Aspect and temporality in the Romanian past compound

Csongor HEGEDŰS[1]

In this paper, I analyse the Romanian past compound, from temporal and aspectual viewpoint, and I foreshadow that the rewrite condition is a must for the mentioned tense. Starting from Hornstein's (1993) BTS (Basic Tense Structure), I believe that Romanian past compound can have multiple values, and in many situations its core value, the present perfect, must be either extended or reduced, depending on the scope of the CC (Complex Clause). I reflect about the dubitative meaning of the past compound, more precisely about its impact on perfectivity, how our mind processes time without the proper modification of the tense head. I differentiate 4 types of aspects and I add some tense values to the original classification made by Călăraşu (1987); these values are based on different types of clausal arguments, for example the past perfect value of the past compound. The paper also focuses on the hidden meaning of operators, foreshadowing that at S-structure these operators might have a greater influence for TAM marking than an event variable. Many times, the perspective is based on hypothesised situations, in order to illustrate temporal and aspectual conflicts.

Keywords: *past compound, aspect, local-distant, operator, shifting*

1. Introduction

In this paper, I am going to analyse the past compound, from temporal and aspectual viewpoint. I added some tense values, these being the general vs. the general hypothetical reading for Romanian past compound and values like PC10 - the present simple value of the past compound, in special situations. The list can be continued with PC3, the past perfect value of the past compound. I am also concerned with the temporal operators, and I am doing a deeper aspectual analysis, differentiating 4 types of aspects. Table 1 below is necessary for understanding the values of the analysed tense. The (a-type) examples are from a Romanian novel, *Enigma Otiliei*, written by George Călinescu. Example (9a) is from

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[1] University of Bucharest, csongor.hegedus@gmail.com

CoRoLa. (a)-type examples (for 1-8) are from Sketch Engine, (b-to-n)[2]" are usually the modified versions of the (a)-type.

2. Literature review and methodology

The past compound (a avea 'to have' + participle)
The analytic past is built by the auxiliary *have* in the inflected forms and by the invariable participle. According to Zafiu (2013), the phonological reduction of *have* indicates a high degree of grammaticalization. As auxiliary verb, it has only monosylabic forms, the 3rd singular, the 1st, and the 2nd plural forms being different from the present paradigm of the lexical verb. The only elements that may intervene between the auxiliary and the main verb are some clitic adverbs (*mai* 'more', *cam* 'kind of', *tot* 'always', *și* 'also'). According to Zafiu (2013), the main aspectual distinction is partially expressed by tenses, **perfect aspect** by the simple past, the compound, the plurperfect, and the future perfect, while the Romanian **imperfect aspect** is mostly expressed by the imperfect tense. Nowadays, the past compound can be defined as a tense expressing a present perfect value.

Tense is the grammaticalized form of time and it is a property to verb [+V]. "Tense is a category that represents the chronological order of events as perceived by the speaker at the moment of speaking" (Reichenbach 1947). It is important to differentiate tense from aspect; the latter is defined as a grammatical category which is related to the internal temporal structure of a situation (Trask 1993, 21). Tense is a deictic category, which means that it is always oriented to the speaking ego and to the moment of speech. In relation with time, we have to make some assumptions, one of them is about the nature of physical time, which is linear and it is infinite. In Romanian, clauses can be grouped in 2 categories: finite and non-finite. Finite clauses have overt tense marker, thus for them the evaluation of the event is relative to some specific time. This time of the event is related to the moment of speech. Let us check (1a).

(1a) Ion citește   cartea.
     J   read.PRS book.the
'John is reading the book.'

(1b) Ion   va citi   cartea.
      J   will read book.the
      'John will read the book.'

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[2] Here I refer to "n" in order to mark the infiniteness.

(1c)   Ion a citit   cartea.
       J   read.PST   book.the
       'John read the book.'

We interpret (1) as there is an event of reading a book and the event is situated in the present (1a) / future (1b) / past (1c). All sentences in (1) relate the same event, but each of them has a different temporal location. In Romanian, finite sentences can be achieved by means of tense morphemes in syntactic constructions. In the analytic constructions, the things are not as clear at first sight, since either the auxiliary or the full verb marks tense. Romanian has 10 finite tenses, their structure is given in (2), but I do not mention all of them because some of them overlap with each other, as is the case of the Romanian past simple vs. imperfect, which express the same past event, but the aspect is different.

(2)

   $S^3=R=E$ – present
   $E=R<S$ – past
   $E<S=R$ – past with present perfect value

   $E<R<S$ – past perfect
   $S<R= E$ –- future
   $S<E<R$ – future perfect

The basic tenses can be extended by means of temporal adverbs, but according to Hornstein (1993), the derivations must preserve some characteristics of the base tense structure (BTS). Basic tense structures (BTS) are preserved if (3):

(3a)   No points are associated in derived tense structure (DTS) that are not associated in BTS.
(3b)   The linear order of points in DTS corresponds to that of BTS.

                                                                    (Hornstein 1993, 15)

In Romanian, just like in many other languages, time adverbs can be inserted into R or E of a BTS. Following Chomsky's Full Interpretation (FI), which claims that a linguistic element cannot be present vacously, these adverbs must fit into E or R. According to Hornstein, temporal adverbs can be considered as interfering with BTS

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[3] S = speech time, R = reference time, E = event time

affecting E or R; some modifications are permitted, but others are not. Let us also introduce the Davidsonian event variable. Davidson (1967) proposed a logical form representation of sentences, involving a variable. His motivation is illustrated in (4).

(4a) Landon stabbed Ana.
(4b) Landon stabbed Ana in the back with a knife.
(4c) Landon stabbed Ana in the back.

The general predicate system of (4) is Stab (l, a) where *stab* being the predicate, (l, a) are its arguments, the first one being the subject, the second one the object. According to Davidson, this representation fails to capture the main aspects of a sentence with modifiers. With the basic predicate system, there are 2 problems: the fact that adverbials modify the predicate cannot be illustrated; the same holds for entailment relations. (4b) entails (4c) but not inversely. These aspects are not accounted in the basic viewpoint. Davidson solves this issue by an event variable[4], nowadays standardly assumed as e, associated with the whole clause.

(5a) ∃(e) [Stab (l,a,e) & in the back (e)]

[I and w]: I discuss issues related to tense, aspect, and event shifting, and these grammatical notions are accompanied by means of relativity. This relativity is also linked to the theory of Dowty (1979), who introduces [I(nterval) and W(orld)], in order to define non-perfective viewpoint (from a cognitive perspective) – which is represented as bar equivalent [I' and w'] of the initial [I and w]. In the analysis part, I will mention notions like: linear order, word order, operators, and different values for the Romanian past compound. For these values, you should check the table (1) below. For example, the PC2 marking represents the present perfect value.

Operators and event shifting: in semantics, operators are logical constants, while in syntax they are represented by quantifiers, by wh-phrases and their role is to bind a variable at LF (Logical Form) (Chomsky 1981). In my analysis, I use these operators in order to mark temporal and aspectual differences among different clausal arguments or between different events inside the same complex clause. In order to avoid unnecessary lines, I use schemes like: 2PST – where the 1st one typically marks the operator (for example the decoding process), while the 2nd one marks the event variable (for example the act of walking). The mentioned scheme is usually accompanied by symbols like perfective (PVF) or not-perfective (NPFV), their role being that of marking the perfective vs. non-perfective aspect. Notions

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[4] I illustrate only the main part of his theory.

like PRS, PST or FUT mark the temporality, from past to future. A scheme like 2PST.PFV is usually preceded by FT – which means final state, followed by an indication FT [narrator] [person A] etc., in this case the perception of the operators / event variables refers to that clausal argument. By **event shifting**, I refer to back and front shifting in order to illustrate how different clausal arguments can perceive an event inside a CC. I also use the shifting in order to explain how some logical issues can be avoided.

      The Reichenbachian scheme: I use notions from Reichenbach (1947) such as ST (Speech Time), RT (Reference Time) and ET (Event Time). I am not going to make an exhaustive presentation regarding his theory, but I will exemplify it by means of (6a) with its representation in (6b). As one can see, we compare the mentioned time notions among them. In my analysis, I may combine these terms with numbers, their role being to mark the event membership (6c). In (6c), S1 marks the ST of event 1 (E1) in relation with the RT of E1.

(6a)   Ion a vizitat   muzeul   ieri.
        J   have visited museum.the yesterday
        'John visited the museum yesterday.'
        (6b) ST=now, RT=ET, ET<ST
        (6c) S1<R1 E1=R1; S2=R2 E2=R2 or R2<E2.

Another key-point in the analysis part is represented by my **different aspectual classifications:** internal, external, local and distant aspectual expressions. Usually, the internal aspect marks the necessary grammaticality in the CC, while the external aspect marks the dominant aspect of the CC – if it is a coindexed, if it is dependent on that event etc., the local and the distant aspect are linked to truth condition – 'what is and what could be'.

