The Split T Analysis

Halldór Ármann Sigurðsson
Lund University

Abstract

This essay pursues *The Split T Analysis*, claiming that finite clauses have three syntactically active T heads, roughly corresponding to the Reichenbachian S, R, E: Speech Tense, T_S, in the C-domain, Referential Tense, T_R (or simply T) in the T-domain, and Event Tense, T_E, in the v-domain. This analysis, it is argued, enables a coherent account of the relationship between Tense morphology (including Tense Agreement) and Tense syntax (including Sequence of Tenses phenomena and Double Access Readings).

Keywords: Double Access Readings, Sequence of Tenses, Tense, Tense Agreement, Tense computation, the syntax-PF correlation

1. Introduction[*]

Tense more than most other categories illustrates that grammar is a computational system. This was shown to be the case already in *Elements of Symbolic Logic* by Hans Reichenbach (1947) and has since been further corroborated in the work of Chomsky (1957 onward) and in numerous individual studies (including Dahl 1985, Hornstein 1990, Giorgi & Pianesi 1997, Cinque 1999, Julien 2001, Guéron & Lecarme 2004, Sigurðsson & Maling 2012). The fundamental problem raised by Tense and the various Tense systems found in languages of the world can be stated as the simple but big question in (1).

(1)   How is Tense computed and expressed in natural language(s)?

The classical Reichenbachian approach to Tense is a three-part model, based on the notions Speech Time, Event Time, and, crucially, Reference Time, abbreviated as **S**, **E**, **R**, respectively. Tense systems typically involve a non-finite and a finite part. The non-finite part expresses a computational relation between E and R (E "sooner than" R, etc.). I designate this

---

relation as **E↔R**, where ↔ simply denotes "a computational relation". The finite part, in turn, expresses a computational relation between S and E↔R (and not only R itself, as in Reichenbach 1947): **S↔(E↔R).**[1] To illustrate this I will be using the following connectives (see also Sigurðsson and Maling 2012):

(2) a. = unshifted   'simultaneously as'

   b. ≥ non-future (present/past)   'no later than'

   c. > past 'sooner than'

   d. ≤ non-past (present/future)   'no sooner than'

   e. < future   'later than'

In the simple tenses this double computational relation, S↔(E↔R), is not discernible, as R and E are simultaneous. This is illustrated in (3).

(3) *The simple tenses:*

	Non-finite		Finite	Reading	Example
a.	(E = R)	>	S	past	Hans left
b.	(E = R)	≤	S	present/future	Hans leaves
c.	(E = R)	<	S	future	Hans will leave

In addition to the unshifted E = R, the non-finite part of tense systems like the English one has two potentially shifted relations: towards past (≥) and towards future (≤), as illustrated in (4).

(4)

	Non-finite			Reading		Example
a.	E	=	R	unshifted	as in (most) gerunds[2]	working
b.	E	≥	R	present/past	as in past participles	(has/had) worked
c.	E	≤	R	present/future	as in infinitives	(to) work

---

[1] Some constructions involve more than one R. I set this aside here (but see, for instance, Julien 2001, Sigurðsson & Maling 2012). For a more general discussion of the R notion, see Rothstein 2008.

[2] I agree with Stowell (1982: 563) that "the understood tense of the gerund is completely malleable to the semantics of the governing verb," at least in unmarked cases (in contrast, Hornstein (1990: 115ff), argues that gerunds have their own temporal structure). That is, the internal Event Time of gerunds (and of nominalizations, as in "They witnessed the destruction of their town") is dependent or parasitic on the Tense computation of the governing predicate.

The clear-cut past (>) and future (<) relations between E and R are not disambiguated by grammatical or systematic means in languages of this type, instead being subsumed under the more general, ambiguous relations present/past (≥) and present/future (≤). This ambiguity of the non-finite tenses is widespread across languages, perhaps universal.

The *past-in-the-past* reading of the regular past perfect renders the cooperation of the non-finite and the finite parts of the tense system more easily detectable. It is exemplified in (5).

(5)　[Albert:] Hans had read the book (at 9 o'clock).

