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ADJUNCT EXTRACTION IN FACTIVE, NON-FACTIVE AND SEMI-FACTIVE CONSTRUCTIONS***

Whereas previous research has shown that adjunct extraction out of non-factive clauses is allowed, the results of adjunct extraction out of factive clauses were inconsistent (De Cuba & Mitrović 2008; Sekicki 2016). The main aim of the present paper is twofold: to reexamine the acceptability of adjunct extraction out of factive clauses and to offer a possible explanation for the differences in acceptability judgments. An acceptability judgment task was distributed among 90 native speakers of Serbian. As expected, the results showed that the sentences containing non-factive verbs allow long-distance extraction of adjuncts. The results also confirmed that native speakers of Serbian consider the clauses containing an adjunct extracted out of a true factive (emotive) clause unacceptable. Semi-factive (cognitive) verbs, which lose their factivity in questions, conditionals and modal environments (Karttunen, 1971), were also included in the questionnaire. The results suggest that they are mostly considered unacceptable when the extracted adjuncts are *how* and *why*, whereas they are considered more acceptable with *when* and *where*, which is in accordance with Oshima's Scale of Extractability (2007). The conclusion is that emotive and cognitive factive verbs behave differently, with cognitive verbs allowing extraction in some cases, which is in accordance with previous research (Djäv&Romero 2021).

Keywords: Factives, Non-Factives, *Wh*-movement, Adjunct extraction, Islands.

1. FACTIVE, NON-FACTIVE AND SEMI-FACTIVE VERBS

This paper offers a comparison of factive, non-factive and semi-factive constructions and their syntactic behavior in English and Serbian with respect to *wh*-extraction. In order to explain the differences, the syntactic and semantic characteristics of each verb type will be explained. In the linguistic literature, the division between factive and non-factive verbs was mentioned for the first time by Kiparsky & Kiparsky (1970). In their paper, they differentiated between two different

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classes of predicates. The first group of predicates presupposes the truth of the sentential complement and is called **factive verbs**. The list of these verbs in Serbian with the corresponding English translation equivalents is shown in (1a). The second group does not presuppose the truth of the sentential complement and is called **non-factive**. It includes the verbs presented in (1b).

1. (a) **Factives:** *žaliti* ‘regret’, *mrzeti* ‘hate’, *razumeti* ‘comprehend’, *sviđati se* ‘like’ etc.

(b) **Non-factives:** *verovati* ‘believe’, *tvrditi* ‘claim’, *reći* ‘say’, etc.

When we observe concrete sentences, the sentence with the factive verb *regret* (2a) implies that the presupposition of the complement is true. However, when a non-factive verb *believe* is used as in (2b), the verb does not presuppose the truth of the complement following it.

2. (a) I *regret* [that she came back].

(b) I *believe* [that it is raining].

These two types of predicates differ not only semantically, but also syntactically. The biggest syntactic difference between them is that complements of factive verbs are **weak islands** for extraction, as stated by de Cuba (2006). The weak island effect means that these clauses allow extraction of argument, but disallow extraction of adjunct wh-phrases. This means that adjuncts cannot move out of the embedded clause, as shown in (3a), while there is no such restriction on extraction from sentences containing non-factives like in (3b). The same behavior is noted in Serbian and presented in (4). The sentence (4a) contains a factive verb and disallows extraction, while (4b) contains a non-factive verb that allows adjunct extraction.

3. (a) *How_k do you *regret* that you behaved t_k ?

(b) How_k do you *think* that you behaved t_k ?

4. (a) *Kako_k žališ da si se ponašao t_k ?

how regret_{2.SG.PRES} that you AUX behaved

“How do you regret that you behaved?”