	PC
PC1	It means/stands for an action anterior to speech time. It may be combined with several adverbials like *în acea vreme* 'in that time', *până atunci* 'until then', *de veac* 'for ages', *niciodată* 'never', *mai înainte* 'before', *anul trecut* 'last year' etc. It might be preceded in a matrix clause by present, future.
PC2	It expresses a present perfect meaning, by using adverbials like *acum* 'now', *astăzi* 'today', *până astăzi* 'until today', *până acum* 'until now', *încă* 'yet', *de acum* 'from now on'.
PC3	past perfect reading, for example E1 in (1e), in (7a) E1 for person A
PC4	future oriented when combined with present simple – inertia, for example: (4a), (9a)

Table 1. Values of the Romanian past compound (PC)

2.   Analysis

2.1. Tense head vs. cognitive perception of temporality

In this subsection, I analyse the influence of dubitative meaning and the circumstances when an event variable might bypass the T0 head. The subsection also analyses how our mind might process time, without a proper modification of the T0 head, and why the pure imperfective reading is not always suitable in CCs, involving dependent events.

(1a)   **Am crezut** 1**/** că   **e**   dorința dumneavoastră.[5] 2/
         I   believed that   is   wish.the your
         'I thought that it was your wish.'
         (Sketch Engine, EO)

(1b)   **Cred** 1**/**   că   **e** dorința dumneavoastră. 2/
         Believe.I that   is wish.the your
         'I think that it is your wish.'

(1c)   **Am crezut** 1/ că   a fost   dorința dumneavoastră. 2/
         I believed   that   it was   wish.the your
         'I thought that it was your wish.'

(1d)   În acea vreme, **am crezut** 1/   că   **a fost** dorința dumneavoastră. 2/
         In that time   I believed   that   it was wish.the your
         'In that time, I thought that it was your wish.'

(1e)   ?În acea vreme, **am crezut** 1/   că   e   dorința dumneavoastră. 2/
          In that time   I   believed   that is wish.the your
         '?In that time, I thought that it is your wish.'

In (1a), E2 must precede in the linear order E1, otherwise the truth condition cannot hold, E2 has a P7 value, while E1 suggests a PC1 reading. E2 is not determined by other following events. However, we have a good reason not to say that E1 has a PC1 reading, thus a proper past event. If we admit that a perfective

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[5] As I mentioned in the Introduction, (a) types are from Sketch Engine, using guided search and they are from the mentioned corpus in the Introduction. (b) types are (usually) the modified versions of (a).

event is a holistic one, then we should say that the agent must have the ability to decide whether the whole CC has a truth value, but we feel the dubitative meaning of the CC, introduced by E1. My hypothesis is that an implied dubitative meaning cannot be considered as a true perfective, but (1a) is in past tense, thus its dubitative reading is not present at the agent's speech time. From the internal relations, we observe that there is no coreferentiality[6] between person A and person B (in 1a). The internal aspect of the clause, which is necessary to the well formedness of the CC, implies a perfective reading from the agent's point. The operator-based Final State (FT) is the following for (1a): [E1 – for agent]: [PST], for the receptor and for the readers FT [E1]: PST+PST, the past of the uttered clause and the past of the event, so neither for the agent nor for the reader there is a [3] valued past, so, it is obvious that the plurperfect shifting is not possible, but there is a temporal shifting; this might explain why we perceive a novel as a past event, even though there are many times when the present or a present perfect is used – event shifting appears to be more prominent than tense, but the readers do not perceive it because it is too abstract for them – at least, this is my assumption. The schematical representation from our (readers') perception is: S1<R1 E1=R1; S2=R2 E2=R2 or R2<E2. The dominant tense of the whole clause is present perfect (PC2 value): $(\exists e)$ [E1] [2PST.PFV to believe & [Agent (e, A)]] & [E2] [PST.PFV+PRS.NPFV to be & [Goal (e, B)] & [e (DP-desire)]] – E1's intrinsic final state (not the dubitative semantic reason, but the perfectivity of the past compound) is extended to E2; thus the distant aspect is imperfective without a proper answer.

Now let us compare (1a) with (1b), with the changed tense in E1. In my interpretation, (1a) is agent oriented, i.e. can be uttered in a situation where the agent makes a mistake. After that he speaks with his/her boss and he uses the past compound to emphasize his wrong action. In this case the rewrite condition of E2 applies and forces E1 to have a final state, at least at the agent's speech time and actually in this case the whole CC is perfective, since B's desire is linked to past, and in a conversation person A would use the present simple in E1 to make the things actual, and also, he cannot assume B's distant final state, but he assumes the local aspect by his E1. **The definition for the rewrite condition** can be summarised as follows: **X event in past compound, having a PC2 value, might been front shifted to P6, PC4 (future oriented) or to PC10 (present simple) by Y event, whose value implies a future (or a past) final state.** In (1b), the focus is on the receptor; here the distant aspect is imperfective – from agent's point. The shifted events also change the implied truth condition: in (1a) E1 implies the falsehood of E2 – in my assumed situation, while in (1b) at least it might imply the truth of E2.

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[6] Thus i≠i between E1 and E2

Let us also check (1c), with the equalized tense, thus both events have the same past compound. We will discuss in another paper the aspectual bridge[7], but the essence is that by equalizing the events, the aspectual bridge functions differently. In (1a), we have a shared bridge between E1, E2, thus E2's precedence is not underlined by (1a): both have the same PC2 value. In (1c), the temporal difference is better perceivable; both events are back shifted as compared with (1a). So, in (1c) there is no shared temporal and aspectual value, E2 suggests a PC3 value and E1 a PC1 – without reference to the present of the utterance time. I added a temporal event variable *în acea vreme* 'at that time' which forces a perfective reading (1d and 1e). The variable is not odd with (1d) – with 2 past compound and without rewrite condition. In (1e) only E1 is a true perfective PC3, E2 suggests a PC2 reading – apparently, they do not have a shared aspectual bridge, while actually they should have. In order to avoid the temporal / aspectual conflict, we would have to copy the temporal event variable in E2's scheme – and if we do that, what is the purpose of the present simple? This example also illustrates that the temporal event variable (*în acea vreme*) **can bypass** the verbal inflection head – thus, again, tense is essentially adverbial in its nature.

(2a) **A spus** 1**/** că   o   **să vadă**   mai târziu. 2/
     He said   that will to decide   later
     'He said that he is going to decide on it later.'
     (Sketch Engine, EO)

(2b) Voi   vedea mai târziu.
     I will   decide later
     'I said that I am going to check it later.'

(2c) Am spus că   voi verifica mai târziu.
     I   said   that I will check   later
     'I said that I am going to check it later.'

In this determined context (2a), there are 2 events involving past compound and present subjunctive. The agent of the CC is not coreferential with the original person who uttered the sentence. Let us check the temporal shifting. Firstly, there was an A person, who told E2, thus E1 was not properly verbalized by the original speaker. At some point, E2 had a present value and only later the past reference is

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[7] My term which refers to a special type of aspectual verification: aspect is verified also in another dependent (logically or syntactically) event.

added for the original speaker, thus we can interpret E2 from the original speaker, as follows: FT [E2]: PST + PRS, the 1st is the operator (successful decoding), the 2nd is the event variable. If he uttered only a sequence like (2b), then a successful utterance production implies a PST+FUT scheme, the operator and the variable combination, thus a final state would refer to the operator, not to the event. The current agent of (2a) adds a speech act event E1, followed by E2; however, this is not the linear order, E2<E1. The scheme for the actual agent is: FT [E1]: PST+PST+PST; FT[E2]: PST+PRS – the 1st and 2nd are past operators, from agent and from the implied agent, and the 3rd marks the proper event variable. If we assume that E1 took place in a recent past, that is why I avoid including further possible operators. Also, the readers perceive E1 as follows FT [PST+PST+PST+PST], the 1st is our successful decoding, 2nd – the narrator's past time, 3rd – the agent of the utterance with 3sg, 4th – the original hidden reference with 1sg, 5th – the proper event. All these operators and variables influence our perception, so that we do not feel it as a really recent past event. Our mind tends to perceive only the event variable, not the temporal operators, but a temporal operator has a greater influence (at S-structure) than an event variable.

      At this point one might ask: if E2 precedes E1, why is the tense not reversed in the CC? The answer lies in the missing coreferentiality and in temporal shifting. I will argue that the first option, coreferentiality, is not a decisive factor is this case. The actual agent can treat only E1 as a final state event, since he can be sure only of the successful message decoding, but he is not responsible for the action which depends on the original speaker. However, as (2c) illustrates, the changing of the verbal inflection, thus making the CC coreferential, does not resolve this issue, since (2c)'s E2 is also without a distant final state [PST+FUT]; thus we have a past reference for E2 only as a successful sentence production, but the temporal event variable is ongoing. The dominant tense of the clause is present, indicating a PC2 reading. A present simple reading is not possible because it would exclude the event of "being told by X", thus when a present simple co-occurs with the past compound, the last one might be more prominent because it creates a bridge between past-present-near future.

(3a) **A venit**   nu ştiu de câte   ori,   săracul, 1/până **a terminat** drăcia   asta. 2/
      He came no know how many times poor.the   until he finished hell.the this
      'He came so many times, until he was able to finish this annoying thing.'
      (Sketch Engine, EO)

(3b) Astăzi **a venit** de multe ori   săracul, 1/   până **a terminat** drăcia   asta. 2/
     Today   he came   many times poor.the   until he finalised   hell.the this
     'Today, he has come so many times, until he has been able to finish this
     annoying thing.'