In (5) the time of the reading event, E, was prior to R, the reference time expressed by *had* (at 9 o'clock), E↔R in turn being prior to the speaker's (here Albert's) saying so, S. The perfect tense system in English-type languages involves the non-finite present/past (non-future) relation, E ≥ R, as sketched in (6).

(6)　*The English perfect tense system:*

	Non-finite	**Finite**	Construction	Example
a.	(E　≥　R)	>　S	perfect **past**	Hans **had** read the book
b.	(E　≥　R)	=　S	perfect **present**	Hans **has** read the book
c.	(E　≥　R)	<　S	perfect **future**	Hans **will** have read the book

Conversely, a truly progressive tense system, such as the Icelandic one,[3] involves the main verb present/future (non-past) relation, E ≤ R, plus past (>S), present (=S), or future (<S) of the finite auxiliary *vera* 'be'. This is illustrated in (7)–(8) (modeled on (13)–(14) in Sigurðsson & Maling 2012).

(7)　a.　*Hans　var　að　lesa.*
　　　　Hans　was　to　read

---

[3] "[T]here is no real *temporal* distinction between the progressive tenses and the simple tenses in English, English using the progressive to express the simple tense relations even more commonly than Icelandic does (where this is also possible, and is currently spreading, due to the ambiguity of (E ≤ R), which means both 'future' (E < R) and 'present' (E = R))" (Sigurðsson & Maling 2012: 375).

≈ 'Hans was reading.'

b. *Hans er að lesa.*
   Hans is to read
   ≈ 'Hans is reading.'

c. *Hans verður að lesa.*
   she will-be to read
   ≈ 'Hans will be reading.'[4]

(8)

		Non-finite			**Finite**	Construction	English glosses
a.	(E	≤	R)	>	S	progressive, **past**	Hans **was** to read
b.	(E	≤	R)	=	S	progressive, **present**	Hans **is** to read
c.	(E	≤	R)	<	S	progressive, **future**	Hans **will be** to read

A central question linguistics needs to address is where in grammar or language this tense computation takes place–is it morphological, semantic/pragmatic (as commonly assumed), or is it syntactic? In the following I will sketch a syntactic analysis.[5]

2. Basic analysis

The central hypothesis pursued here (see also Sigurðsson & Maling 2012) is that finite clauses have three syntactically active (but often silent) T heads, roughly corresponding to Reichenbachian S, R, E, as stated in (9).

(9) a. Speech T, T_S, in the C-domain

b. Referential T, T_R (or simply T) in the T-domain

c. Event T, T_E, in the v-domain

---

[4] The sentence in (7c) may also have the modal reading 'Hans must read', but that reading is irrelevant here.

[5] For my present purposes the term "computation" is confined to the narrowly syntactic computation. Much like other grammatical categories Tense has both semantic and morphological correlates (in languages with Tense morphology), thus having "many faces". The semantic interpretation of Tense takes the syntactically computed tense values as input into semantic/pragmatic processes, and the externalization component also takes the syntactically computed values as input into interface-specific processes (such as the morphological decision of past tense forms like *sang* and *shouted*). As we will see, Tense syntax is quite distinct from Tense morphology, the former building relations, the latter interpreting these relations in terms of discrete units (morphemes, etc.). The distinction between Tense syntax and interface-specific Tense semantics/pragmatics is less clear.

The "T-spine" of the clause is as sketched in (10).

(10) $[_{CP} \ldots T_S \ldots [_{TP} \ldots T_R \ldots [_{vP} \ldots T_E \ldots]]]$

The *past-in-the-past* reading of the past perfect in (5) can thus be analyzed as in (11).

(11) NOW $[_{CP} \ldots T_S \ldots [_{TP} \ldots T_R \ldots [_{vP} \ldots T_E \ldots]]]$

                              had   *read*

    ↑__ _ _ _ _ _ _ ↑↑_____↑↑_____↑

      Contextual control   *Agree*   *Agree*

        simultaneous   *past*   *past*

On this approach, Agree is a *valuing relation* (pace Chomsky 2001: 5). Thus, in (5)/(11) T_E (the time of the reading event) is valued under Agree as "past" in relation to T_R, which in turn is valued as "past" in relation to T_S.[6] In contrast, control, whether full or partial, syntactic or contextual, is an *identity relation* (regardless of whether it is derived by movement).[7] Thus, in (5)/(11), T_S is set under contextual control as identical or simultaneous with speaker NOW.

