

# TENSE IN EMBEDDED CONTEXTS: THE CASE OF ROMANIAN<sup>1</sup>

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**Abstract:** This paper discusses the status of Romanian tenses with respect to the cross-linguistic typology which distinguishes between Sequence of Tense (SOT) and non-SOT languages. The major difference between SOT languages (English) and non-SOT languages (Japanese/Russian) is that in the former, *past* under past yields a simultaneous reading whereas in the latter, *present* under past yields a simultaneous construal. On traditional tense analyses, the simultaneous construals in SOT languages arise via a “null” (past) tense, while in non-SOT languages, simultaneous construals arise via either a “null” tense (Japanese) or a “shifted indexical” present tense (Russian). I examine the distribution of Romanian past and present in subordinate contexts and show that (i) past always expresses anteriority and (ii) present is indexical under past and the realization of a “null” tense under a matrix future. I discuss the simultaneous construal of the Romanian present in complement clauses in the light of two major theories of shifting indexicals and show that neither gives a neat account of the Romanian data.

**Keywords:** null tense, indexical present, shifting indexical, Sequence of Tense, Romanian present

## 1. The Sequence of Tense Phenomenon

I start by briefly discussing the phenomenon known in the literature as ‘Sequence of Tense’ (henceforth, SOT). Consider the sentence in (1).

- (1) John said that Mary was ill.

In languages such as English, (1) can be used to report a situation in which John literally says: “Mary is ill”. In this context, the embedded state (Mary’s illness) is understood as co-temporal with the matrix event<sup>2</sup> (John’s saying). It can be argued that in this case the second occurrence of past does not express anteriority; it rather expresses simultaneity relative to a local evaluation time, which is the matrix situation time (SIT-T). The languages in which a morphological *past* is required to report a situation in which a present tense form was used in the direct discourse are known as SOT languages. In these languages, it has been argued, a morphological tense can be semantically uninterpreted, i.e. can behave as a semantically “null” tense.

There is a debate in the literature as to whether in examples such as (1) the second occurrence of past is actually ambiguous between a “null” tense and a tense with a genuine past meaning. Enç (1987) puts forth an analysis according to which the past tense unambiguously conveys *pastness*, be it in embedded or non-embedded contexts. To derive the simultaneous construal, she argues that the matrix and the embedded events are both anterior with respect to the UT-T and overlap, that is, they both pick out the same (past) interval as the evaluation-time. Contrary to Enç, authors like Ogiwara (1996), Abusch (1994), Kratzer (1998), Kusumoto (1999) argue in favor of the ambiguity approach to past, proposing that the simultaneous construal is obtained through a semantically “null” (past) tense. These authors

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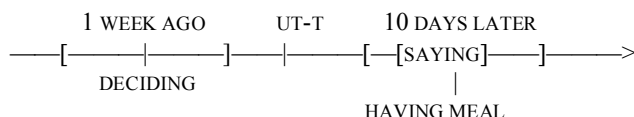
<sup>1</sup> I would like to thank Orin Percus and Hamida Demirdache for very useful comments on various versions of this paper. All remaining errors are mine.

<sup>2</sup> The sentence in (1) can also be used to report a situation in which Mary’s illness is prior to John’s saying, in which case the embedded past, just like its unembedded counterpart, conveys a real past tense meaning.

show that, in English, sentences such as (2) below constitute compelling evidence for the existence of what seems to be a genuine “null” past<sup>3</sup>.

- (2) a. John decided a week ago that in ten days at breakfast he would say to his mother that they *were* having their last meal together.

b.



The sentence in (2a) contains two embedded complement clauses whose events both fall in the *future* with respect to the UT-T. In the upper complement clause, the *saying* event is located in the future with respect to the matrix *deciding* event (and also with respect to the UT-T), while in the lower complement clause, the *having a meal* event is construed as subsequent to the UT-T and overlapping the *saying* event. Notice, however, that the tense in the most embedded clause is *past*, although, crucially, the temporal relation between the subordinate and the higher embedding clause is not anteriority, but simultaneity. This is a clear example where a morphological past tense does not convey a past meaning. Instead there seems to be an instance of semantically “null” past.

In languages such as Japanese when a past tense is used in an embedded clause, it always expresses anteriority with respect to the local evaluation time (the matrix SIT-T).

- (3) John-wa Mary-ga ninsinsi-te i-ta to it-ta  
 John-TOP Mary-NOM pregnant-PROG-PAST COMP say-PAST  
 ‘John said that Mary was pregnant.’

The Japanese sentence<sup>4</sup> in (3), for example, with a past embedded under a matrix past, is appropriately used in a situation where Mary’s pregnancy is claimed by John to precede John’s saying-time.

Contrary to English, in Japanese, the simultaneous interpretation requires a morphological *present* in the embedded clause.

We can thus distinguish two classes of languages with respect to the construal of the (embedded) past tense:

- (4) i. SOT languages like English, in which an embedded past tense can be semantically “null”/uninterpreted, thus yielding a simultaneous construal  
 ii. Non-SOT languages like Japanese, in which an embedded past tense is always semantically interpreted

It is important to observe that the existence of a simultaneous past under past does not automatically imply that the language is an SOT language. For example, in Russian, another

<sup>3</sup> This example is taken from Abusch (1988), and is constructed after the following example from French due to Kamp and Rohrer (1984:3):

Hier il décida enfin ce qu’il allait faire. Dans trois jours il dirait à ses parents qu’il allait quitter la maison.

‘Yesterday he finally decided what he was going to do. In three days, he would tell his parents that he was going to leave home.’

