling for several reasons:

- (a) unlike English flat simple past conditionals ("If you came to the party, then you [certainly] had a lot of fun") and other indicative conditionals in Italian, which are typically interpreted as epistemic (namely, the speaker ignores whether the protasis is true or false), they express counterfactual meaning;
- (b) unlike English "one past" counterfactuals, which cannot refer to past events ("If you came to the party \*yesterday, you would have a lot of fun"), they allow for, and even prefer, a past interpretation ("Se *ieri* venivi alla festa ti divertivi un sacco"), which might incline one to think that the *Imperfetto* is acting as a past tense there;
- (c) besides their past interpretation, they also allow for the events to be present or future for instance, (1) may be uttered during the party, while being on a phone conversation with the hearer, or before the party —, which makes one wonder whether, after all, the *Imperfetto* isn't acting differently from a past tense there;
- (d) they raise the question of their semantic relation to the standard values of Romance imperfects, namely, progressive, generic/habitual, and continuative, since *prima facie* the semantics of *Imperfetto Irrealis* has nothing to do with those values;
- (e) since they are permeated by imperfective morphology (and do not present any specific modal morphemes), they raise the broad question of the role of imperfectivity in generating counterfactual meaning.

There is a further aspect which makes *Imperfetto Irrealis* an interesting object of study, which has to do with the relation between semantics and sociolinguistics. Contemporary grammars of Italian consider this kind of conditionals non-standard, or even substandard (Mazzoleni 2001), whereas standard *irrealis* conditionals have a more complex TAME morphosyntax, with the protasis in the subjunctive and the apodosis in the conditional mood. For example, (2) and (3) are generally regarded as the two standard variants of (1):

- (2) Se <u>fossi</u> [be-2SG.IPFV.SBJV] <u>venuto</u> [come-PST.PTCP] alla festa ti <u>saresti</u> [be-2SG.PRS.COND] <u>divertito</u> [amuse-PST.PTCP] moltissimo.

  'If you had come to the party, you would have had a lot of fun.'
- (3) Se <u>venissi</u> [come-2SG.IPFV.SBJV] alla festa ti <u>divertiresti</u> [amuse-2SG.PRS.COND] moltissimo.

'If you came to the party, you would have a lot of fun.'

Counterfactual conditionals of these types have been made the object of thorough analyses within formal semantics (Ippolito 2003, 2006). In this paper we won't have anything to add to the discussion of their complex semantic composition; our concern will be instead with analysing the semantic contribution of the *Imperfetto* to the temporal and modal aspects of *Imperfetto Irrealis* and clarifying the semantic specificity of the latter *vis-à-vis* the standard

<sup>&</sup>lt;sup>2</sup> Imperfetto Irrealis are not the only conditional structures in Italian that have the same indicative tense in both clauses. They are, however, the only such structures to receive a counterfactual interpretation. See section 2.4 for discussion.

irrealis conditionals. The view of *Imperfetto Irrealis* as non-standard is motivated to some extent by the observation that sentences such as (1) are largely attested in colloquial and informal speech. However, we will show that this view does not make justice to the full complexity of their use and meaning. The data we will be using come from (i) the web-based corpus itTenTen (Jakubíček *et al.*, 2013), exploited through the interface SketchEngine (Kilgarriff *et al.*, 2014), for the more informal data, and from (ii) the narrative subcorpus of the CORIS corpus (Rossini Favretti et al. 2002) and (iii) previous historical linguistics studies, for more formal data.

The structure of the paper is as follows. Section 2 focuses on the relation between Imperfetto Irrealis and standard counterfactuals. To shed light on this relation, it considers "mixed conditionals", in which an *Imperfetto* combines either with a conditional mood in the apodosis ("Se venivi alla festa ti saresti divertito moltissimo"), or with a subjunctive mood in the protasis ("Se fossi venuto alla festa ti divertivi moltissimo"). In section 3 we consider *Imperfetto Irrealis* and mixed conditionals in literary texts from the past centuries, to show that the use of the imperfect in contexts in which the standard grammar would require a subjunctive or a conditional is not a recent innovation typical of low registers. In section 4 we report the results of an inquiry into irrealis in the imperfect tense in Romance and we make a more specific comparison with French *irrealis* conditionals. Section 5 discusses the relation to the standard semantic values of continuativity, progressivity and genericity/habituality and proposes an account of Imperfetto Irrealis based on an analysis of the Imperfetto as a combination of a temporal operator PAST and an aspectual operator IPFV (imperfective). On the proposed analysis, the modality inherent to *Imperfetto Irrealis* does not come in through a modal reinterpretation of PAST or some covert modal operator, but it depends on the way IPFV operates in the branching time model that is assumed to represent the way speakers conceive of the world's temporal structure. Section 6 concludes.

## 2. Varieties of counterfactual conditionals in Italian

## 2.1 Standard counterfactual conditionals

Grammars of Italian give the conditional forms exemplified in (4a,b) and (5a,b) (from the itTenTen corpus) as the standard forms of Italian counterfactual conditionals — e.g., see the *Grande Grammatica Italiana di Consultazione* (*GGIC*, Renzi et al. 2001):

- (4) "Two pasts counterfactuals"
  - a. Se <u>fosse</u> [be-3SG.IPFV.SBJV] <u>stato</u> [be-PST.PTCP] Berlusconi <u>sarebbe</u> [be-3SG.PRS.COND] <u>stato</u> [be-PST.PTCP] il primo a mettersi in salvo. 'If he had been Berlusconi, he would have been the first to run for his life.'
  - b. Se domani <u>avessi</u> [have-1SG.IPFV.SBJV] <u>voluto</u> [want-PST.PTCP] and are al cinema, con la moto non lo <u>avrei</u> [have-1SG.PRS.COND] <u>potuto</u> [can-PST.PTCP] fare. 'If I had wanted to go to the movies tomorrow, I could not have gone by motorbike.'
- (5) "One past counterfactuals"
  - a. Se <u>avessi</u> [have-1sg.IPFV.sbJV] un'altra possibilità la <u>userei</u> [use-1sg.PRs.COND], ma siamo in emergenza.
    - 'If I had another possibility, I would use it, but we are in an emergency.'

b. Ho paura di essere felice perchè se <u>succedesse</u> [happen-3sg.IPFV.SBJV] qualcosa non <u>reggerei</u> [stand-1sg.PRS.COND] ancora altra sofferenza.
 'I fear to be happy because if something bad happened, I would not bear more suffering.'

[A terminological note: We will use the term "counterfactual" — "CF", for short — as a coverterm that applies to both types of conditionals in (4) and (5), while being aware of the fact that conditionals of the variety "one past CF", and to a lesser extent even "two pasts CF" conditionals, are sometimes used without knowing that their hypothetical clauses are false in actual facts. An alternative terminology, more common among philosophers, has the term "subjunctive" applied to the same class of conditionals, but that would have been grossly inadequate as a label to be extended to *Imperfetto Irrealis*.]

The CFs in (4) have the verb of the protasis in the pluperfect subjunctive (a compound tense form made up of an auxiliary in the imperfect subjunctive and a main verb in the past participle) and the verb of the apodosis in the past conditional (a compound tense form made up of an auxiliary in the present conditional and a main verb in the past participle). This type of conditionals semantically corresponds to the English two pasts CF (Iatridou 2000, Ippolito 2003, 2006). It expresses CF meaning most strongly, since the implication that the protasis is false is strongest in this case (it is clear from the larger contexts of occurrence of [4a,b] — here omitted for reasons of space — that the person talked about in [4a] is not Berlusconi, and that the speaker who utters [4b] does not want to go to the movies on the day following her utterance). Although conditionals of this form often describe unrealized eventualities in the past, we can find some such conditionals which instead describe events in the future (exactly as we can find two pasts CFs in English which do that; see Ippolito's 2003 mismatched past counterfactuals). The conditional in (4b) is a case in point: the time adverb "domani" ('tomorrow') in the protasis indicates that it is a future (*irrealis*) event of going to the movies which is talked about. If the time adverb were dropped, the resulting conditional would be most likely interpreted as describing a hypothetical situation in the past.

The CFs in (5a,b) have the main verb of the protasis in the imperfect subjunctive and the main verb of the apodosis in the present conditional. This is the formally simplest structure for standard CFs in Italian and semantically corresponds to the English one past CF (Iatridou 2000, Ippolito 2003, 2006). Like the English one past CF, it can describe eventualities that are present ([5a]) or future ([5b]), but it cannot describe eventualities that are past, as shown by the unacceptability of the following variant of (5a), obtained by adding the time adverb "ieri" ('yesterday') to the protasis of the conditional:

(6) \*Se *ieri* avessi un'altra possibilità la userei. [If I had another possibility yesterday, I would use it.]

When the eventuality is future, as in (5b), it remains open whether it will actually obtain or not, though the possibility that it will obtain is considered unlikely (the context preceding the conditional in (5b) makes it clear that the speaker thinks that something bad *might* happen).

Given the temporal properties of (5a,b) described above, we will sometimes qualify the subjunctive and conditional forms in this kind of CFs as *non-past*, to hint at the fact that those forms cannot describe eventualities in the past. We will also occasionally talk of *non-past subjunctive* and *non-past conditional* to refer to the imperfect subjunctive and to the present conditional, respectively. In contrast, we will at times qualify the subjunctive and conditional forms in CFs such as (4a,b) as *past* (Ippolito 2003).

#### 2.2 Two non-standard systems

Beyond the standard forms exemplified in (4) and (5) above, *GGIC* distinguishes two non-standard systems regarding the structure of CFs:

- A. "La variante colloquiale del sistema standard, presente talora anche in livelli più alti, prevede la possibilità che l'indicativo imperfetto sostituisca il congiuntivo piuccheperfetto nella protasi e / o il condizionale composto nell'apodosi, come in [(7a-c)]:
  - [(7)] a. Se lo <u>sapevo</u> [know-1SG.IMPERF] prima, <u>sarei arrivato</u> [arrive-1SG.PST.COND] in tempo a salutarti.
    - b. Se lo <u>sapevo</u> [know-1SG.IMPERF] prima, <u>arrivavo</u> [arrive-1SG.IMPERF] in tempo a salutarti.
    - c. Se l'<u>avessi saputo</u> [know-1sg.PLUPERF.SBJV] prima, <u>arrivavo</u> [arrive-1sg.IMPERF] in tempo a salutarti.

[If I had known it in advance, I would have arrived on time to say goodbye.]"

(Mazzoleni 2001: 754)

[The colloquial variant of the standard system, sometimes present in higher registers as well, provides for the possibility that the indicative imperfect should replace the subjunctive pluperfect in the protasis and/or the compound conditional in the apodosis, as in (7a-c).]

