

PRESENT TENSE IN RELATIVE CLAUSES AS EVIDENCE FOR SEQUENCE OF TENSE IN FRENCH

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ABSTRACT

The paper accounts for an unexpected embedded present tense, which denotes a future time in French relative clauses. The matrix displays either the periphrastic future or the simple future. In both cases, one can arguably decompose the matrix into a present tense feature and a forward shifter. This move leads to an analysis of the morphology encountered in the relative clause as an instance of Sequence of tense.

[1] THE CHALLENGE: PRESENT UNDER FORWARD SHIFTERS

I will argue that the present tense morphology in the relative clauses below (from a Google search) should be explained as a case of Sequence of tense (SOT).

- (1) Alors cela signifie qu'elle va se marier avec un homme qui travaille dur. (Les interprétations des rêves en Islam)
'That means she is going to marry a man who works hard.'
- (2) Elle se mariera avec un homme qui n'essaye pas de changer sa façon de vivre. (Prénom Lisandra – Signification et origine)
'She will marry a man who does not try to change his life style.'

These data have to my knowledge not been discussed in the literature on Sequence of tense in French (*la concordance des temps*). However, similar data are not difficult to find or construct, and I will assume that the empirical part of my argument is uncontroversial. Furthermore, I think it is uncontroversial that the present tense in the relative clauses (*travaille* and *essaye*, respectively) need not refer to the utterance time, but is plausibly referring to the future time of the marriage

reported in the matrix. Hence, we have a simultaneous reading.¹

The hard part, however, is to convince the reader that this is an instance of SOT. The notion itself is under attack in French linguistics, as in the very title of an overview article for a thematic issue on SOT in *Langages* a few years ago: *La concordance des temps, vers la fin d'une « règle » ?* (Le Tallec-Lloret & Roulland 2013).

The status of French as an SOT language is indeed obscured by the presence of the subjunctive and 'le conditionnel'. In this respect, the French data are often less transparent than in, say, English or Norwegian. Nonetheless, in the purely indicative tenses we still find clear signs of SOT patterns. Before we try to understand the 'new' data above, I will take the reader through a couple of standard cases.

[2] BACKGROUND: SOT IN COMPLEMENTS OF ATTITUDE VERBS

The crucial semantic property of attitude verbs like *say* or *think* with respect to SOT is connected to how they change the reference time of the complement. Consider the contradictory (3) vs. the quite normal utterance in (4) in a scenario where Jean is unaware of a recent change from winter time to summer time:

- (3) # À six heures, il est cinq heures.
 (4) À six heures, Jean dit qu'il est cinq heures.

A proper paraphrase of the latter is not (5), but (6):

- (5) #At six o'clock Jean says that 6=5. (An absurd belief attributed to Jean, who is a rational guy, so this cannot be right.)
 (6) At six o'clock Jean says that his 'subjective now' =5.

The *subjective now*, the time Jean believes to be the actual now, is in formal semantics treated as a bound zero tense (\emptyset), or a temporal TPRO, or, equivalently, a temporal abstraction, i.e. a λ -tense (Grønn & von Stechow 2010). So, the embedded present tense in (4) is not a deictic present, but its presence is presumably due to some kind of agreement between the matrix *dit* and the complement *est*.

Consider now the past tense version in (7):

- (7) À six heures Jean a dit qu'il était cinq heures.

[1] The data, nevertheless, must be handled with some care. I thank an anonymous reviewer and Fabienne Martin (p.c.) for pointing out that the simultaneous reading is unavailable in examples like the following:

- (i) Ruth va se marier avec un homme qui se révèle violent. (Google)
 'Ruth is going to marry a man who turns out to be violent.'

The simultaneous reading is presumably out due to the non-stative interpretation of the VP in the adjunct since the reading in question is perfectly fine with a stative adjunct like *qui est violent*. Why this is so, we don't know.

Here we have to stipulate an agreement relation by saying that the composite tense *a dit* carries a morphological (uninterpretable) past feature. There is only one semantic (interpretable) past tense in the whole construction, which can be paraphrased as follows:

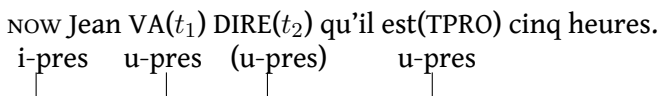
- (8) There was a past time at 6 o'clock at which Jean say that his 'subjective now' be 5 o'clock.