<sup>4</sup> The Japanese examples are quoted from Ogihara (1996).

non-SOT language<sup>5</sup>, a past under past *can* be felicitous in a simultaneous context. However, the simultaneous construal of the Russian past cannot arise via a semantically “null” tense.

One way to see whether Russian has the kind of “null” past that English exhibits would be by considering the Russian counterparts of the English example in (2a). But, examples like (2a) cannot be constructed in Russian. This means that we cannot use the same context as in English to check the availability of the “null” tense in Russian.

There is nevertheless a way to see that Russian past is *not* a “null” past like the English past, and that is by comparing English sentences like (5a) to their Russian counterparts ((5b)):

- (5) a. John thought that the Sun rotated/rotates around the Earth.  
b. # Ivan polagal, čto Solnce vraščalos’-PAST vokrug Zemli.

(5a) expresses John ‘s (false) belief about a permanent state of the world, a state that (according to John) holds at John’s saying-time but also before and after John’s utterance. Note that, in English, to describe John’s belief, not only *present* but also *past* can be used. When past is used, this is arguably a “null” past whose use serves to report that the content of John’s belief was “The sun rotates around the earth.” In contrast, in Russian, *past* cannot be used to convey the same meaning. Rather, the use of past in sentences of this kind ((5b)) implicates that Ivan has a belief about a particular past time that does not hold for a broader interval. The sentence with a past tense would thus awkwardly communicate that the state described by the embedded clause is believed by Ivan to hold *only* at the interval at which Ivan has the belief. Since (5b) cannot communicate what (5a) communicates, it has been suggested in the literature (Khomitsevich 2008) that sentences like (5b) provide evidence that Russian past in simultaneous construals is not a “null” tense.

Table 1 summarizes the construals of past under past in embedded clauses. In English, past under past can be semantically “null” whereas in Russian and Japanese it always expresses a past meaning relative to the UT-T.

Table 1. Past under past in SOT vs. non-SOT languages		
English	“null” past	past
Japanese	past	past
Russian	past	past

## 2. Indexical *versus* simultaneous present

In this section, I review the construal of present under past and present under future in both complement and relative clauses in SOT and non-SOT languages.

### 2.1 Present in SOT languages

Let’s first consider the construal of present under past in SOT languages.

- (6) a. Max said that Rosa is pregnant.  
b. Rosa talked to the boy who is crying.

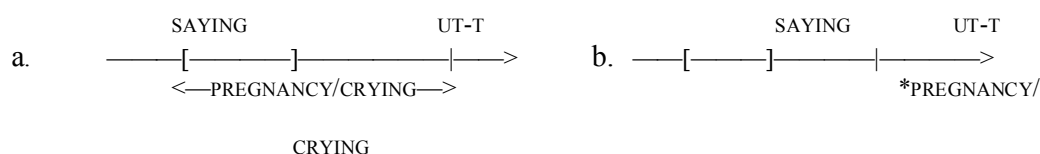
<sup>5</sup> In this paper, I will use the term non-SOT languages to refer to both Japanese and Russian, although Russian is traditionally known as a split non-SOT language (cf. Kondrashova 1999).

The sentence in (6a), with an embedded complement clause, is used appropriately to describe a situation in which the embedded subject, Rosa, is claimed to be pregnant during an interval including both Max's saying time and the UT-T. The use of present gives rise to what is known in the literature as the *double access* construal ((7a)) (Abusch 1991, Oghara 1996), where an embedded present is used to make reference to an interval including two "times": the UT-T and the matrix SIT-T.

Turning to relative clauses, the use of present (embedded under a matrix past) merely requires that the embedded event hold at UT-T ((7b)), irrespective of whether it also extends into the past so as to include the matrix SIT-T. Thus, in order to use (6b) appropriately, the boy's crying must hold true at UT-T, and can (but need not) hold true in the past at Rosa's talking time.

(7) Double Access Construal

(Strict) Indexical Present



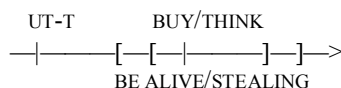
To summarize, in SOT languages, present under past in both complement and relative clauses is indexical, i.e. it requires that the embedded event be evaluated at an interval that obligatorily includes the UT-T, and the interval that present refers to can extend into the past so as to include the matrix SIT-T (the latter condition being obligatory, if the embedded clause is a complement clause).

Consider next the interpretation of complement and relative clauses in a present under future configuration<sup>6</sup>.

- (8) a. John will buy a fish that is alive.  
b. Mary will think that someone is trying to steal his car.

In (8a), with an embedded relative clause, the time of the fish being alive is naturally understood as overlapping the future time of John's buying it, and *not* the UT-T. Likewise, in (8b), the present in the complement clause relates the embedded event to the future matrix SIT-T. These examples show that present under *future* in both complement and relative clauses may yield a simultaneous interpretation. In these cases, the present tense loses its indexical meaning and seems to behave as though it were a "null" tense. The simultaneous construal of present (under future) is illustrated in (9) below. We will say that in these cases the present tense becomes a *relative* tense—it relates the time of the embedded event/state to the matrix SIT-T, and not to UT-T<sup>7</sup>.

(9) Simultaneous Present



<sup>6</sup> The example given in (8a) is from Oghara (1996).

<sup>7</sup> Notice however, that it is not always the case that present under future unambiguously yields a simultaneous reading. The following sentence shows that present in the relative clause under a matrix future can express the temporal overlap with either the UT-T or the matrix SIT-T:

- (i) Mary will marry a man who is (*now*) studying archeology.