(b) Kako_k misliš da si se ponašao t_k ?

how think_{2.SG.PRES} that you AUX behaved

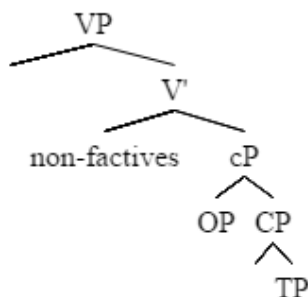
“How do you think that you behaved?”

When argument extraction is concerned, both factive and non-factive verbs allow extraction of arguments (5).

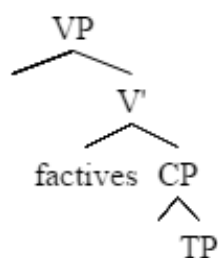
5. (a) What_{t_k} does she *think* that John bought t_k?
 (b) What_{t_k} does she *regret* John bought t_k?
 (c) Šta_{t_k} ona misli da je Petar kupio t_k?
 what she think_{3.SG.FEM} that AUX Petar bought_{3.SG.MASC}
 “What does she think that Petar bought?”
 (d) Šta_{t_k} ona žali da je Petar kupio t_k?
 what she regret_{3.SG.FEM} that AUX Petar bought_{3.SG.MASC}
 “What does she regret that Petar bought?”

When their syntactic structure is concerned, de Cuba (2006) proposes that there is an extra layer of syntactic structure (cP) in the CP layer selected by non-factive predicates, as in (6), but not selected by factive predicates, as in (7). This extra level in the CP is selected by the verb and it is projected by a semantic operator [OP]. Syntactically, this cP projection opens up an escape hatch for adjunct extraction. Contrastingly, the lack of a cP projection under factives leaves adjuncts stranded.

6.



7.



When describing the notion of the operator de Cuba (2006:5) also states that “[OP] is a variable allowing the <speaker> value of a sentence to change from the default <+current speaker> value to a different value, removing the utterer of the sentence from responsibility for the truth content of the embedded clause.” The presence of the [OP] means the non-presupposition of truth under non-factives, while the lack of the [OP] means the presupposition of truth in factive contexts. According to de Cuba (2006), it is the presence of cP that changes the interpretation from factive to non-factive. In conclusion, the operator is the key element that makes the

difference between factive and non-factive constructions on both syntactic and semantic level.

In addition to the distinction between factives and non-factives, there is a subcategory of factive verbs important for our research called **semi-factives**. This subcategory has been present in the literature for a long time. Karttunen (1977) makes a claim that these verbs lose their factivity in different environments such as questions, conditionals and modal environments, but not in other contexts. For instance, in negative environments, factivity does not change and the verbs always presuppose the truth of the embedded complement, as in (8). However, in other environments, factives behave differently. In modal environments, the truth of the complement can be inferred from (9a), but not from (9b, 9c) meaning that in these examples verbs do not behave as factives. The same thing occurs in conditionals, where the factive presupposition stays the same only in (10a) in contrast to (10b, 10c).

8. (a) John did not **regret** that he had not told the truth.
(b) John did not **realize** that he had not told the truth.
(c) John did not **discover** that he had not told the truth.
9. (a) It is possible that I will **regret** later that I have not told the truth.
(b) It is possible that I will **realize** later that I have not told the truth.
(c) It is possible that I will **discover** later that I have not told the truth.
10. (a) If I **regret** later that I have not told the truth, I will confess to everyone.
(b) If I **realize** later that I have not told the truth, I will confess to everyone.
(c) If I **discover** later that I have not told the truth, I will confess to everyone.

In line with this division, Klein (1975) makes a distinction between two types of factive verbs called cognitive and emotive factives. This distinction is based on the type of attitude the factive predicate denotes. **Cognitive factives** include verbs like *know*, *discover*, *realize*, *find out*, while **emotive factives** include verbs such as *regret*, *resent*, *be glad*, *be sorry*, etc. The cognitive factives notion, which Klein (1975) uses, corresponds to the term semi-factives used by Karttunen (1977). The reason why they are included in this research is because semi-factives are believed to exhibit atypical behavior when it comes to extracting adjuncts.