The interpretation of any clause is subject to matching relations between the v-domain (containing the propositional content), the "grammatical" T-domain, and the "context-sensitive" C-domain. Thus, an event participant (a vP-internal NP) is valued in relation to a Person head in the T-domain, as being either +Pn or –Pn, NP_{+Pn} in turn being positively or negatively valued in relation to abstract "speaker" and "hearer" categories in the C-domain, thereby getting their 1st, 2nd or 3rd person values.[8] The general, universal computational scheme of full clauses is sketched in (12).

(12) CONTEXT $[_{CP} \ldots\ldots\ldots$ $[_{TP} \ldots\ldots\ldots$ $[_{vP} \ldots\ldots$ $]]]$

       ↑_ _ _ _ _ _ _ _ _ _ _ _ _ ↑ ↑_____↑↑_____↑

        Contextual control   *Agree*   *Agree*

          (identity/reference)   (valuing)   (valuing)

---

[6] This is a slight simplification–it is actually the relation $T_E \leftrightarrow T_R$ that is valued as "past" in relation to T_S.

[7] Syntactic control is more heavily constrained than contextual control, but both are referential identity relations.

[8] This is a big issue and a detailed discussion of it would take us much too far afield. I refer the reader to Sigurðsson 2004b, 2013 and the references there.
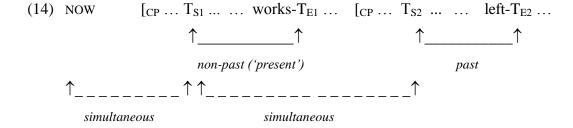
On this approach, thus, the vP-phase relates to (or "agrees with") the CP-phase via grammatical elements in the T-domain (most centrally Tense and Person). In the next section, I demonstrate how Tense computation adheres to this general scheme.

3. Anaphoric T_S

In the unmarked case, T_S is *deictic* (much as indexical pronouns prototypically are deictic). This is for example the case for both the matrix and the subordinate clauses in (13).

    (13) a.   [Peter:] This morning I discovered that Mary will leave in a week.

          b.   [Peter:] Mary works tonight because Susan left in the afternoon.

The Tense structure of (13b) in shown in (14) ($T_R = T_E$ in both CPs). Control (identity) relations are indicated by broken lines, Agree (valuation) relations with unbroken ones.

(14) NOW   [$_{CP}$ ... T_{S1} ... ... works-T_{E1} ...   [$_{CP}$ ... T_{S2} ... ...   left-T_{E2} ...

                  ↑_____↑   ↑_____↑

                non-past ('present')   *past*

  ↑_ _ _ _ _ _ _ _ _↑ ↑_ _ _ _ _ _ _ _ _ _ _ _ _ _ _↑

    simultaneous   *simultaneous*

As shown, both T_{S1} and T_{S2} are set as identical or simultaneous with NOW under control (direct contextual control in the matrix CP, indirect syntactic control in the subordinate CP). Thus, the matrix event of working and the subordinate event of leaving both acquire their temporal reading (here non-past vs. past) in relation to the speaker NOW.

      However, in some widely discussed contexts, subordinate T_S is shifted. Kiparsky (2002) refers to shifted T_S as "perspective time," which is a nice pedagogical term, but, as I have argued in previous work (e.g., Sigurðsson 1990, 2004b), the shifted T is really a perceived secondary Speech Tense. In the following, I will take a closer look at T_S Shift. As we will see, it crucially involves a shift of embedded T_S under control by a matrix T head, the embedded T_S thereby becoming *anaphoric* in relation to this matrix T controller.[9] In this respect, the

---

[9] Which is usually the matrix T_E, but T_R in certain exceptional cases (discussed in Sigurðsson 1990: 329–330).

behavior of Tense parallels the behavior of Person in so-called indexical shift phenomena (see Sigurðsson 2014; cf. Schlenker 2003, Bianchi 2006, Anand 2006). T_S Shift is not visible on the subordinate T_S itself (T_S being invisible or silent by necessity), but it is commonly accompanied by morphological marking of the subordinate finite verb in T_R (or T_R/T_E), a fact that has caused much confusion in the literature.