In sum, in SOT languages, present under past, in complement and relative clauses, is always indexical (expresses temporal overlap with UT-T), whereas present under future can be either a relative or an indexical tense.

## 2.2 Present in non-SOT languages

We now turn to the construal of present under past and present under future in non-SOT languages. We will examine two non-SOT languages: Japanese and Russian. Consider first Japanese present.

- (10) a. Taroo-wa Hanako-ga ninsinsi-te i-ru to it-ta  
 Taroo-TOP Hanako-NOM pregnant-PROG-PRES COMP say-PAST  
 ‘Taro said that Hanako was pregnant.’
- b. Taroo-wa [nai-te i-ru otoko] -o nagu-ta  
 Taroo-TOP cry-PROG-PRES boy ACC hit-PAST  
 ‘Taro hit a/the man who was crying.’

In both (10a-b), present under past requires<sup>8</sup> that the state/event described by the embedded verb (that is, Hanako’s pregnancy/the man’s crying) overlap with Taro’s saying/hitting time. Unlike the English present, the Japanese present under past is a *relative* tense, communicating a temporal dependency between the subordinate SIT-T and the matrix SIT-T. In Japanese, present under past, in both complement and relative clauses, yields only a simultaneous construal.

Consider next the following examples from Russian<sup>9</sup>.

- (11) a. Ivan skazal, čto Maša boleet.  
 Ivan said that Masha ail-PRES  
 ‘Ivan said that Masha was ill (at the time of saying).’
- b. Ivan uvidel devočku, kotoraja (sejčas) sidit na skamejke.  
 Ivan saw girl who (now) sit-PRES on bench  
 ‘Ivan saw a girl who is sitting on a bench (now).’

In (11a), with a present in the complement clause embedded under a matrix past, Masha’s illness is understood as overlapping the matrix saying-time, whereas in (11b), with a present in the relative clause, the *sitting on a bench* event is understood as being true at UT-T, and it may extend to include the matrix event time, but need not. Russian present under past thus yields different readings depending on the type of clausal subordination: in complement clauses, it yields a simultaneous construal (like in Japanese), whereas in relative clauses, it yields an indexical construal (like in English).

When present in a relative clause is embedded under a matrix *future*, it forces a strict indexical interpretation, where the embedded state holds at UT-T.

<sup>8</sup> This is not strictly correct: as Ogiwara (1996) points out, the present in (10b) unlike (10a) can also yield an indexical construal, where the man’s crying includes the UT-T, but this is not the most salient construal of the present, unless an indexical adverb such as *now* is added in the relative clause.

<sup>9</sup> All Russian examples are quoted from Khomitshevich (2008).

- (12) Ja postavljju ocenki tol'ko tem, kto sidit v pervom rjadu.  
 I put-FUT marks only those-DAT who sit-PRES in first row  
 'I will only give marks to those (students) who are sitting in the front row (right now).'

In the relative clause in (12), the *sitting* event is understood as being true at speech time and not at the future interval introduced by the matrix tense. Thus, unlike its English counterpart, the Russian relative clause present under a matrix future does *not* yield a simultaneous construal, where the eventuality described in the relative clause overlaps with the matrix SIT-T. Apparently, unlike both English and Japanese, the Russian present in the relative clause is always indexical.

Table 2 below summarizes the construal of present under past and present under future in English, Russian and Japanese.

Table 2. Present in SOT vs. non-SOT						
	English		Russian		Japanese	
	Complement Clauses	Relative Clauses	Complement Clauses	Relative Clauses	Complement Clauses	Relative Clauses
Present under past	indexical (double access)	indexical	simultaneous	indexical	simultaneous	
Present under future	simultaneous <sup>10</sup>		simultaneous	indexical	simultaneous	

Note first that, in English, present under past is indexical in both complement and relative clauses, whereas present under future is simultaneous in both types of subordinate clauses. If we compare now Russian with English, we notice that, unlike English, Russian present is simultaneous in complement clauses when embedded under past, and indexical in relative clauses under future. And like English, present is strictly indexical in relative clauses when embedded under a matrix past. Finally, note that Japanese present seems to pattern like Russian when it occurs in the complement of a matrix past tense verb, and like English, when embedded under a matrix future.

### 3. Accounts of past and present in embedded contexts

In this section I will briefly review some of the analyses put forth to account for the simultaneous construal of past and present in SOT *versus* non-SOT languages.

#### 3.1 'Vacuous tense' hypothesis

Recall the sentence in (2a) above, where the morphological past in the most embedded clause does not convey a past meaning but rather a simultaneous meaning, since the event is understood as overlapping with the SIT-T of the higher predicate. Sentences such as (2a) led researchers to conclude that in certain configurations (the so-called SOT environments) past can be construed as a semantically "null" tense.

To account for the tenseless meaning associated with an embedded clause, Ogihara (1996) posits an SOT/tense deletion rule, which optionally deletes an embedded tense under

<sup>10</sup> See footnote 7.

c-command by a matrix tense with the same temporal feature. The SOT rule—which applies only to SOT languages—accounts for the simultaneous readings of past under past.

In (13), we illustrate a simplified representation of Ogihara’s ‘tense deletion’ analysis<sup>11</sup> applied to the complement clause in (1):

- (13) a. John PAST say that Mary PAST be ill. [(1)]  
 b. John PAST say that Mary  $\emptyset$  be ill.

The LF representation in (13a) contains a past tense in a complement clause embedded under a matrix past. The result of applying the ‘tense deletion’ rule is a *tenseless* clause ((13b)), whose predicate *be ill* is evaluated relative to the matrix SIT-T, thus yielding a simultaneous construal.