2. THEORETICAL BACKGROUND ON LONG-DISTANCE WH-EXTRACTION

When adjunct extraction in long-distance wh-movement is concerned, there are two restrictions that de Cuba & Mitrović (2008) propose. The first restriction is concerned with the order of adjuncts and arguments in the long-distance wh-movement. This paper will solely focus on the second restriction stating that non-factive complements allow adjunct extraction as in (11a), but factive complements do not (11b). They explain that adjunct extraction in (11b) is ungrammatical because CP is lexically selected by *znaš* ‘know’, making the adjunction impossible. Adjunct extraction in (11a) is grammatical, thus allowing the adjunct *zašto* ‘why’ to move.

11. (a) *Zašto_K tvrdiš* [da si Nenadu dao knjigu *t_K*]?
 why claim_{2.SG.PRES} that AUX to Nenad given book
 “Why do you claim that you have given the book to Nenad?”
- (b) **Zašto_K znaš* [da si Nenadu dao knjigu *t_K*]?
 why know_{2.SG} that AUX to Nenad given book
 “Why do you know that you have given the book to Nenad?”

Sekicki's (2014) study contradicts the conclusions made by de Cuba & Mitrović (2008). Based on the obtained results, Sekicki concludes that the restriction on adjunct extraction out of Factive Islands claimed by de Cuba & Mitrović does not exist as such in Serbian and that the adjunct extraction out of factive verbs is grammatical, as illustrated in (12a). She also adds that extraction of adjuncts out of non-factive verbs (12b) is more acceptable than out of factives. Sekicki's claim is that pragmatic ambiguity can be one of the reasons why some sentences are interpreted as unacceptable.

12. (a) *Kako_K žališ* [što se nisi ošišala *t_K*]?
 how regret_{2.SG} that refl. not cut your hair
 “How do you regret that you did not cut your hair?”
- (b) *Kako_K smatraš* [da se Marko poneo *t_K*]?
 how deem_{2.SG} that refl. Marko behaved
 “How do you deem that Marko behaved?”

Another factor that has been claimed to influence long-distance wh-extraction is uniqueness. Szabolcsi & Zwarts (1993) observe that argument extraction out of the complement of a factive verb leads to ungrammaticality when the event described in the embedded clause is non-iterable with respect to the extracted

argument, i.e. when the embedded property is unique and cannot be iterated over several individuals. In (13a), the extracted argument has many possible resolutions (different recipients), which is not the case with (13b), where only one resolution (an individual or a group of individuals as the sender) is possible.

13. a. To whom do you regret having shown this letter?
b. *From whom do you regret having gotten this letter? (Sz & Z, 1993)

Building on the analysis proposed by Szabolcsi & Zwarts (1993), Oshima (2007: 4) proposes that: “the extraction of a *wh*-phrase α from a factive complement *C* is blocked when [α *C*] (or [*C* ... α ...] in languages with in situ *wh*-interrogatives) would form an interrogative such that among its resolutions, at most one can be true (its resolutions are mutually exhaustive)”, an example of which is given here in (13b). Oshima uses the term *unique wh-interrogatives* to refer to these *wh*-questions. He notices a pattern in the acceptability of extraction under factives, creates a Scale of Extractability and assumes that adjuncts *when* and *where* can be extracted from a factive complement; the extraction of *how* is marginal; and the extraction of *why* is unacceptable.

14. Scale of Extractability: **argument *wh*-phrases > {when, where} > how > why**

Oshima (2007:3)

According to this hierarchy, *why* extractions always lead to a unique, non-iterable property (there is always one reason in a given context); *how* extractions tend to be interpreted in the same way (although there may be exceptional cases when multiple manners are provided as resolutions), which is not the case with *where* and *when* extractions, which allow for multiple resolutions. Similarly, Schwarz & Simonenko (2018) suggest that the combination of factivity and uniqueness leads to the ungrammaticality of factive islands.

