da in the Subjunctive and Indicative Complements
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1 Comparison of Greek and Serbian indicative/subjunctive comple-
ments
Unlike Greek that has several particles and complementizers used in different
embedded structures, Serbian has only one da used in variety of structures.

1.1 Indicative Complements
Greek complementizers like oti and pu are separated from a verb by different ma-
terial such as the subject in (2), clitic in (3), or future particle in (4). Similarly in
Serbian indicative complements, da is separated from a verb by Aux in (1), (2)
(3), Aux and a clitic in (3). However, while negation can precede the matrix verb
in Greek as in (4), the same is not possible in Serbian for epistemic misliti (think).
In Serbian, negation follows da in the indicative complements as in (5), and simi-
lar is found in Greek where negation follows oti in (5).

(1) Greek: Ο Pavlos ipe oti efije i Roxani.
the Paul said-3sg that left-3sg the Roxani

Paul aux-3sg said-masc.perf.part that aux-3sg left Roxana
‘Paul said that Roxanne left.’

(2) Greek: Ο Pavlos ipe oti i Roxani efije.
the Paul said-3sg that the Roxanne left-3sg

Serbian: Pavle je rekao da je Roksana otišla.
Paul aux-3sg said-masc.perf.part. that aux-3sg Roxanne left
‘Paul said that Roxanne left.’

(3) Greek: Thimame {pu/oti} ton sinandisa sto Parisi.
Remember-1sg that him met-1sg in-the Paris

Serbian: Sećam se da sam ga upoznala u Parizu.
remember-1sg refl. that aux-1sg him met-3sg in Paris.

1 The Greek examples (1–3), (6–8) are from Giannakidou (2009), (4), (5) and (9) are from
Philippaki-Warburton (1994), and example (10) is from Roussou (2000).
'I remember that I met him in Paris.'

(4) **Greek:** (De) nomizo oti tha figi.
    (not) think-1sg that will leave-3sg

**Serbian:** (*Ne) mislim da će da ode.
    (not) think-1sg that will part. leave
    ‘I do not think that he will leave.’

(5) **Greek:** O Janis nomizi oti i Maria (den) tha pai mazi tu.
    the John thinks that the Mary (not) will go with him

**Serbian:** Jovan misli da Marijaneće da ide sa njim.
    John thinks-3sg that Mary not-will-3sg part. go-3sg with him
    ‘John thinks that Mary will (not) go with him.’

### 1.2 Subjunctive Complements

In (6–10), the symmetry between Greek *na* and Serbian *da* is observed to some extent with a couple of exceptions. (7) is licit where Serbian *da* is separated from the verb by a subject while this instance will be illicit in Greek. While *na* can co-occur with negation as in (9), Serbian *da* is mostly unacceptable with negation in the volitional complements.

(6) **Greek:** Thelo na kerdisi o Janis.
    want-imperf.1sg subj win.perf.-3sg the John

**Serbian:** Želim da pobedi Jovan.
    want-1sg part. win-perf.3sg Jovan
    ‘I want that Jovan wins.’

(7) **Greek:** *Thelo na* o Pavlos erthi.
    want-1sg subj the Paul-nom come-3sg

**Serbian:** Želim da Jovan pobedi

(8) **Greek:** Thelo o Pavlos na erthi.
    want-1sg the Paul.nom subj come-3sg

**Serbian:** Želim Pavle da dode.
    want-1sg Paul part. come-3sg
    ‘I want Paul to come.’

(9) **Greek:** O Janis theli na *(min)* pai mazi tu i Maria.
    the John wants subj (not) go-she with him the Mary
Philippaki-Warburton (1994) proposes that *na* is a subjunctive marker and not a complementizer as it occurs in independent as well as dependent (subordinate) clauses. On the other hand, Roussou (2000) claims that *na* is a complementizer, and she postulates that there are three basic C positions specified for different features. She proposes that there is the higher C as subordinator, the middle C with clause-typing properties, and the lower C modality. Giannakidou (2009) goes on to propose that *na* can be both: complementizer (C head) as well as modal marker (Mood head). Similarly to Philippaki-Warburton, Giannakidou (2009) proposes that *tha* and *na* are different particles and do not realize the same modality as Roussou (2000) suggests. Just as it is possible to take different approaches to *na* in Greek, the following data will show that *da* in Serbian like *na* in Greek requires special attention and investigation as it does not follow a predictable pattern in all contexts.