When the SOT rule does not apply, the second occurrence of past semantically contributes a past meaning, thus locating the embedded state at a time prior to the matrix SIT-T.

By analogy with past under past, Ogihara argues that the same SOT rule may extend to *present*, when it occurs in the scope of another *present*. Remember that English present under past is indexical, forcing an utterance-time dependent interpretation. However, when present appears under the future “will”, it needs not be utterance-dependent. In (8a), we saw that the embedded state in the present tense is not interpreted as holding at UT-T but rather as being co-temporal with a future time interval (John’s buying time). Here, present just like past seems to behave as a “null” tense.

The “null” tense construal of the present under the future “will” follows from Ogihara’s tense deletion rule, as (14) shows:

- (14) a. John woll-PRES buy a fish that PRES be alive. [(8a)]  
 b. John woll-PRES buy a fish that  $\emptyset$  be alive.

According to Ogihara, the future meaning in (8a) is contributed by an auxiliary WOLL and a *present* tense. Thus, the second occurrence of present in (14a) can be deleted under identity with the higher verb bearing the same temporal feature. When deletion occurs, the *tenseless* embedded clause that results ((14b)) yields the desired (simultaneous) interpretation, where the time of the fish being alive is co-temporal with the future time of John’s buying it.

However, as pointed out by Kusumoto (1999), Ogihara’s analysis runs into problems when other cases of past embeddings are taken into account. Consider for example (15) below, where the future auxiliary *would* is embedded under a matrix past.

- (15) a. John said that Mary would be home.  
 b. John PAST say that Mary woll- $\emptyset$  be home.  
 c. John PAST say that Mary woll-PAST be home.

(15a) can be used in two contexts: one where the time of Mary’s being home is subsequent to John’s saying time but anterior to the UT-T, and another one where the time of

<sup>11</sup> While Ogihara (1996) argues that tenses are generated with their temporal features which can optionally be deleted at LF, in a certain syntactic configuration, Kratzer (1998) assumes that tenses can enter the derivation without their temporal features, i.e. as zero-tenses, whose pronunciation is determined via a PF agreement (feature transmission) mechanism between the embedded tense and the higher c-commanding tense. For a more detailed presentation of these accounts see Demirdache and Lungu (2008).



Mary's being home is subsequent to both John's saying time and the UT-T. This follows if the meaning of the sentence is that, according to what John said at a past time, Mary would be home at a future time from John's perspective, a time which may be before or after the UT-T. This is predicted under Ogihara's optional SOT rule. Suppose that the SOT rule applies. What we get is the LF representation in (15b) where the *be-home* event is located in the future with respect to the past tense of the embedded matrix event, but not ordered with respect to the UT-T, which allows the *be-home* event to either precede or follow the UT-T.

Suppose that the tense deletion rule does not apply. The result would be (15c) which yields an interpretation according to which Mary is at home at a time which is in the future with respect to a past time which precedes John's past saying-time. But this interpretation is unattested in English. Therefore, as Kusumoto further argues, in order to exclude the unwanted interpretation, Ogihara must say that in this case the SOT rule is obligatory. Summarizing, sentences like (13) and (15), where a past occurs in the scope of another past, are problematic for Ogihara's account since they show that the SOT rule is optional in some contexts (13/1), and obligatory in others (15a). Ogihara does not seem to have a good explanation for this.

### 3.2 Simultaneous construals of present/past in non-SOT languages

Turning to non-SOT languages like Japanese and Russian, recall that these languages resemble each other in one respect: embedded present in complement clauses yields a simultaneous construal. They nonetheless differ with respect to the semantic contribution of the present. In Japanese, present always yields a simultaneous construal. The Russian present, on the other hand, seems to behave differently in different environments: while in relative clauses it is indexical, in complement clauses (more precisely in the complements of attitude verbs) it seems to convey a simultaneous meaning.

Ogihara proposes that, in Japanese, the simultaneous reading follows naturally, without any need for an additional tense deletion rule since, as he claims, what has been called 'present tense' in Japanese is the same "null" tense that we sometimes find in SOT languages.

- (16) a. Taro PAST say that Hanako  $\emptyset$  be pregnant. [(10a)]  
 b. Taro PAST hit a man who  $\emptyset$  cry. [(10b)]

As shown in the two representations given in (16a-b), the complement and relative clauses in (10a) and (10b), respectively, are understood as having no tense, which automatically yields simultaneous interpretations, where the embedded events are co-temporal with the matrix SIT-T.

This analysis however cannot extend to Russian, where, as stated earlier, present under past has a different behavior in complement *versus* relative clauses. In (11) above repeated here as (17), present in the embedded clause locates the embedded event at two different time intervals: in (17a), the pregnancy is understood as holding true at the matrix subject's (Ivan) saying time, whereas in (17b), the crying event is understood as being true at an interval including the UT-T.

- (17) a. Ivan skazal, čto Maša boleet.  
 Ivan said that Masha ail-PRES  
 'Ivan said that Masha was ill (at the time of saying).'



- b. Ivan uvidel devočku, kotoraja (sejčas) sidit na skamejke.  
 Ivan saw girl who (now) sit-PRES on bench  
 ‘Ivan saw a girl who is sitting on a bench (now).’

Ogihara’s “null” tense approach cannot account for the Russian relative clause facts. Since this approach cannot explain why the meaning of the present changes with different types of embeddings, another approach is needed. One way to avoid the problems that Ogihara’s approach poses for Russian is to say that Russian present is what has been called a “shifting indexical” (cf. Schlenker 2003). Let’s now briefly explain what shifting indexicals are.