3.1 Sequence of Tenses (SOT) – Tense Agreement

T_S Shift is observed in *Sequence of Tenses*, as in (15).[10]

    (15) I **realized** that it **was** Mary (when I said hello).   *English*

    (16) [%]*Maria **krävde*** *att* *vi* ***läste*** *boken* *(nästa dag).*[11]   *Swedish*
          Mary demanded that we   read.PST book.the (next day)
          'Mary demanded that we would read the book (next day).'

The matrix and the subordinate verbs form a sequence of past tense, hence the term Sequence of Tenses, SOT for short. The phenomenon is sometimes referred to as *Tense Agreement*, a slightly more pertinent term (see, e.g., Anderson 1990). Both notions are formal or morphological. Semantically, the subordinate clauses in (15) and (16) have a perceived secondary Speech Tense (T_{S2}) that has been shifted into the past (under control) such that it becomes simultaneous with the past matrix events of realizing in (15) and demanding in (16). This shift is accompanied by past morphology on the subordinate finite verbs *was* and *läste* 'read', but their reading, in turn, is *non-past* in relation to T_{S2} and the matrix events. That is, semantically and syntactically, (15)–(16) illustrate T_S Shift, with a *non-past-in-the-past*

---

[10] SOT phenomena have been so widely discussed that it is almost pointless to mention some specific references, but see, for example, Enç 1987, Hornstein 1990, Giorgi & Pianesi 1995, Abush 1997, Schlenker 2004, Giorgi 2010.

[11] The percent sign indicates variable acceptance. Some speakers strongly prefer the periphrastic *skulle läsa* 'would read.'

reading.[12] This reading is a regular property of subordinate past subjunctives in many languages. Example (17) is Icelandic.

(17) *María **sagði** [að Ólafur **væri** veikur (*í gær)].*   Icelandic
Mary said that Olaf were.**PST**.SBJ sick (*in yesterday)
'Mary said that Olaf **was** sick (*yesterday).'[13]
(= sick at the moment of Mary's saying so).'

The Tense structure of (17) is shown in (18) (basically the same analysis applies to (15) and (16); semantically, $T_R = T_E$ in both CPs, but *sagði* 'said' and *væri* 'were' have been raised to T_R).

(18) NOW $[_{CP}$ … T_{S1} ...   … said-T_{E1} … $[_{CP}$ … T_{S2} ...   … sick-T_{E2} …

$\uparrow$_ _ _ _ _ _ _ _ _ $\uparrow\uparrow$_____$\uparrow\uparrow$_ _ _ _ _ _ _ _ _$\uparrow\uparrow$_____$\uparrow$

simultaneous   past   simultaneous   non-past ('present')

That is, what is "past" in the past subjunctive is not the sickness eventuality (T_{E2}), but T_{S2} (the perspective time in Kiparsky 2002). While T_{S1} is deictic, T_{S2} is *anaphoric*. The embedded verb (*væri* in (17)), in turn, gets its past tense form by uninterpretable morphological agreement, being semantically non-past with respect to the shifted T_{S2} (and the matrix T_{E1}).

   This kind of uninterpretable Tense Agreement is even found in some infinitival complements. This is illustrated for Icelandic in (19) (English also shows Tense Agreement in the translations, but it does so in regular finite clauses).

(19) a.   *María **segist** **munu** fara.*   *Icelandic*
Mary says-herself will.INF go   PRES.IND   −   PRES.INF
≈ 'Mary says that she will go.'

   b.   *María **sagðist** **mundu** fara.*   PST.IND   −   PST.INF
Mary said-herself will.INF go
≈ 'Mary said that she would go.'

---

[12] While the copula and other stative predicates typically get a *present-in-the-past* reading in SOT, dynamic predicates like *read*, as in (16), typically get a *future-in-the-past* reading. Both readings are subsumed under a general *non-past-in-the-past* reading (parallel to the simple present).

[13] I.e., the narrow scope reading of *yesterday* is out (the wide scope reading is irrelevant).