(3c) **A venit**   de multe ori săracul, 1/   până **a terminat** astăzi drăcia asta. 2/
     He came many times   poor.the   until he finalized today hell.the this
     'He came so many times, but he only today has been able to finish this
     annoying thing.'

(3d) A **venit** de multe ori săracul, 1/**va veni**   și astăzi 2/ până v**a finaliza**   drăcia asta. 3/
                                          he will come and today until he will finalise
     'He came so many times and he will also come today until he will be able to
     finish this annoying thing.'

(3e) A **venit** de multe ori săracul, 1/ **va veni** și astăzi 2/ până v**a finaliza** drăcia asta, 3/
     sper 4/ **să o   finalizeze** cât mai repede 5/ pentru că **ar fi trebuit** 6**/ să plec** deja. 7/
     I hope   to   will finalise   as soon as   because I should have   to left   already
     'He came so many times, he will also come today until he will be able to finish this
                                                                                       already.'

(3f) Am reușit să plec, astăzi totul   s-a   desfășurat conform   planului.
     I was able to leave today everything itself-has went   according plan.DAT
     'I have been able to leave today, everything has gone according to the plan.'

In (3a), we have 2 events in past compound. In this case, the word order is equal
with the linear order. E1<E2; S1>R1 E1=R1; S2>R2 E2=R2 – but this scheme does
not represent deeply the temporal perception. There is no coreference[8] in the CC,
and between E1 and E2 there is a mild dependency, E2 is not being followed by
other events, so there is an intrinsic final state marking, E2 confirms the distant
final state of E1. Let us presuppose that the agent witnessed the act of coming by
B, then, the final state is: FT [E1]: PST+PST+PST; FT [E2]: PST+PST, the first past
value expresses the operator in both cases, the last denotes the proper event, E1
suggests a past perfect reading, E2 a PC1 reading. We should observe how the
aspect and the temporality changes in a CC, compared to a simple clause. In a
simple clause, we could not observe the event shifting, neither from temporal, nor

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[8] In terms of: the grammatical agent does not refer to himself.

for aspectual approach. The local aspect equals with the distant one, which is perfective, however in a simple clause the opposite reading is possible.

Consider (3b): the local aspect of E1 differs from the distant aspect of CC, the former is ongoing, the latter implies the final state; thus the whole CC is perfective. Now consider (3c), the local aspect of E1 is perfective, E2 is also perfective but it implies a present perfect reading. If the work was finished at 12 AM[9] in (3c), this means that the agent was not able to consider the CC as perfective, he would say something like (3d) – where the internal aspect for E1 is perfective, for E2 and E3 is imperfective, and the external aspect is also imperfective. The truth condition implies that E2 must have a final state right before E3 begins and E3 is not followed by dependent events, so, in the absence of inertia, the external aspect of the whole CC is imperfective.

I am going to continue with the aspectual states of (3e). The internal aspect of E1 is perfective and all the following events are imperfective. Let us assume that the worker came that day but he did not begin the job. This means that E2 gets perfective, when the arriving has a truth value. I assume also that the agent did not leave at an ulterior time, but this does not imply the act of not finishing the job by the worker. The worker might have finished the job, thus completing E3 and the agent might not have left due to some other issue. If the worker came, finished the job and the agent was able to leave, the whole CC has a truth value, with external perfective value. The internal aspect also plays an important role, for the agent's all previous events before E7 must have a final state in order have a fully truth conditional CC. Of course, if we assume the false condition, the worker might have come, but maybe he was not able to finish the work, E3; by this, E4 and E5 are obviously false. The agent might have left with these false valued events, but the CC is false, since not all subevents were finished. The truth condition also might differ from one sentential argument to another. For example, if the worker was not conscious of E4-E7, then according to his own knowledge, the sentence would be true, since he came and he finalized the work. I will call this *the relativity of the truth condition*, but I assume a general value for the agent of the clause.

Now let us assume that we have a conversation in the morning with the agent of (3e); he utters exactly the same CC as (3e). **Assume also that the agent calls us again and says (3f). We will know immediately that all subevents in (3e) have a final state, we do not have to reformulate the sentence (3e) with past inflections for ourselves to deduce the final state interpretation. This is also another strong evidence that tense is essentially adverbial in its nature.** Let us check the scheme for (3b): (∃e) [E1] [3PST.PFV to come & [Theme (e, B)] & [e (AdvP-today)] & [!e (AdvP-at many times)]] & [E2] [2PST.PFV to finish & [Theme

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[9] Because the day just started.

(e, B)] & [!e(DP-that thing)] & [e (ConjP-until finished it)] – if a presence of a temporal adverbial (Adv-at many times) does not appear to be perceived as a true local aspectual event, a semantic endpoint is not implied.

(4) **Am uitat** 1**/ să**-ți **spun** 2**/** că **am** lucrări grabnice mâine, 3/   **trebuie** 4/
    I forgot   to-you say.I   that I have things important tomorrow must
    să mă pregătesc pentru examene. 5/
    to me prepair.I for   exams
    'I forgot to say you that tomorrow I have important things to do, I have to learn
    for my exams.'

                                                                                       (Sketch Engine, EO)

In this determined[10] context the word order is not equal with the linear order. Only E1 is in past compound, the following events are in the subjunctive or in the present simple. For E3<E1<E2, we have also a logical reason to presuppose that in the linear order there is a hidden event which refers to the existence of exams, which must precede E3 because the exams were not established by the agent of E3, and E5 is most probably based on that hidden event operator. So we have a good reason to presuppose that E5 precedes even E3 because there is another hidden event variable, the event of *must*, thus an external obligation which precedes E3's hidden operator. For the speaker, the dominant tense of the CC is the present with near future value, a P6 reading, but for us, the readers the CC's dominant tense is rather a past tense, although the inflection is the same for the agent. We obviously know that the agent will not have an exam 24 hours after speech time. We also know that the novel was not written about 30 days ago and even if the novel had been published yesterday, we would know that the novel's temporal anchoring is not the same as our temporal perception. A basic explication relies in the fictional nature of the novel, but it might be a story based on real events and our temporal perception would still be different, that is why I believe that event shifting is more important than the actual fictional or non-fictional aspect of the novel.
     Let us check the internal relations, firstly from the agent's point of view: FT [E1]: PST+PST+PRS; FT [E2]: PST+PRS; FT [E3]: PST+PST (hidden operator) +PRS+FUT; FT [E4]: PST+PRS; FT [E5]: PST+PST (hidden operator) +PRS+FUT. E1's values are: 1st – past operator of successful event utterance, 2nd – involves the proper past variable reference, 3rd – refers to the actual present perfect value. E2's values are: I omit the first value, because it marks the operator, so, the 2nd marks

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[10] By *determined context*, I refer to CCs which do not contain impersonal constructions – like the Romanian *se zice* […] 'it is believed that […]'/ 'it is said that'.

the actual event variable, E3's values: 2nd – the actual present event, 3rd – with a possible future reference, E4's values: 2nd – present variable, and here I omitted a possible future variable, E5's values: 2nd – present, followed by 3rd – as a future variable since it is the last event without being followed by dependent events. We also know that in a novel with omniscient narrator, the narrator must know all the major events, so even though the current CC is uttered by the character, we know that the narrator also knows the whole story – and by this the events are shifted from a present perfect reading to a past reading. The narrator's time is hidden, but schematically it would be the following: **FT [CC - narrator:]** PST, **FT [E1** – hidden narrator]: PST+PST+PST; **FT [E2]:** PST+PST+PRS; **FT [E3]:** PST+PST+PST (hidden operator) +PRS+FUT; **FT [E4]:** PST+PST+PRS (+FUT); **FT [E5]:** PST+PST+PST (hidden operator) +PRS+FUT. As we can observe, there is an event shifting, from the current temporal axis which was equal with a present and a present perfect reading for the agent; now all events have a doubled past operator value. Thus for example, in E1 – we have 2 past operators: the 1st – the successful event decoding, the 2nd – the past of the original agent, 3rd – the proper event variable. This last value was PRS in the agent's scheme, but it become a past for the narrator.

Now let us compare the agent's E3 and E5: **FT [E3]:** PST+PST (hidden operator)+PRS+FUT; **FT [E5]:** PST+PST (hidden operator)+PRS+FUT – there is problem with this illustration. Based on this, the events are equal, but as I mentioned, the hidden operator in E5 must precede E3's hidden operator. This means that there is an anteriority and posteriority relationship between these events, which also influences the further representations – like the narrator's, the author's and the reader's temporal perception. For the simplicity of the representation, I will not use event internal marking, but rather mark the anterior-posterior relation by reporting X event to Y. So, the whole event **FT [E5]:** PST+PST (hidden operator)+PRS+FUT < (precedes) **FT [E3]:** PST+PST (hidden operator)+PRS+FUT – this precedence is caused by the hidden operator, in order to respect the truth and the logical condition of the CC. This cause-and-effect relation must also be present in the narrator's temporal sequence, but I will not repeat the same scheme from the other person's perspective, I rather focus on the temporal operators.