On the standard view (Kaplan 1974), indexical expressions like *here*, *now*, *I* are directly referential terms, and are interpreted relative to the context of the actual speech act (the utterance context). Therefore, both in the simple sentence *I am tired* and in an indirect report context like *John said that I am tired* the English indexical *I* obligatorily refers to the speaker/utterer of the sentence. Similarly, if we treat present tense as an indexical, its denotation would be fixed to the current moment. In accordance with this view, semantic theories commonly assume that the meaning of expressions is specified relative to a context parameter. The denotation of a sentence like *I am tired*, for example, with respect to an assignment *g* and a context *c*, is

- (18)  $[[I \text{ am happy}]]^{g,c} = \lambda w.$  the “author” of *c* is happy at the time of *c* in *w* (that is the utterer of the sentence is  
 tired at the utterance time in the actual world)

Work notably by Schlenker (2003) and Anand and Nevins (2004) have pointed out the existence of expressions that seem to behave in the way that indexicals like *I* do in matrix contexts but that sometimes behave differently when embedded under attitude verbs. For example, in languages like Amharic<sup>12</sup> (Schlenker 2003) or Zazaki<sup>13</sup> and Slave<sup>14</sup> (Anand and Nevins 2004), when we take a simple sentence that expresses what the English *I am tired* expresses, and embed it forming a sentence like *John said that I am tired*, this sentence can be used to report a situation in which John said of *himself* that he is tired (as well as a situation in which John said that *I* (the *speaker*) am tired). Expressions like these are called “shifting indexicals,” and these authors take them to threaten Kaplan’s view that the parts of a sentence are always evaluated with respect to the same context parameter.

Treating Russian present as a “shifting indexical”, like Amharic *I*, amounts to saying that while in matrix contexts it gets used to make reference to the utterance time, in certain embedded contexts (under attitude verbs) it can refer to the time at which John utters the sentence, and accordingly a sentence like *John said that Mary cries-PRES* could express that John said that Mary was crying at the time of John’s saying. I will come back to Schlenker’s account for Russian in section 5.

In the following section I will discuss the Romanian data and see that Romanian is relevant to the question of how Russian present should be analyzed, as well as to the question of how shifting indexicals should be accounted for theoretically.

<sup>12</sup> Amharic is a Semitic language spoken in North Central Ethiopia.

<sup>13</sup> Zazaki is an Indo-Iranian language spoken mostly in Turkey by ethnic Kurds.

<sup>14</sup> Slave is an Athabaskan language spoken in the Northwest Territories of Canada.

#### 4. Romanian tenses

The goal of this section is to examine the behavior of embedded (past and present) tenses in Romanian and the way they fit into the typology identified so far.

##### 4.1 Past under past in complement clauses

Remember that in SOT languages like English, past under past can be construed as a “null” tense, automatically yielding a simultaneous construal, whereas in non-SOT languages like Japanese or Russian, past always expresses anteriority with respect to the UT-T (and can overlap with the matrix SIT-T).

Consider now the case of Romanian past in complement clauses embedded under a matrix past.

- (19) Acum doi ani, Alex mi-a spus că Alina era însărcinată.  
 Now two years, Alex me has said that Alina be-IMP pregnant  
 ‘Two years ago, Alex said (to me) that Alina was pregnant.’

A sentence like (19) is true in a situation in which the state of pregnancy is understood as being in the past with respect to the UT-T and overlapping the matrix SIT-T (as well as in a situation in which the pregnancy is prior to the matrix SIT-T). This suggests that the simultaneous construal of past is available in Romanian also<sup>15</sup>. The question then arises as to whether the Romanian past that is responsible for the simultaneous construal is an instance of “null” tense as in English, or expresses *pastness* as in Russian. To answer this question, let’s examine the interpretation of past in sentences like (20), the Romanian analogue of the English and Russian examples in (5) above.

- (20) (Când era mic), Mircea credea că apa fierbea la 90 de grade. #IMP  
 ‘When he was little, Mircea thought that water boiled at 90° C.’

Recall from our previous discussion (section 1) that in sentences like (20), which express a (false) past belief about a universal truth, English, unlike Russian, allows both a *present* and a *past* in the embedded clause. In Romanian, like in Russian, apparently only the present can be used in order to convey the intended meaning. Past tense on the embedded verb in (20) is odd and it implicates that Mircea believed at a past time that the proposition expressed in the subordinate clause is true only *then*, at the time of his speech.

Romanian past under past seems to exhibit the same behavior as the Russian past. I take this to mean that the simultaneous *past* under past in Romanian does not arise via a ‘vacuous’ tense like in English. The Romanian past tense unambiguously yields a past meaning, just like the Russian past tense.

Summarizing so far, past tense on an embedded verb in Romanian is always semantically interpreted, conveying *pastness* with respect to the UT-T.

##### 4.2 Present under future

Turning now to present under future contexts, the same question as before arises: is Romanian present under future a “null” tense as in English or a strict indexical as in Russian? In order to determine the contribution of the Romanian present in this temporal configuration, let’s consider the following examples.

<sup>15</sup> The simultaneous interpretation of sentences such as (20) is due to the imperfective aspect on the embedded verb that contributes the information that the embedded state is *ongoing* at the evaluation time.