- B. "Nel sistema «substandard» [tipico solamente di alcune varietà più basse] invece dei modi congiuntivo e condizionale appare l'indicativo, così che [...] [(1)] corrisponde all'incirca a [(2)] e [(3)]:
  - [(1)] Se venivi [come-2sg.IMPERF] alla festa, ti divertivi [amuse-2sg.IMPERF] un sacco.
  - [(2)] Se <u>venissi</u> [come-2SG.IPFV.SBJV] alla festa, ti <u>divertiresti</u> [amuse-2SG.PRS.COND] moltissimo.
  - [(3)] Se <u>fossi venuto</u> [come-2SG.PLUPERF.SBJV] alla festa, ti <u>saresti divertito</u> [amuse-2SG.PST.COND] moltissimo."

(Mazzoleni 2001: 754)

[In the «substandard» system [typical of lower varieties exclusively] the indicative mood appears instead of the subjunctive and the conditional, so that [(1)] approximately corresponds to [(2)] and [(3)].]

According to *GGIC*, the substandard system (the B-system) only has conditionals in the indicative mood, such as (1). Thus, the *Imperfetto* in this system could equally replace a past and a non-past subjunctive (in the protasis) or a past and a non-past conditional (in the apodosis). Hence, in the B-system "Se venivi ti divertivi" is semantically indeterminate: it could correspond either to a two pasts CF or to a one past CF.

In contrast, the colloquial variant of the standard system (the A-system) allows for "mixed conditionals" — an *Imperfetto* can combine either with a conditional mood in the apodosis ([8a]), or with a subjunctive mood in the protasis ([8b]). In addition, the *Imperfetto* in this system only replaces <u>past</u> subjunctives/conditionals, hence "Se venivi ti divertivi" univocally corresponds to a two pasts CF. In other terms, (8a-c) are equivalent in the A-system:

- (8) a. Se <u>venivi</u> [come-2SG.IMPERF], ti <u>saresti divertito</u> [amuse-2SG.PST.COND].
  - b. Se fossi venuto [come-2sg.PLUPERF.SBJV], ti divertivi [amuse-2sg.IMPERF].
  - c. Se venivi [come-2sg.IMPERF], ti divertivi [amuse-2sg.IMPERF].
    - 'If you had come, you would have had fun.'

Importantly, on the assumption of either system, *Imperfetto Irrealis* are expected to possibly describe events in the future, an expectation which is actually borne out (cf. "Se *domani* venivi, ti divertivi" ['If you came / had come to the party *tomorrow*, you would have / would have had a lot of fun']).<sup>3</sup>

We will now examine these claims in detail, by having recourse to corpus data (the data in the next section all come from the itTenTen corpus).

## 2.3 Mixed counterfactual conditionals

In order to shed light on the relation between *Imperfetto Irrealis* and standard CFs, we will use "mixed conditionals" of the sort we have just seen in (8a,b) (and in the description of the non-standard A-system). In mixed conditionals, an *Imperfetto* combines either with a conditional mood in the apodosis, as in (8a), or with a subjunctive mood in the protasis, as in (8b).

It is interesting to note that, while (8a,b) are easily and out of the blue recognized as acceptable mixed conditionals, (9a,b) have a dubious status (here indicated by the interrogative marks in front of the sentences):

- (9) a. ?Se *venivi* [come-2SG.IMPERF] ti *divertiresti* [amuse-2SG.PRS.COND].
  - b. ?Se venissi [come-2sg.IPFV.sbJV] ti divertivi [amuse-2sg.IMPERF].

It might be tempting to think that (9a,b) are strange, compared to (8a,b) and also in themselves, since they violate some Sequence of Tense (SOT) rule — the rule in question would require either a past conditional in the apodosis or a past subjunctive in the protasis for the *Imperfetto* to enter in an agreement relation with.<sup>4</sup> Such an SOT strategy, however, would be problematic on empirical grounds, as we argue below.

There are revealing corpus data showing that mixed conditionals which share the same TAME structure as (9a,b) are in fact possible. Starting with (9a), the particular combination of TAME morphology instantiated by this conditional can be found in the following sentence:

(10) Se [M. Zelaya] *lasciava* [leave-3sg.IMPERF] fare agli americani *sareb[b]e* [be-3sg.PRS.COND] al suo posto.

'If M. Zelaya had left it to the Americans, he would be in his place (now).'

An attentive consideration of (10) and its interpretation makes us realize that (9a) could be rescued by replacing the form "ti divertiresti" ('you would have fun') in the apodosis with the progressive periphrasis "ti staresti divertendo" ('you would be having fun'), as in (11) — the progressive periphrasis is also in the present conditional, but it allows for temporal anchoring to the present more easily than the simpler form occurring in (9a):

(11) Se *venivi* [come-2sg.IMPERF] adesso ti *staresti divertendo* [amuse-2sg.PRS.PROG.COND]. 'If you had come, you would be having fun now.'

<sup>&</sup>lt;sup>3</sup> In addition, the temporally mismatching CF (4b) could be turned into an acceptable *Imperfetto Irrealis*, i.e., "Se domani <u>volevo</u> [want-1SG.IMPERF] and are al cinema, con la moto non <u>potevo</u> [can-1SG.IMPERF]" ('If I wanted / had wanted to go to the movies tomorrow, I could not go / could not have gone by motorbike').

<sup>&</sup>lt;sup>4</sup> A similar rule might be invoked to account for the strangeness of conditionals (ia,b), which combine a past subjunctive with a non-past conditional and a non-past subjunctive with a past conditional, respectively:

<sup>(</sup>i) a. ?Se *fossi venuto* [come-2SG.PLUPERF.SBJV] ti *divertiresti* [amuse-2SG.PRS.COND]. 'If you had come, you would have fun.'

b. ?Se *venissi* [come-2SG.IPFV.SBJV] ti *saresti divertito* [amuse-2SG.PST.COND]. 'If you came, you would have had fun.'

The mixed conditional (11), like (10), expresses a counterfactual dependence of a present event  $e_2$  on a past event  $e_1$  — more precisely, it expresses that  $e_2$  would have been now in progress, had  $e_1$  occurred in the past. This dependence, cognitively speaking, makes perfect sense and it so comes as no surprise that those mixed conditionals are acceptable.

It would seem more difficult, in contrast, to rescue (9b) from its dubious status: the use of the non-past subjunctive form "venissi" in the protasis suggests that the speaker regards the event of the hearer coming to the party as possible (though unlikely), whereas the use of the *Imperfetto* "ti divertivi" in the apodosis suggests that the speaker regards the issue of whether the hearer might have fun as closed by the time of speech — more precisely, the speaker believes it now settled that the hearer will not have fun at the relevant time. And yet, again, the particular TAME combination instantiated by (9b) can be found in corpus data. We report some relevant examples in (12)-(15):

- (12) Adesso se *fossimo* [be-1PL.IPFV.SBJV] in un telefilm ti *dicevo* [tell-1SG.IMPERF] che ti amavo.
  - 'Now if we were in a TV series I would have told you that I loved you.'
- (13) Berlusconi non controlla la sua informazione. Se *controllasse* [control-3SG.IPFV.SBJV] non *andavano* [go-3PL.IMPERF] in [onda] tanti programmi e servizi contro la sua politica. 'Berlusconi does not exercise control over the information on his channels. If he did, we would not have seen so many TV programs and report against his politics broadcasted on his channels.'
- (14) Quella maledetta spia si accende per tante stupide cose [...] Sicuramente niente di grave è gialla giusto? se *fosse* [be-3SG.IPFV.SBJV] rossa *erano* [be-3PL.IMPERF] guai più tremendi.
  - 'That damned indicator light lights up for many silly reasons. It is certainly nothing to worry about, it is yellow isn't it? If it had been red, it would have meant more serious troubles.'
- (15) ti amo ti amo [...] lo scrivo sempre alla mia compagna [...] te la potrei anche sistemare in TI AMO TI AMO ... se *fosse* [be-3SG.IPFV.SBJV] una parolaccia la *segavo* [cut-1SG.IMPERF], ma è cosa che fa solo bene e la lascio.
  - 'ti amo ti amo. I always write this to my girlfriend. I might even reduce it to TI AMO TI AMO ... if it were a bad word I would have cut it, but it's something that can only do good and I'll leave it as it is.'

Some native speakers we consulted still find a difference of acceptability between the mixed conditionals in (8a,b), (10)/(11), on the one hand, and those in (12)-(15), on the other; in particular, according to the speakers in question, (12)-(15) are degraded and would neatly improve if the non-past subjunctive forms in their protases were replaced by pluperfect subjunctive forms — e.g., "Se *fossimo stati* in un telefilm ti dicevo che ti amavo" is regarded as definitely better than (12). At this point, one might propose that the dubious status that (12)-(15) have for some speakers depended on the fact that those mixed conditionals all belong to some substandard system, of the sort of the B-system reviewed in Section 2.2; the idea would be that more strict speakers might simply not have access to the lower varieties characterized by the hypothesized substandard system (on the other hand, [8a,b] and, arguably, [10]/[11] would look better since they would all belong to a better-behaved system, such as the A-system of Section 2.2).

We believe that dismissing (12)-(15) as substandard would not be a very insightful move to make, and that more will be learnt about the semantic specificity of *Imperfetto Irrealis* and mixed conditionals if we adopt a less prescriptivist attitude to the data and look more closely at their structural properties. A property that we regard as crucial for the acceptability of (12)-(15) is the stativity of the predication in their protases: interestingly, stative predicates can be found in the non-past subjunctive in CFs that have a past conditional apodosis and an interpretation closer to that of a two pasts CF than a one past CF. The conditionals in (16)-(19) are cases in point:

- (16) se *fosse* [be-3sg.IPFV.sbJV] uno smartphone *avrei disabilitato* [disable-1sg.Pst.Cond] il servizio tramite apposito menù del cellulare 'If it were a smartphone, I would have disabled this service via the dedicated menu on the phone.'
- (17) se *fosse* [be-3sg.IPFV.SBJV] facile le *avresti conquistate* [conquer-2sg.Pst.COND] anche prima 'It it were easy, you would have conquered them even earlier.'
- (18) Se *fosse* [be-3sg.IPFV.SBJV] tanto semplice *avremmo chiuso* [close-1PL.PST.COND] la partita inquinamento patologie nel mondo da un bel pezzo.

  'If it were so simple, we would have closed the dossier pollution and diseases in the world a while ago.'
- (19) Se *fossi* [be-1sg.IPFV.SBJV] in carrozzella *sarebbe stato* [be-3sg.Pst.Cond] un bel problema, abito al sesto piano l'ascensore è troppo piccolo 'If I were on a wheelchair, it would have been a big trouble, (since) I live at the sixth floor and the lift is too small.'

We speculate that the property of stative eventualities by which they can be inferred to hold at larger time intervals spanning backward in time (relative to a bounded reference time) plays a role in the interpretation of (12)-(19): (i) a certain stative eventuality  $e_1$  (described by the non-past subjunctive protasis) is hypothesized to hold at t, (ii) but it can be inferred that if  $e_1$  holds at t, then it has also held in the past of t, (iii) hence the supposition of  $e_1$  may be relevant for the counterfactual dependence of an event  $e_2$  located in the past of t (described by the apodosis in the past conditional or in the *Imperfetto*).