The conflicting results of long-distance *wh*-extraction in Serbian obtained by de Cuba & Mitrović (2008) and Sekicki (2014) were the starting point for the research we conducted. Its aims were twofold, the first goal was to reexamine the acceptability of adjunct extraction out of factive and non-factive clauses. The second goal was to offer a possible explanation for the differences in acceptability judgments. Before the main research, we conducted a pilot study that also focused on adjunct extraction from true factive, non-factive, and semi-factive verbs.

3. PILOT STUDY

The pilot study was done in an online format with 20 participants in total. The questionnaire consisted of two tasks containing 12 sentences each. Both tasks included the long-distance adjunct extraction out of factive, non-factive and semi-factive clauses. The acceptability of each sentence was judged by the speakers using a Likert scale with a numerical score from 1 to 4. In the first task, a variety of adjuncts were used including *zašto* ‘why’, *kada* ‘when’, *gde* ‘where’, *kako* ‘how’. The aim of the task was to see whether different types of adjuncts have an influence on the acceptability of the sentences in line with Oshima (2007). In the second task, the set of questions was followed by an answer, which enabled the native speakers’ easier understanding of the intended interpretation of the sentence. Two answers were offered for each sentence, one with a long-distance adjunct extraction and another one with a short-distance extraction serving as a filler.

The results of the pilot study that we obtained are the following. Regarding non-factives, the sentences containing non-factive verbs allow long-distance extraction of adjuncts shown in (15) and are judged as acceptable by native speakers.

15. *Zašto sumnjaš da ga je ostavila?*

why doubt_{2.SG} that he AUX left_{3.SG.FEM}

“Why do you *doubt* that she left him?”

answer: Sumnjam da ga je ostavila jer nije bio iskren.

“I doubt that she left him because he wasn’t honest.”

Regarding factive verbs, the results confirmed that the clauses containing an adjunct extracted out of a **factive** clause are considered unacceptable, in line with de Cuba & Mitrović (2008).

16. **Kako žališ da si se poneo prema njoj?*

how regret_{2.SG} that AUX treat_{2.SG} towards her

“*How do you *regret* that you treated her?”

answer: Žalim da sam se poneo nepravedno prema njoj.

“I regret that I treated her badly.”

In the pilot study, semi-factives were considered marginally (un)acceptable by the native speakers, regardless of the adjunct type (*zašto* ‘why’, *kako* ‘how’, *kada* ‘when’, *gde* ‘where’).

17. Kada si *saznao* da ga je *zvala*?

when AUX find out that him AUX called_{3.SG.FEM}

“When did you find out that she called him?”

answer: Saznao sam da ga je sinoć *zvala*.

find out_{1.SG} AUX that him AUX last night called_{3.SG}

“I found out that she called him last night.”

Since the number of both the items and participants in the pilot research was quite limited, we decided to conduct a wider-scale study, which would enable us to confirm the obtained results and further examine wh-extraction of different adjuncts out of semi-factive embedded clauses. The research is described in detail in the following section.

4. MAIN RESEARCH

Instrument

The data collection technique was an acceptability judgment task. The participants were asked to judge the acceptability of the sentences, ranging from 1 (completely unacceptable) to 4 (completely acceptable). A forced-choice Likert scale was chosen in order to avoid neutral answers. All the questions were followed by an appropriate answer so that we could ensure that the extracted adjunct referred to the embedded clause. The participants were instructed to rate the question in relation to the answer, as illustrated in (18):

18. Kako ti je drago što su **otputovali**?

how you AUX glad that AUX travelled_{3.PL}

“How are you glad that they travelled?”

answer: Drago mi je što su otputovali avionom.

“I’m glad that they travelled by plane.”

They were also informed that all the question words referred to the bolded verb that was part of the embedded clause.

