Restricting future in Serbian
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This paper examines the distribution of perfective aspect in future matrix and embedded contexts in Serbian (SR) (SR is aspectually rich; verbs are always marked for aspect). I show that its distribution raises some puzzles for the syntax-only/semanitics-only accounts, and argue that the proper treatment of its distribution involves a syntactic and a semantic component: the perfective is licensed by either an overt or a covert modal/future element, which require independent syntactic licensing. In the absence of overt future, the (im)possibility of the perfective reflects the presence/absence of the covert modal, the aspect thus serving as a window into the composition of the higher, modal-temporal domain.

In matrix clauses in SR, future interpretations are canonically expressed with ‘will’ + an infinitive; both the imperfective (1a) and the perfective (1b) are permitted.

(1) a. Ja ču pisati tezu. b. Ja ču u nekom trenu napisati tezu.
   I will-1.sg. write-impf.inf thesis I will-1.sg. in some moment write-pf.inf. thesis
   ‘I will be writing my thesis.’ ‘I will have finished my thesis by some point.’

Future can also be expressed with morphological present. Crucially, perfective is banned (2b). But, when morph. present denotes future with ‘will’ + element da, both aspects are fine (3).

   buy-impf.1.sg.pres car tomorrow buy-pf.1.sg.pres car tomorrow
   ‘I am buying a car tomorrow.’ ‘I will buy a car tomorrow.’

(3) On će sutra da kupuje / kupi kola.
   he will tomorrow DA buy-impf.3.sg.pres. / buy-pf.3.sg.pres car
   ‘He will be buying a car tomorrow.’ (impf.) / ‘He will buy a car tomorrow.’(pf.)

Embedded clauses typically use da and morph. present tense. In complements of verbs like ‘want’, the embedded present receives a future interpretation; both aspects are felicitous (4).

(4) Zelim da sutra jedem / pojedem dinju.
   want-1.sg.pres DA tomorrow eat-impf.1.sg.pres. / eat-pf.1.sg.pres. melon
   ‘I want to be eating a melon tomorrow.’(impf.) / ‘I want to eat the entire melon tomorrow.’ (pf.)

In complements of verbs like ‘believe’, a future interpretation of morph. present is available only with imperfectives (5). Note a more general restriction with morph. present in these complements: non-generic episodic predicates cannot co-occur with the perfective even under the simultaneous interpretation (The restriction also holds with morph. present in simple clauses).

(5) Verujem da Aca (sutra) kupuje / (sutra) *kupi kola.
   believes-1.sg.pres DA Aca tomorrow buys-impf. / tomorrow buys-pf. car
   Future: ‘I believe that Aca will be buying a car tomorrow.’(impf.) *will buy a car tomorrow.’(pf.)

Simultaneous: ‘I believe that Aca is buying a car right now.(impf.) *has bought a car (just now)’ (pf.)

In complements of verbs like ‘try’, both aspects are fine with embedded present (6). These complements are interpreted simultaneously; the future interpretation is altogether excluded.

(6) Pokušavam da (*sutra) prevedem pesmu.
   try.1sg.pres DA tomorrow translate.impf.1.sg.pres/tomorrow translate.pf.1.sg.pres poem
   ‘I am trying to translate a poem now/*tomorrow. impf./to translate the entire poem *tomorrow.’ pf.

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Proposal: 1) Perfective puzzle – semantic component: Assuming the semantics of the perfective as in (7a) (cf. (7b)), restrictions on its distribution can be captured by the interplay of semantic tense and aspect – the perfective is possible in past and future contexts, but not in contexts where the reference time (RT), which is dictated by the temporal domain above aspect, is very short (for English, see e.g. Parsons 1990, Smith 1991, Kamp and Reyle 1993).