2. Overview of Serbian data

As noted by Vrzić (1994) *da* is used in optatives, secondary imperatives and interrogatives, in both matrix and embedded contexts. It is also used in conditionals and the future tense, in addition to the subjunctive and indicative complement structures. What is known in the traditional grammars of Serbian as the *da* + present is actually a construction very often selected by a number of verbs and often replaces the infinitive. In the following analysis I mainly focus on the *da*-complements in dependent contexts. I adopt Giannakidou (1998) classification of verbs into indicative (*assertive, fiction verbs, epistemic, factives, and semifactives*) and subjunctive verbs (*volitionals, directives, modals, permissives, negative, verbs of fear, aspectual, perception, commissive, and implicative verbs*) and observe the behavior of *da*-complements after some of these major groups of verbs.

2.1 Aspect

2.1.1 Aspect in the *da*-complements of epistemics

In (11) the indicative, epistemic verb *verovati* (*believe*) allows *da* + imperfective non-past (INP-adopted from Giannakidou 2009) as a complement, but it does not
allow *da*+ perfective non-past (PNP). Perhaps, the aspect restriction in the indicative complements is rather semantic than syntactic. Following Giannakidou (2009), veridical verb *verujem* (*believe*) is true in the moment of utterance and *da* + PNP cannot be used as its complement to express the truth in the present since something that is perfective cannot be present too. On the other hand, there is no aspect restriction in the *da*-complement with the future and past tenses.

(11) a. Verujem *da* (*na*) pišeš zadaću
    believe-1sg that (* perf.pfx.) write-2sg.impf. homework
    ‘I believe that you are writing the homework.’

2.1.2. Aspect in the *da*-complements of volitionals
In (12a) the subjunctive, volitional verb, *želeti* (*want*), selects either *da*+ INP or *da*+ PNP. The construction with the INP has the habitual/progressive interpretation while the construction with the PNP has the future interpretation. As proposed by Giannakidou (2009) subjunctive verbs are non-veridical and are not true in the moment of utterance expressed 'now' in the present; therefore, Serbian volitionals allow *da*+ PNP which manifests the action that cannot be completed 'now' in the moment of utterance.

While (12a) is an instance of a control construction, (12b) is an instance of a non-control and both are possible after volitionals in Serbian with the restriction of the non-past only.

(12) a. Želim *na* pišem pismo.
    want-1p.sg part. write-1sg.impf. letter-acc.sg
    ‘I want to write a letter.’
    
    b. Želim *na* Jelena piše pismo.
    want-1sg part. Helen write-3sg.impf. letter-acc.sg
    ‘I want Helen to write a letter.’

2.1.3 Aspect in the *da*-complements of raising verbs
On the other hand, *da*+INP is the only possible option in (13a) after the verb *izgledati* (*seem*), but there is no aspect restriction in the *da*-complements with the future or past tense. Unlike the English verb *seem* that is a raising verb, Serbian *izgledati*, as noted by Radišić (2006), does not allow raising or control. In this case, the subject must stay in the embedded clause usually positioned between *da* and the embedded verb.

(13) a. Izgleda Jelena (*na*) piše pismo.
    seem-3sg that Helen (perf.pfx.)write-3sg.impf. letter-acc.sg
    ‘It seems that Helen is writing a letter.’
b. (*Jelena) izgleda da piše pismo.
    Helen seem-3sg to write-3sg.impf. letter-acc.sg
    ‘Helen seems to write a letter.’