The scheme from agent's point is: (∃e) **[E1]** [2PST.PFV to forget & [Agent (e, A)]] & **[E2]** [2PST.PFV to say & [Agent (e, A)] & [Receptor (e, B)]] & **[E3]** [2PST.PFV+PRS.NPFV to have & [Agent (e, A)] & [!e(DP-things)] & [e(AdvP-tomorrow)]] & **[E4]** [2PST.PFV must & [Agent (e, A)]] & **[E5]** [3PST.PFV to prepare & [Agent (e, A)] & [e (PP-for exams)]] – E1, E2 and E3 have a PC2 value, but they are followed by other events, which have a different value. Moreover, E2 can be directly followed by E4. We have 2 possibilities: we indicate different values for E1-E3 vs. E4-E5, or we extend the initial PC2 to PC4 by front shifting inertia. Based

on E3's temporal adverbial and on E4, E5, I assume the rewrite condition, with a PC4 value. There is a logical reason behind this: the present perfect's temporal axis cannot last longer than the agent's speech time, so, in a computational system boot B might ask again boot A about the following day's plans, since the essence is on E4-E5. By giving a PC4 value, boot B's action gets blocked until the following day. But, of course, for human reference, the successful event decoding implies understanding of the semantic event variable. But even in this case, if E2 were followed by E4, PC4 would be a better value, since for the agent E5 has no final state at his speech time.

Now let us illustrate the author's perspective about the final state: **FT [E1]** PST+PRS; **FT [E2]:** PST+PRS; **FT [E3]:** PST+PRS; **FT [E4]:** PST+PRS; **FT [E5]:** PST+PRS. – Why are events followed by a present event variable, preceded by the temporal operator? This is the first representation of the author's temporal map: first, in his mind, there is a conception of the events, and the successful imagination equals with the past operator, then all events are seen as present, and obviously ongoing, because he is able to modify all events before the book gets published. But in his mind, he should make some event ordering, because a book cannot be written based exclusively on ongoing events; in his mind there is an internal as well as an external aspect. **I assume that the internal ongoing aspects might have a limitation as compared with external ones because our thinking is more strongly linked to the external aspect (denoted by CCs – at least, or larger frames); Thus, too many ongoing states would cause temporal event malfunction by blocking the temporal inertia, since the temporal inertia must have an independent function to force its action to that particular event.** Obviously, we cannot enter the mind of the author to analyse all his possible variants, but I am pretty sure that only the author has a present operator in all events, because he is able to delete, to modify all events until the book is published. So, an intermediary scheme is like 1.1, 2.1 etc., where there is an added operator.

For logical reasons, I do not add this operator after the proper event variable, but rather after the successful "imagination" operator, thus putting the operators exclusively in the left periphery. **FT [E1.1]** PST+PRS+PRS; **FT [E2.1]:** PST+PRS+PRS; **FT [E3.1]:** PST+PRS+PRS; **FT [E4.1]:** PST+PRS+PRS; **FT [E5.1]:** PST+PRS+PRS. The final scheme from the author's perspective is shifted again compared with the narrator's and with the character's temporal perception. The author defines what type of narrator he will use in his work, but in terms of temporal reference he (the author) must have access to every event, even though the narrative perspective may be different. The author enlarges or reduces the narrator's power. I assume that in this particular example, the final schematical representation from the author's perspective may be considered equal with the

mentioned narrator's scheme, but with the assumed intermediary differences. I also assume that it is possible to add an extra past operator, because there are sequences which are told by the characters, but a generalized past operator would cause limited omniscience: **FT [CC: author]** PRS.NPFV or PST PFV – depending on the creation stage.

Now let us check the scheme from reader's point, putting the FT of the narrator before the reader's scheme: **FT [CC: narrator**] PST < **FT [CC: reader]** PST, **FT [E1** – reader]: PST+PST+PST+PST+PRS; **FT [E2]:** PST+PST+PST+PRS; **FT [E3]:** PST+PST+PST+PST (hidden operator)+PRS+FUT; **FT [E4]:** PST+PST+PST+PRS (+FUT); **FT [E5]:** PST+PST+PST+PST+PRS+FUT. Let me mention the values for **E1:** 1st – successful decoding, 2nd – the hidden narrator's past, 3rd – the agent's past, 4th – the past event variable, 5th – the event variable's inflection suggesting a present perfect reading; by this variable we perceive the actual PC 2 value; **E2 values:** 1st – successful decoding, 2nd – narrator's time, 3rd – agent time, 4th – the present event variable; **E3:** 1st – decoding, 2nd – narrator's time, 3rd – agent's time, 4th – hidden operator, 5th – present event variable, 6th – ongoing variable. **E4:** 1st – successful decoding, 2nd – narrator's time, 3rd – agent's time, 4th – present event, 5th – ongoing event. **E5:** 1st – decoding, 2nd – narrator, 3rd – agent, 4th – hidden event operator, 5th – present value, 6th – ongoing action.

One might observe the **FT CC** operator, which functions differently from the mentioned entities. If we compare these entities, we have to admit that a written story's temporal reference cannot be the same for author, narrator, and reader. Let us presuppose that events are not shifted; so, temporally, the author, the narrator, and the reader represent the same temporal entity. This assumption would mean that the reader starts to read a book – with omniscient narrator, he realizes the omniscient narration, he reads 10 pages, and then he closes the book. The book has 300 pages. Is the reader able to tell the remaining exact story from the narrators' perspective (without any additional material)? Of course not, this means that the event's temporality is not the same, the reader-narrator relationship is characterized by back event shifting for the former, and the same is valid for the narrator-author relationship, if the narrator is not omniscient. I assume that the more an event gets back shifted, the more distant past is the dominant perception, and in story telling the event back shifting does not necessarily involve a special past perfect tense. This is also another evidence that tense is adverbial.

(5a) **Am venit** 1/ **să**-ți **spun** 2/ că **mă** **duc** în oraș.3 /
     I   came   to-you tell   that myself go in town
     'I have come to say that I am going to the downtown.'
     (Sketch Engine, EO)

(5b) Dacă **voiai** 1**/   să repari**   dulapul, 2/   **trebuia** 3**/ să**-mi **spui**   mie, 4/
     If   wanted.you to repair.you wardrobe.the must   to-me tell.you me
     să-ți   **ajut.**5**/**
     to-you help.I
     'If you wanted to repair the wardrobe, you should have told me, so I can help you.'

(5c) Vreau   să-ți   spun că   am fost în oraș.
      I want to-you tell   that I was   in town
     'I want to tell you that I was in the downtown.'

(5d) Dacă vrei   să repari dulapul   să îmi spun   și mie, să te   ajut.
      If   want.you to repair wardobe.the to-me tell.you and me to you help
     'If you want to repair the wardrobe, (please) tell me, so I can help you.'

(5e) Dacă **voiai** 1**/   să repari**   dulapul, 2/   **trebuia** 3 / să o   faci. /4
      If   wanted.you to repair.you wardrobe.the had   to her do.you
     'If you wanted to repair the wardrobe, you should had done it.'

(5e) Dacă **voiai** 1**/   să repari** dulapul, 2/   **trebuia** 3 / să o   faci. /4
      If   wanted.you to repair.you wardrobe.the had   to her do.you
     'If you wanted to repair the wardrobe, you should had done it.'

In (5a), the word order is the same as the event order, E1<E2<E3, the events are coreferential with the agent. E1 is intrinsically perfective, but from the agent's viewpoint it has a present perfect reading, thus a PC2 value. E2 has a temporal inertia, it has a final state right before E3 happens, and E3 is ongoing, since it is not determined by other events, but the local aspect is provided. The FT-agent representation is: (∃e) [E1]: PST.PFV+PRS.PFV to come & [Agent (e, A)]] & [E2] PST.PFV+PRS.PFV to say & [(Agent, e, A)]] & [E3]: PST.PFV+PRS.NPFV to go & [Agent (e, A)] & [e (PP-in town)]] the FT-narrator is (∃e) [E1] [2PST.PFV & [Narrator (e, N)]] & [E2] [2PST.PFV to say & [Narrator (e, N)]] & [E3] [2PST.PFV to go & [Narrator (e, N)] & [e (PP-in town)]. As we can notice, the doubled past operators cause the back shifted reading; so, for the agent, E1 is like a real present simple, for the omniscient narrator the event is back shifted, thus a present perfect reading PC2.