Design

Independent variables were factive (emotive) verbs, semi-factive (cognitive) verbs and non-factive verbs. Four verbs of each type were chosen:

- **factive verbs:** *ceniti* ‘appreciate’, *žaliti* ‘regret’, *mrzeti* ‘hate’, *biti drago* ‘be glad’;
- **semi-factive verbs:** *setiti se* ‘remember’, *saznati* ‘find out’, *otkriti* ‘discover’, *primetiti* ‘notice’;
- **non-factive verbs:** *misliti* ‘think’, *očekivati* ‘expect’, *tvrditi* ‘claim’, *verovati* ‘believe’.

The verbs were combined with 4 extracted adjuncts (*kada* ‘when’, *gde* ‘where’, *kako* ‘how’, *zašto* ‘why’), which made 16 sentences per verb type, and 48 sentences in total. The number of filler sentences was the same. For processing reasons, it was decided that the sentences should be split into two questionnaires (with an even number of verbs belonging to different verb types), distributed to two groups of participants.

Participants

A total of ninety (N=90) native speakers of Serbian (from the region of Vojvodina) were tested. They were undergraduate-level students at the University of Novi Sad, divided into two groups, each completing one of the two versions of the questionnaire. The testing took approximately 15 minutes.

Results

A descriptive statistical analysis was conducted. As it was expected, the sentences which included adjunct extraction out of factive (emotive) embedding verbs were judged as unacceptable. In the first questionnaire, sentences with factive (emotive) verbs were assessed as **completely unacceptable** ($M < 1.50$), with the exception of two sentences that were assessed as somewhat acceptable. In the second questionnaire, sentences with factive (emotive) verbs were assessed as **completely to somewhat unacceptable** (with the mean ranging from 1.47 to 1.89), with the exception of two sentences that were assessed as somewhat acceptable. The results are presented in Table 1.

Table 1. The adjunct extraction results – factive verbs

Gde ti je drago što je Ana dobila posao? “Where are you glad that Ana got a job?”	M=1.29 SD=0.59
Kada Ana ceni što će firma organizovati zajedničko putovanje? “When does Ana appreciate that the company will organize a joint trip?”	M=1.45 SD=0.86
Zašto Jovan mrzi što je sve poskupelo ? “Why does Jovan hate that all the prices went up ?”	M=3.12 SD=1.04
Zašto žališ što nam je opala prodaja? “Why do you regret that our sales went down ?”	M=3.05 SD=1.13
Kako Jovan mrzi što zaposleni dostavljaju izveštaje? “How does Jovan hate that the employees deliver their reports?”	M=1.38 SD=0.69
Gde Ana ceni što će firma organizovati zajedničko putovanje? “Where does Ana appreciate that the company will organize a joint trip?”	M=1.48 SD=0.86
Kako žališ što ti se šef obraća ? “How do you regret that your boss is addressing you?”	M=1.43 SD=0.80
Kada ti je drago što su objavili rezultate konkursa? “When are you glad that they published the results of the call?”	M=1.26 SD=0.59

The situation was much less clear with semi-factive verbs. In the first questionnaire, five sentences with semi-factive (cognitive) verbs were assessed as **somewhat unacceptable** (with the mean ranging from 1.43 to 2.21), whereas three sentences were assessed as **somewhat to completely acceptable** (3.43 to 3.81). In the second questionnaire, half of the sentences with semi-factive (cognitive) verbs were assessed as **somewhat unacceptable** (with the mean ranging from 1.55 to 2.34), and half of them were assessed as **somewhat acceptable** (2.51 to 3.40). The results are shown in Table 2. It should be pointed out that *when* and *where* sentences were rated much higher than *how* and *why* sentences.