- (21) a. Voi fotografia o pereche care dansează vals.  
 aux.PRES.1SG photograph. a couple that dance-PRES.3SG waltz  
 ‘I will photograph a couple that is dancing a waltz.’
- b. Acum două săptămâni, Vlad a spus că peste zece zile îi va spune  
 Two weeks ago, Vlad has said that ten days later CI-DAT aux.PRES 3SG. say  
 Mirelei că tarta cu ciocolată este delicioasă.  
 Mirela-DAT that pie with chocolate be-PRES delicious  
 ‘Two weeks ago, Vlad said that in ten days (from then) he would tell Mirela that  
 the chocolate pie was delicious.’

Consider first the sentence in (21a) with an embedded relative clause. For (21a) to be true, the *dancing* event need not be true at the utterance time, it is rather understood as co-temporal with the *picture-taking* event. This shows that Romanian present in a relative clause under a matrix future can yield a simultaneous construal. The simultaneous construal of (21a) seems to arise via a “null” (present) tense.

Consider next (21b) which illustrated a case of multiple embedding. The state in the most embedded complement clause is understood as co-temporal not with the UT-T but rather with Vlad’s future *telling* event which is in the *past* with respect to the UT-T. This means that present on the embedded state cannot have an indexical meaning. The simultaneous construal of present under future seems available in complement clause environments, as well.

The interpretation of (21a) or (21b) seems to show that, in Romanian, like in English, present under future in both complement and a relative clause is construed as a “null” tense.

#### 4.3 Present under past

Summarizing, the Romanian tenses investigated so far give rise to the following pattern: in past under past configurations, Romanian behaves like Russian (a non-SOT language), where embedded past is always interpreted under a matrix past, and in present under future configurations, it behaves like English (an SOT language), allowing the possibility to delete the embedded tense under identity with a matrix tense with the same feature.

Let us now examine the construal of present under *past* in Romanian, in both relative and complement clauses.

- (22) a. Alex a vorbit cu băiatul care plânge.  
 ‘Alex talked to the boy who is crying/cries.’
- b. Alex mi-a spus că Alina este însărcinată.  
 Alex me has said that Alina be-PRES pregnant  
 ‘Alex told me that Alina is/was pregnant.’

Consider first (22a), with an embedded relative clause. This sentence has an interpretation on which the boy’s crying is understood as overlapping the UT-T, without necessarily overlapping the matrix SIT-T. Romanian present in a relative clause under a matrix past seems to behave as an indexical tense, just like in English and Russian.

In contrast, the sentence in (22b), with an embedded complement clause, can apparently be used in a context where Alex informed *me* (the speaker) at a past time that Mary was pregnant at that time, the time when Alex’s speech act occurs. It seems that Romanian present in a complement clause under a matrix past allows a simultaneous construal, just like in Russian.

The fact that present on an embedded verb yields a simultaneous construal seems to show that the Romanian present exhibits the same behavior as the Russian present, that is, in certain environments (attitude contexts), it locates the embedded state at the matrix SIT-T, rather than at UT-T, as is normally the case in non embedded contexts. If the Romanian present is the kind of present we find in Russian, we would then expect to find it in exactly the same contexts as in Russian.

However, unlike the Russian present, which yields a simultaneous construal under *all* attitude verbs, the Romanian present apparently conveys a simultaneous meaning only under *certain* attitude verbs (for certain speakers).

For illustration, consider the following examples in (23) in which the simple sentence “Alina is pregnant” is embedded under different verbs: *spune* ‘say’ (23a), *ști* ‘know’ (23b) and *crede* ‘believe’ (23c).

Notice that these examples illustrate a context appropriate for a (purely) simultaneous construal of the present, where the embedded state overlaps with the matrix SIT-T and no longer holds at UT-T.

- (23) a. Acum doi ani, Alex mi-a spus că Alina este însărcinată. # PRES  
 ‘Two years ago, Alex said that Alina was pregnant (at that time)’  
 b. Acum doi ani, Alex știa că Alina este însărcinată. # PRES  
 ‘Two years ago, Alex knew that Alina was pregnant.’  
 c. Acum doi ani, Alex credea că Alina este însărcinată. ✓PRES  
 ‘Two years ago, Alex thought that Alina was pregnant.’

**Table 3. Simultaneous present in Romanian**

	Group A speakers	Group B speakers
<i>spune</i> ‘say’	T	#
<i>ști</i> ‘know’	T	#
<i>crede</i> ‘believe’	T	T

It seems that there is variation among speakers with respect to which verbs allow the purely simultaneous present. As Table 3 shows, according to the speakers’ judgments, we can distinguish two different groups, which I call Group A and Group B. Group A consists of speakers that indistinguishably allow the simultaneous construal of the present under the three types of verbs. Group B’s speakers are more restrictive, as they allow the simultaneous present only under the verb *crede* ‘think’. For the speakers in the latter group, present under verbs like *spune* ‘say’/*ști* ‘know’ is infelicitous because it would imply that the pregnancy still holds at UT-T, thus enforcing a double access reading.

In conclusion, the study of Romanian tenses has revealed two important aspects that have not yet been observed in the languages studied so far. The first aspect is related to the presence of a “null” tense. So far, the generalization seemed to be that languages that have a “null” tense under past have a “null” tense under future. This is the case for English and Japanese. And, conversely, languages that do not have a “null” tense under past do not have a “null” tense under future either. This is the case for Russian. Romanian behaves differently in

that it has a “null” tense under future but not under past. In Romanian, unlike in English, it seems that tense deletion under future does not co-occur with tense deletion under past.

The second aspect is related to the availability of the simultaneous construal of the present, which, in Romanian, seems limited to a smaller set of contexts than in Russian. More precisely, while Russian present allows a simultaneous reading below all attitude verbs, Romanian present allows it only below certain kinds of verbs.