In line with much preceding literature emphasizing the modal, rather than temporal, meaning of morphologically past forms in CFs (Lyons 1977, Dahl 1997, Iatridou 2000), we note that the morphologically past forms in (12)-(19) (be them in the past conditional or in the *Imperfetto*) need not describe a past event. For instance, in (19) the big trouble (described by the past conditional form "sarebbe stato un bel problema" / 'it would have been a big trouble') which is counterfactually dependent on the state of the speaker being on a wheelchair is plausibly not (only) a past trouble, but (also) a present and future trouble; similarly, in (12) the event of the speaker cutting short the expression "ti amo ti amo" (described by the *Imperfetto* form "la segavo" / 'I would have cut it') is not a past cutting, but (more likely) a future cutting, as made clear by the surrounding context (cf. the continuation "la lascio" / 'I'll leave it as it is'). Thus, one may argue that the notion of pastness that is relevant to (12)-(19) is better conceived as modal in the general case, and a genuine temporal past reading is not necessarily present (see the discussion around CF [4b] in section 2.1).

## 2.4 Past and imperfectivity jointly matter

The *Imperfetto*, like Romance indicative imperfects in general, is a formally simple but semantically complex tense form, mainly consisting of two semantic features: a past tense feature and an imperfective aspectual feature (Bertinetto 1986, Giorgi and Pianesi 1997, Bonomi 1997, Ippolito 2004, Del Prete 2013). We now show that pastness and imperfectivity jointly matter for the quality of *Imperfetto Irrealis*, by considering the results of dropping either one of these features in turn.

Given an *Imperfetto Irrealis* such as (1), if we drop pastness, while keeping imperfectivity, what results is the present imperfective conditional (20):

(20) Se <u>vieni</u> [come-2sg.PRS.IPFV.IND] alla festa ti <u>diverti</u> [amuse-2sg.PRS.IPFV.IND] (di sicuro).

'If you come to the party you'll have fun (for sure).'

If we drop imperfectivity instead, while keeping pastness (either in the form of a perfect, or in the form of a perfective past), we obtain one of (21a,b), where (21a) is a perfect conditional, while (21b) is a past perfective conditional:

- (21) a. Se <u>sei</u> [be-2SG.PRS.IPFV.IND] <u>venuto</u> [come-PST.PTCP] alla festa ti <u>sei</u> [be-2SG.PRS.IPFV.IND] <u>divertito</u> [amuse-PST.PTCP] (di sicuro). 'If you have come to the party, you have had fun (for sure).'
  - b. Se <u>venisti</u> [come-2SG.PST.PFV.IND] alla festa ti <u>divertisti</u> [amuse-2SG.PST.PFV.IND] (di sicuro).
    - 'If you came to the party, you had fun (for sure).'

The conditionals in (20)-(21a,b) are all instances of what philosophers have referred to as "indicative conditionals" (Stalnaker 1975, Lewis 1976, Jackson 1987). We show below that they are *epistemic conditionals*, namely, they presuppose that the speaker does not know whether the protasis is true or false (Santorio 2012, Del Prete and Zucchi 2021) — as such, they lack the counterfactual flavor of (1).

Although it continues to be true that, in an utterance of (20), S is reasoning about a possible event  $e_1$  of H coming to the party and is expressing a relation of dependence between an event  $e_2$  of H's amusement and event  $e_1$ , still  $e_1$  and  $e_2$  are presented by S as being possibly actual future events (that is to say, as being possibly realized in the future). Thus, (20) is about S's epistemic uncertainty regarding the open future: S does not know whether H will come to the party but only knows that, if he will, then he will have fun. The perfect conditional (21a) expresses a relation between two possible states, hypothetically obtaining at present: a state  $s_1$  in which S has come to the party, and a state S in which S has had fun at the party; this conditional can be said to be about S's epistemic uncertainty regarding the open present, namely, S does not know whether S and S actually obtain at present but only knows that, if S obtains, then S does not know whether S hence, again, the conditional has an epistemic interpretation, more precisely it is about S's epistemic uncertainty regarding the open past: S does not know whether S cannot be the party but only knows that, if he did, then he had fun.

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<sup>&</sup>lt;sup>5</sup> The perfect conditional (21a) has another reading, in which it is equivalent to the perfective past conditional (21b). This further reading of (21a) is due to the possibility of interpreting the present perfect as a perfective past in contemporary Italian (Bertinetto 1986).

In conclusion, both the perfects in (21a) and the perfective pasts in (21b) are interpreted transparently and locally as temporal pasts with scope bounded to the propositions (protasis and apodosis) in which they appear, along the lines of the following logical structure:

(LP) IF [it is true that PAST(you-come-to-the-party)] THEN [it is true that PAST(you-have-fun-at-the-party)]

Hence, they are genuine tense forms locating an event in the past, not the morphosyntactic reflex of a modal past scoping over the whole conditional (as standardly assumed in formal semantic analyses of counterfactuals in the spirit of Iatridou 2000). Notice that such a transparent and local (clause-bounded) interpretation of a past tense in a conditional is also possible with the *Imperfetto*, since conditionals in the *Imperfetto* are sometimes interpreted as normal indicative conditionals — a relevant example is (22), uttered by someone who doesn't know whether Mary was still in her office at 5PM but knows that it takes Mary one hour to get home from her office:

(22) Se alle 5 Mary <u>era</u> [be-3sg.IMPERF] ancora in ufficio, alle 5:30 di certo non <u>era</u> [be-3sg.IMPERF] ancora a casa.

'If at 5PM Mary was still in her office, at 5:30PM she was certainly not at home yet.'

The logical structure of (22), like the one of (21a,b), clearly has two local pasts: one scoping inside the protasis and anchored to a relevant 5PM situation, the other one with scope bounded to the apodosis and anchored to the relevant 5:30PM situation. Crucially, however, the *Imperfetto* in a conditional sentence allows for a non-transparent, non-local interpretation; this is precisely what happens in *Imperfetto Irrealis* such as (1) (repeated here):

(1) Se <u>venivi</u> [come-2sg.IMPERF] alla festa ti <u>divertivi</u> [amuse-2sg.IMPERF] un sacco. 'If you had come to the party, you would have had a lot of fun.'

Section 5 will formalize the idea that (1) only involves one semantically active past and one semantically active imperfective, both scoping over the whole conditional. The logical structure of (1) will thus be as in (RPI):

(RPI) PAST [IMPERFECTIVE [IF [you-come-to-the-party] THEN [you-have-fun-at-the-party]]]

This logical structure refers to a past topic situation in whose possible futures in which H comes to the party H has fun at the party. As will be made clear below, the quantification over the possible futures (that are open at the past topic situation) comes in through the imperfective operator, which so turns out to be a crucial ingredient of *Imperfetto Irrealis* and main factor accounting for their modal properties.

#### 2.5 To summarize

The empirical comparative investigation of *Imperfetto Irrealis* and standard CFs has revealed a closer semantic relation between the *Imperfetto* and <u>past</u> subjunctive/conditional, even in cases of mixed conditionals that one might have taken as *prima facie* evidence of a closer semantic relation between the *Imperfetto* and non-past subjunctive/conditional.

In light of the foregoing discussion, the following temporal and modal properties of *Imperfetto Irrealis* can be stated (where by " $e_1$ " and " $e_2$ " we refer to the eventualities described by the protasis and the apodosis, respectively):

- (T) The most natural temporal interpretation of *Imperfetto Irrealis* is such that  $e_1$  and  $e_2$  are past, e.g., "Se *ieri* venivi alla festa ti divertivi" ('If you had come to the party *yesterday* you would have had fun'). However,  $e_1$  and  $e_2$  may also be present or future (e.g., "Se *domani* venivi alla festa ti divertivi" ['If you came / had come to the party *tomorrow* you would have / would have had fun']).
- (M) The most natural modal interpretation of *Imperfetto Irrealis* is such that  $e_1$  and  $e_2$  are unactualized, e.g., the sentence following the conditional in the discourse below is a continuation in full agreement with the conditional: "Se venivi alla festa ti divertivi, ma purtroppo non hai potuto / non potrai" ('If you had come to the party you would have had fun, but unfortunately you couldn't make it / won't make it').

Regarding these tempo-modal properties, we observe a similarity between *Imperfetto Irrealis* and two pasts CFs:  $e_1$  and  $e_2$  may be temporally past, present or future and are unactualized in two pasts CFs as well (as emphasized by Ippolito 2003) — more precisely, when it is known that you won't come, the two pasts CF can be used to talk about a future (*irrealis*) event. The evidence from mixed conditionals has shown that the *Imperfetto* does not like the company of non-past subjunctive/conditional tenses (cf. "?Se venivi alla festa ti divertiresti moltissimo" / "?Se venissi alla festa ti divertivi moltissimo").

In the next section we consider more evidence of *Imperfetto Irrealis* and mixed conditionals from literary texts, which confirms that the *Imperfetto* in these contexts alternates with past subjunctive/conditional forms.

## 3. Imperfetto Irrealis and mixed conditionals in literary texts

Imperfetto Irrealis are present in literary works, as has been well documented by historical linguists (Gherardini 1840, Fornaciari 1881, Rohlfs 1969). Although (1) is typical of a spoken register, *Imperfetto Irrealis* are not just an innovation of colloquial speech but are rooted in literary use, spanning across several centuries. The examples in (23)-(26) are cited in Rohlfs (1969) and Fornaciari (1881):

- (23) Braccio cercò di occupare il regno di Napoli, e se non <u>era</u> [be-3sg.IMPERF] rotto e morto all'Aquila, gli <u>riusciva</u> [manage-3sg.IMPERF].

  (Niccolò Machiavelli, 15<sup>th</sup>/16<sup>th</sup> century)
  - 'Braccio tried to occupy the reign of Naples, and if he had not been hit and killed in l'Aquila, he would have managed to do it.'
- (24) <u>Avevano</u> [have-3PL.IMPERF] il giogo bello e scosso, se la prosperità non li <u>facea</u> [make-3SG.IMPERF] trascurati.

(Bernardo Davanzati, 16<sup>th</sup> century)

'They would now have the yoke shaken off, had prosperity not made them careless.'

- (25) Se <u>facevate</u> [do-2PL.IMPERF] a modo mio, questo non <u>succedeva</u> [happen-3SG.IMPERF]. (Carlo Goldoni, 18<sup>th</sup> century) 'Had you done it my way, this would not have happened.'
- (26) Ella non disse niente ma <u>cadeva</u> [fall-3SG.IMPERF] se non la <u>sorreggevano</u> [help-3PL.IMPERF] le mani di lui. La sorresse, la pose a sedere.

(Antonio Fogazzaro, 19<sup>th</sup>/20<sup>th</sup> century)

'She didn't say a word but she would have fallen if his hands had not helped her. He helped her, he let her sit down.'