2.1.4 Aspect in the da-complements of aspectuals

For constructions as in (14a–b) Browne (1986) states that the action of the complement verb overlaps in at least one point with that of the main clause, or it lasts/continues until or after the action of the matrix clause is complete, so the aspect of the complement verb must be imperfective and for this reason the possibilities with the perfective are illicit. Browne (1986) claims that da used in the complements of aspectuals is the same da used after volitionals but different from da used after epistemic and assertive verbs.

(14)  a. Marko počinje da (*na) piše.
    Mark start-3sg.impf. part. (*perf.pfx.) write-3sg.impf
    ‘Mark starts to work.’

  b. Marko prestaje da (*na) piše.
    Mark stop-3sg.impf part. (*perf.pfx.) write-3sg.impf.
    ‘Mark stops to work.’

2.2 Tense

2.2.1 Tense in the da-complements of assertives and epistemics

Indicative verbs select da-complements that can host their own tense which could but does not have to be disassociated from the matrix tense. In (15a) the past tense of assertive reći (say) selects a da-complement with a verb in the future tense. In (15b), the present tense of epistemic misliti (think) selects a da-complement with a verb in the past tense.

    said aux-1sg that aux-3sg Mark part. arrive-3sg
    ‘I said that Mark will arrive.’

  b. Mislim da je Ivan napisao pismo.
    think-1sg that aux-3sg Ivan wrote letter-acc.
    ‘I think that Ivan wrote a letter.’

2.2.2 Tense in the da-complements of volitionals

The common characteristic of the subjunctive constructions is that they cannot host their independent tense. In (16a) the only acceptable da-construction after the non-past volitional verb is da+ non-past. In (16b), the volitional in the past or future tense again selects only da+ non-past. As Giannakidou (2009) propose for Greek, the tense of the verbal dependent is anaphoric and picks up the tense of the higher clause. While the aspect selection is optional in the volitional da-
complements where da + PNP or da + INP are both accepted, the tense is not. As Bulatović (2008) notes, da is seen as a binder of a dependent tense and a tense of the matrix, subjunctive verb.

(16) a. Želim da idem / (*ću ići⁰) / (*sam otišao).  
    want-1sg part. go-1sg / ( will go-inf.) / (*aux-1sg left)

    b. Marija je htela / će hteti da pročita knjigu.  
    Mary aux 3sg wanted/ will want-inf. part. read-3sg.perf. book-acc.  
    ‘Mary wanted /will want to read a book.’

2.2.3 Tense in the da-complements of modals
The impersonal form treba (it is necessary) derived from the verb trebati (need) also selects da-complements that behave much like the da-complements of the volitional verb želeati (want.) Although da-complements of either aspect can complement treba, only non-past can be used after treba as in (17a-b).

(17) a. Treba da idem.  
    need-3sg part. go-1sg.  
    ‘I need to go.’

    b. Marija je trebalo da pročita knjigu.  
    Mary aux-3sg needed part. read-3sg.perf. book-acc.sg  
    ‘It was necessary for Mary to read a book.’

2.3 Negation
Serbian is a language that exhibits negative concord which means that, in addition to the negative particle that must be present for the interpretation of negation, negation is also expressed (but not interpreted), on multiple words in a clause/sentence (Giannakidou 2000).

2.3.1 Negation in the da-complements of epistemics
Negation must precede the embedded verb in da-complements of epistemic misliti (think) as in (18a), and cannot precede the matrix epistemic misliti (think) as in (18b). The same situation is observed with the assertive verbs reći (say) and tvrditi (claim). The only exceptions is epistemic verovati (believe) that could be preceded by negation when in a position of a matrix verb, so the situation observed in (18b) would be acceptable with epistemic verovati (believe).

(18) a. Mislim da me ne vidi.

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¹ The future tense in Serbian could be formulated in several ways. We can have Aux + infinitive or infinitive + Aux, or Aux +da+ non-past.
think-1sg that me-acc not see-3sg.impf.
‘I think that he/she doesn’t see me.’

b. (*Ne) mislim da me vidi.
    neg think-1sg.impf. that me see-3sg.impf.