The internal aspect is obvious from the agent's viewpoint, E1 – perfective, E2 - perfective by inertia, E3's distant aspect is imperfective. So from the agent's point, (5a) is rather imperfective. **If in a coindexed CC the last event's external or distant aspect appears to be imperfective, the whole CC's dominant distant aspect might be perfective by an event variable which might cause a changed focus: the focus**

is not on the event, but on the speech act sequence. The main question is if the implied agent of the CC was able to finalise the act of repair or not? (5b) We might feel that the CC lacks an important feature – what I call, 'the figure aspect' in a yet unpublished paper. Apparently, the distant aspect cannot be verified, so I added (5e) with the same events (as 5b) until E3, but with a different E4. (5e) with its E4 suggests a negative result. However, in (5b)'s E4 we have an [(∃e) AdvP-for me] – a dative pronoun which is identical with the CC's real agent, thus suggesting a positive result for the act of repairing and a negative result for the presupposed event's assistant – which is the real agent of the CC. For the omniscient narrator, the FT – PST's operator is a necessary condition. For the readers it is not a necessary condition, but rather an inertia effect; we will read that book by assuming this inertia. So, the dominant tense for different clausal arguments differs from how they perceive the events, based on event shifting. In this particular novel, for the agent is present, for the narrator, present perfect, for the reader, past simple (or past perfect, especially in historical novels where the temporal axis is quite relevant). The dominant aspect for the reader is perfective – after reading the novel. We may not be able to perceive the temporal shifting, so let us check Dowty's progressive's definition: "[Prog ø] is true at <I, w> iff there is an interval I' such that I ⊂ I' and I is not a final subinterval for I' and there is a world w' for which ø is true at <I', w'>, and w is exactly like w' at all times preceding and including I." (Dowty, 1979: 146) – **According to my assumption, we may be able to imagine a character's interval (in terms of Dowty), but we are not able to enter his mind, before reading the story, neither in his [I and w] nor in his [I' and w']; I assume that we may enter only into our [I' and w']** which is a temporal place where the ongoing events are stored. But after a period, even our mind erases it from there, so action CCs with imperfective value are not stored in our mind for an indefinite period, and the past operator takes scope over them, so in cases like (5a) our perception is closer to perfective (based on a yes / no answer), than to imperfective.

Not let us continue with (5b). E1 and E2 are not coreferential with the agent, and we have 2 events in imperfect, but E3<E1. The internal aspect implies a final state for E1, E3 and E4, the others are not determined. The external aspect differs from the argument from whose perspective we are viewing the action. For the agent, all events in (5b) might be present perfective (at a prior time). So, let us presuppose for the moment that the agent uttered a copy of (5b) the day before the actual (5b) happened and the presupposed act of repair was that day, so he could have uttered a clause like (5d). In the actual (5b), from the agent's perspective there is a hidden operator, the anticipating of E1 and E2 by the agent; this hidden argument contributes to the event back shifting and causing another back shifting, *hidden operator* < E3<E4<E5<E1<E2. So, at some point, the agent's

present perfect was a pure present for him; then a shifted reading caused the present perfect interpretation. Also, there is another possible interpretation where the implied agent[11] of (5b) mentioned to the real agent[12] the act of wanting to repair (who may have forgotten about it), but this does not affect our concern related to temporal anteriority, it affects (possibly) the person who might have told it, but the shifting is still valid. To this sequence we have to add the narrator's time: **FT-narrator for (5b):** ($\exists$e) [E1] 4PST.PFV to want & [Narrator (e, X)]] & [E2] [3PST.PFV] & [e (DP-wardrobe)]] […]. Let us compare this with the CC2's implied agent's point, **FT-agent for (5b)** – ($\exists$e) [E1] [PST.PFV+PRS.NPFV < 2PST.PFV & [E2]: PST.PFV+PRS.NPFV < 2PST.PFV. In my opinion, for the narrator it was not an ongoing event, if we assume that he must know every detail in the story. Then, after the narrator's time we have our time, the time and the temporality of readers. One thing is really sure: our time cannot precede the omniscient narrator's time, the events are shifted again, thus adding another operator. So for example, for (5b)-reader we have a scheme like [E1] 5PST.PFV – **including the original anticipating operator, thus compared with our time, we should perceive it like a past perfect, even though the verbal inflection is imperfect.**

2.2. The effects of changed tense and the limitations of the rewrite condition

In this subsection, I analyse how a changed tense[13] can affect the predicate's perception, along with the limitations of the rewrite condition. It also includes a restrictive hypothesis of the Romanian imperfect tense.

(6a) **Fumați**, 1/   nu **e așa**? 2/ **întrebă** Stănică, 3/   și   apoi tot el **răspunse**: 4/
     Smoke.you   not is so   asked   S   and next still he answered
     Cum **să** nu **fumați?** 4**/**
     How to not smoke.you
     'You do smoke, don't you?", Stanica asked and then it was he who answered:
     „Of course you smoke.'
       Se   prefăcu 5**/** că **se   caută** prin buzunare, 6/ apoi **se   scuză:** 7/
     Himself pretended that himself search in   pockets   then himself apologises
     – **Sunt** și   eu un boem în felul   meu! /8
       Be.I and I   a funny in style.the my

Am crezut 9**/** că **am**, 10/ dar n-**am**! 11/ Însă „unchiul' meu **are** un tutun tare, teribil! 12/

I believed   that I have but not-I have but   uncle.the my has a tobacco
very unpleasant

Numai nu-**i** pentru domnișoare. 13/   – Și de ce **să** nu **fie** pentru domnișoare?14/
But   not-is for   ladies   and why to not be for   ladies

zise studenta   de pe fereastră, bălăbănind picioarele și   relevând
un glas   gros. 15/
said student.the from window shuffling   legs.the   and revealing
a thick voice

'You smoke, don't you? asked Stănica, and he also replied: Of course, you smoke!
He pretended to search in his pockets, then he apologised: - I am funny in my own
way! I thought that I had it, but I do not. But my 'uncle' has a really strong
tobacco, but that one is not for young ladies. – And why is it not good for young
ladies?, asked the female student from the window, swinging her legs and
exhibiting a low-pitched voice.'
        (Sketch Engine, EO)

(6b) Ați   fumat, nu-i așa? […]
        Have.you smoked no-be so
        'You have smoked, haven't you?'

(6c) Cum nu ați   fumat? […]
        How no have.you smoked
        'How come you didn't smoke?'

(6d) ?Cred   că am,   dar nu am. […]
         I believe that I have but no have
        'I thought that I have / had it, but I haven't.'

(6e) Însă „unchiul"   meu **a avut** un tutun   tare,   teribil! […]
        But   uncle.the my had.he a   tobacco really unpleasant
        'But, my 'uncle' had a really strong, unpleasant tobacco.'

In (6a) I indicated a larger determined context. We are interested in the past
compound, but we cannot omit the other tenses. We will check how the different

tenses relate to each other and if they influence the past compound's meaning or inversely. As we can see from the narrator's E3, his [I(nterval)] does not correspond to the character's [I(nterval)], the former has at least an [I(nterval) 2.] E1 for the agent is in the present simple, the internal aspect of E1 is imperfective, due to its interrogative nature introduced by E2, but the external aspect is imperfective for the agent. As we discussed earlier, only an answer from B can contribute to its perfective aspect. I also assume that if an answer is not provided in a reasonable time, the agent automatically considers it as perfective, since we do not wait for ages for a simple answer. That is why, we are usually not interested when someone answers our question after a year. If we change the present simple in E1 and E2, as illustrated in (6b), the temporal shifting also causes the change of the verb type: **from stative, to activity reading.** In the context of (6a), (6b) would be interpreted as a question for a recent activity, while in the actual context, (6a) is a question involving a state. Also, the change of the tense would affect the shifting. Thus, in the actual reading (6a) has a present perfect reading for the narrator, but if (6b) would be placed in (6a) it would cause a past perfect reading for the narrator and an even distant past perfect for the readers, since the past operators are multiplied as the events' [I(ntervals)] values are changed, so for us it would be [I(nterval) 3] value. I also assume that in this context, the past compound in E1 and E2 might cause a conflict between the narrator's and the character's voice, because it might give the impression that the question is put by the narrator.

If we change the present value of E4 to past compound and place it contextually in (6a), then also a shifted event changes the event type, from a questioned state to a missed activity. In my opinion, E9-E11 are strong proof for event shifting and linear order. If we put (6d) contextually into (6a), we notice immediately the ungrammatical nature. Thus, the act of belief cannot be simultaneous with an adversative conjunction - you cannot have and also not have something simultaneously -, so the past compound in E9 gives the past context for the present event. E10 is in present simple, but the inertia forces a final state reading before E11. If E10 were ongoing, E11 would never happen, not just because the proper event would be unmotivated, but also the coordinated conjunction, since E11 cannot be bounded to E9 – the conjunction being an abstract. (Thus, without a proper event variable the predicate's valency is not obeyed.) E11 is bounded to its previous E10. E12's past compound equivalent (6e) would also change the meaning of the CC, because all the following events in the CC would necessitate a past tense; otherwise the message would be changed and a logical issue would be present. If (6e) is followed by the rest of (6a), the construction would become illogical, since how could a product not be good for someone, if the product mentioned in E12 does not exist. A changed past tense to past compound

in E14 would change the original meaning, suggesting that the product was already used by ladies and it was not good for them, and the implied agent's question would presuppose a possible change in the state, thus at her time the product might be good for them, but this would affect the whole meaning of the preceded event. The agent of E13 by his utterance refers to a general meaning, but the past compound would shift the event's interpretation from general to particular, and a particular question would not authorise logically the question in E14. If the question in E14 is not authorised, then the narrator's E15 should also be deleted. As one can see, the event shifting has huge consequences.