Mixed conditionals are also largely attested in the literature. The following sentences (from Fornaciari 1881) constitute a representative sample of this kind of conditionals:<sup>6</sup>

(27) Se io non <u>avessi provato</u> [try-1sg.PLUPERF.SBJV], non <u>poteva</u> [can-1sg.IMPERF] mai credere.

(Giacomo Leopardi, 19<sup>th</sup> century)

'If I had not tried, I couldn't have believed.'

(28) Se Lucia non <u>faceva</u> [make-3SG.IMPERF] quel segno, la risposta <u>sarebbe stata</u> [be-3SG.PST.COND] diversa.

(Alessandro Manzoni, 19<sup>th</sup> century)

'If Lucia had not made that sign, the reply would have been different.'

(29) Io non <u>avrei</u> [have-1SG.PRS.COND] al presente questa ansietà, se io non mi <u>intrometteva</u> [interfere-1SG.IMPERF] in quelle faccende che non mi si aspettavano.

(Agnolo Firenzuola, 16<sup>th</sup> century)

'I would not have this worry at present, if I had not interfered in those matters that did not concern me.'

(30) Se <u>potuto aveste</u> [can-2PL.PLUPERF.SBJV] veder tutto, mestier non <u>era</u> [be-3SG.IMPERF] parturir Maria.

(Dante Alighieri, 13<sup>th</sup>/14<sup>th</sup> century)

'Had you been able to see all, there would have been no need for Mary to give birth.'

All the conditionals in (23)-(30) confirm the conclusion of the previous section: the *Imperfetto* in *irrealis* conditionals has a closer semantic relation to the <u>past</u> subjunctive and the <u>past</u> conditional. The literary texts that we have examined have an additional property, compared to the non-literary examples from the previous sections: the *Imperfetto Irrealis* (and mixed conditionals) occurring in them are always used to describe eventualities in the past (e.g., Machiavelli's conditional in the historical narrative in [23]), whereby the case for the past temporal interpretation and the connection with English two pasts CFs is more compelling if one takes this evidence seriously.

# 4. Imperfetto Irrealis in Romance

CF conditionals formally identical to the Italian *Imperfetto Irrealis* are attested in other Romance languages. Spanish allows for such CFs:<sup>8</sup>

(31) Si venias [come-2sg.IMPERF] a la fiesta te divertias [amuse-2sg.IMPERF].

They seem to be possible in Catalan, too, to some extent (p.c., Rafèu Sichel-Bazin, Joan Busquets):

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<sup>&</sup>lt;sup>6</sup> Fornaciari, *Sintassi* chap. VIII: § 30. [A proposito delle proposizioni condizionali, pp. 412-413:] "Nella terza [congiunt. impf. nella protasi; condizionale presente o passato nell'apodosi] e quarta forma [congiunt. trap. nella protasi, condizionale passato nell'apodosi] si può sostituire ai tempi composti (trap. del congiunt., pass. del condizionale) l'imperfetto dell'indicativo." ['In the third (subj. imperfect in the protasis; conditional present or past in the apodosis) and fourth form (subj. pluperfect in the protasis; conditional past in the apodosis) it is possible to replace the compound tenses (pluperfect subjunctive, past conditional) with the imperfect of indicative.']

<sup>&</sup>lt;sup>7</sup> The English translation of (30) is taken from Allen Mandelbaum's translation of "La Divina Commedia".

<sup>&</sup>lt;sup>8</sup> We thank Lola de Hevia for her judgment.

(32) Si venies [come-2sg.IMPERF], (segur que) et diverties [amuse-2sg.IMPERF].

As Joan Busquets has reported to us: "Sur le site officiel 'Consultations linguistiques' du gouvernement catalan, il est dit que 'la corrélation entre le conditionnel et l'imparfait indicatif est aussi possible. [...] on peut le trouver dans la langue courante avec un sens expressif. Par exemple :

[(33)] Si me'l trobava [imparfait] fumant al carrer, m'el carregava [imparfait]!

(littéral : si je me le trouvais fumant dans la rue, je le tuais !)" "

[On the Catalan government official website "Linguistic consultations", it is said that "the correlation between the conditional construction and the indicative imperfect is also possible. [...] it is possible to find the latter in ordinary speech with an expressive meaning. For example:

[(33)] Si me'l trobava [IMPERF] fumant al carrer, m'el carregava [IMPERF]!

(if I found him smoking in the street, I would kill him!)']

As far as we could ascertain, CFs of the *Imperfetto Irrealis* kind are not possible in Portuguese, Occitan or French. These languages exemplify reverse patterns: Portuguese (European and Brazilian alike) allows for the use of the indicative imperfect only in the apodosis of CFs while requiring the subjunctive mood in the protasis, as shown in (34), whereas both Occitan and French have the indicative imperfect in the protasis and the conditional mood in the apodosis, as shown in (35a,b) (on the use of the indicative imperfect in French CFs, see Patard 2006).<sup>9</sup>

- (34) Se viesses [come-2sg.IPFV.sbJV] à festa, divertias-te [amuse-2sg.IMPERF]. (Portuguese)
- (35) a. Se veniás [come-2sg.IMPERF] t'amusariás [amuse-2sg.PRS.COND]. (Occitan)
  - b. Si tu <u>venais</u> [come-2sg.IMPERF] tu t'<u>amuserais</u> [amuse-2sg.PRS.COND]. (French)

'If you came, you would have fun.'

Most importantly, this formal difference in the realization of either the protasis (Portuguese) or the apodosis (Occitan and French) is coupled with a semantic difference for the interpretation of the whole conditional sentence in these languages: unlike the Italian *Imperfetto Irrealis*, the Portuguese, Occitan and French CFs in (34) and (35) cannot have a past interpretation and are thus like the English one past CFs (see the English translation above). In order to obtain an interpretation similar to that of the *Imperfetto Irrealis* in (1) above (hence, the interpretation of an English two pasts CF), Portuguese needs the <u>pluperfect subjunctive</u> in the protasis and the <u>pluperfect indicative</u> in the apodosis, as in (36), whereas Occitan and French need the <u>pluperfect indicative</u> in the protasis and the <u>past conditional</u> in the apodosis, as in (37a,b):<sup>10</sup>

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<sup>&</sup>lt;sup>9</sup> We thank an anonymous reviewer and Patrícia Amaral for the Portuguese data, and Myriam Bras and Jean Sibille for the Occitan and the French data.

<sup>&</sup>lt;sup>10</sup> Occitan can also have the imperfect subjunctive, instead of the imperfect indicative, in the protasis of an *irrealis* conditional, as in (i) and (ii), which are the subjunctive minimal variants of (35a) and (37a), respectively:

<sup>(</sup>i) Se <u>venguèsses</u> [come-2SG.IPFV.SBJV] t'amusariás.

- (36) Se tivesses vindo [come-2sg.pluperf.sbjv] à festa, tinhas gostado [like-2sg.pluperf.ind]. (Portuguese)
- (37) a. S'<u>èras vengut</u> [come-2sg.PLUPERF.IND] te <u>seriás amusat</u> [amuse-2sg.Pst.cond]. (Occitan)
  - b. Si tu <u>étais venu</u> [come-2SG.PLUPERF.IND] tu te <u>serais amusé</u> [amuse-2SG.PST.COND]. 11 (French)

'If you had come, you would have had fun.'

The difference in behavior between Italian *Imperfetto*, on the one hand, and the Portuguese, French, and Occitan imperfect indicatives, on the other, as it emerges in the expression of *irrealis* conditionals, is an important fact for the study of morphosyntactic and semantic variation within Romance, whose explanation in our opinion requires considering the evolution of the whole tense-aspectual systems of these languages. We will leave it as a speculative hypothesis here that the French indicative imperfect (*Imparfait*) took over the role of describing *irrealis* hypothetical situations from the subjunctive imperfect, possibly within a more general tendency in French for the indicative to take over from the subjunctive in non-veridical contexts. <sup>12</sup> The evolution in Portuguese is different: in this language the indicative imperfect (*Imperfeito*) is gradually replacing the conditional mood, perceived by native speakers to belong to a formal register.

However, the use of the subjunctive in the protasis of *irrealis* conditionals is steadily declining in Occitan, with the indicative taking over *salva significatione* (Jean Sibille, p.c.). This may well be a contact-induced change, due to the influence of French.

(i) Tu <u>étais</u> là il y a 5 minutes, tu le <u>voyais</u>. <sup>11</sup> you be-2SG.IMPERF there ago 5 minutes you him see-2SG.IMPERF 'Had you been there five minutes ago, you would have seen him.'

In (i), the *Imparfait* occurs in the two juxtaposed clauses, which creates a close parallel to Italian *Imperfetto Irrealis*. Patard (2019) discusses a similar construction, as exemplified by the literary example (ii), to show the possibility of a counterfactual interpretation of the *Imparfait*:

(ii) Une seconde de plus il [le taureau] l'<u>éventrait</u> [gore-3SG.IMPERF]. 'One more second and the bull would have gored him.' (Gustave Flaubert, *Un cœur simple*)

<sup>12</sup> If the speculative hypothesis regarding French is on the right track, this suggests that a morphological syncretism analysis of the *Imparfait* for its uses in main clauses and *irrealis* conditionals might be correct. We do not think, however, that a similar analysis would be valid for the Italian *Imperfetto* (a possibility raised by an anonymous reviewer). Indeed, the latter still occurs in alternation with the subjunctive in *irrealis* conditionals, and we believe both forms can, and often do, coexist in the idiolect of a single speaker, each enjoying specific semantic and pragmatic properties. This complex situation in Italian, marked by the coexistence of different forms of CF conditionals, has certainly been in place for many centuries, as is irrefutably shown, for example, by the great variability of CF conditionals attested in Machiavelli's 16<sup>th</sup> century prose (see in particular his *Istorie fiorentine*, first published in 1532).

<sup>(</sup>ii) Se <u>foguèsses</u> [be-2SG.IPFV.SBJV] vengut te seriás amusat.

<sup>&</sup>lt;sup>11</sup> The case of French, however, is more complex than this standard picture would let one imagine, in particular due to "*if*-less" conditional constructions such as (i) (Anne Condamines, p.c.):

## 5. Imperfetto Irrealis and the standard values of Romance imperfects

## 5.1 *Imperfetto* beyond conditionals

Like Romance indicative imperfects more generally, the *Imperfetto* has some core uses to describe an eventuality *e* as follows (Bertinetto 1986, Bonomi 1997, Anand and Hacquard 2010):

- (a) e is <u>ongoing</u> at some relevant time  $t_R$ ,
- (b) the time  $t_R$  at which e is ongoing is in the past,
- (c) *e* requires <u>contextual framing</u>.

The best known among such uses are the continuative, the progressive and the habitual/generic uses, illustrated below:

#### - Continuative

(36) Mentre <u>scrivevo</u> e <u>scrivevo</u> [write-1SG.IMPERF], mi chiedevo se sarebbe interessato a qualcuno leggere tutto questo papiro.