It is the latter property of present that make Romanian interesting for the existing theories of shifting indexicals. In the next section, I will discuss two major analyses of shifting indexicals, including the analysis proposed for the Russian present, and show that neither can give a neat account of what is going on in Romanian.

### 5. Two accounts of indexicality

In section 4.3, I showed that Romanian present that occurs in the complement of past verbs like those in (23) can yield a simultaneous construal. One question that arises is what is the status of the Romanian present that appears in these environments. The null hypothesis—assuming that Russian present is a shifting indexical—is that Romanian present (at least in the aforementioned contexts) is a shifting indexical.

On Schlenker’s analysis of shifting indexicals based on the behavior of the Amharic first person pronoun *I*, “indexical-shifting” occurs when the shifting indexical appears under an attitude verb, which acts as a quantifier that quantifies over speech contexts. For Schlenker, shifting indexicals like Amharic *I* are essentially not different from indexicals that we find in English. Both are functions that select for a context argument and return a component of this context, like the utterer or the time of utterance. The possibility to shift is related to the possibility of combining with a variable over contexts that is bound by a higher attitude verb. This option is available to Amharic *indexicals*, but not to English *indexicals*.<sup>16</sup>

The Amharic sentence in (24a) with an indexical *I* can therefore have an interpretation according to which *I* is shifted and an interpretation according to which *I* behaves like the English *I*. The first reading arises from a structure where *I* combines with a variable (*C*) bound by the attitude verb (24b) and the second reading arises from a structure in which *I* combines with a true indexical expression (*C\**) that refers to the context of utterance (24c).

- (24) a. John Jägna näNNyt-lall  
John hero I am say-3 SG.M  
‘John<sub>i</sub> says that he<sub>i</sub> is a hero.’
- b. John says [  $\lambda C...[I\ C]...a\ hero...$  ]  
[[*(b)*]]<sup>g,c</sup> =  $\lambda w$ . for all contexts *c'* compatible with what John says in *w* at the time of *c*, the author of *c'* is a hero in the world of *c'* at the time of *c'*
- c. John says [  $\lambda C...[I\ C^*]...a\ hero...$  ]  
[[*(24c)*]]<sup>g,c</sup> =  $\lambda w$ . for all contexts *c'* compatible with what John says in *w* at the time of *c*, the author of *c* is a hero in the world of *c'* at the time of *c'*

Schlenker argues that the theory of shifting indexicals also extends to the temporal domain. On analogy with the Amharic *I*, he shows that the Russian present tense is a shifting indexical, an item that applies to a context *c* and returns the time of *c*.

<sup>16</sup> The examples in (24a), (25a) are adapted from Schlenker (2003).

- (25) a. *Petja* skazal, čto Maša plačet  
 Petja said that Maša cry-PRES  
 ‘Petja said that Maša was crying [at the time of his utterance].’
- b. Petja said [  $\lambda C \dots [\text{PRES}_{\text{RUSS}} C] \text{ cry} \dots$  ]  
 $[[ (25b) ] ]^{g,c} = \lambda w. \text{ for all contexts } c' \text{ compatible with what Petja says in } w \text{ at a time before the time of } c, \text{ Maša is crying in the world of } c' \text{ at the time of } c'.$

In (25) above, the present in the embedded clause is evaluated with respect to the context of the reported speech and not to the current context. Like any indexical, present tense takes a context variable, but this variable is bound by the embedding attitude verb.

It is important to observe that, on this view, shifting depends on the lexical requirement of the indexical item that appears in a clausal complement environment. An indexical which exhibits a shifting behavior in one environment (under a certain attitude verb), is thus expected to be able to shift in another environment of the same kind (under other attitude verbs).

It is precisely this aspect of Schlenker’s theory that makes it inadequate for Romanian. Remember from our previous discussion that, in Romanian, present shifts in *some* but not *all* attitude contexts. On Schlenker’s analysis, this is unexpected, since, if Romanian present behaves like the Russian present, we would expect it to shift in *all* attitude contexts.

Another approach that has been proposed is Anand and Nevins’s (2004) (henceforth, A&N), who examine a variety of phenomena in languages such as Slave and Zazaki, which also contain shifting indexicals.

A&N’s account differs from Schlenker’s in several crucial ways. Contrary to what happens in the languages Schlenker considers, A&N show that, in Zazaki and Slave, shifting is limited to certain attitude verbs. In Zazaki, for instance indexicals shift only under *say*, but crucially not under other attitude verbs such as *believe*, *think*, *dream*, whereas in Slave, different attitude verbs impose different restrictions on their complements: ‘say’ *obligatorily* shifts 1<sup>st</sup> person indexicals, ‘tell’, *optionally* shifts all indexicals, and ‘want’ *optionally* shifts first person indexicals. Shifting indexicals (in these languages) behave in such a way that, when two or more shifting indexicals co-occur, they all pick out a referent from the same speech context. This constraint, which they call the “shift together constraint,” is not observed in the case of expressions like those Schlenker considers.

To accommodate their data, A&N propose a system in which each sentence is evaluated with respect to two parameters: a context parameter and an index parameter which both contain the same number of coordinates (speaker, addressee, time of the utterance, etc). A sentence like the English *I am tired* whose denotation is fixed with respect to an assignment  $g$ , a context  $c$  and an index  $i$ , will yield 1, iff the author of the  $c$  is tired at the time of  $i$  in the world of  $i$ . They further assume that different attitude verbs select for special kinds of operators whose effect is to cause the constituents they combine with to be evaluated with respect to a context parameter whose coordinates differ from those of the context of utterance. The operator determines which coordinate of the utterance context will be affected. For example, in Zazaki, there is an operator which changes *all* of the coordinates of the context parameter under the attitude verb *say*, while in Slave there is an operator which changes only those expressions that depend on the *author* coordinate of the actual speech context. To see how their system works, let’s consider the following example from Slave:

- (26) a. Simon [rásereyineht’u] hadi  
 Simon [2.SG-hit-1.SG] 3.sg-say  
 ‘Simon said that you hit him/\*me.’