(7a)[14] **A bătut-**o   măr, 1/ **am auzit** chiar 2/ că   **s-a internat**   în spital. 3/
          He beat-her apple   I heard   even   that herself-admit to hospital.the
          'He beat her badly, I heard that she even had to be hospitalised.'

<div align="right">(Sketch Engine, EO)</div>

(7b) **A bătut-**o măr, 1/ **am auzit** chiar 2/ că **a fost internată** în spital. 3/
                                            she was admitted   to hospital
      'He beat her (so) badly, I heard that she was hospitalized.'

In the context of (7a), we have 3 events in past compound, the word order does not reflect the linear order. Let us presuppose the existence of 5 logical arguments: person **A** who utters the current CC, person **B** to whom A tells the CC, and implicitly person **C** who is the implied subject of the CC, **D** is the referent of E2, **F** is the narrator. The linear order is E1<E3<E2. The internal aspect from the agent's point is E1 perfective, E2 perfective, E3 imperfective. The distant aspect from A's point is perfective. When A tells the CC to B, the utterance is temporally shifted, thus another past operator appears, but if B has no more information than A, the external aspect is still perfective, but C might have left the hospital at the time when A uttered and B received his utterance. The dubitative reading of E2 actually confers a distant imperfective aspect for A and B. Observe that E1 and E2 are achievement verbs, thus intrinsically perfective, but E2 is semantically dubitative. E3 also implies an achievement, but it is not determined[15]. For A, E1 has PC3 reading, E2 PC2 and E3 PC1; for B all events are PC3, but E3 might be ongoing. The scheme for D (the referent of E2) is **FT CC-D** ($\exists e$) **[E1]** [3PST.PFV to beat & [Theme (e, B)] & [e (DP-her)]] & **[E3]** [2PST.PFV+PRS.(N)PFV], the values 1st – his successful message utterance, 2nd – the proper past event, 3rd – the anterior marker, [E3]:

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[14] From (7b), I gloss only the words which are different from the previous example(s).
[15] It is not determined by other event(s).

1st – his successful message utterance, 2nd – the event variable, 3rd – the present perfect value of the event. By this scheme, I assume that D is the first person who knows firstly the CC's events, this is why I omit E2. Of course, multiple persons might be involved, but this would not contribute logically to our concern. I assume that humans cannot differentiate between multiple past perfect levels, but this and my above examples illustrate that actually there is an event back shifting any time when a person tells something to B.

The [E1] having 3PST values, 1 operator and 2 event variables, it can be seen already as a past compound with past perfect value, and the true present perfect appears to be only E2, but not from D's perspective. E3 cannot be seen as a true perfective, since it might continue after D's utterance. We can see that it is not followed by dependent events, thus no other event forces the rewrite condition. Actually, only the inertia is possible because she (i.e. C) might have left the hospital. I assume that E3 continues after D's utterance, as I previously assumed that D was the first person who knows that C is being hospitalized.

Now let us check the situation from A's perspective. **FT CC-A** (∃e) **[E1] [**4PST.PFV to beat & [Theme (e, B)] & [e (DP-her)] & [E2] PST.PFV+PRS.PFV to hear & [Agent (e, A)]] & [E3] [3PST.PFV+PST.NPFV] & [e PP-in the hospital)]]. As we can see, the major difference is in E2, since it was not present in D's utterance. E2 appears to be the only true present perfect, the other events refer to either an anterior past or to the past with imperfective reading.

What is B's perspective? **FT CC-B** (∃e) **[E1] [**5PST.PFV to beat & [Theme (e, B)] & [e (DP-her)]] & **[E2][**3PST.PFV to hear & [Person e, A, B]] & **[E3] [**4PST.PFV+PST.NPFV. The added operators illustrate the event shifting, for B, E1 is an absolute past perfect by having 5 past values, the only added event from the original D's utterance being A's E2. This suggests that the past perfective meaning is achieved by the presence of the added operators, so for B E2 cannot have a PC2 value, but PC3. If I eliminate the past operators from D's E1's utterance, the scheme would be only PST+PST, thus correctly marking the E1's anterior relation, but by this, the scheme would be the same for A and B. But A and B obviously perceive D's E1 as a more back shifted event, compared to D's perception, by assuming that these persons do not speak to each other simultaneously, so, (the missing) **coreferentiality affects the temporal perception.** Thus C – the implied subject who was beaten, even 3 months later, may perceive the CC as [E1 and E3]: PST.PFV+PRS.PFV as PC2, while B as PC3, with the mentioned 5PST values.

At this point a logical question from my readers would be that: what happens if C tells directly her story to B after 3 months, with the mentioned event perception. How can B perceive it as a past perfect, assuming that C just told to him, thus the FT is [E1]: 3PST.PFV – it appears that the 3PST value fulfils the

independent past perfect reading when the receptor is not involved in the events and there is a longer temporal distance. If we change the E3's verb voice, from active reflexive (7a) to passive (7b), then it changes the meaning, suggesting that C is no more in the hospital. I assume that, in this case, E2 might create a temporal distance between E1 and E3. The passive voice also suggests an aggravated health condition for C. In this case, if E3 is without rewrite condition, it might be PC2 candidate, but only in a shared bridge construction, which will be discussed in another paper, else if it cannot because the preceding events (E1 and E2) also try to achieve the same PC2 value. The essence is that if the bridge were shared between at least E2 and E3, then the PC2 value would be labelled once.

(8a)   O **cunosc** pe Otilia 1/   de când [**este**] / **era mică**, 2/ și   **pot** 3**/**   **spune** 4**/**
       Her know.I at O   when   is   was little   and can.I   say.I
       că   **a crescut**   sub   ochii mei. 5/
       that grew.she up under eyes my
       'I have known Otilia since she [is] [was.NPFV] little, and I can say that I witnessed her growing up.'

                                                                    (Sketch Engine, EO)

(8b)   O **cunosc** pe Otilia 1/ de când **a fost mică**, 2/ și **pot** 3**/ spune** 4**/**
                                              she was little
       că **a crescut [*crește]** sub ochii mei. 5/
          grew.she up [*grows up]
       'I have known Otilia since she was.PFV little, and I can say that I witnessed her growing up.'

In (8a), we have 3 events in present simple, 1 in past compound, 1 in imperfect. The dominant external aspect is perfective, as the last event is intrinsically perfective, but actually an imperfective reading is also possible. **FT CC-agent** (∃e) [E1] [2PST.PFV+PRS.(N)PFV to know & [Agent (e, A)] & [e (DP-her)]] & [E2] [2PST.PFV & [Agent (e, A)] & [Theme (e, B)] & [e (AdjP-little)]] & [E3,E4] [PST.PFV+PRS.PFV can / to say & [Agent (e, A]] & [E5] [2PST.PFV to raise] or [E5.1] PST.PFV+PRS.PFV The main question is whether **E5 or E5.1** is the better reading. Let us imagine that the agent – **A** starts a conversation with his friend – **B**, and he mentions the implied agent of the CC – **C**, thus utters (8a). Obviously, E1 is ongoing, E2 illustrates a longer ongoing state, E3 and E4 are the speech acts events, E5 is the theme modifier.

        The first hypothesis is that C – is already an adult by the time A utters (8a), thus for A, the E5's value is the first one – PC1. The second hypothesis is that E5's value is the second one, thus it has a PC2 value. Let us start with the second

hypothesis. This would imply that after A's utterance, at his speech time, the condition might not hold, since the present perfect cannot have a future reading, thus the event denoted by E5 must have a final state at least before the agent utters the CC. This would cause a possible conflict with E2's external aspect, if E5 would have a final state at the agent's speech time. In my opinion, E2 foreshadows the ongoing meaning of *not fully grown* – this means that E5 has a PC1 value and this even more foreshadows a left periphery focus (back shifting compared to PC2), thus the fact that A knows C. The first hypothesis for E5 can be verified by (8b); in this case the event of growing up has finished before A's speech time, thus he may use E5 with present perfect value, PC2.

Based on this, an imperfective event X which precedes in the linear order Y, i̶t̶ might cause temporal and aspectual conflict for the CC's logical interpretation if Y implies a final state at the speaker's speech time. I call this the inertia of the imperfect. By this, (8a-E5) cannot have a PC2 value, but a PC1 if E2 is imperfective, and in (8b-E5) the PC1 is not my preferred value since it suggests a simultaneous reading with E2. This example also illustrates that sometimes the SOT (Sequence of Tense) is important in Romanian, as shown by the ungrammatical present simple event in (8b), and it also foreshadows that in (8a) E5 must be ongoing (after the agent's speech time), if E2 is imperfective. 2 events accompanied by antonymic NPs cannot have the same final state, thus E5's present perfect final state cannot force E2's final state to occur at the same time.