'While I was going on writing and writing, I was wondering whether anyone would be interested in reading all this screed.'

# - Progressive

(37) In quel preciso momento <u>fumava</u> [smoke-3sg.IMPERF] tranquillamente un toscano. 'At that very moment he was quietly smoking a Tuscan cigar.'

#### - Habitual

(38) In quel periodo <u>leggeva</u> [read-3SG.IMPERF] un salmo al giorno. 'During that period he would read one psalm a day.'

#### - Generic

(39) A quell'epoca le donne <u>dipendevano</u> [depend-3PL.IMPERF] economicamente dal marito. 'At that time women were economically dependent on their husbands.'

In each of these uses the three basic functions in (a)-(c) above are present. The eventuality presented as ongoing in the past is a temporally scattered, though presumably atomic event of writing a book in (36), an atomic event of smoking a Tuscan cigar in (37), a plural event of reading psalms in (38), and a very large state of being economically dependent on one's husband in (39). In each of (37)-(39) the contextual framing required by the *Imperfetto* is made explicit via a time adverbial occurring in sentence-initial position; contextual framing is also necessary for the interpretation of (36), though in this case it is not obtained via an expression occurring in the sentence but is determined on the basis of the preceding context.

Other uses are possible for the Italian Imperfect. Here we emphasize its use to describe an event in the future with respect to a past reference time, illustrated in (40):

#### - Future-in-the-past

(40) Mi ha detto allora che <u>veniva</u> [come-3sg.IMPERF] a trovarci la settimana dopo. 'She then told me that she <u>would come</u> to visit us the following week.'

This use too has been analyzed in terms of the basic functions in (a)-(c) above, via a connection to the so-called *futurate readings* of present tense sentences (Dowty 1979, Copley 2010, Bonomi and Del Prete 2009): the fundamental idea, going back to Dowty (1979), is that a

preparatory state preceding and leading to an event can become semantically relevant in some cases, besides the event itself in the denotation of the verb phrase. Copley (2010) proposes the notion of *plan* as semantically relevant for the analysis of futurates, providing a cognitively interesting interpretation of Dowty's general idea of a preparatory state.

The relation between (40) and futurates becomes clearer if we transpose (40) into the present, as in (41a), or if we turn it into direct discourse, as in (41b) (the tense form of the matrix clause verb is formally the same in [40] and [41a] — a *Passato Prossimo* — but it is interpreted as a perfective past in [40] and a perfect with current relevance in [41a]; the tense form of the subordinate/quoted clause verb in [41a-b] is the *Presente Indicativo*, which we regard as aspectually imperfective and differing from the *Imperfetto Indicativo* only with respect to a present *vs.* past tense feature; Bertinetto 1986, Lenci & Bertinetto 2000):

- (41) a. Mi ha appena detto che <u>viene</u> [come-3sg.PRS.IPFV.IND] a trovarci settimana prossima.
  - 'She has just told me that she will come to visit us next week.'
  - b. Mi ha detto allora: "Vengo [come-1SG.PRS.IPFV.IND] a trovarvi settimana prossima."
    - 'She told me then: 'I'll come to visit you next week.''

The idea in an approach to futurates  $\grave{a}$  la Dowty-Copley is that the imperfective underlying the present tense clause "Vengo [come-1sg.prv.ind] la settimana prossima" ('I'll come next week') does not operate on the property of events P lexically denoted by the verb in the present tense; instead, it operates on a derived property of states semantically related to P, one which is true of a planning/preparatory state leading to a P-event.

Importantly, the future-in-the-past use is not common to all Romance imperfects. French would rather use the *Conditionnel Présent* in this context, as in (42):

(42) Elle m'a dit qu'elle <u>viendrait</u> [come-3sg.PRS.COND] nous voir la semaine d'après.

This might be a factor in accounting for the perceived unacceptability of *irrealis* conditionals with the *Imparfait* in the apodosis. (But, again, the situation in French appears to be more complex, as it appears to be possible to use the *Imparfait* in alternative to the *Conditionnel Présent* in contexts of future-in-the-past; cf. "Elle m'a dit qu'elle <u>venait</u> [come-3sg.IMPERF] nous voir la semaine d'après" [Myriam Bras, Juliette Thuilier, Raphael Sicheu-Bazin, p.c.]. See Kamp and Rohrer [1983].)

#### 5.2 What relation to the non-conditional uses?

*Imperfetto Irrealis* do not clearly fit with the core (non-conditional) uses of Romance imperfects. For example, *Imperfetto Irrealis* (43) intuitively conveys a relation between a culminated (not ongoing) event of coming to the party and a culminated (not ongoing) event of having fun (cf. Anand and Hacquard 2010 on imperfect in French CFs); in addition, the future time adverb "domani" indicates that (43) is about future (not past) events of coming to the party and having fun.

- (43) Se *domani* <u>venivi</u> [come-2sg.IMPERF] alla festa, ti <u>divertivi</u> [amuse-2sg.IMPERF] un sacco.
  - 'If you had come to the party tomorrow, you would have had a lot of fun.'

One might suggest, however, that there is a closer relation between *Imperfetto Irrealis* and the future-in-the-past use of the *Imperfetto*: a topic situation in the past is such that an event  $e_1$  of coming occurs in the future of that situation, and  $e_1$  in its turn provides the anchoring point to interpret the *Imperfetto* of the apodosis; the result of this two-steps interpretation is that the event  $e_2$  of having fun occurs in the future of the event  $e_1$  of coming to the party, which in its turn occurs in the future of a past topic situation. This temporal structure is depicted in Fig. 1.

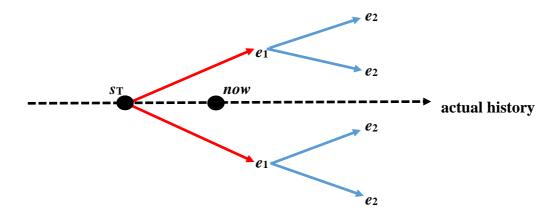


Figure 1. Temporal diagram for *Imperfetto Irrealis* (43)  $(s_T = \text{topic situation}, e_1 = \text{you coming to the party}, e_2 = \text{you having a lot of fun at the party})$ 

Other *Imperfetto Irrealis*, however, challenge the idea of  $e_1$  providing the anchoring point from which  $e_2$  is projected to the future. Consider (44):

(44) Se *domani* <u>venivi</u> [come-2sg.IMPERF] alla festa, adesso ti <u>preparavo</u> [prepare-1sg.IMPERF] quel dolce che ami tanto.

'If you had come to the party tomorrow, now I would have baked you that cake which you like so much.'

In (44), H's coming to the party tomorrow (=  $e_1$ ) is the reason for S's baking the cake now (=  $e_2$ ). Therefore, if  $e_1$  were the anchor for the projection of  $e_2$ ,  $e_2$  would have to be projected to the past of  $e_1$ . This would run against the hypothesis of an alignment between the Imperfetto in (44) and the future-in-the-past use.

One (who wished to defend the idea of a close connection between *Imperfetto Irrealis* and the future-in-the-past) could insist that (44)'s interpretation is actually structured in a similar way to (43)'s; the only difference between the two conditionals would reside in how their superficially identical protases are interpreted (and, secondarily, how the protasis and apodosis eventualities are situated relative to the speech point). The argument would run as follows: the protasis of (44) does not refer to an event of H coming to the party, but rather to a state of it being decided (or settled) that H will come to the party; the relevance of such a state to the truth-conditions of (44) is brought out by the appropriateness of a reformulation of (44) which makes explicit reference to the state in question — (45) being an example of such a reformulation.

(45) Se <u>era deciso</u> [be-3sG.IMPERF decided] che domani venivi alla festa, adesso ti preparavo quel dolce che ami tanto.

'If it had been decided that you were coming to the party tomorrow, now I would have baked you that cake which you like so much.'

According to this argument, once the covert reference to the underlying state — the state of it being decided that H will come to the party (let's call it "Settled-Party") — were made explicit, the temporal structure of (44) would turn out to be similar to the one of (43): the state referred to in the protasis ( $s_1$  = Settled-Party) would still provide the anchoring point from which the apodosis event ( $e_2$  = S baking H their favorite cake) is projected to the future (see Fig. 2). <sup>13</sup>

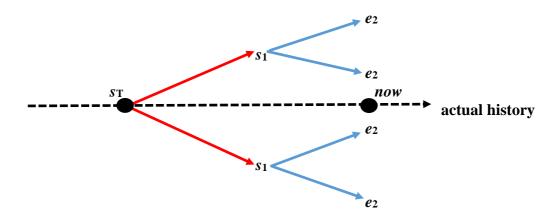


Figure 2. Temporal diagram for *Imperfetto Irrealis* (44) / (45)  $(s_T = \text{topic situation}, s_1 = \text{Settled-Party}, e_2 = S \text{ baking } H \text{ their favorite cake})$ 

Although we agree on the idea of a unified temporal structure for *Imperfetto Irrealis* like (43) and (44), we think it is possible to specify such a unified structure without assuming that, despite their formal syntactic identity, the protasis of (43) and the protasis of (44) differ in meaning in the way described above. Furthermore, we would have qualms on an attempt to unify *Imperfetto Irrealis* and futures-in-the-past via an approach to the latter which was based on the Dowty-Copley's idea of a preparatory/planning state; the reasons for our qualms is that *Imperfetto Irrealis* do not seem to us to talk in any sense about plans/preparations leading to events (a conditional like [1] seems to us to pertain to the category of <u>prediction</u>, rather than the category of planning which is arguably involved in [41a,b]).

The view we suggest can be articulated as follows:

- **Morphosyntax-1:** an *Imperfetto Irrealis* [if  $\Phi_1$   $\Phi_2$ ] only involves one *Imperfetto* scoping over the whole 'if'-construction at Logical Form (LF);
- **Morphosyntax-2:** the *Imperfetto*'s showing up on the main verbs in  $\Phi_1$  and  $\Phi_2$  are semantically inert morphosyntactic reflexes of the one unique wide-scoping *Imperfetto*;
- **Semantics-1:** in accordance with Morphosyntax-1/2, [if  $\Phi_1$   $\Phi_2$ ] only introduces one branching point,  $s_T$ , in the semantic model;
- **Semantics-2:**  $s_T$  is located at the reference time  $t_R$  (typically found in core uses of Romance imperfects);
- **Semantics-3:** on each branch of  $s_T$  where a  $\Phi_1$ -eventuality occurs, there occurs a  $\Phi_2$ -eventuality as well;

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 $<sup>^{13}</sup>$  A secondary difference between the two structures has to do with the position of the eventualities relative to the speech point [now]: in (43)'s temporal diagram both the protasis and the apodosis eventuality lie in the future of the speech point and only the topic situation is in the past of it, whereas in (44)'s temporal diagram neither the protasis nor the apodosis eventuality would lie in the future of the speech point.