Importantly, by distinguishing between semantic and morphological tenses, we can say that there is an agreement relation from a higher semantic past to the two morphological tenses which are spelled out as past tenses, in this case, *le passé composé* and *l'imparfait*. In SOT-languages, the agreement relation is not broken by attitude verbs like *dire*, so we get long distance binding of temporal variables into the complement.

Attitude verbs are verbal (temporal) quantifiers with a rather complicated semantics which I will not go into here. A temporal auxiliary like *va* (present tense of *aller* – to go) is arguably also a temporal quantifier since it changes the reference time of the infinitive to a future time (a forward shifter). Let's consider an example with two temporal quantifiers in the matrix:

- (9) (Maintenant, il est deux heures). À six heures, Jean va dire qu'il est cinq heures.
'At six o'clock Jean is going to say that it is five o'clock.'

Jean's utterance will be perfectly consistent with his beliefs although he is wrong about the time. The embedded present is not deictic and cannot refer to the speaker's utterance time (= 2 o'clock). Crucially, the only *semantic* tense in (9) is still the deictic present (= 2 o'clock). This is obscured by the fact that we are used to think of the *aller+infinitive* as *le futur périphrastique* (Helland 1993). But, obviously, both the French *va* and *is going to* in the suggested English equivalent are morphological manifestations of a higher semantic *present* tense. To avoid confusion we have to carefully distinguish between semantic and morphological tense. The proposed structure is thus as in Figure 1, where the temporal pronoun TPRO stands for the attitude holder's SUBJECTIVE NOW.



There is a time t after NOW such that Jean says at t that his SUBJECTIVE NOW = 5.

FIGURE 1: Tense agreement through temporal quantifiers.

The technical details of such a system are laid out in (Grønn & von Stechow 2010). Here I will only mention a few points: Every verb has its own temporal argument (reference time) with an uninterpretable (morphological) feature. This time argument is bound by a semantic tense with an interpretable tense feature. The morphological *u*-feature must correspond to the *i*-feature of the binder. The underlying theory of *feature transmission under variable binding* is in the spirit of (Heim 2005). Note also that the time argument of the infinitive *dire* in the final truth condition is forward shifted by *va*. This can easily be implemented in a compositional system using the lambda calculus with abstraction over the temporal arguments.

Both *va* and *dire* have in common that their lexical meaning involves temporal quantification (although in two very different ways). So, *va* – a forward shifter – changes the reference time of the attitude verb *dire*, which in turn changes the reference time of the complement clause. The binding chain goes all the way down to the complement, where the morphology is spelled out as the present *est*. The infinitive *dire* ignores, as a non-finite verb form, its own syntactic *u*-feature, but still transmits it further down. This is SOT.²

[3] FROM DEICTIC TO ANAPHORIC TENSE IN RELATIVE CLAUSES

Now, let's have a look at a straightforward relative clause:

- (10) Le chauffeur parle avec un homme qui arrose sa pelouse. (Google search)
'The driver is talking (talks) to a man who is watering (waters) his lawn.'

There are no temporal quantifiers in (10). The accepted view cross-linguistically, both for SOT and non-SOT languages, is that the two tenses in the matrix and relative clause are independent (von Stechow & Grønn 2013), and we therefore have an indexical (deictic) present tense in the relative clause as illustrated in figure 2.

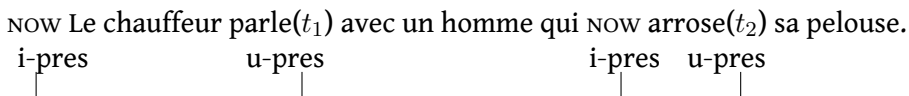


FIGURE 2: Independent deictic present in matrix and relative clause.

[2] Note that French does not have a semantic relative present tense. If that were the case, we would expect constructions like the following to have a simple simultaneous reading (and not be restricted to the special reading known as *double access*):

- (i) Jean pensait qu'il est cinq heures. (only double access)
'Jean thought that it is five o'clock.'

For such simple cases, the SOT parameter is irrelevant as there are no tense dependencies between the clauses. So far so good, but [Ogihara \(1996\)](#) demonstrated that in English one can have an embedded present which unexpectedly denotes a future time:

- (11) John will buy a fish that is alive.