2.3.2 Negation in the da-complements of volitionals
Unlike in the da-complements of epistemics, the negative particle ne cannot precede the embedded verb in control da-complements of volitionals as in (19a), and it can only precede the matrix volitional verb as in (19b).

(19) a. Želim da (*ne) pišem zadaću.
    want-1sg part. not write-1sg.impf homework-acc.sg

b. Ne želim da pišem zadaću.
    not want-1sg part. write-1sg.impf homework-acc.sg
    ‘I do not want to write the homework.’

2.3.3 Negation in the da-complements of modals
While in (19a) negation cannot precede the embedded verb in the da-complements of volitionals, this is possible in (20a) when the matrix verb is moći (can). Although the negative particle ne can also precede the matrix modal verb, it is important to notice the difference in interpretation between (20a) and (20b). However, not all modals behave in the same way in Serbian so, for example, impersonal treba (it is necessary) and morati (must) allow only the order as in (20b).

(20) a. Mogu da ne pišem zadaću.
    can-1sg part. not write-1sg.impf. homework-acc.sg
    ‘It is possible that I do not write the homework.’

b. Ne mogu da pišem zadaću.
    not can-1sg part. write-1sg.impf. homework-acc.sg
    ‘I cannot write the homework.’

The infinitive can replace da + non-past in the subjunctive control complements, but the replacement of da + non-past by an infinitive in non-control constructions is impossible. Moskovljević (1936) suggests that there is a difference between da-complements and infinitives that follow modal verbs, and that difference is even more obvious when a modal verb is negated. Moskovljević states that if in (21a) the da-complement is replaced with an infinitive, the meaning is changed and the sentence has a future interpretation while with the da-complement the modal interpretation of ‘not having desire or not wanting to come’ is more emphasized. As Moskovljević observes, some speakers would not clearly see the difference between a future vs. modal interpretation in case of (21a) with the possibility of ei-
ther the infinitive or *da*-complement, but the same speakers would agree that the difference between the future interpretation (with the infinitive) and the modal interpretation (with the *da*-complement) is more obvious with the presence of negation as in (21b).

(21) a. On može doći / *da* dođe.
   he can-3sg ome-inf./ part. come-3sg
   ‘He can come.’

   b. On ne može doći / *da* dođe.
   he not can-3sg come-inf./part. come-3sg
   ‘He cannot come.’

### 2.4 Licensing of Negative Polarity Items

As noted by Progovac (1994), Serbian recognizes two groups of negative polarity items (items licensed by negation): NI-NPIs (those which begin with the negative prefix *ni* such as *niko* (nobody) and *ništa* (nothing)) and I-NPIs (those which begin with the prefix *i* such as *iko* (anybody) and *išta* (anything)). She notes that NI-NPI must be licensed by clausemate negation if they are objects, subjects or adjuncts, and unlike English, even the subject NI-NPIs can be licensed by clausemate negation (*Ex: Niko me ne poznaje/ Nobody knows me*). On the other hand, I-NPIs cannot be licensed by clausemate negation and are licensed by matrix (superordinate) negation. Furthermore, Giannakidou (1998) proposes that in Serbian I-NPIs are licensed by nonverdicality and anti-licensed by negation.

#### 2.4.1 NI-NPIs in the *da*-complemets of assertive

Licensing of NI-NPIs is possible within the *da*-complements of assertives only if negation is present within the complement as in (22a–b); otherwise, the constructions are illicit either when the negation is not present in the complement in which NI-NPIs occurs or if the negation is present outside of the *da*-complements as in (25c–e).