**Pragmatics:** the temporal relation between the  $\Phi_1$ -eventuality and the  $\Phi_2$ -eventuality on each branch of  $s_T$  is contextually inferred, based on specific information regarding the two events which may come from general world-knowledge or local knowledge pertaining to the linguistic context.

According to this view, the temporal structure unifying (43) and (44) is as in Fig. 3:

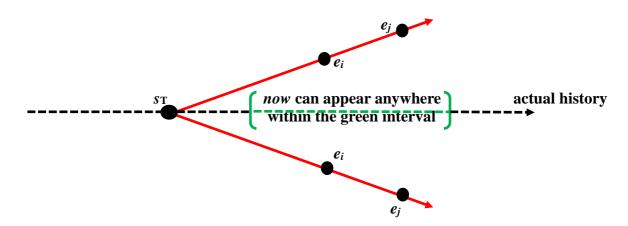


Figure 3. Unified temporal diagram for Imperfetto Irrealis

In this diagram,  $e_i$  and  $e_j$  are the  $\Phi_1$ -eventuality and the  $\Phi_2$ -eventuality, in one order or another —  $e_1$  may precede  $e_2$ , as in (43) and (45), or  $e_2$  may precede  $e_1$ , as in (44) (in its direct interpretation), or else  $e_1$  and  $e_2$  may be overlapping, as in (46):

(46) Se <u>ero</u> [be-1sg.IMPERF] ricco, non <u>avevo</u> [have-1sg.IMPERF] bisogno di lavorare tanto. 'If I had been rich, I would not have needed to work this much.'

The speech point can fall anywhere within the green interval on the dotted line — it can be situated (i) before  $e_i$  and  $e_j$ , as in (43), (ii) after  $e_i$  and  $e_j$ , as in the minimal variant of (43) in which "ieri" ('yesterday') occurs instead of "domani", (iii) at a point overlapping with  $e_i$  and  $e_j$ , as in (46), or (iv) between  $e_i$  and  $e_j$ , as in (47):

(47) Se quest'anno <u>venivi</u> [come-2SG.IMPERF] più regolarmente agli allenamenti, l'anno prossimo <u>giocavi</u> [play-2SG.IMPERF] in prima squadra.

'If you had come to practice more regularly this year, you would have played in the first team next year.'

What is crucial is that the topic situation lies in the past of the speech point, however this may be situated relative to the protasis and the apodosis eventualities. We will formally spell out the view sketched above in section 5.4.

#### 5.3 Previous semantic analyses of past-marked CFs

Formal semantic analyses of past-marked counterfactuals can be divided in two families (a common assumption throughout these analyses is that the English modal "would", commonly found in the apodoses of English CFs, is the past tense form of the untensed auxiliary "WOLL", whose present tense form is "will" [Abusch 1997]):

- (PM) "Past as Modal": analyses based on the idea that the past tense marking in CF conditionals is a "fake past"; what appears to be a past tense at the surface is actually a modal (Iatridou 2000, Mackay 2019, von Fintel and Iatridou 2023).
- (PP) "Past as Past": analyses based on the idea that the past tense marking in CFs corresponds to a true past tense; this interacts with a modal which is independently given by the semantics of the conditional construction (Ippolito 2003).

More specifically, (PM)-approaches assume the following (in some form or another):

(PM1) The morphological pasts in the protasis and apodosis of CFs are the morphological reflexes of a "modal past", PAST<sup>M</sup>, which takes scope over them at LF and whose actual semantic contribution is to take us from the current default value of a modal parameter to an alternative value of the same parameter: <sup>14</sup>

 $PAST^{M}(\Phi > WOLL(\Psi))$ 

(PM2) The protasis and the apodosis of two-pasts CFs each involve a true past tense, PAST<sup>T</sup>, which scopes inside its clause; in addition, the past tense of the apodosis scopes above the future auxiliary WOLL:

 $PAST^{M}(\boldsymbol{PAST^{T}(\Phi)}) > \boldsymbol{PAST^{T}(WOLL(\Psi))})$ 

A problematic aspect of (PM), emphasized by Ippolito (2003), is the difficulty to reconcile (PM2) with what Ippolito calls *mismatching past counterfactuals*, in which temporal reference is to the future in spite of the additional layer of past tense, e.g., "If Charlie had taken his Advanced Italian test tomorrow [instead of last Monday, which was way too early], he would have passed" (Ippolito 2003: 146).<sup>15</sup>

(PP)-analyses claim the genuine temporal value of the morphological past-marking, while keeping to one fundamental aspect of (PM)-analyses, concerning the scope of the past tense. More specifically, they assume the following:

- (PP1) Despite its morphological realization on the verbs inside the protasis and the apodosis, the past tense in CFs is not clause-bounded but it takes wide scope above the whole conditional.
- (PP2) The wide-scoping past tense restricts the modal base of a (possibly covert) modal operator, which is the modal underlying the conditional construction in Kratzer's (1991, 2012) analysis of conditionals.

## 5.4 Proposal of a formal analysis of *Imperfetto Irrealis*

The formal analysis we propose for *Imperfetto Irrealis* has certain features in common with both (PM)- and (PP)-approaches to CFs: (i) with the former it shares the morphosyntactic assumption that the tense/aspect features found on the verbs in the protasis and apodosis are

<sup>&</sup>lt;sup>14</sup> Mackay (2019) proposes that the modal past in a CF introduces a set of propositions which is a proper subset of the factual common ground. von Fintel and Iatridou (2023) characterize the meaning of what they call *X-marking* (the morphological marking found in CFs, which in their theory includes a past morpheme) as "departure from a default value of a modal parameter" but, unlike Mackay, they do not formalize the relation between the derived value of the relevant modal parameter and its default value.

<sup>&</sup>lt;sup>15</sup> As discussed by Mackay (2019: 24-25), who follows Ippolito (2013), to deal with mismatching past CFs one should allow for a single wide-scoping tense PAST<sup>T</sup> at LF, as in the structure PAST<sup>M</sup>(**PAST**<sup>T</sup>( $\Phi$  > WOLL( $\Psi$ ))), in which the past tense would not determine the temporal location of the events in the protasis and apodosis but would rather constrain the temporal perspective from which the base conditional ( $\Phi$  > WOLL( $\Psi$ )) is evaluated.

there for a mechanism of feature-spread from a higher *Imperfetto* scoping over the whole conditional, hence they are not semantically interpreted, (ii) with the latter it shares the semantic assumption that the past that we see morphologically realized in *Imperfetto Irrealis* is just what it is in non-conditional contexts such as (36)-(40), namely, a temporal past. Regarding the modality, we propose that it is due to the interpretation of the imperfective aspect in a branching time model of historical possibilities. Notice that the branching time model we assume for the analysis of *Imperfetto Irrealis* is the same model assumed for the analysis of progressive and habitual uses of the *Imperfetto*; this choice implies that conditional and non-conditional uses of this TAME form are treated as involving the <u>same type of modality</u>, thus highlighting an (at least partially) unified analysis of the *Imperfetto* across these apparently very different uses (we come back to this point in section 5.4.2).

# 5.4.1 Toward a unified semantics for the *Imperfetto*

We aim at a unified semantics for the *Imperfetto* across conditional and non-conditional uses. Building on a previous proposal in Del Prete (2013), we assume a variant of classical Branching Time (BT) which accommodates partiality, called *Partial Branching Time* (PBT). Instead of moments (i.e., instantaneous events maximally extended through space), PBT is based on Kratzerian situations as the elements ordered by temporal succession (Kratzer 2020). However, we will depart from Kratzer's situation semantics in one important respect: since the idea at the basis of BT is extended to situations, a situation will be thought of as having a unique past but many possible futures, therefore it will be possible to see one and the same situation as being part of different worlds/histories (more on this below). Unlike in classical BT models (Prior 1967, Thomason 1984, Belnap 1992, Belnap et al. 2001), in PBT the future branches stemming from a given situation s are not all the futures metaphysically possible at s but a smaller set of possible courses of events, representing the expected continuations of s from the perspective of s. Crucially, the expected continuations of s need not include the course of events that later turns out to be actual.

The interpretation of an *Imperfetto* requires an anchoring situation  $s_R$ , <sup>16</sup> whose size may vary widely from one case to another. In (36)  $s_R$  is the scattered situation during which writing is said to occur, in (37) it is the punctual moment at which smoking a Tuscan cigar is said to be ongoing, in (38) it is the extended period — of several months, or maybe years — over which reading psalms is said to occur (by "reading psalms" we mean a plural event which is the sum of atomic events of reading a psalm), and in (39) it is the large epoch across which the state of women being economically dependent on their husbands is said to hold (by "the state of women being economically dependent on their husbands" we mean a plural eventuality which is the sum of atomic eventualities of a woman being economically dependent on her husband).

The anchoring situation  $s_R$  is typically included in the (spatio-temporal) trace of the event in the denotation of the verb — this is the relation that we see in (36)-(39) (as we have pointed out above, [38] and [39] involve large anchoring situations and plural events/states overflowing those situations). However, it need not always be so: for instance, in (40)  $s_R$  is the situation in which the matrix clause event of saying occurs, and this situation is clearly not included in the trace of the visiting event described by the subordinate clause but precedes that trace.

Formally, the *Imperfetto* contributes both a pastness condition and an imperfectivity condition (Ippolito 2004, Del Prete 2013). The pastness condition is spelled out in terms of distance of  $s_R$  from the time of the context  $t_C$  in the pastward direction, as in (48) below. We assume a referential analysis of tense (Heim 1994): the feature PAST introduces a situation variable at LF, and further presupposes that the value of this variable is past with respect to the

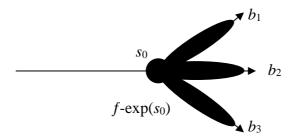
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<sup>&</sup>lt;sup>16</sup> This is sometimes described as a *point of reference* in Reichenbachian approaches to tense (Bertinetto 1986, Giorgi and Pianesi 1997).

context situation. The subscript k on PAST is the situation variable introduced by tense; the value of k under the assignment g is the anchor  $s_R$  (i.e.,  $g(\langle k, w \rangle) = s_R$ ).

(48) 
$$[[PAST_k]]^{C,g,w} = \lambda P_{\langle i,t \rangle} : g(\langle k, w \rangle) \langle_S t_C. P(g(\langle k, w \rangle))^{17}$$

The imperfectivity condition is spelled out in terms of two formal concepts: (a) the operation of forward-expansion, f-exp(s), which expands a situation s forward in PBT (Fig. 4),  $^{18}$  and (b) the 'throughout' operator, THR, defined in (49) below, which takes a property of eventualities P and a (branching) situation s and spreads out P over s — more precisely, "THR(P, s)" states that every branch of s is temporally included by the trace of a P-eventuality. In (49), b is a branch of s, i.e. a sub-situation of s which lies within a single history. Branches of s represent expected continuations of the initial part of s (in Fig. 4, s corresponds to the whole branching situation f-exp( $s_0$ ), of which  $s_0$  is the initial part, and branches  $b_1$ ,  $b_2$ , and  $b_3$  are the expected continuations of  $s_0$ ).