Ogihara's original example was indeed a bit artificial, but his point is still valid: There is a reading where the fish in question does not yet exist at the utterance time. So, the present in the relative clause is interpreted as simultaneous with the forward shifted buying event. It is not difficult to find authentic examples of Ogihara's pattern, which is what I did with a couple of examples from French in (1) and (2) above.

In ([Grønn & von Stechow 2011](#)) we showed that in a non-SOT language like Russian, which has a similar present tense forward shifter as the English auxiliary *will*, namely *budet*, a present in a relative clause under *budet* in the matrix can only have an independent deictic interpretation.

- (12) Olga budet замуžem za vračom, kotoryj živet v Murmanske. (Russian)
'Olga will be-married to a-doctor who lives in Murmansk.'

In the English translation in (12), I have word for word mimicked the Russian original. However, the Russian sentence only has a reading where the doctor lives in Murmansk at the utterance time, while the English construction – similar to Ogihara's example (11) – also allows for a bound reading, where the doctor moves to Murmansk after the utterance time and starts living in the North only shortly before the future marriage.

In Russian, unlike English, there can be no feature transmission from the matrix to the embedded verb. This strengthens the case that in examples like (11), the temporal morphology of the embedded verb is determined by the matrix tense via a binding chain through temporal quantifiers such as *will*, and should be explained in light of the SOT-parameter.

A possible analysis of an embedded, simultaneous present under *will* is to treat the time argument in the relative clause as ANAPHORIC to the time argument of the matrix verb ([von Stechow & Grønn 2013](#)). Now we will see how this idea works for the French examples with which we started out.

[4] AN ANAPHORIC SOT-ANALYSIS OF FRENCH RELATIVE CLAUSES

We repeat the examples from above.

- (13) Alors cela signifie qu'elle va se marier avec un homme qui travaille dur.
'That means she is going to marry a man who works hard.'

- (14) Elle se mariera avec un homme qui n’essaye pas de changer sa façon de vivre.
 ‘She will marry a man who does not try to change his life style.’

The semantic and pragmatic distinctions between *le futur périphrastique* in the matrix of (13) and *le futur simple* in the matrix of (14) need not worry us here, but see (Helland 1993) for an extensive discussion. The issue of the morphological make-up of the two constructions must be addressed, though.

First, we should make sure that we are not dealing with an embedded *present subjunctive* in disguise. In the two cases under discussion, the subjunctive is indeed morphologically indistinguishable from the indicative present. Consider therefore also the following examples from a Google search:

- (15) Elle va se marier avec un homme qui est l’exact opposé de Franck.
 ‘She is going to marry a man who is the exact opposite of Franck’.
- (16) Elle rencontrera un homme qui a des pouvoirs opposés.
 ‘She will meet a man who has opposing powers.’

I assume that these two examples can have a purely simultaneous reading where the properties attributed to the man in the relative clause hold at the future marriage/meeting with the matrix subject. The present tense forms *est* and *a* are unambiguously indicative forms (the corresponding subjunctive forms are *soit* and *ait*, respectively). Indeed, the matrix verbs *se marier* and *rencontrer* are not intensional operators, but purely extensional verbs.

This said, for the sake of the argument, what would change if the embedded present in (13) and (14) were a subjunctive? The short answer is that I don’t know. However, in a rather detailed discussion of modal and intensional constructions in Russian and English in view of the SOT-parameter, we argued in (Grønn & von Stechow 2012) for the presence of TPRO – informally referred to above as the ‘subjunctive now’ – as the highest tense of the embedded verb under modals and intensional operators. In certain contexts, the French subjunctive would certainly involve a TPRO as well (whatever the details of the analysis would be), but if the relative clause displays indicative tense, we can safely exclude this possibility.

Let us now turn to the matrix with its future interpretation. The most straightforward case is the first one in (13), as we see from the analysis sketched in Figure 3 below.

The marriage at t_2 is forward shifted to t in the truth condition. Since the time argument of the relative clause (T_{pro_2}) is anaphoric to the future marriage, the reference time of the relative clause is eventually also bound by t , a time after NOW.

But how should we analyse the so-called ‘simple future’ in (14)? Lungu & De-

NOW Elle VA(t_1) se marier(t_2) avec un homme qui travaille(Tpro₂) dur.
 i-pres u-pres (u-pres) u-pres

There is a time t after NOW s.t. she marries at t a man who works hard at t

FIGURE 3: *Le futur périphrastique* in an SOT-analysis of a relative clause.