(22) a. Tvrdi *da* *(ne) vidi nikoga.
   claim-3sg that *(not) see-3sg nobody-acc.
   ‘She/he claims that she/he does not see anybody.’

   b. Tvrdi *da* niko *(ne) vidi Mariju.
   claim-3sg that nobody-nom *(not) see-3sg Maria
   ‘She claims that nobody sees Maria.’

   c. *Ne tvrdi *da* niko vidi Mariju.
      not claim-3sg that nobody-nom. see-3sg Maria-acc
2.4.2 NI-NPIs in the da-complements of volitionals
If NI-NPIs can only be licensed by clausemate negation, then it is clear why (23c) is acceptable, but the question is why the licensing of NI-NPI is possible by the superordinate negation in (23a). Another problem or asymmetry is observed with (23a) and (23b) which show that NI-NPIs exhibit different licensing properties in the da-complements of volitionals if in a subject or object position although this should not be accepted as noted by Progovac (1994) who also addresses this problem of asymmetry. Moreover, in case of non-control, clausemate licensing of NI-NPIs is possible after the volitional verb as in (23d). Another important behavior of NI-NPIs with the respect to the da-complements of volitional verbs is captured in (23e) where nikoga is fronted and precedes negation while this is impossible with the da-complements of assertive or epistemic verbs.

(23) a. Ne želim da vidim nikoga.
   not want-1sg part. see-1sg nobody-acc.
   ‘I do not want to see anybody’

b. Ne želim da ⁄* niko vidi Jovanu.
   not want-1sg part. nobody-nom. see-3sg Jovana
   ‘I do not want anybody to see Jovana.’

c. Želim da ne vidim nikoga.
   want-1sg part. not see-1sg nobody-acc.

d. Želim da niko ne vidi Jovanu.
   want-1sg part. nobody not see-3sg Jovana-acc.

e. Nikoga ne želim da vidim.
   nobody-acc. not want-1sg part. see-1sg
   ‘I do not want to see anybody.’

2.4.3 I-NPIs in the da-complements of assertives
As with licensing of NI-NPIs, the licensing of I-NPIs is uniform in the da-complements of assertive verbs. I-NPIs must be licensed by superordinate negation regardless if in the subject or object position and cannot be licensed if negation is not present as in (24a) and (24b). On the other hand, I-NPIs are not licensed by clausemate negation as (24c) and (24d) are both illicit.
2.4.4 I-NPIs in the da-complements of volitionals

I-NPIs in the da-complements of volitional verbs are licensed by superordinate negation as in (25a) and (25b) and are illicit without the presence of negation, or with the presence of clausemate negation as in (25c) and (25d). Unlike NI-NPIs, I-NPIs do not exhibit the subject-object asymmetry with da-complements of volitionals.

(25) a. *(Ne) želim da vidim ikoga.
   (not) want-1sg part. see-1sg anybody-acc
   ‘I do not want to see anybody.’

b. *(Ne) želim da me iko vidi.
   (not) want-1sg part. me anybody-nom. see-3sg
   ‘I do not want anybody to see me.’

c. *Želim da ne vidim ikoga.
   want-1sg part. not see-1sg anybody-acc.

d. *Želim da me iko ne vidi.
   want-1sg part. me anybody-nom. not see-3sg

2.5 Clitics

Clitic placement in Serbian is sensitive to the syntactic/semantic consideration as noted by Progovac (2005). Rivero (1994) states that Slavic clitics trigger Long Head Movement since pronoun or auxiliary clitics cannot be clause initial; therefore, they require “support” that is provided by a verb that moves to a higher position preceding and supporting the clitic. Rivero and Terzi (1995) state that C is the only licensing head in W-languages second position clitics. Wilder and Ćavar (1994) propose that “clitics in Croatian are syntactically enclitics, occupying a canonical position right-adjoined to C°, and not syntactically proclitics, left ad-
joining to some head in IP”. They also add that the cliticization is clause-bound and cannot cross a complementizer. Bošković (2004, 2008) states that clitics occur in the second position of their intonational phrase (I-phrase) which does not necessarily correspond to C, and that clitic placement is phonological in nature. He also observes that Aux and object clitics do not occupy the same position. Within the pronominal clitics, there is also a difference, and even the pronominal clitics do not cluster in the same position as Bošković notes. He adds that only elements that can undergo syntactic movement can precede and host clitics and that clitics can be projected low in the structure which is much lower than CP.