**Figure 4.** Forward-expansion of a situation  $s_0$  in PBT

(49) THR(
$$P_{\langle v,t \rangle}$$
,  $s$ ) =<sub>Def</sub>  $\forall b \ [b \subseteq_S s \to \exists e \ [P(e) \land b \subseteq_S \tau(e)]]$ 

The lexical entry for the imperfective operator IPFV is (50):

(50) [[IPFV]] = 
$$\lambda s. \lambda P_{\langle v,t \rangle}$$
. THR( $P, f$ -exp( $s$ ))

Notice that the forward-expansion of a situation is also a situation, as opposed to a set of situations. <sup>19</sup> This is required by the THR operator in (49), since its second argument is of type s, as opposed to type <s,t>. This implies that a situation can be part of several possible worlds/histories and so marks a departure from Kratzer's situation semantics, where any given situation can only be part of a single possible world. This property of our account is what makes it possible to see IPFV as a <u>hybrid tempo-modal operator</u>: IPFV manipulates objects (i.e., situations) that carry both temporal and modal information, since they provide the temporal traces of events and at the same time are embedded in a model of historical possibilities and

<sup>&</sup>lt;sup>17</sup> The type system contains the basic types e (individuals), t (truth-values), i (situations), v (events), and s (circumstances of evaluation). The evaluation function [[]] takes the LF  $\alpha$  onto the object  $\alpha^*$  which is the semantic value of  $\alpha$  relative to a context C, an assignment function g, and a circumstance of evaluation w. The function g is a two-place function which assigns (a) a temporal value (= a situation) to any variable of type i relative to any circumstance w and (b) an individual to any variable of type e relative to any circumstance e given variable e of type e and circumstance e and circumstance e and circumstance e and circumstance e and e is a sequence of parameter values including the time of utterance e the circumstance of utterance e and the hearer e and the hearer

<sup>&</sup>lt;sup>18</sup> The idea of forward expansion of a reference time was proposed in Condoravdi (2002, 2003) and later used by Deo (2010) and Del Prete (2013).

<sup>&</sup>lt;sup>19</sup> We are thankful to an anonymous reviewer for highlighting this aspect of our account and inviting us to clarify its consequences.

can branch in alternative histories. Accordingly, the *Imperfetto*, which combines PAST and IPFV, is analyzed in our account as a hybrid temporal/modal form.

To see how our analysis works in a particular case, we apply it to (51):

(51) In quel momento / periodo Gianni fumava [smoke-3sg.IMPERF] un sigaro toscano. 'At that moment Gianni was smoking a Tuscan cigar.' [Prog.] 'During that period Gianni used to smoke a Tuscan cigar (the Toscanello).' [Hab.]

Choice of the reference time adverbial "in quel momento" ['at that moment'] triggers a progressive reading of the imperfect clause, choice of "in quel periodo" ['during that period'] triggers a habitual reading of the same clause (as in Del Prete 2013, we assume that the role of the reference time adverbial is to constrain the value of the variable introduced by tense; tense combines with the time adverbial at LF, thus forming a complex tense operator, e.g.,  $[TPAST_k][TAdV]$  in quel momento/periodo]], the presuppositional part of which includes a condition on the reference situation that depends on the time adverbial). The LF of (51) is (52) and the compositional derivation of its truth-conditions is in (53) (notice that the choice of reference time adverbial does not affect the structure of the LF or the truth-conditional derivation):

(52)  $[TP [T PAST_k [TAdv in quel momento / periodo]] [AspP IPFV [VP1 [DP un sigaro toscano]] <math>1[VP2 Gianni fumare t_1]]]^{20}$ 

```
(53) a. [[[v_{P2} \text{ Gianni fumare } t_1]]]^{c,g,w} =
= \lambda e. [\text{smoke}(e) \land \text{Agent}(e) = \text{Gianni} \land \text{Patient}(e) = g(<1, w>)]
b. [[1[v_{P2} \text{ Gianni fumare } t_1]]]^{c,g,w} =
= \lambda x. \lambda e. [\text{smoke}(e) \land \text{Agent}(e) = \text{Gianni} \land \text{Patient}(e) = g^{[x/1,w]}(<1, w>))]^{21}
c. [[[D_P \text{ un sigaro toscano}]_1]]^{c,g,w} = \lambda P_{<e,<v,t>>} \lambda e. \exists x [\text{Tuscan-cigar}(x) \land P(x,e)]
d. [[[v_{P1} [D_P \text{ un sigaro toscano}]_1 1[v_{P2} \text{ Gianni fumare } t_1]]]]^{c,g,w} =
= \lambda e. \exists x [\text{Tuscan-cigar}(x) \land \text{smoke}(e) \land \text{Agent}(e) = \text{Gianni} \land \text{Patient}(e) = x]
e. [[[A_{SPP} \text{ IPFV} [v_{P1} [D_P \text{ un sigaro toscano}]_1 [v_{P2} \text{ Gianni fumare } t_1]]]]]^{c,g,w} =
= \lambda s. \forall b [b \subseteq s f-\exp(s) \rightarrow \exists e \exists x [\text{Tuscan-cigar}(x) \land \text{smoke}(e) \land \text{Agent}(e) = \text{Gianni} \land \text{Patient}(e) = x \land b \subseteq s \tau(e)]]
f. [[(52)]]^{c,g,w} = 1 \text{ iff}
iff \{g(<k, w>) < s tc \land g(<k, w>) = \text{that-moment} / \text{that-period}\}
\forall b [b \subseteq s f-\exp(g(<k, w>)) \rightarrow \exists e \exists x [\text{Tuscan-cigar}(x) \land \text{smoke}(e) \land \text{Agent}(e) = \text{Gianni} \land \text{Patient}(e) = x \land b \subseteq s \tau(e)]]
```

The anchoring situation  $g(\langle k, w \rangle) = s_R$  in (53f) is a small one if the adverbial is "in quel momento", but a large one (perhaps spanning several months, or even years) if the adverbial is "in quel periodo". Each of the continuation branches of (the forward-expansion of) this anchoring situation is included by the trace of an event of Gianni smoking a Tuscan cigar. Crucially, when  $s_R$  is small, the event introduced by the quantifier " $\exists e$ " is a singular event of smoking an individual Tuscan cigar (hence, the variable "x" takes this individual cigar as value), which yields the progressive reading of the clause in the *Imperfetto*; in contrast, when  $s_R$  is large, the event introduced by " $\exists e$ " is a plural event of smoking Tuscan cigars of a

<sup>&</sup>lt;sup>20</sup> The sentences in (51) are analyzed as containing the complex tense operators [ $_T$  PAST $_k$  [ $_{TAdv}$  in quel momento / in quel periodo]], whose semantic contribution is to introduce a situation  $s_R$  which must coincide with whatever situation is deictically referred to by "quel momento / quel periodo".

 $<sup>^{21}</sup> g^{[x/1, w]}$  is the assignment which differs from g at most for the value that it assigns to <1, w> and  $g^{[x/1, w]}(<1, w>)$  = x.

particular sub-kind (hence, "x" takes this sub-kind of Tuscan cigars as value), which yields the habitual reading of the same clause. Therefore, whether the smoking event is singular or plural, the relevant event stuff is spread out over the anchoring situation and its expected continuations, and the type of structure and modality characterizing progressive and habitual readings of simple *Imperfetto* clauses is predicted to be invariant.

A note of clarification: In the progressive, on the one hand, the continuation branches of the small anchor are (accordingly) short courses of events in which the singular event of smoking a particular cigar continues up to its natural completion. On the other hand, in the habitual the continuation branches of the large anchor are long courses of events in which the plural event of smoking a particular kind of cigar continues indefinitely. This difference in the description of the relevant continuation branches is due uniquely to the aspectual (i.e., Aktionsart) difference between a singular smoking of an individual cigar and a plural smoking of a kind of cigars: the former has a natural endpoint or completion (being an accomplishment), the latter does not (similar to states and processes). In other terms, the difference in question is due to lexical properties of the particular event predicate that bears the *Imperfetto* morphology; it is not due to a semantic ambiguity of the *Imperfetto*, nor (importantly) is it due to two different types of modality. In both progressive and habitual readings, the modality involved is the one characteristic of the adopted model of historical possibilities: several courses of events branch off from a given situation  $s_0$  as the normal continuations of  $s_0$  given certain relevant facts about  $s_0$  (e.g., the fact that a certain eventuality has been running in it) plus relevant shared world knowledge.]

The following section proposes that the modality of *Imperfetto Irrealis* comes from (almost) the same IPFV operator that we have seen at play in progressive and habitual readings, interpreted in the very same model of historical possibilities. This means that the type of modality involved in this type of conditionals — and the source of this modality — is the same as for progressive and habitual readings: it's all about expected continuations of a topic situation.

#### 5.4.2 Imperfetto Irrealis: (almost) unified

We make the following assumptions regarding the morphosyntactic and semantic structure of an *Imperfetto Irrealis* [se  $\Phi_1$   $\Phi_2$ ]:<sup>22</sup>

- (A1) the two *Imperfetto*'s IMPERF<sub>1</sub> and IMPERF<sub>2</sub> visible/audible in  $\Phi_1$  and  $\Phi_2$  are the morphosyntactic reflexes of a syntactically higher IMPERF<sub>0</sub> that scopes over the whole conditional at LF;
- (A2) a topic situation  $s_T$  is introduced for the evaluation of the conditional [se  $\Phi \Psi$ ] (Arregui 2005), where  $s_T$  is identical to the anchoring situation  $s_R$  needed for the interpretation of IMPERF<sub>0</sub>;
- (A3) the THR-operator (of the IPFV underlying IMPERF<sub>0</sub>) takes the pair of the event-properties in  $\Phi_1$  and  $\Phi_2$  (instead of a single event-property, as in the core uses) and a forward-expansion of  $s_T$  as its arguments: THR(< $P^{\Phi_1}$ ,  $Q^{\Phi_2}$ >, f-exp( $s_T$ ));

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<sup>&</sup>lt;sup>22</sup> The analysis we propose here is tailored to *Imperfetto Irrealis* and does not apply to Italian standard or mixed CFs, which display a different morphosemantic makeup — to analyze the latter, we would have to provide formal analyses of subjunctive and conditional morphology, a task which lies beyond the scope of this paper.