Table 2. The adjunct extraction results – semi-factive verbs

Kada si saznao da je kupio kuću? “When did you find out that he bought the house?”	M=3.52 SD=0.80
Gde su otkrili da se ubica skriva ? “Where did they discover that the murderer was hiding ?”	M=3.43 SD=0.70
Zašto si saznao da ga je ostavila ? “Why did you find out that she left him?”	M=1.43 SD=0.80
Kako si se setio da izveštaj treba da se preda ? “How did you remember that the report should be submitted ?”	M=1.93 SD=1.07
Gde si primetila da greši ? “Where did you notice that he makes mistakes ?”	M=3.81 SD=0.59
Zašto si primetila da se ne slaže sa šefom? “Why did you notice that he does not get on with his boss very well?”	M=1.81 SD=1.02
Kako si otkrio da je položila ispit? “How did you discover that she passed the exam?”	M=2.21 SD=1.07
Kada si se setio da sastanak treba da se održi ? “When did you remember that the meeting should be held ?”	M=1.98 SD=0.98

Finally, as it was expected, the sentences that included adjunct extraction out of non-factive embedding verbs were judged as acceptable. All the sentences with non-factive verbs were assessed as **somewhat to completely acceptable** with the mean ranging from 2.81 to 3.90 in the first questionnaire, as Table 3 shows. Likewise, all the sentences with non-factive verbs were assessed as **somewhat to completely acceptable** with the mean ranging from 2.94 to 3.81 in the second questionnaire, with the exception of one sentence assessed as somewhat unacceptable.

Table 3. The adjunct extraction results – non-factive verbs

Gde tvrdiš da je Ivan preraspoređen ? “Where do you claim that Ivan was transferred ?”	M=2.81 SD=0.86
Zašto misliš da je Nenad dao otkaz? “Why do you think that Nenad resigned ?”	M=3.71 SD=0.74
Kako očekuješ da će naša reprezentacija proći ? “How do you expect that our national team will qualify ?”	M=3.48 SD=0.80
Zašto tvrdiš da je Marko udario Miloša? “Why do you claim that Marko hit Miloš?”	M=3.17 SD=0.82
Kako misliš da su uspeli da sve završe ne vreme? “How do you think that they managed to finish everything on time?”	M=3.29 SD=0.81
Gde veruješ da bi trebalo napraviti izmene? “Where do you believe the changes should be made ?”	M=3.26 SD=0.96
Kada očekuješ da ćeš dobiti ponudu? “When do you expect that you will get a better offer?”	M=3.90 SD=0.37
Kada veruješ da će se ova situacija poboljšati ? “When do you believe that this situation will improve ?”	M=3.38 SD=0.91

The presented results suggest that extraction out of factive embedded clauses is not allowed, with the overall mean below 2 in both of the tested groups (M=1.80; M=1.93). The results have confirmed that extraction out of non-factive embedded clauses is allowed, as was expected, with the overall mean above 3 in both of the tested groups (M=3.38; M=3.34). However, the situation with semi-factive verbs is less clear (M=2.51; M=2.43).

Discussion

Upon looking at the results, it is clear that there is a difference in the syntactic behavior between true factive and semi-factive verbs. As could be observed in the questionnaire items, these two verb types appeared with different complementizers; namely, factive verbs appeared with the complementizer *što*, and semi-factive verbs with the complementizer *da*. As Arsenijević (2021) claims, the complementizer *što* marks that the situation is familiar and unique, whereas the complementizer *da* is neutral, with a tendency for an indefinite interpretation. Baunaz (2015, 2016, 2018)

argues for the existence of specific and partitive complementizers, the first of which binds a single propositional variable, which corresponds to a single truth value, and the second of which ranges over a set of propositional values (either true or false). Baunaz and Lander (2017) also claim the existence of the non-presupposed complementizer that ranges over non-finite sets of propositional variables (neither true nor false). In Serbian, the specific complementizer is *što*, whereas the partitive complementizer is *da*. The non-presupposed complementizer is *da* as well. Furthermore, Baunaz and Lander (2017) claim that factive islands are conditioned by the complementizer (among other factors): the complementizer *što* creates strong islands, whereas the complementizer *da* may create a weak island, although it does not have to (if it is the non-presupposed complementizer, it does not create an island). The differences in the complementizer of true factive and semi-factive verbs tested in the present paper may account for the difference in the grammaticality judgments.