From the receptor's point, E2 might have a final state, if s/he does not know C, and no further details are offered. The same is valid for E5. The receptor's temporal scheme is [E1] [2PST.PFV+PRS.PFV] & [E2] [3PST.PFV+PRS.(N)PFV & [E3] [2PST.PFV+PRS.PFV] & [E4] [3PS.PFV & [E5] [3PST.PFV] This scheme corresponds to a situation where the receptor (B) is not interested in further details about C. So, he might perceive E2 as ongoing and E5 is perfective and by this the above-mentioned constraint is violated, so the maximal truth condition implies the same reading for B in which E5 cannot have a final state at A's speech time if E2 is imperfective. From A's viewpoint, the external aspect is ongoing, since he continuously knows her. It may be a theoretical situation where an undetermined action of C determines A to deny the actual ongoing state of E1 – thus he says something like "from this moment we do not know each other". If A does not share this information with C, the latter person will consider the event as ongoing, although it is already ended from A's point of view. This is another example which proves how important the event coreferentiality is, and basically this is why we have to consider many events imperfective – we cannot control these ones, since they are not coreferential with our [I' and w'].

(9a) **Am observat** că părinții cu copii mulți   **iubesc** rău copiii, în bloc,
1**/**   2/
I noticed   that parents.the with children many love.they badly   children.the in
                                                                                        panel

dimpotrivă, **sunt   plini** de afecțiune aceia 3/ care n-**au**   deloc copii. 4/
contrariwise be.they full of affection   those   who no-have.they at all children
'I noticed that parents with many children love children very much; however,
among those who live in a block of flats it is the childless ones who are very
affectionate.'

                                                                                        (CoRoLa)

(9b) **Observasem 1/** că părinții   cu   copii   mulți **au   iubit** rău   copiii 2/,
     Noticed.I   that parents.the with children many they.have loved badly
                             children.the
     în bloc, dimpotrivă,   **au fost   plini** de afecțiune aceia 3/ care **nu au   avut** /
     in panel contrariwise they.were full of affection those   who not they had /
     nu **avuseseră**   copii.4/
     not had.they.PPFV children
     'I noticed that parents with many children loved children very much; however,
     among those who lived in a block of flats it was the childless ones who were
     full of affection.'

(9c) Ion mi-**a spus 1/**   că **a observat 2/** că   părinții cu copii mulți **iubesc** rău copiii, 3
     J   to me-he said   that he noticed   love.they
     în bloc, dimpotrivă, **sunt plini** de afecțiune aceia 4/ care **nu au** deloc copii. 5/
                          are   full   not they have at all children
     'John told me that he noticed that parents with many children love children
     very much; however, among those who live in a block of flats it is the childless
     ones that are full of affection.'

(9d) Ion mi-**a spus 1/**   că **a observat 2/** că părinții cu copii mulți **iubesc** rău copiii,3/
     în bloc, dimpotrivă, ***au fost plini**   de afecțiune aceia 4/ care **nu au** deloc copii. 5/
                          *they.were full
     'John told me that he noticed that parents with many children love children
     very much; however, among those who live in a block of flats *there were full
     of affection the childless ones.'

(9e) Ion mi-**a spus 1/** că **observase 2/** că părinții cu copii mulți **iubesc** rău copiii, 3/ în

bloc,

noticed.he

dimpotrivă, **sunt plini** de afecțiune aceia 4/ care **nu au** deloc copii. 5/
'John told me that he had noticed that parents with many children love children very much; however, among those who live in a block of flats there are full of affection the childless ones.'

(9f) Ion mi-**a spus 1/** că   **observase 2/** că   părinții   cu copii mulți **au iubit** rău copiii, 3/

 J   o me-he.said

în bloc, dimpotrivă, **au fost plini** de afecțiune aceia 4/ care **nu au avut** deloc copii. 5/
'John told me that he had noticed that parents with many children loved children very much; however, among those who lived in a block of flats there were full of affection the childless ones.'

(9g) Ion mi-**a spus 1/** că **a observat 2/** că părinții care **locuiesc** în sat 3/ nu **iubesc** copiii, 4/

live.they   love.they

iar cei care **locuiesc** în oraș 5/ *****au fost   plini de afecțiune**. 6/
                      live.they   *they were full of affection
'John told me that he noticed that parents who live in a village do not love children, and those who live in a city *they had been full of affection.'

In (9a), we have 1 event in past compound, the others are in present simple. Only E1 is coreferential with the agent, its internal aspect is perfective, the external aspect of the whole CC is imperfective. The local aspect of E3 is also perfective, since it is followed by a determined event. The essence is not on the agent's E1, but rather on the E2-E4. The reading of E1 is PC2, thus a present perfect, but the events that follow it cause a shifting in the general reading, thus the whole CC has PC4 value. This combination with PC2 and PC4 appears to be very important, because E2 as a stative verb implies at least near past reference or hidden operator.

      Now let us check the temporal relations. The event, from agent's viewpoint, is present with future reference. I assume that due to its generalized aspect it is not present perfect, but present simple. The problem with the present perfect reading would be that when she utters the sentence, the temporal axis forces an endpoint

for the whole CC. This would not be a major problem for a coindexed CC[16], but in the current generalized example it would mean that after she mentioned the CC, **she would have to utter at least in her mind another generalized theory – I call this** *the effect of temporal inertia,* **which forces the present perfect to foreshadow its value, by the rewrite condition,** thus not back but front shifting the events. Another problem with the present perfect reading is that it would imply a truth conditional issue: at time x the agent utters (9a), but its value expires at the moment, or the moment following the utterance, so technically the agent would be forced to mention another opinion, and this would cause 2 major problems: (a) the truth condition would be affected, (b) a responsible person does not change his/her (their) opinion from one second to another. Consider the FT-agent: (∃e) [E1] [hidden semantical past operator < 2PST.PFV+PRS.PFV to arrive & [Agent (e, A)]] & [E2] [PST.PFV+PRS.PFV to love & [Theme (e, B)] & [e (Goal DP-children)]] & [E3] [PST.PFV+PRS.PFV to be & [Theme (e, C)] & [e (AdjP-full off..)]] & [E4] hidden past operator < PST+PRS.PFV not to have & [Theme (e, D)] & [e (AdvP-not at all)]] - E4 has also a hidden operator, but this cannot be the E1's operator, since E4 is directly preceded by E3 – E1 is not the head of[17] E4.

Now let us check how the event shifting affects the meaning and temporality in (9b-e). Firstly, we check (9b). Do we observe any generalization, or any question? To some point, we might say that there is a weak generalization, but a general truth[18] implies a present value, so this could be only a personal generalization. All events are in past tense, E1 and E4 are in past perfect, the others are in past compound. In my interpretation, the focus in (9b) is on the left periphery, thus everything is agent-oriented: we do not wait for an answer, we do not wait for a final state - imposed by the receptor – as in the case of the questions, everything appears to be in the linear order. The local and the distant aspect are perfective, thus the right periphery is also closed, there is no dependent event, no awaited answer.

Let us check the (9c), by hypothesising that it was told to person B. From the viewpoint of the (9c)'s agent, the CC might have a generalized reading, but if B does not agree with it, for him the CC does not have an imperfective value, since by his contrary opinion his sequence is closed. This example also illustrates the temporal shifting, since (9c)'s past was first a present for the agent, became his past, but the second part of the CC suggests a present reading. The general reading can be maintained only if B also considers (9c) as a generalized truth, otherwise the past operator takes scope over the CC and it acts like a past event for B, thus a forced present temporal inertia leads to change in interpretation, from general to personal event type.

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[16] Where the coindex between the events is the same (i=i).
[17] In the classical syntax, E1 is not directly linked to E4, E4 is an attributive subordinate clause.
[18] An example for a general truth: at 1 bar / atmosphere, the water boils at 100 degrees Celsius.

Let us check (9d), by assuming the same transition between its agent and person B. The first part of the CC, the left periphery suggests a present perfect reading with generalized value for the right periphery, but this is only partially true since E4 is in past, thus acting like a speech act event. By the past compound in (E4), the CC loses its general reading, if we assume that a generalized reading implies the truth condition for the whole CC. By this, (9d) is a personal event narration, which must be perfective for person A, since personal events cannot be subjects of imperfective events. By this, **for B**, (∃e) [E1]: 3PST.PFV, the same for [E2], [E3]: 2PST.PFV+PRS.PFV, but [E4]: 3PST.PFV, [E5]: 2PST.PFV+PRS.NPFV, as I mentioned E4 affects the truth condition of a generalized event, this also leads to another back event shifting for narrator, [+1] past operator. The event cannot be seen as a universal truth. In (9d), with E3 in the present and E4 in the past, the CC does not have the desired truth condition as compared with (9c), since at the agent's speech time, the people without child might not love children. **The reader might check (9g) for comparison when event shifting is present. E3 might have the same value as E6 at the agent's speech time, so in E6 the act of being fully emotional may not be true at A's speech time, but as the adversative conjunction illustrates this is not the intended meaning.**

E1 and E2 in (9c and e) might appear in a past tense, since they are speech act events, but the following events must follow the temporality of event sequences, a universal truth must be present tensed, as the agent's clause also refers to a generic / universal value, especially if we would read the DP-children (in 9c's E2) without the definite article. Between (9c and e) there is a temporal difference in the right periphery, thus in the latter the main event is reported by an anterior-posterior relation and implies a [+1] temporal operator, while in the former this might be avoided, although the semantic nature of E2 implies at least a near past reference. In (9f), all events are past oriented, with the past perfect's temporal marker in E2. The CC expresses a contrary truth condition as compared with (9a). By closing the external aspect, the whole CC cannot be seen as a universal truth, it may be considered as a personal generalized value.