That is, meaningless Tense Agreement can be passed down into certain complement structures, seemingly in a top > bottom externalization process. As will be briefly discussed in section 4, case agreement sometimes behaves in a parallel manner.[14]

3.2   Double Access Reading (DAR)

Double Access Reading (see, e.g., Schlenker 2004, Anand & Hacquard 2007, Giorgi 2010) is another relevant issue in the present context. It is demonstrated in (20) for English, in (21) for Italian, and in (22) for Icelandic.[15]

(20)   [Anna:] (When I met him) John knew that Mary **is** sick.   *English*

(21)   [Anna:] *Gianni   ha   saputo   che   Maria   è   malata.*   *Italian*
            John   has   known   that   Mary   is.IND   sick
    [Anna:] 'John knew that Mary is sick.'

(22)   [Anna:] *Jón   vissi   að   María   **er**   veik.*   *Icelandic*
            John   knew   that   Mary   is.IND   sick
    [Anna:] 'John knew that Mary is sick.'

The term "double access" refers to the fact that the subordinate Event Time or T_{E2} (Mary's sickness eventuality) is temporally accessible to both the matrix T_{E1} of John's knowing and the matrix T_{S1} (which is simultaneous with the speaker NOW). That is, Mary's sickness holds at both the time of John's knowing about it and Anna's time of telling somebody about this knowledge of his. Mary could for instance have been sick for the last six months when Anna tells somebody that John knew about her extended illness two months ago.

     Compare (20)–(22) and the examples in (23) and (24).

---

[14] Inasmuch as this kind of top > bottom feature copying is a general PF phenomenon, it casts serious doubts on the relevance of the Brazilian Portuguese infinitival agreement data that have been commonly assumed to lend support to the Movement Theory of Control (see Boeckx et al. 2010).

[15] DAR is more restricted in Icelandic than in English and Italian as it is excluded from the complements of verbs of saying and thinking (which take an obligatory subjunctive in Modern Icelandic, as opposed to Old Norse and, e.g., Italian; see Sigurðsson 2010).

(23) [Anna:] *Jón vissi að María* **var** *veik.*   *Icelandic*

           John knew that Mary was.**PST**.IND sick

           [Anna:] 'John knew that Mary was/had been sick.'

(24) [Anna:] *Jón vissi að María* **væri** *veik.*   *Icelandic*

           John knew that Mary were.**PST**.SBJ sick

           [Anna:] 'John knew that Mary was sick.'

The clause in (23) is ambiguous between a "single access" and a "no access" reading. On the single access reading the sickness is simultaneous with John's knowledge but prior to Anna's utterance (access to T_{E1}). On the no access reading the sickness is prior to both John's knowledge and Anna's utterance (as in "Yesterday John knew that Mary was sick the day before").

The example in (24), in turn, has a single access SOT reading; that is, Mary's sickness is simultaneous with John's past knowledge and prior to Anna's utterance. With dynamic predicates, though, for instance 'leave' (as in "John knew that Mary left.SBJ"), the past subjunctive normally has a future reading ($\approx$ 'John knew that Mary would leave').[16] – A single access reading where the access is to the time of utterance (T_{S1}) but not to the matrix event time is anomalous (as in, e.g., "*Yesterday John knew that Mary is sick now").
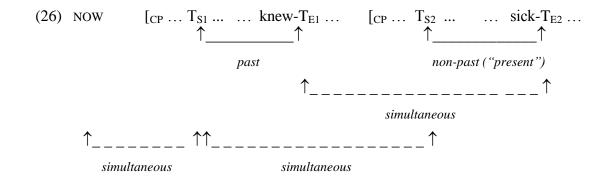
The DAR in (20)–(22) combines two single access readings: A) simultaneity of the subordinate sickness eventuality (T_{E2}) with the matrix event of John's knowledge (T_{E1}), and B) simultaneity of the sickness (T_{E2}) with the utterance time (T_{S1}). The first reading (A) is similar to the non-past-in-the-past reading of T_{E2} in SOT (when not shifted towards future). The second reading (B) is a plain present (non-past-in-the-non-past) "indicative" reading, as in (25), where the times of Anna's saying, John's knowledge and Mary's sickness are all simultaneous.

(25)   [Anna:] John knows that Mary is sick.

---

[16] Subordinate indicatives have a non-future (present/past) reading in relation to their matrix clause, whereas subjunctive complements have a non-past (present/future) reading. Recall, from note 12, that stative predicates, including the copula (as in (24), typically get a present-in-the-past reading in SOT while dynamic predicates normally get a future-in-the-past reading, both readings being subsumed under a general non-past-in-the-past reading.