- (A4) THR universally quantifies over branches of f-exp( $s_T$ ) in which a  $P^{\Phi 1}$ -event occurs and requires that in each such branch there occurs a  $Q^{\Phi 2}$ -event as well: THR( $\langle P, Q \rangle$ , s) = $_{Def}$   $\forall b$  [[ $b \subseteq s$   $s \land \exists e$  ( $P(e) \land \tau(e) \subseteq s$  b]]  $\rightarrow \exists e$  [ $Q(e) \land \tau(e) \subseteq s$  b]];
- (A5) in accordance with (A3), the IPFV underlying IMPERF<sub>0</sub> takes the pair of the event-properties in  $\Phi_1$  and  $\Phi_2$  (instead of a single event-property) as its second argument: [[IPFV]] =  $\lambda s$ .  $\lambda < P^{\Phi_1}_{<v,t>}$ ,  $Q^{\Phi_2}_{<v,t>}$ . THR( $\langle P, Q \rangle$ , f-exp(s))

A consideration of how the 'throughout' operator is defined in (A4) shows that the temporal ordering of the protasis event  $e_1$  and the apodosis event  $e_2$  is not encoded by any semantical rule rigidly associated with the conditional construction. A temporal ordering will be contextually inferred, based on specific information regarding  $e_1$  and  $e_2$  which may come from general world knowledge or local knowledge pertaining to the linguistic context.

To illustrate, for *Imperfetto Irrealis* (54) the assumptions (A1)-(A5) lead to the LF in (55) and the truth-conditions derived in (56a-d):

- (54) Se venivi alla festa ti divertivi.
- (55)  $[TP [T PAST_k] [AspP IPFV [VP1] you come to the party] [VP2] you have fun]]]$
- a. [[ [vP2 you have fun] ]]<sup>C, g, w</sup> = λe. [have-fun-at-the-party(e) ∧ Experiencer(e) = h<sub>C</sub>]
  b. [[ [vP1 you come to the party] ]]<sup>C, g, w</sup> = = λe. [come-to-the-party(e) ∧ Theme(e) = h<sub>C</sub>]
  c. [[ [AspP IPFV [vP1 you come to the party] [vP2 you have fun] ] ]]<sup>C, g, w</sup> = = λs<sub>i</sub>. ∀b [ [b ⊆<sub>S</sub> f-exp(s) ∧ ∃e (come-to-the-party(e) ∧ Theme(e) = h<sub>C</sub> ∧ τ(e) ⊆<sub>S</sub> b)] → ∃e [have-fun-at-the-party(e) ∧ Experiencer(e) = h<sub>C</sub> ∧ τ(e) ⊆<sub>S</sub> b]]
  d. [[ (55) ]]<sup>C, g, w</sup> = 1 iff iff {g(<k, w>) <<sub>S</sub> t<sub>C</sub>}

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\forall b \ [ \ [b \subseteq_{S} f - \exp(s) \land \exists e \ (come-to-the-party(e) \land Theme(e) = h_{C} \land \tau(e) \subseteq_{S} b)] 
\rightarrow \exists e \ [have-fun-at-the-party(e) \land Experiencer(e) = h_{C} \land \tau(e) \subseteq_{S} b]]
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Conditional (54) is predicted to be true if and only if all future branches  $b_i$  open at the past topic situation  $s_T$  and such that the hearer comes to the party in  $b_i$  are such that the hearer has fun at the party in  $b_i$ .

For *Imperfetto Irrealis* (44) (repeated below), which was discussed at length in section 5.2, the analysis predicts the truth-conditions in (57):

- (44) Se *domani* <u>venivi</u> [come-2sg.IMPERF] alla festa, adesso ti <u>preparavo</u> [prepare-1sg.IMPERF] quel dolce che ami tanto.

  'If you had come to the party tomorrow, now I would have baked you that cake which you like so much.'
- (57)  $\{g(\langle k, w \rangle) \langle_S t_C\} \ \forall b \ [b \subseteq_S f\text{-exp}(s) \land \exists e_1 \text{ (come-to-the-party}(e_1) \land \text{Theme}(e_1) = h_C \land \tau(e_1) \subseteq_S b \land \tau(e_1) \subseteq_S \text{TOMORROW}_C] \rightarrow \exists e_2 \ [\text{bake-}h_C\text{'s-favorite-cake}(e_2) \land \text{Agent}(e_2) = s_C \land \tau(e_2) \subseteq_S b \land \tau(e_2) \subseteq_S t_C] \}$

The particular temporal ordering of the two events in (44) (namely, the apodosis event  $e_2$  precedes the protasis event  $e_1$ ) is captured in (57) via the relational formulae  $\tau(e_1) \subseteq s$  **TOMORROW**<sub>C</sub> and  $\tau(e_2) \subseteq s$   $t_C$ , given the obvious model condition  $t_C < \text{TOMORROW}_C$  (i.e., the

present moment precedes tomorrow). It should be now obvious how the analysis applies to the other cases we considered in section 5.2, which illustrated the other possible temporal orderings of  $e_1$  and  $e_2$  relative to the speech point, and so we leave that as a routine exercise to our readers.

As is clear from (A3)-(A5), we are not providing a completely unified semantics of the *Imperfetto* across its core uses and its use in CF conditionals:  $^{23}$  indeed, there are two 'throughout' operators (hence, two IPFV operators), one underlying the IPFV of non-conditional structures, defined in (49) above, and another one underlying the IPFV of CF conditionals, defined in (A4); the former takes a <u>single event-property P</u> as argument and requires that <u>each continuation branch be covered by a P-event</u>, the latter takes a <u>pair of event-properties < P, Q></u> as argument and requires that <u>each continuation branch covering a P-event also cover a Q-event</u>. These are obviously not one and the same operator — for one thing, they have different argument structures. As a direct consequence, the IPFV defined in (50) is not the same operator as the IPFV defined in (A5).

There is, however, a sense in which the two imperfective operators are alike (they realize one and the same concept of imperfectivity):

- (a) they both achieve the expansion of a topic situation toward the open future,
- (b) they both distribute some event stuff over the possible continuations in the open future,
- (c) their modal components both coincide with the modality of the branching historical possibilities.

Regarding this last point, our proposal invites to a unification of two classical views: the view of the modality inherent to progressive sentences as based on *inertia*/non-interruption ordering sources (Dowty 1977, Landman 1992, Portner 1998; extended by Ferreira 2005, 2016 to habituals), on the one hand, and the view of the modality inherent to CF conditionals as based on totally realistic ordering sources with similarity among possible worlds (Stalnaker 1968, Lewis 1973, Kratzer 2012), on the other hand. The idea supporting this unification is that the courses of events that branch off from a given situation  $s_0$  can be seen alternatively as the inertial continuations of  $s_0$  (grounding the possibility of saying of  $s_0$ , for example, that Mary was crossing the street), or as the closest worlds to a history  $h^s_0$  passing through  $s_0$  (grounding the possibility of saying of  $s_0$ , from a subsequent situation  $s_1 > s_0$  on  $s_0$ , that Mary would have crossed the street if she had not been hit by a truck [shortly after  $s_0$ ]). We must leave the full exposition of this idea for a separate paper.

### 6. Conclusion

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Imperfetto Irrealis have puzzling temporal and aspectual properties: unlike well-known core uses (continuative, progressive and habitual/generic) of Romance imperfects to describe an eventuality as past, they allow for the whole range of temporal interpretations, namely, the events described by the protasis and the apodosis can be past, present or future; in addition, the ongoingness condition characteristic of those core uses is not relevant anymore, since the events described by the protasis and the apodosis are seen as culminated. Imperfetto Irrealis are also puzzling for their modal properties: unlike the other indicative conditionals, which are generally interpreted as epistemic, they express counterfactual meaning. With respect to both their temporal and modal properties, we have shown that Imperfetto Irrealis are closer to two pasts CFs than one past CFs, by relying on data of mixed CFs (in which an Imperfetto combines with a past Subjunctive or a past Conditional). The data suggest that, in spite of the latitude of their

<sup>&</sup>lt;sup>23</sup> We are thankful to an anonymous reviewer for raising this point and feeding the subsequent discussion.

temporal interpretations, *Imperfetto Irrealis* preserve the true past tense active in core uses of Romance imperfects.

Building on a previous analysis of imperfective sentences in Del Prete (2013), as well as on crucial insights from Ippolito (2004, 2006), Arregui (2005) and Anand and Hacquard (2010) concerning CF semantics, we have proposed a formal account of *Imperfetto Irrealis* which allows a <u>partially unified</u> view of the *Imperfetto* semantics across conditional and non-conditional uses. The main insight making this partial unification possible bears on the morphosyntactic structure of *Imperfetto Irrealis* and is inspired by previous formal analyses of CFs (Iatridou 2000, Ippolito 2006): the two realizations of the *Imperfetto* that we see in an *Imperfetto Irrealis* are the morphosyntactic reflexes of a single higher PAST+IPFV, therefore the true semantically active *Imperfetto* is not situated where one can see/hear the *Imperfetto* morphology (that is, inside the protasis or the apodosis) but higher in the syntactic structure.

In the proposed account, framed in a branching time theory with Kratzerian situations as the basic temporal entities, the reference situation anchoring the *Imperfetto* still corresponds to a past topic situation, consistently with the PAST feature underlying this tense-aspectual form, and the imperfective feature still operates by expanding the topic situation forward in time and then spreading the event-properties of the protasis and apodosis through this forward-expanded situation. However, unlike in non-conditional uses in which IPFV applies to a single event-property and requires inclusion of the extended topic situation in the event trace, in the CF conditional uses IPFV applies to two event-properties (the protasis' and the apodosis') and requires inclusion of the two events in the extended topic situation. It is at this point that the uniformity of our view of *Imperfetto* breaks down: the topological relation characteristic of imperfective aspect (whereby the reference time is included by the event run-time) is reversed in *Imperfetto Irrealis*.

The counterfactuality of *Imperfetto Irrealis* is captured in our theory as the effect of an interaction between past and imperfectivity, which are thus claimed to be essential ingredients of the counterfactual meaning — neither one alone (i.e., without the contribution of the other) would suffice to produce counterfactuality. More precisely, by PAST the actual history is erased (from the present) up to the topical situation  $s_T$ , while by IPFV the topical situation  $s_T$  is expanded toward the future, thus branches that were possible at  $s_T$  (but were later discarded) become relevant for semantic evaluation. The puzzling temporal properties of *Imperfetto Irrealis* have been accounted for by assuming a weak semantic constraint: what the PAST feature uniquely requires is that the topical situation  $s_T$  be past, whereas by the IPFV feature the protasis and apodosis events are projected to the future of  $s_T$  but are left unordered with respect to the speech point, which can turn out to be in the future, overlapping or in the past of the protasis and apodosis events.

Finally, we have devoted some space to discussing the sociolinguistic profile of *Imperfetto Irrealis*. These structures have received, and continue to receive, considerable attention among linguists interested in diaphasic variation (Bazzanella 1990, Mazzoleni 2001, among many others). We have shown that, although generally perceived as non-standard or even substandard, *Imperfetto Irrealis* are well-established constructions, in colloquial but also, importantly, in literary use. They are formally simpler and semantically more flexible than the standard CFs of Italian with subjunctive mood in the protasis and conditional mood in the apodosis. This greater formal simplicity and semantic adaptability might be factors explaining their success in lower registers of the language. This doesn't take anything away from their semantic beauty.

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