The results also show that although there seems to be a general ban on the extraction of adjuncts out of true factive (emotive) verbs, factivity - non-factivity opposition is not enough to account for slight differences in grammaticality judgments of semi-factive (cognitive) verbs. One solution could be to look at the syntactic-pragmatic interface.

Relating the data obtained in the present study with previous observations on uniqueness (Oshima 2007; Schwarz & Simonenko (2018), some of the examples given in (19) and (20) that got relatively high ratings were non-unique:

19. Gde su otkrili da se ubica skrivao? M=3.43

where AUX discover_{3.PL} that refl murderer hide_{3.SG.PAST}

“Where did they discover that the murderer was hiding?”

answer: Otkrili su da se ubica skrivao po šumama.

“They discovered that the murderer was hiding in the woods.”

20. Gde si saznao da se mogu kupiti dobre cipele? M=3

where AUX find out_{2.SG} that refl can buy good shoes

“Where did you find out that good shoes could be bought?”

answer: Saznao sam da se mogu kupiti u jednoj zanatskoj radnji, kao i u novom tržnom

centru.

“I found out that they could be bought in a shoe-craft store, as well as in the new

shopping mall.”

However, the present results suggest that Oshima's Extractability scale (2007) seems to be applicable only to semi-factive, but not true factive verbs in Serbian, which is in contrast with Sekicki's findings (2014). Therefore, other factors that possibly influence extraction need to be taken into account as well.

Djäv & Romero (2021) observe that cognitive factives like *discover* and *find out* allow for parenthetical uses (they can be used as parenthetical verbs like *know* or *believe*; for more details see Urmson, 1952), in which p (embedded gapped property) is not treated as part of the common ground. Instead, they are used to introduce discourse-new information. However, p is still entailed, which is why the sentence would result in ungrammaticality with a different entailment, as shown in (21b), which would not be the case with non-factives (21c).

21. (a) Big news! Archaeologists reveal new facts about the life and death of Caesar.

So tell me – where did they {discover, learn} that Caesar was killed?

(b) They just {found out, discovered, learned} that Caesar was actually killed in the Theatre

of Pompey. (#Though he was in fact killed in the regular Senate Building.)

(c) They {think, are saying} that Caesar was actually killed in the Theatre of Pompey. (Though he was in fact killed in the regular Senate Building.)

Djäv & Romero (2021:190)

Importantly, Djäv & Romero (2021) also claim that emotive factives like *regret* and *appreciate* do not generally allow for such parenthetical uses, but impose a stronger requirement that p be common ground, which could account for the discrepancy between the two types of factive verbs found in this study. The present results provide support for the claim that ungrammaticality with semi-factives can be avoided through non-uniqueness or 'evidential questions' (if permitted by the factive verb), as Djäv & Romero (2021) suggest.

CONCLUSION

The results obtained in the research suggest that adjunct extraction out of non-factive verbs is considered acceptable based on the native speaker's intuition. On the other hand, adjunct extraction out of true factive (emotive) verbs was considered unacceptable by the speakers. Considering the fact that the complementizer *što* (being unique and familiar) is combined with factive verbs, it results in a strong island

violation banning this movement. Furthermore, semi-factives were typically combined with complementizer *da* (having non-uniqueness/partitive meaning) and allowed some adjunct extractions. The adjunct extraction out of semi-factives had different acceptability rates based on the type of adjunct that was extracted, with *when* and *where* being more acceptable than *how* and *why* extraction. We can conclude that emotive and cognitive factives behave differently and that cognitive factives allow adjunct extraction in contexts of non-uniqueness and evidential questions.