The Tense structure of the DAR reading of (20)–(22) is thus as illustrated in (26).

(26) NOW $[_{CP}$ … T_{S1} … … knew-T_{E1} … $[_{CP}$ … T_{S2} … … sick-T_{E2} …
                    ↑_____↑   ↑_____↑
                         past   *non-past ("present")*

                              ↑_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _↑
                                        simultaneous

        ↑_ _ _ _ _ _ _ ↑↑_ _ _ _ _ _ _ _ _ _ _ _ _ _ _↑
          simultaneous   *simultaneous*

As in the plain non-past-in-the-non-past reading in (25) both T_{S1} and T_{S2} are set simultaneous with the speaker NOW under control (contextual and syntactic). As the sickness eventuality (T_{E2}) is valued under Agree as non-past ("present") in relation to T_{S2} it is transitively identical with the utterance time T_{S1} = NOW. In addition, there is a temporal control relation between the matrix and the subordinate eventualities, T_{E2} thus having access to T_{E1} as well as to the utterance time (= double access). On the other hand, as shown, there is no computational relation between T_{E1} and T_{S2}; hence the absence of T_S Shift and also of Tense Agreement (in contrast to SOT, as in (17)/(18) and (24); see further section 3.4).

3.3 Non-SOT (absent Tense Agreement) vs. SOT

Non-SOT languages and split SOT languages do not apply Tense Agreement in complement clauses like the ones in (15)–(17), instead using the simple present tense, as illustrated for Russian and Japanese in (27) and (28).

(27) *Tanja **skazala** [čto ona **tancuet**].*   *Russian*
      Tanja said   that she dances   (Comrie 1986: 275)
      'Tanja said that she was dancing
      (at the moment of Tanja's saying so).'

(28) *Taroowa   [Hanakoga Siatoruni **iru**] to   **itta**.*   *Japanese*
      Taro   Hanako   Seattle-in is   that said   (Ogihara 1996: 5)
      'Taro said that Hanako was in Seattle

11

(at the moment of Taro's saying so).'

Crucially, however, the present tense subordinate clauses in (27)–(28) have the same tense interpretation as the past tense subordinate clauses in (15)–(17): 'Non-past relative to the past saying in the matrix clause' (Kondrashova 2005). Reconsider the Icelandic example in (17) and its Tense structure in (18), repeated as (29) and (30).

(29) *María **sagði** [að Ólafur **væri** veikur (*í gær)].*   *Icelandic*
      Mary said that Olaf were.**PST**.SBJ sick (*in yesterday)
      'Mary said that Olaf **was** sick (*yesterday).'
      (= sick at the moment of Mary's saying so).'

(30) NOW   [$_{CP}$ … T_{S1} ...   … said-T_{E1} …   [$_{CP}$ … T_{S2} ...   … sick-T_{E2} …
     ↑_ _ _ _ _ _ _ _ _ ↑↑_____↑↑_ _ _ _ _ _ _ _ ↑↑_____↑
         simultaneous   *past*   *simultaneous*   *non-past ('present')*

Evidently, in SOT examples of this sort in Icelandic morphology, uninterpretable morphological +PAST is silently copied onto T_{S2} under control and spelled out on the verb in T_{R2} under morphological (deep PF) agreement with T_{S2}, as sketched in (31) (the curly brackets under T_{S2} indicate that the + PAST element there is PF-silent).

(31) [$_{CP}$ … said-T_{E1} … [$_{CP}$ … T_{S2} … … T_{R2}/sick-T_{E2} …
        +PAST   {+ PAST}   +PAST
       ↑_ _ _ _ _ _ _ _ ↑↑_____↑
        Control   *agreement*

This morphological agreement process is not operative in the Russian and Japanese examples in (27) and (28). That is, Russian and Japanese are morphologically different from but syntactically similar to Icelandic, English, etc.