2.5.1 Clitics in the da-complements of factives
In the da-complements of factives, clitics must be positioned within the da-complement usually following da and cannot climb out of the embedded construction as (26a) shows.

(26) a. Znam (*ga) da (ga) voliš t,
know-1sg (him-acc) that him-acc. love-2sg.
‘I know that you love him.’

b. Znam da si mu ga dala.
know-1sg that aux-2sg him-dat. it-acc. gave
‘I know that you gave it to him.’

2.5.2 Clitics in the da-complements of volitionals
In (27a) the pronominal clitics can occur in the embedded phrases in the second position following da or (although less preferred by native speakers) in the second position of the matrix clause supported by the volitional želeti (want).

(27) a. Tanja (?ga) želi da (ga) vidi t,
Tanja (him-acc) want-3sg part. him-acc see-3sg.impf.
‘Tanja wants to see him.’

Greek particle na can also be separated from the verb by insertion of pronominal clitic as in (3). Philippaki-Warburton (1994) observes that the clitic insertion is not enough to postulate that na is a complementizer. For Serbian, Ivić (1973) notes that clitic extraction out of the subjunctive complements suggest that da does not introduce a subordinate clause but rather should be view as a ‘monolithic’ syntactic unity.

Marković (1955) pays attention to the instances similar to those in (27) and analyzes examples under (28). He points out that in such cases where instead of da +present there is an infinitive serving as a complement, clitics usually follow the first word in a sentence and precede the infinitive. On the other hand, when the infinitival constructions are replaced by da +present, clitics should follow da, but as Marković points out, clitics may remain in the second position preceding
Marković states that this phenomenon might be a result of the “mechanical” replacement of the infinitive by da + present leaving the word order the same as with the infinitival complements.

(28) 3a. Niko ga nije mogao da zaustaviti.
    nobody-nom him-acc not could part. stop-3sg
    ‘Nobody could stop him.’

    b. Nije se mogao da sjetiti nijedne od tih strašnih noći.
    not self could part. remember-3sg not one of those-gen horrible nights
    ‘He could not remember any of those horrible nights.’

3. Conclusion
Based on the tests of aspect, tense, negation, licensing of negative polarity items and clitics, it is possible to conclude that da-complements do not exhibit the same behavior after the indicative (assertive, epistemics, and factives) and after the subjunctive (volitionals, modals, aspectuals) verbs. While any tense is allowed in the da-complements of the indicative verbs, with the restriction of only the imperfective aspect for the non-past, after the subjunctive verbs the only tense allowed is the non-past of either the perfective or imperfective aspect. The negative particle ne in the da-complements of the subjunctive verbs is placed before the matrix verb; however, this is impossible with the da-complements of the indicative verbs where ne must precede the embedded verb. While NI-NPIs are licensed only by clusememe negation in da-complements of the indicative verbs, after the subjunctive verbs (volitionals) NI-NPIs can be licensed either by clausemate or superordinate negation. Lastly, as clitic climbing is widely unacceptable out of CP in Serbian and out of the da-complements that follow the indicative verbs, this seems to be somewhat acceptable out of the da-complements of volitionals.

Finally, as the following example clearly indicates, Greek employs different particles/complementizers in the instances where in Serbian we find only da. But, is this ‘the same’ and ‘one’ da? The further research is necessary in order to properly address this question.

(29)  a. Marija misli da sam rekla da ću da napišem
     Mary think-3sg that aux-1sg said that aux-1sg part. write-1sg.perf.
     knjigu da bih postala slavna.

3 Serbian examples in (28) are from Marković (1955).
b.1 Maria pistevi *oti* ipa *oti* *tha* grapso ena vivlio
the Mari believes that said that fut write-perf. one book
ja *na* jino dniasimi.
for na become famous
‘Mary thinks that I said that I will write a book to become famous.’

References


4 The Greek example provided by Anastasia Giannakidou, personal conversation.