The possible limitations of the research would be the limited geographical region, where only native speakers from Vojvodina were included in the research. Some further research could also include other dialects and regions. Furthermore, further research could incorporate and propose a syntactic structure with potential features for sentences with semi-factive verbs, and how their different behavior in regard to extraction is accounted for syntactically.

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EKSTRAKCIJA ADJUNKTA U FAKTIVNIM, NEFAKTIVNIM I SEMI FAKTIVNIM KONSTRUKCIJAMA

Rezime

U radu se daje pregled faktivnih i nefaktivnih konstrukcija (Kiparsky & Kiparsky, 1970), sa fokusom na se na njihovo sintaksičko ponašanje kada je u pitanju ekstrakcija adjunkta iz umetnute klauze. Prethodna istraživanja su pokazala da je ekstrakcija adjunkta iz umetnutih klauza nefaktivnih glagola dozvoljena, dok je ekstrakcija adjunkta iz umetnutih klauza faktivnih glagola dovela do suprotstavljenih rezultata (De Cuba & Mitrović 2008; Sekicki 2014). De Cuba i Mitrović (2008) tvrde da faktivni komplementi ne dozvoljavaju ekstrakciju adjunkta zato što faktivni glagoli ne selektuju dodatni cP nivo sintaksičke strukture, za razliku od nefaktivnih glagola. Glagol selektuje ovaj dodatni nivo unutar CP projekcije, dok ga semantički operator [Op] projektuje. S druge strane, Sekicki (2016) je došla do rezultata koji pokazuju da je ekstrakcija adjunkta iz faktivnih klauza moguća u nekim slučajevima. Osim faktivnih i nefaktivnih glagola, u istraživanje su bili uključeni i semifaktivni glagoli koji gube svoju faktivnost u pitanjima, kondicionalima i modalnim okruženjima (Karttunen, 1971). Semifaktivni glagoli su zapravo kognitivni glagoli, dok su pravi faktivni glagoli emotivni (Klein, 1975). Cilj istraživanja je dvostruk: ponovo ispitati prihvatljivost ekstrakcije adjunkta iz faktivnih klauza i ponuditi moguće objašnjenje za razliku u proceni prihvatljivosti dobijenu u prethodnim istraživanjima. 90 izvornih govornika srpskog jezika uradilo je zadatak procene prihvatljivosti u kome su testirani pravi faktivni (žaliti), nefaktivni (misliti) i semifaktivni (saznati) glagoli. Treba istaći da je svako pitanje bilo praćeno odgovorom kako bismo bili sigurni da će ekstrahovani adjunkt biti interpretiran u odnosu na umetnutu, a ne na glavnu klauzu. Kao što smo i očekivali, rezultati istraživanja su potvrdili da rečenice koje sadrže

nefaktivne glagole dozvoljavaju ekstrakciju adjunkta. Rezultati su takođe pokazali da izvorni govornici srpskog jezika smatraju ekstrakciju adjunkta iz umetnute faktivne klauze neprihvatljivom, što je u skladu sa zaključcima do kojih su došli De Cuba i Mitrović (2008). Što se semifaktivnih glagola tiče, rezultati istraživanja ukazuju na to da su rečenice u kojima su ekstrahovani adjunkti bili kako i zašto uglavnom ocenjene kao neprihvatljive, dok su one u kojima su ekstrahovani adjunkti bili kada i gde dobili dosta više ocene, što je u skladu sa Ošiminom Skalom ekstraktabilnosti (2007). Zaključak rada je da se emotivni, tj. pravi faktivni, i kognitivni, tj. semifaktivni glagoli ponašaju različito, pri čemu kognitivni glagoli dozvoljavaju ekstrakciju u slučajevima nejedinstvenosti i evidencijalnih pitanja, što je u skladu sa prethodnim istraživanjima u engleskom jeziku (Djäv&Romero 2021).

Ključne reči: faktivni, nefaktivni, ostrva, wh pomeranje, ekstrakcija adjunkta

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