4. Concluding remarks on the syntax-PF correlation

Tense Agreement (overt SOT) behaves like a reflex of sorts, utilizing a syntactic control relation between T_{E1} and T_{S2} as a kind of a path or a gateway to pass down the morphological tense value from the matrix verb. Strikingly, the value in examples like (15)–(17) is *shifted* (+PAST), while the syntactic control relation between T_{E1} and T_{S2} establishes an *unshifted* identity relation (as control relations generally do; here, the identity is temporal simultaneity). Tense Agreement is thus quite distinct from the syntactic matching processes (Control/Agree) that yield tense interpretation.

- Tense Agreement operates with non-syntactic features (morphological +PAST, etc.)
- Tense Agreement evidently utilizes a Control/Agree path (already laid in the syntactic *bottom > top* derivation) in a directional *top > bottom* externalization PF process

Much the same behavior is seen in other meaningless (uninterpretable) agreement phenomena, including, for example, NP-internal concord and optional case agreement of Icelandic PRO. The latter is illustrated in (32)–(33) (see Sigurðsson 2008 and the references cited there).

(32) *Hún   bað   Ólaf   [að PRO fara bara **einan**   í veisluna].*
she.NOM   asked   Olaf.ACC   to   go   just   alone.ACC   to party.the
'She asked Olaf to just go alone to the party.'

(33) [CP … Olaf.ACC ...   [CP … PRO ...   …   alone.ACC ...][17]
    ↑_____↑↑_____↑
        Control   *PF case agreement*

Like overt Tense Agreement, case agreement is semantically vacuous. That is, there are no semantic differences between the Acc *einan* 'alone' in (32) and the Nom *einn* 'alone' in (34).[18]

(34) *Hún   bað   Ólaf   [að PRO fara bara **einn**   í veisluna].*

---

[17] Regardless of how one analyzes control, the syntactic and the morphological derivations are quite distinct (the latter only indirectly bearing on the former).

[18] In general, locally licensed NOM is the unmarked option in Icelandic PRO infinitives, but object controlled ACC (as opposed to the more marked quirky subject controlled ACC, object controlled DAT, etc.) is also unmarked and widely acceptable (see Sigurðsson 2008: 414).

she.NOM asked Olaf.ACC to go just alone.NOM to party.the

'She asked Olaf to just go alone to the party.'

Overt agreement processes in general are PF processes (Sigurðsson 2004a, 2006, etc., Bobaljik 2008), taking place in the post-syntactic externalization component of language, out of sight for syntax and semantics. Accordingly, overt agreement reflects syntax but has no syntactic or semantic import. Simple data from well-documented languages further substantiate this conclusion (see the documentation of the extensive meaningless agreement variation across the Germanic languages in previous work, e.g. Sigurðsson 2004a). Thus, inasmuch as speakers of English accept clauses like *The girls **is** here* (see Henry 1995), they arguably have abstract Agree, only lacking overt PF agreement.

The mapping from abstract internal language to perceptible external language is fundamentally non-isomorphic. While syntax builds relations, for example, relations between distinct Tense heads (i.e., between phases), PF reinterprets and expresses these relations as morphological and perceptible units or items (audible, visible, tactile, or combinatory, depending on the externalization mode). Lexical approaches (including Chomskyan lexicalism or "itemism" and Distributed Morphology), make sense as partial models of externalization, but they do not make sense as theories of internal syntax–the system of linguistic thought. Internal language operates with abstract minimal roots and atomic features, such as T_S, T_R, and T_E, constructing relations between such elements, whereas external language expresses discrete items such as English *sang* and *-ed*.

References

Anand, P. 2006. De de se. Doctoral dissertation, MIT.

Anand, P. & Hacquard, V. 2007. When the Present is all in the Past. In *Recent advances in the syntax and semantics of tense, mood and aspect*, L. de Saussure, J. Moeschler & G. Puskás (eds), 209–228. Berlin: Mouton de Gruyter.

Anderson, S. R. 1990. The grammar of Icelandic verbs in *-st*. In *Modern Icelandic Syntax*, J. Maling & A. Zaenen (eds), 187–234. San Diego: Academic Press.

Bianchi, V. 2006. On the syntax of personal arguments. *Lingua* 116: 2023–2067.

Bobaljik, J. 2008. Where's Phi? Agreement as a postsyntactic operation. In *Phi-Theory: Phi features across interfaces and modules*, D. Harbour, D. Adger & S. Béjar (eds), 295–328. Oxford: Oxford University Press.