With semantic present in the structure, which introduces the RT for the perfective, the RT is too short in simple clauses (since the tense is ordered with respect to the near-instantaneous UT, and given (8)); the perfective is disallowed. In propositional complements (9), present tense is ordered with respect to the embedded RT (the attitude holder’s ‘now’), which is a very short interval. Given (8), the short interval further serves as the RT for the perfective; the event time cannot be included in the RT. Hence, the perfective is impossible in the simultaneous contexts in (5).
(7) a. PF: λP_{\text{woll}}, \lambda t, \exists e (\text{time}(e) \sqsubseteq t \& P(e) = 1) b. Impf: λP_{\text{woll}}, \lambda t, \exists e (t \sqsubseteq \text{time}(e) \& P(e) = 1) (Kratischer 1998)

(8) \{[\text{PRESENT}]_1 = \lambda p, \lambda t, \lambda w, \exists e (t = \text{time}(e) \& P(e) = 1) \} (à la Pancheva and von Stechow 2004)

(9) believe \{ C \Rightarrow \text{AH NOW da} \} \rightarrow [\text{TP PRES \_ Amb} \_ \text{perfective}]

2) Morphology ≠ semantics: Importantly, morphology does not necessarily match semantics: morphological present does not always correspond to semantic present. In instances where the perfective is possible with morphological present, this indicates that the structure contains a covert future element, which, I assume, is a modal component \text{woll} (see e.g. Abusch 1985, Condoravdi 2001). The \text{woll} component quantifies over possible world-time pairs and provides the needed extension of the RT (Abusch 1985, i.a) for the perfective.

3) Perfective aspect – syntactic component: Future component \text{woll}, I argue, requires syntactic licensing by an irrealis element. Assuming that verbs selecting future complements (semantic selection) (4) have an irrealis feature, this feature must match with an irrealis/future complement, which is achieved by feature valuation (10) (I will show that future interpretation does not come from \text{want}, but from \text{woll}). Perfective is also possible in questions (11a), where interrogative C has the irrealis feature (Givon 1995, i.a.), and where I argue the covert modal/future is also syntactically licensed (12a) (cf. the declarative (11b), (12b)), in turn providing the extension of the RT for the perfective. (Im)possibility of the perfective thus reflects the presence/absence of a covert modal/future element, which independently requires licensing.

With \text{overt future}, \text{woll} is syntactically licensed (valued) by tense (13a) (for finite future in English as semantic \text{PRES} + \text{woll}, cf. Abusch 1985, i.a.), and the perfective is fine: in propositional complements (13b), canonical future (1), \text{če} + \text{da} (3), but not in (2b),(5) which lack the future component.

(10) \{ ... [VP want F:IRR [\text{Mod} \_ \text{woll} F: \_]] \} (For a CP-less compl. in (10), cf. e.g. Stjepanovic 2004)

(11) a. Da Vesna \text{pročita ovu knjigu?} b. *Da Vesna \text{pročita ovu knjigu.}

DA Vesna read.\text{pf}3.sg.pres this book DA Vesna read.\text{pf}3.sg.pers this book ‘Should Vesna read this book?’ ‘Vesna should read this book.’ (Vrizic 1996)

(12) a. [C:F:IRR [\text{Mod} \_ \text{woll} F: \_]]

Tenseless complements (6), I argue, are structurally impoverished (as it will be shown by Long Object Movement and adverb distribution), and cannot host a covert modal. This captures the lack of future reading (the future adverbs alone cannot contribute it). Perfective is possible under simultaneous reading (6): ‘try’ contains an intentional component (Sharvit 2003), which brings in the needed extension of the RT.

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(13) a. [T:F:PRES/PAST [\text{Mod} \_ \text{woll} F: \_]] b. Veruje \text{đe} Jovan sutra kupiti kola.

\text{believe} Da will Jovan tomorrow buys-3.sg.\text{pf} inf car ‘(S)he believes that John will have bought a car tomorrow.’

Since \text{imperfective} in SR is, to some extent, similar to English progressive (as it will be shown by e.g. VP-ellipsis and temporal interpretations), then it may, like the progressive, contain a covert modal component (in addition to the temporal one), which gives the impression of future (e.g. Dowty 1979). This licenses its future readings (2a) (cf. (6) where ‘try’ requires simultaneity). Finally, I provide support from Lillooet Salish, Guarani, Chinese, Korean and Inuktitut that 1) covert future requires licensing, 2) future adverbials alone cannot contribute future readings.

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Summary The distribution of the perfective in SR receives a principled explanation under the proposed analysis which resorts to both syntactic and semantic component: the perfective is banned when the lengthy events are incompatible with the short RT; the availability of the perfective in future contexts, in the absence of overt future, indicates the presence of a covert future component that extends the RT. The future/modal component requires independent syntactic licensing. The licensing thus does not directly involve the perfective; rather, (im)possibility of the perfective indicates the presence/absence of a covert modal/future element. More generally, it reveals the composition of the higher, modal-temporal domain.