[mirdache \(2015\)](#) argue independently³ that what looks like a synthetic future in French is more complex and must be decomposed at the syntax-semantics interface. Following common practise for the English auxiliary *will*, see e.g. ([Abusch 1994](#)), they propose to analyse verb forms like *dira* – *will say* as a morphological present tense feature + an abstract temporal/modal quantifier WOLL. An argument which supports this decomposition is the well-known fact for anyone who has opened a text book of French grammar, that the paradigm for the simple future in French includes the present tense paradigm of the auxiliary *avoir* – *have*, e.g. the third person singular form *a* – *has* in *dir+a*.

My analysis of (14) will therefore be as in Figure 4.

NOW Elle WOLL-a(t_1) se marier(t_2) avec un homme qui n’essaye(Tpro₂) ...
 i-pres u-pres (u-pres) u-pres

There is a time t after NOW s.t. she marries at t a man who doesn’t try at t

FIGURE 4: *Le futur simple* in an SOT-analysis of a relative clause.

In the end, there is not much difference between the structures in Figures 3 and 4. The simple truth conditions presented here are the same, and the feature transmission is also very similar in the two cases. Again I must refer the reader to ([Helland 1993](#)) for a more fine-grained analysis of semantic and pragmatic properties of the two constructions, but I see no other justification for the embedded present tense in the relative clause – with a simultaneous interpretation with the matrix predicate – than an analysis involving tense agreement (SOT).

CONCLUSION

French has two different forward shifters, traditionally called future tenses. Given a distinction between morphological and semantic tenses, one can argue that both these forward shifters are morphological carriers of the present tense and therefore require a semantic present as their licenser, just as the two English forward shifters *is going to* and *will*.

[3] Their discussion concerns SOT-data with attitude verbs and complement clauses of the type *Il dira que [...]*.

French is indeed a rather tricky SOT language. Even if we leave the subjunctive aside, we have to stipulate that the composite *passé composé* carries a morphological past feature, and that the synthetic *future simple* can be decomposed into a present tense form and an abstract forward shifter. Accepting this last stipulation seems to be necessary in order to analyse embedded present tense in French relative clauses with a forward shifted matrix verb as instances of Sequence of tense.

Another key element in the analysis is the idea that the time argument of the relative clause is anaphoric to the matrix verb, hence we get the simultaneous, bound reading. In this respect, the analysis of French is no different from English.

The indexical (deictic) present is treated as a distinguished pronoun *NOW*, which denotes the utterance time. Note that the system adopted here has no semantic tense with the meaning of a *relative present*. Such a tense would overgenerate heavily, and we would expect present tense morphology with simultaneous readings across the board in both relative clauses and complement clauses. But this is not attested, as we have shown previously in (von Stechow & Grønn 2013).

Summing up, there are three different temporal pronouns involved in the mechanism responsible for SOT as presented here. Besides the indexical *NOW*, which is the default tense also in relative clauses, there is a semantically vacuous *TPRO* in complements and, finally, an anaphoric *Tpro* (*then*) in certain relative clauses. The latter is typically bound by the time argument in the matrix, hence it inherits the temporal features of the matrix tense. An anaphoric *Tpro* is arguably needed to account for the SOT-patterns encountered in the relative clauses discussed in this paper.

In French linguistics, there seems to be a certain scepticism concerning the status of the SOT parameter.

En dépit des apparences, la « concordance des temps » n'adresse pas des formes et des usages comparables selon les langues. Postuler qu'il s'agit d'une règle unique qui s'appliquerait ou non dans telle ou telle aire linguistique, c'est essayer de trouver un dénominateur commun à des pratiques très diverses, alors que l'on ne s'accorde pas sur le métalangage qui permet de les décrire [...] Parler de « concordance des temps », c'est parler, au mieux, de phénomènes de congruence entre formes verbales, de « convergence » ou d'« accordance », c'est-à-dire de phénomènes qui caractérisent aussi bien les langues prétendument « non concordantes ». (Le Tallec-Lloret & Roulland 2013, 3)

On the contrary, the present paper maintains that one can fruitfully compare tense morphology and semantics across languages through a uniform metalanguage (feature transmission under semantic binding), and that there is an im-

portant dichotomy between SOT-languages and non-SOT languages, with French belonging to the former group.

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