Boeckx, C., Hornstein, N., & Nunes, J. 2010. *Control as Movement*. Cambridge: Cambridge University Press.

Chomsky, N. 1957. *Syntactic Structures*. The Hague:Mouton.

Chomsky, N. 2001. Derivation by phase. In *Ken Hale: A Life in Language*, M. Kenstowicz (ed.), 1–52. Cambridge, MA: The MIT Press.

Cinque, G. 1999. *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford: Oxford University Press.

Comrie, B. 1986. Tense in indirect speech. *Folia Linguistica* 20: 265–296.

Dahl, Ö. 1985. *Tense and aspect systems*. Oxford: Blackwell.

Enç, M. 1987. Anchoring conditions for tense. *Linguistic Inquiry* 18: 633–657.

Giorgi, A. 2010. *About the Speaker: Towards a Syntax of Indexicality*. Oxford: Oxford University Press.

Giorgi, A. & Pianesi, F. 1997. *Tense and Aspect: From Semantics to Morphosyntax*. Oxford: Oxford University Press.

Guéron, J. & Lecarme, J. (eds). 2004. *The Syntax of Time*. Cambridge, MA: MIT Press.

Henry, A. 1995. *Belfast English and Standard English*: *Dialect Variation and Parameter Setting*. Oxford: Oxford University Press.

Hornstein, N. 1990. *As Time Goes By*: *Tense and Universal Grammar*. Cambridge, MA: MIT Press.

Julien, M. 2001. The syntax of complex tenses. *The Linguistic Review* 18: 125–167.

Kiparsky, P. 2002. Event structure and the perfect. In *The Construction of Meaning*, D. I. Beaver, L. D. Casillas Martínez, B. Z. Clark & S. Kaufmann (eds.), 113–136. Stanford, CA: CSLI.

Kondrashova, N. 2005. Is Russian a split SOT language? Paper presented at Formal Approaches to Slavic Linguistics 14 at Princeton University.

Ogihara, T. 1996. *Tense*, *Attitudes*, *and Scope*. Dordrecht: Kluwer.

Reichenbach, H. 1947. *Elements of Symbolic Logic*. New York: Macmillan Co.

Rothstein, B. 2008. *The Perfect Time Span.* Amsterdam: John Benjamins.

Schlenker, P. 2003. A plea for monsters. *Linguistics and Philosophy* 26: 29–120.

Schlenker, P. 2004. Sequence phenomena and Double Access Readings generalized. In *The Syntax of Time*, J. Guéron & J. Lecarme (eds.), 555–595. Cambridge, MA: MIT Press.

Sigurðsson, H. Á. 1990. Long distance reflexives and moods in Icelandic. In *Modern Icelandic Syntax*, J. Maling & A. Zaenen (eds), 309–346. San Diego: Academic Press.

Sigurðsson, H. Á. 2004a. Agree and agreement: Evidence from Germanic. In *Focus on Germanic Typology*, W. Abraham (ed.), 61–103. Berlin: Akademie Verlag.

Sigurðsson, H. Á. 2004b. The syntax of Person, Tense, and speech features. *Italian Journal of Linguistics* 16: 219–251.

Sigurðsson, H. Á. 2006. Agree in syntax, agreement in signs. In *Agreement Systems*, C. Boeckx (ed.), 201–237. Amsterdam: John Benjamins.

Sigurðsson, H. Á. 2008. The case of PRO. *Natural Language and Linguistic Theory* 26: 403–450.

Sigurðsson, H. Á. 2010. Mood in Icelandic. In *Mood Systems in the Languages of Europe*, B. Rothstein & R. Thieroff (eds.), 33–55. Amsterdam: John Benjamins.

Sigurðsson, H. Á. 2014. About pronouns. Working Papers in Scandinavian Syntax 92:66–98.

Sigurðsson, H. Á. & Maling, J. 2012. Silent heads. In *Functional Heads*, L. Brugé, A. Cardinaletti, G. Giusti, N. Munaro & C. Poletto (eds), 368–378. Oxford: Oxford University Press.

Stowell, T. 1982. The tense of infinitives. *Linguistic Inquiry* 13: 561–570.