3. Conclusions

In (1a and b), I illustrate how the changed tense affects the CC's orientation: agent or receptor oriented. If (1a) is agent oriented, the rewrite condition applies for E2 and forces E1 to have a final state at least at the agent's ST. In (1b), the focus is on the receptor; from the agent's viewpoint the distant aspect is imperfective. The shifting also affects the truth condition: in (1a), E1 implies the falsehood of E2, while in (1b) E1 can imply the truth of E2. The equalized tenses (1c) affect the aspectual

bridges: in (1a) the bridge is shared between E1-E2, having the same PC2 value. In (1c), E2 suggests a PC3 and E1 a PC1 value. In (1c and d), I add a temporal variable: in (1d) the variable is not odd with 2 past compounds, without rewrite condition. In (1e), only E1 is a true perfective (PC3), while E2 (by E3) suggests a PC2 reading; apparently, they should have a shared aspectual bridge. In order to avoid the temporal / aspectual conflict, we would have to copy the temporal event variable (from E1) in E2's scheme – and if we do that, what is the purpose of the present simple? This example also illustrates that the temporal event variable can bypass the verbal inflection head – thus, again, tense is essentially adverbial in its nature.

In (2a), I illustrate the reader's perception for E1: E1 is as follows FT [PST+PST+PST+PST], the 1st is our successful decoding, 2nd – the narrator's past time, 3rd – the agent of the utterance with 3sg, 4th – the original hidden reference with 1sg, 5th – the proper event. All these operators and variables influence our perception: we do not feel it as a really recent past event. I claim that our mind tends to perceive only the event variable, not the temporal operators. However, at the level of representation, a temporal operator has a greater influence than an event variable. The agent can treat only E1 as a final stated event: he can be sure only while decoding the message. He is not responsible for his non-dependent event. The temporal event variable remains ongoing, even with the added coreferentiality (2c). (2c) is not followed by dependent events, the inertia / the rewrite cannot be applied, thus when a present simple cooccurs with the past compound, the last one might be more prominent because it creates a bridge between past-present-near future.

(3) illustrates why tense can be seen as adverbial in its nature, and how our mind processes time, without a proper T0 modification. In (3b), I mention that the internal aspect of E1 differs from the external aspect of the CC, in that the former is ongoing, the latter is perfective. In (3c), the internal aspect is perfective for both E1 and E2, but E2 implies the present perfect reading. If the work is finished at 12 AM, the agent is not able to consider it as perfective. He would utter a CC like (3d) where the internal aspect is perfective for E1, imperfective for E2-E3, while the external aspect is also imperfective. By (3e), I illustrate the relativity of truth condition: if the worker is not conscious about E4-E7, then according to his knowledge, the CC is true - he came and he finalized the task.

(4) explains why for an author and for our mind an infinite imperfective value is not possible in dependent CCs, and why the event shifting is mandatory for different types of explicit or implicit arguments. In (4a), I illustrate the presence of a hidden operator E5<E3. For the speaker, the dominant tense is present with near future value, but for the readers the dominant tense is past – although the inflections are the same for both arguments. I illustrate multiple schemes, for different clausal arguments, I explain the role of the doubled operators as

compared with the scheme of the agent. We can indicate different values for E1-E3 vs. E4-E5, or we can extend the initial PC2 to PC4 by front shifting inertia. Based on E3's temporal adverbial and on E4, E5, I assume the rewrite condition, with a PC4 value. There is a logical reason behind this: the present perfect's temporal axis cannot last longer than the agent's speech time, so, in a computational system boot B might ask again boot A about the following day's plans, since the essence is with E4-E5. By giving a PC4 value, boot B's action gets blocked until the following day. Starting out from the author's perspective, I assume that the internal ongoing aspects might have a limitation as compared with the external ones because our thinking is more strongly linked to the external aspect (denoted by CCs – at least, or larger frames). Thus, too many ongoing states would cause temporal event malfunction by blocking the temporal inertia, since the temporal inertia must have an independent function to force its action to that particular event. I consider that a written story's temporal reference cannot be the same for author, narrator, and reader. What would happen if I presuppose that events are not shifted? So, temporally, the author, the narrator, and the reader represent the same temporal entity. This assumption would mean that the reader starts to read a book – with omniscient narrator, he realizes the omniscient narration, he reads 10 pages and then he closes the book. The book has 300 pages. Is the reader able to tell the remaining story from the narrators' perspective (without any additional material)? Of course not, this means that the event temporality is not the same, the reader-narrator relationship is characterized by back event shifting for the latter, and the same is valid for the narrator-author relationship, if the narrator is not omniscient.

(5) illustrates the role the event internal variables, which can impose a positive local / distant final state for a particularly event, and a negative one to another particularly dependent event. In (5a), I introduce the speech act-based hypothesis for coindexed CCs where the last event appears to be imperfective, and I consider that the dominant aspect might be perfective by an event variable which changes the focus: the focus is not on the event, but on the speech act sequence. In (5b), the main question is if the implied agent of the CC was able to finalise the act of repair or not. We might feel that the CC lacks an important feature – the figure labelled aspect.

(6) illustrates how a changed tense can affect the semantical perception of a verb, and how multiple [I(ntervals)] can affect our perception, thus what would happen without a proper event shifting. In (6a), I illustrate that if an answer is not provided in a reasonable time, the agent automatically considers it as perfective, since usually we are not interested in receiving an answer after 1 year. By (6b), I illustrate how a changed tense can affect the verb type: from stative, to activity reading. This also affects the event's perception. (6a) has a present perfect reading for the narrator, but if (6b) is placed at the beginning of (6a) it would imply a past

perfect reading for the narrator, and a more distant past perfect for the readers. I also assume that the past compound in (6a) E1-E2 might cause a conflict between the narrator's and the character's voice, because it might give the impression that the question is asked by the narrator. If we change the present value of E4 to past compound and place it contextually in (6a), then a shifted event changes the event type, from a questioned state to a missed activity. If we put (6d) contextually to (6a), we notice immediately the ungrammatical nature. Thus, the act of belief cannot be simultaneously with an adversative conjunction, you cannot have and also not have something simultaneously, so the past compound in E9 gives the past context for the present event.

(7) illustrates the situation in which the rewrite condition is not possible and the inertia is preferable, and it also motivates the presence of the shifted operators, when multiple arguments are present. In (7a), I illustrate that when the receptor (B) is not involved in the flow of the events, even a 3PST value can fulfil the past perfect reading for him. (7b) illustrates that a past tensed passive voice suggests an aggravated condition for C, and E3 without the rewrite condition can have a PC2 value - in a shared bridge construction.

In (8a), I mention 2 possible interpretations for E5 [E5] [2PST.PFV to raise] or [E5.1] PST.PFV+PRS.PFV, the 2nd solution is problematic. This would imply that after A's utterance, at his speech time, the condition might not hold, since the present perfect cannot have a future reading, thus the event denoted by E5 must have a final state at least before the agent utters the CC, this would cause a possible conflict with E2's external aspect, if E5 would have a final state at the agent's speech time. The agent's E2 foreshadows the ongoing meaning of not fully grown – this means that E5 has a PC1 value and this even more foreshadows a left periphery focus (back shifting compared to PC2), thus the fact that A knows C. The first hypothesis for E5 can be verified by (8b); in this case the event of growing has finished before A's speech time, thus he may use E5 with present perfect value, PC2. Here I would also make a remark: an imperfective event X, which precedes in the linear order Y, might cause temporal and aspectual conflict for the CC's logical interpretation, if Y implies a final state at the speaker's speech time. I call this the inertia of the imperfect. By this, (8a-E5) cannot have a PC2 value, but a PC1 if E2 is imperfective, and in (8b-E5) the PC1 is not my preferred value since it suggests a simultaneous reading with E2. By (8b), I also illustrate the relative presence of SOT (Sequence of Tenses); it is usually not required for Romanian.

In (9a), I analyse the constraints of PC2, thus the agent should utter a generalized theory - I call this as the effect of temporal inertia which forces the present perfect to foreshadow its value by the rewrite condition. With the PC2 value, the agent would be forced to mention another opinion, which would also cause other issues: (a) the truth condition would be affected, (b) a responsible person does not change his opinion from one second to another. By (9b), I illustrate that the focus

is on the right periphery (story telling). In (9d), with E3 in the present and E4 in the past, the CC does not have the expected truth condition as compared with (9c) since at the agent's speech time, childless people might not love children.

In the paper, I also differentiate 4 types of aspects: internal vs. external, local vs. distant. In my usual terms, internal aspect marks the necessary grammaticality in the CC, the external aspect marks the dominant aspect of the CC – if it is coindexed, if it is dependent that event etc., the local and the distant aspects are linked to truth condition – "what is and what could be". I assume that these conditions are necessary for a hypothetical computational system to avoid the N/A value.

Glossary

FT – final state
CC – complex clause
A – usually the agent
B – person B (B-to-D they are further clausal arguments)
C – person C
D – person D
(e) – the Davidsonian event variable
∃ – at least one element for which the phrase is true

Corpus
Călinescu, George. *Enigma Otiliei* (Sketch Engine, EO)
CoRoLa

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