- b.  $[[\text{Simon said (that) Op}_{\text{AUTH}} \text{you hit 1.SG}]]^{g,c,i} = 1$ ,  
iff in all contexts  $c'$  compatible with what Simon says at the time of  $i$ , in the world of  $i$ ,
- $[[\text{Op}_{\text{AUTH}} [\text{you hit 1.SG}]]]^{g,c,c'} = 1$   
iff in all contexts  $c'$  compatible with what Simon says at the time of  $i$ , in the world of  $i$ ,
- $[[\text{you hit 1.SG}]]^{g, \langle \text{auth}(c'), t(c), w(c) \rangle, c'} = 1$   
iff in all contexts  $c'$  compatible with what Simon says at the time of  $i$ , in the world of  $i$ ,
- the addressee of  $c$  hit *the author of  $c'$*

The representation given in (26b) predicts the correct interpretation of the Slave sentence in (26a), according to which Simon says that the addressee of the utterance context hit him.

On this account, the variation observed in Romanian is not surprising given that similar facts have been reported for Slave. To accommodate the Romanian facts within A&N's approach, we can assume that in Romanian, like in Slave, indexical shifting is optional and is triggered by the lexical properties of the embedding verb. Some verbs (like *crede*) allow it, others (like *know* and *say*) do not. Verbs that allow the indexical present to shift are verbs that select for a special kind of complementizer that has the effect of changing the time coordinate of the embedded context<sup>17</sup>.

This analysis predicts that the simultaneous reading of a sentence like (27a) would have a structure like (27b) in which Alina's pregnancy is evaluated with respect to the context in which Alex is located at the time of his belief, and not with respect to the utterance context.

- (27) a. Alex credea că Alina este însărcinată. [=(23d)]  
'Alex thought that Alina was pregnant.'
- b.  $[[\text{Alex thought } C_{[\text{shift-TIME}]} \text{Alina PRES be pregnant}]]^{g,c,i} = 1$ ,  
iff in all contexts  $c'$  compatible with what Alex believed at the time of  $i$ , in the world of  $i$ ,
- $[[C_{[\text{shift-TIME}]} [\text{Alina PRES be pregnant}]]]^{g,c,c'} = 1$ ,  
iff in all contexts  $c'$  compatible with what Alex believed at the time of  $i$ , in the world of  $i$ ,
- $[[\text{Alina PRES be pregnant}]]^{g, [\text{author}(c), \text{time}(c'), \text{world}(c)] c'} = 1$ ,  
iff in all contexts  $c'$  compatible with what Alex believed at time of  $i$ , in the world of  $i$ , Alina
- is pregnant at *the time of  $c'$*

Romanian makes thus an important contribution to A&N's theory as it shows that the variation within a language with respect to indexical shifting is not an isolated phenomenon, it rather expresses a more general issue that can be observed cross-linguistically.

However, A&N's theory has some shortcomings. Remember that, according to their analysis, when two expressions depending on the same coordinate of the context occur in the same clause and one of them undergoes shifting, the other one undergoes shifting as well. But this is not what happens in Romanian. Consider for example the following sentence.

<sup>17</sup> This has been suggested to me by Orin Percus.



- (28) # Mircea credea că Alina e însărcinată *acum*.  
 ‘Mircea thought that Mary is pregnant now.’

In (28), we have two indexical expressions that depend on the time coordinate of the context: the *present* and the adverb *acum* ‘now’. Assuming that present is a shifting indexical, we would expect the adverb ‘now’ to exhibit the same shifting behavior and therefore the sentence to be acceptable. However, the presence of the indexical adverb *acum* ‘now’ makes the sentence unacceptable since it wrongly implicates that Mircea had a belief about a state that is in the future with respect to the time of his belief. The presence of the adverb obligatorily forces the state to extend to the UT-T, which means that the adverb *acum* ‘now’ does not undergo shifting. (28) is thus a counterexample to A&N’s analysis according to which the presence of a shifted indexical triggers the shifting of all indexical-like expressions occurring in the same clause.

This suggests that either A&N’s generalization based on the behavior of Slave indexicals is wrong or Romanian present is not a shifting indexical, in which case we have to find another explanation for the simultaneous construal of present. We leave this issue open for future research.

## 6. Conclusions

In this paper, I examined the status of Romanian present and past tenses and how Romanian integrates into the larger picture of SOT languages such as English *versus* non-SOT languages such as Japanese/Russian. I established that Romanian patterns like Russian in that past always expresses anteriority with respect to the UT-T. Hence, simultaneous construals of past under past do not arise via a ‘null’ tense like in English; they rather obtain when the embedded past happens to overlap with the matrix past (see example (19)). I also showed that Romanian patterns like English insofar as relative clause present behaves as a ‘null’ tense, when embedded under a morphological future (21) and as an indexical tense when embedded under past (22b).

In complement clauses, Romanian present is indexical like in English, but, unlike English, can be shifted under certain verbs (23). This led to the conclusion that Romanian present is a shiftable indexical like Russian present, albeit in a more restricted set of contexts than in Russian.

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